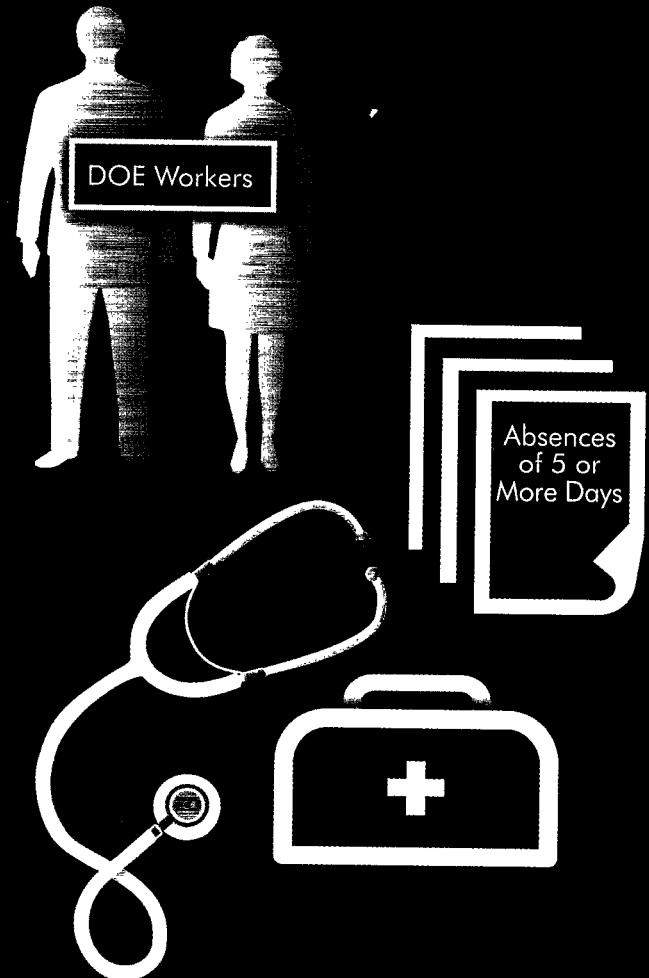
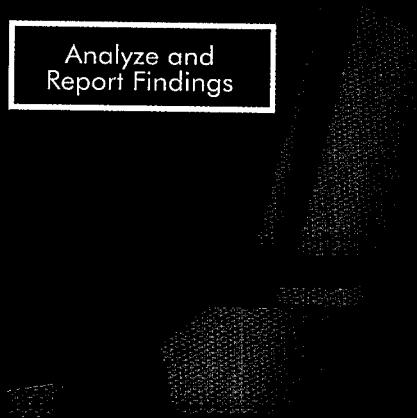


1995

Annual Epidemiologic
Surveillance Report for
Pantex Plant



Prepared by the Epidemiologic Surveillance Data
Center of the Oak Ridge Institute for Science
and Education for the Office of Epidemiologic Studies,
U.S. Department of Energy.

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Additional information about the Department of Energy's Office of Epidemiologic Studies, the Epidemiologic Surveillance Program, and annual reports for DOE sites participating in this program can be found at:

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Introduction

The U.S. Department of Energy's (DOE) commitment to assuring the health and safety of its workers includes the conduct of epidemiologic surveillance activities that provide an early warning system for health problems among workers. A number of DOE sites participate in the Epidemiologic Surveillance Program. 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 provides a summary of epidemiologic surveillance data collected from the Pantex Plant from January 1, 1995 through December 31, 1995. The data were collected by a coordinator at Pantex 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 in the previous reports is also in this report but some material now appears in the appendices instead of the main body of the report. The main sections of the report are the same as in previous years, namely work force characteristics, absences that lasted at least five consecutive workdays (health events); workplace injuries, illnesses, and deaths that were reportable to the Occupational Safety and Health Administration (OSHA-recordable events); and disabilities and deaths among current workers. This 1995 report provides additional information describing the work force by age and occupational groups.

The information presented in the main body of the report provides a descriptive analysis of the data collected from the site. Additional information in the appendixes provides more detail. The report also contains an expanded Glossary and an Explanation of Diagnostic Categories which gives examples of health conditions that may cause a person to be absent from work.

The data presented here apply only to Pantex. The DOE sites are varied, so comparisons of Pantex 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.

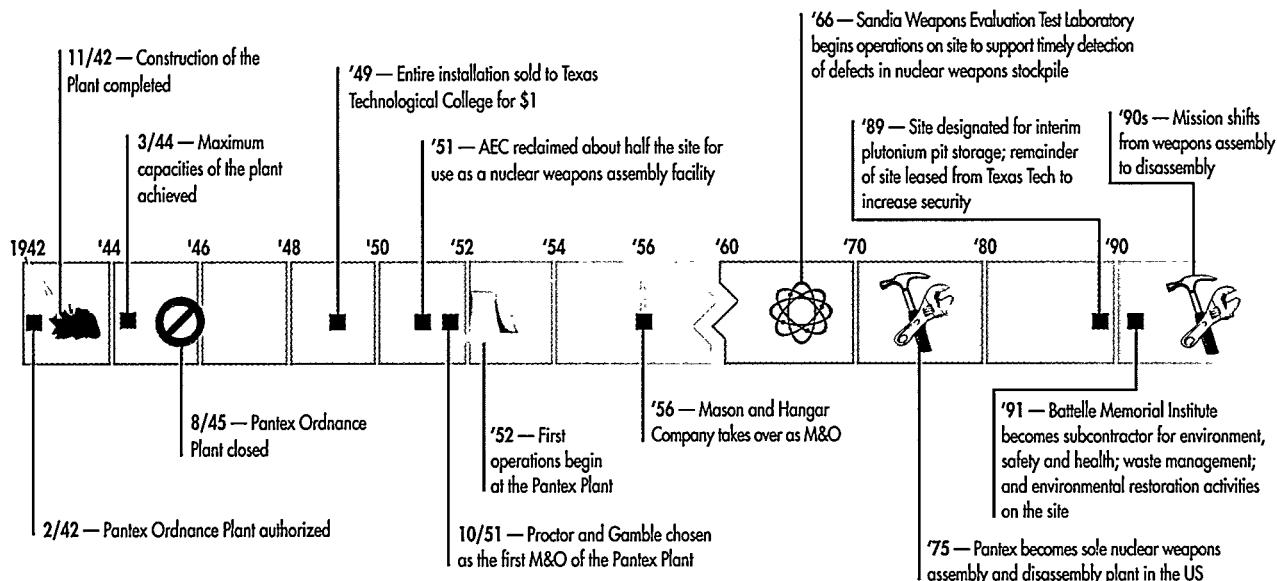
Pantex At a Glance — 1995:

- Material handlers are a relatively small occupational group at Pantex; 121 workers in 1995. They were at significantly elevated risk for illnesses involving the circulatory, respiratory, and digestive systems compared with other Pantex workers. In addition, they had a seven-fold risk of occupational related back strains compared with other Pantex workers and were at significantly increased risk for other occupational injuries such as open wounds and other sprains and strains. Further evaluation of these initial surveillance observations is recommended. The identification of factors contributing to the high rates in this group should reduce the impact of illness and injuries.
- Security staff were at twice the risk for illnesses involving the respiratory and digestive systems and were five times more likely to experience a dislocated joint than were other Pantex workers. Production technicians were also at about twice the risk for illnesses of the respiratory and digestive systems and had a fivefold risk of back strains compared with other workers. Further evaluation of joint dislocations in the security forces and back strains among production technicians may provide additional insights leading to improved injury prevention in these groups.
- In most diagnosis categories the number of health events increased substantially between 1994 and 1995. The number of illnesses and injuries approximately doubled in some categories (e.g., digestive system, pregnancy and childbirth, injury and poisoning) and showed even larger increases in others (e.g., circulatory, nervous system and sensory, respiratory). Changes in management and supervisory practices that increase the likelihood of workers seeking return-to-work clearance through occupational medicine clinics following illness absences can increase the number of health events reported. The addition of a third year of data will permit an analysis for trends and should result in a more informed interpretation of the health status of Pantex workers.
- The 1995 Epidemiologic Surveillance report has been redesigned to make health and safety information more accessible and to summarize a wider range of information. Extensive tables of rates and risk estimates are in the appendixes for those who want more detail. Among the noteworthy changes, greater emphasis is given to separate evaluations of men and women workers because their rates of injury and illness show distinct differences. More detailed occupational groups have been analyzed separately wherever sufficient numbers of health events permit.

Site Overview

The Pantex Plant, located on the Texas Panhandle 17 miles northeast of Amarillo, was constructed in 1942 to serve as a conventional bomb plant for the U.S. Army. The plant was deactivated when World War II ended and remained vacant until 1949 when Texas Technological University purchased the site for \$1 for experimental cattle-feeding operations. The land was sold subject to recall under the National Security Clause, and the Atomic Energy Commission requested the Army to reclaim and reopen the site in 1951 in order to expand nuclear weapons assembly facilities. The purpose of this decision was to duplicate all critical nuclear weapons manufacturing functions; if one site became disabled, the production of nuclear weapons would not be interrupted. In 1975, the Pantex Plant became the only nuclear weapons assembly and disassembly plant when other sites were closed. With the downsizing of the DOE complex, the site assumed new responsibilities. Interim storage of plutonium pits was transferred to the plant in 1989 when a plutonium processing center was deactivated. With the easing of political tensions between the U.S. and the former Soviet Union in the 1990s and the resulting efforts of both nations to reduce their nuclear stockpiles, the disassembly of nuclear weapons at the Pantex Plant became a vital part of this operation. Today, the Pantex Plant has five primary operational missions: weapons assembly, weapons disassembly, evaluation of weapons, high explosive research and development, and interim plutonium pit storage.

Proctor and Gamble Defense Corporation was awarded the first five-year management and operating contract for the Pantex Plant in 1951. The current contractor, Mason and Hanger, took over the management and operating functions on October 1, 1956.



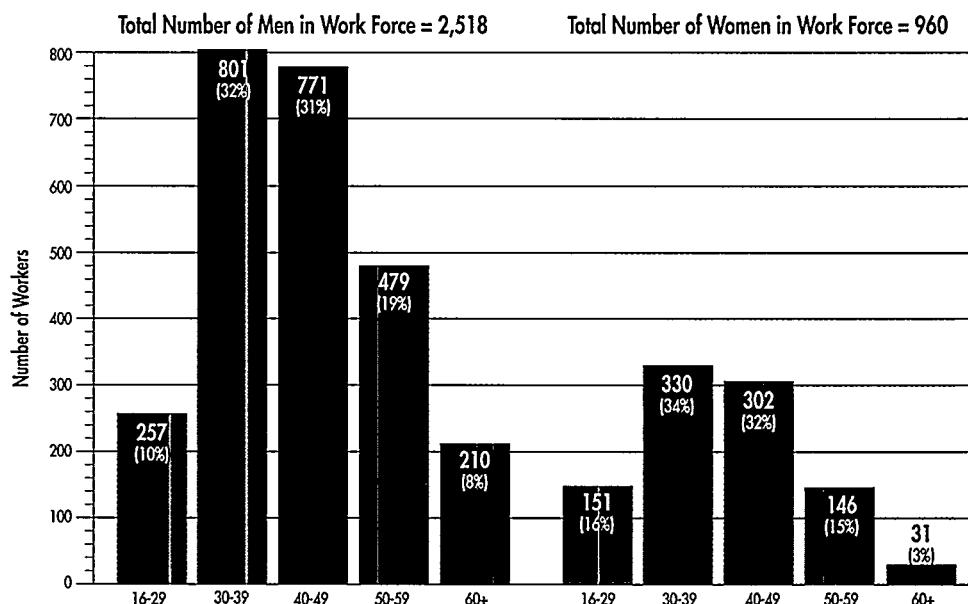
Timeline of Major Activities at the Pantex Plant

The Pantex Work Force

A total of 3,478 Pantex employees were included in epidemiologic surveillance in 1995, 76 more workers than were present in 1994. There were over two and a half times as many men (2,518) as women (960). The Pantex work force was relatively young compared with the general population. The average age of Pantex workers was 43 years among men and 40 years among women (figure 1). The majority of the Pantex workers was White (82%). Hispanics comprised about 10% and African Americans about 6% of the work force; Asians and Native Americans made up the remaining 2% of the workers (figure 2). Men and women were not distributed equally among the various occupational groups; the largest difference was seen in the office management and administration group (figures 3 and 4). A more detailed distribution of the work force by gender, age, and occupational group is in appendix A.

This report evaluates worker health by examining illness and injury rates for various occupational groups. Not all occupations pose equal risks for illness or injury, so comparisons of rates among several occupational categories are made 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 are so few in number that they cannot be analyzed separately. The analyses presented in this report use broad occupational categories (see figure 3) because there were not enough health events in many specific occupations to permit more detailed analyses, but you can find which occupational category you are in by referring to figure 5. This figure lists many of the job titles that are grouped into each of the categories used for the analyses.

Figure 1. The Work Force by Gender and Age



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

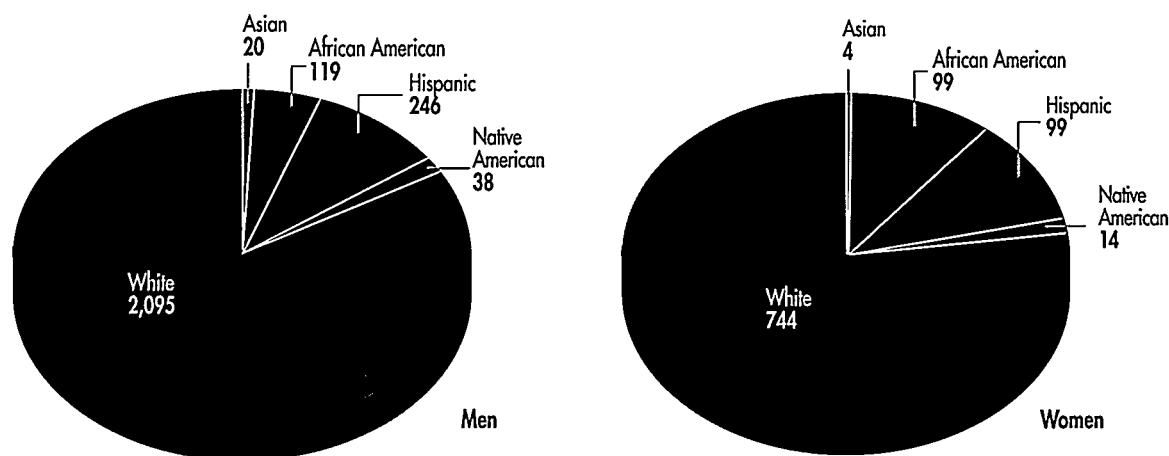
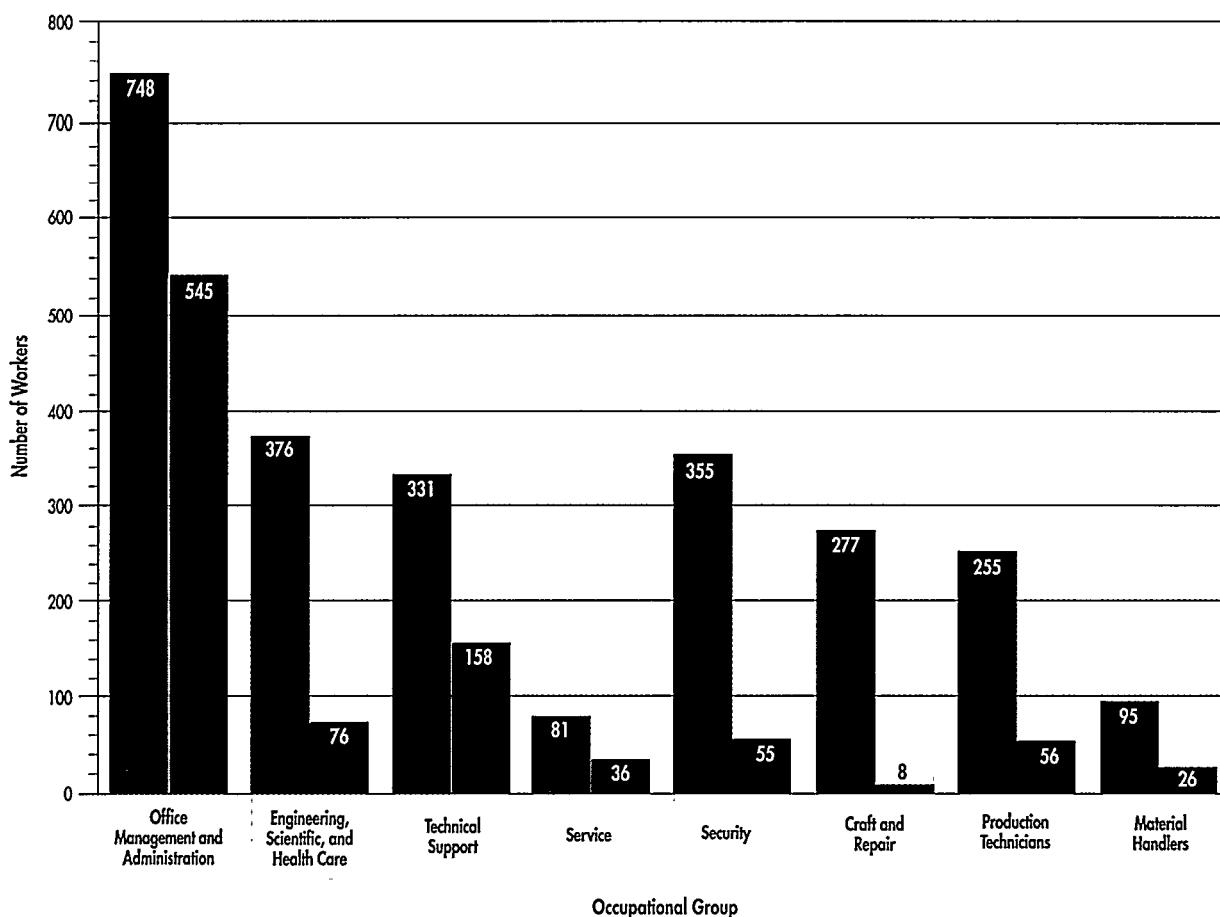


Figure 3. The Work Force by Gender and Occupation



Figures 4a and 4b. Percentage of Workers in Different Occupations by Gender

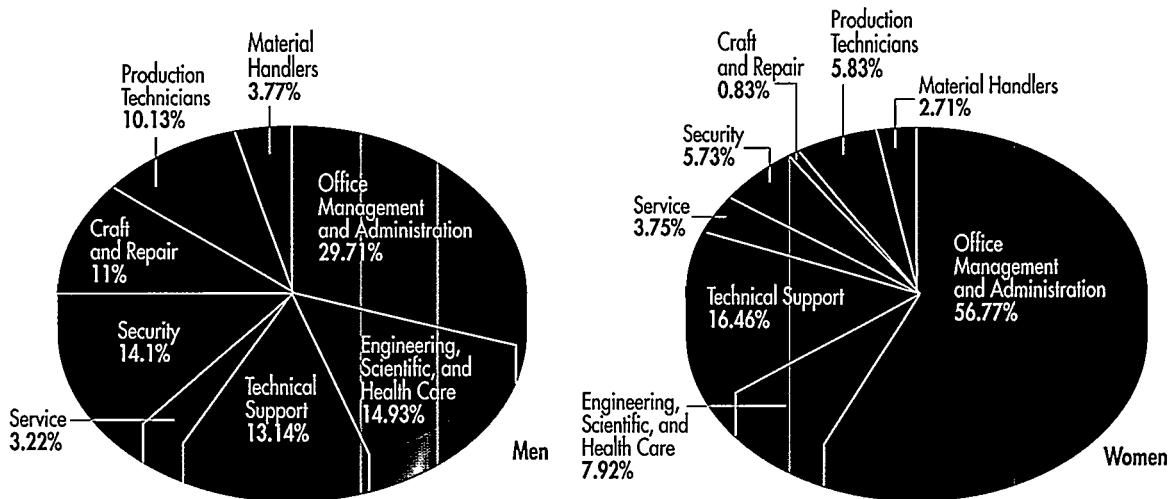


Figure 5. Most Common Job Titles in Each Occupational Group

OFFICE MANAGEMENT AND ADMINISTRATION	HUMAN RESOURCES MANAGER	SECRETARY
ACCOUNTANT	INTERNAL AUDITOR	SECRETARY TO THE GENERAL MGR.
ACCOUNTING SPECIALIST	LABOR RELATIONS MANAGER	SECTION MANAGER
ACCOUNTING TECHNICIAN	LABOR RELATIONS SPECIALIST	SECTION MANAGER I
ADMINISTRATIVE ASSISTANT	LEAD ACCOUNTANT	SECTION MANAGER II
ADMINISTRATIVE CLERK	LEGAL ASSISTANT	SECTIONAL TRAINING SPECIALIST
ADMINISTRATIVE SECRETARY	MAINTENANCE SUPERINTENDENT	SECURITY OPERATIONS MANAGER
ADMINISTRATIVE SECRETARY I	MANAGER-ADVANCED TECH OFFICE	SECURITY PLANNING SPECIALIST
ADMINISTRATIVE SPECIALIST	MANUFACTURING SUPERVISOR	SENIOR BUYER
ADVISORY BOARD LIAISON	N DEPARTMENT MANAGER	SENIOR CLERK
ASSISTANT FACILITY MANAGER	ORGANIZATION DEVELOPMENT MGR.	SENIOR INTERNAL AUDITOR
ATTORNEY	P PROJECT SPECIALIST	SENIOR PROJECT LEADER
ATTORNEY I	PERSONNEL SERVICES SUPERVISOR	SENIOR QUALITY ANALYST
ATTORNEY II	PHYS. DISTR. SUPERINTENDENT	SENIOR SECRETARY
BENEFITS SPECIALIST	PLANNING SUPPORT COORDINATOR	SENIOR TRAINING SPECIALIST
BUDGET MANAGER	PLANT SHIFT SUPERINTENDENT	SR. ACCOUNTANT
BUYER	PRE-PROFESSIONAL TRAINEE	SR. ADMINISTRATIVE CLERK
CASHIER	PRIME CONTRACT ADMINISTRATOR	SR. ADMINISTRATIVE SECRETARY
CHIEF INTERNAL AUDITOR	PRODUCTION MANAGER	SR. ADMINISTRATIVE SPECIALIST
CLASSIFICATION OFFICER	PRODUCTION PLAN. COORDINATOR	SR. BENEFITS SPECIALIST
COMMUNICATIONS TECHNICIAN	PRODUCTION PLANNER	SR. COMPENSATION ANALYST
COMMUNITY RELATIONS SPECIALIST	PROGRAM COORDINATOR	SR. CONTRACT ADMINISTRATOR
CONTRACT ADMINISTRATOR	PROGRAM MANAGER	SR. FACILITY MANAGER
CONTRACT ANALYST	PROJECT ACCOUNTANT	SR. LABOR RELATIONS SPECIALIST
CRAFTS SUPERVISOR	PROJECT ACCOUNTING SPECIALIST	SR. PROJECT ACCOUNTANT
DEPARTMENT MANAGER	PROJECT ADMINISTRATIVE SPEC.	SR. PROJECT COMP. ANALYST
DEPARTMENT MANAGER II	PROJECT ASSISTANT	SR. PROJECT EMPLOYEE REL. SPEC.
DEPARTMENT MANAGER III	PROJECT ASSOCIATE	SR. PROJECT INTERNAL AUDITOR
DIVISION MANAGER I	PROJECT BENEFITS SPECIALIST	SR. PROJECT TRAINING SPEC.
DIVISION MANAGER II	PROJECT COMPENSATION ANALYST	SR. RECRUITER
DIVISION STAFF COORDINATOR	PROJECT EMPLOYEE REL. SPEC.	SUPPORT SERVICES SUPERVISOR
EMPLOYEE RELATIONS SPECIALIST	PROJECT LEADER	TECHNICAL LIBRARY MANAGER
EXECUTIVE SECRETARY	PROJECT MANAGER	TELEPHONE OPERATOR
FACILITY MANAGER	PROJECT RECRUITER	TRAINING MANAGER
GENERAL CRAFTS SUPERVISOR	PROJECT SPECIALIST	TRAINING SPECIALIST
GENERAL MANAGER	PROJECT TRAINING SPECIALIST	TRANSPORTATION SUPERVISOR
GENERAL MANAGER'S STAFF	PURCHASING MANAGER	TRAVEL CLERK
GENERAL MANUFACTURING SUPV.	QUALITY ANALYST	WAREHOUSE SUPERINTENDENT
GENERAL WAREHOUSE SUPERVISOR	QUALITY SUPERVISOR	WAREHOUSE SUPERVISOR
HUMAN RESOURCES CLERK	RECRUITER	
	REPRODUCTION CLERK	

(Continued)

Figure 5. Most Common Job Titles in Each Occupational Group (cont.)

ENGINEERING, SCIENTIFIC, AND HEALTH CARE	PRINCIPAL INFO. MGMT. TECH. PRINCIPAL PROGRAMMER/ANALYST PRODUCT ACCEPTANCE TECHNICIAN PROGRAMMER/ANALYST PROJ. INFO. MGMT. SPECIALIST PROJ. INFO. MGMT. TECHNOLOGIST PROJECT PROGRAMMER/ANALYST PROJECT TECHNICAL WRITER QUALITY ASSURANCE TECH I QUALITY ASSURANCE TECH II RADIATION PROTECTION TECH I RADIATION PROTECTION TECH II RADIATION PROTECTION TECH III RECORDS MANAGEMENT SPECIALIST SPECIAL MECHANIC INSPECTOR SR. DRAFTING TECHNICIAN I SR. DRAFTING TECHNICIAN II SR. GRAPHIC ARTS SPECIALIST SR. INFO. MGMT. SPECIALIST SR. INFO. MGMT. TECHNOLOGIST SR. PROGRAMMER/ANALYST SR. PROJ. INFO. MGMT. SPEC. SR. PROJ. INFO. MGMT. TECH. SR. PROJECT GRAPHIC ARTS SPEC. SR. PROJECT PROGRAMMER/ANALYST SR. RECORDS MANAGEMENT SPEC. SR. TECHNICAL WRITER STAFF INFO. MGMT. TECH. TECHNICAL SECURITY TECH I TECHNICAL SECURITY TECH II TECHNICAL WRITER TECHNICIAN ASSOCIATE TELEPHONE SERVICE TECH.	PROTECTIVE FORCE 1ST LIEUT. PROTECTIVE FORCE 2ND LIEUT. PROTECTIVE FORCE 2NS LIEUT. PROTECTIVE FORCE CAPTAIN SECURITY OFFICER SECURITY PLANNING SPECIALIST SECURITY TRAINING SPECIALIST SENIOR TRAINING SPECIALIST SPECIAL RESPONSE 1ST LIEUT. SPO II (DEFENSIVE) SPO III SR. ADMINISTRATIVE CLERK SR. PROJECT TRAINING SPEC.
TECHNICAL SUPPORT	SERVICE	CRAFT AND REPAIR
ACCESS CONTROL TECHNICIAN ASSISTANT TECHNICIAN CONSOLE OPERATOR ELECTRONIC TECHNICIAN ENG. TECH. (WASTE OPER.) ENG. TECH. I (WASTE OPER.) ENG. TECH. II (REUSE FACILITY) ENG. TECH. II (WASTE OPER.) ENGINEERING TECH III(GAS ANALY) ENGINEERING TECH. I (LAB.) ENGINEERING TECH. I (OPER.) ENGINEERING TECH. II (GAS ANALY) ENGINEERING TECH. II (LAB.) ENGINEERING TECH. II (OPER.) ENGINEERING TECH. III(GAS ANALY) INFO. MGMT. SPEC (INTERNAL) INFORMATION MGMT. SPECIALIST LABORATORY TECHNICIAN I LABORATORY TECHNICIAN II LABORATORY TECHNICIAN III LEAD ACCOUNTING SPECIALIST LEAD INFO. MGMT. SPECIALIST LEAD INFO. MGMT. TECHNOLOGIST LEAD PROGRAMMER/ANALYST LEAD RECORDS MGMT. SPECIALIST METROLOGY SPECIALIST METROLOGY TECHNICIAN METROLOGY TECHNICIAN I METROLOGY TECHNICIAN II PHOTO LAB TECHNICIAN I PHOTO LAB TECHNICIAN II	ALARM DISPATCHER ASSISTANT FIRE CHIEF CONDUCTER RR ENGINEER RR EXPEDITER EXPLOSIVE OPERATIONS LEADER FIRE CAPTAIN FIRE CHIEF FIRE LIEUTENANT FIREFIGHTER FIREFIGHTER/PARAMEDIC FIRST COOK FOOD SERVICES ATTENDANT FRY COOK GENERAL EXPLOSIVE OPER. LEADER JANITORIAL CUSTODIAN JANITORIAL OPERATOR LAUNDRY & CHGHSE. ATTEN. LAUNDRY OPERATOR SAFETY DIRECTOR SECOND COOK	APPREN. AREA MECH. APPREN. CARPENTER APPREN. INSTRUMENT MECH. APPREN. PIPEFITTER AREA MECHANIC BOILERMAKER CARPENTER ELECTRICIAN GARAGE MECHANIC HEAVY EQUIP. OPERATOR INSTRUMENT MECHANIC LT. EQ. & YD. MNTCE. OPER. MACHINE TOOL MAINTENANCE MECH. MASTER MECHANIC METAL TR. & GR. OPER. MOTOR PUMP OPERATOR OPER. ENG. (UTILITIES OPER) PAINTER PIPEFITTER PLASTICS MECHANIC REFRIGERATION MECHANIC SHEETMETAL WORKER SPECIAL MECHANIC SPECIAL MECHANIC-VEHICLE MNTCE SS MECH. INSTRUMENT MECH. SS MECH. MACHINIST SS MECH. PLASTICS TOOLMAKER YARDWORKER
		PRODUCTION TECHNICIANS
		NUCLEAR MATERIAL CUSTODIAN PRODUCTION TECHNICIAN
	SECURITY	MATERIAL HANDLERS
	ADMINISTRATIVE ASSISTANT ARMORER ASST CHIEF OF PROTECTIVE FORCE CHIEF OF PROTECTIVE FORCE COMMUNICATIONS SGT. DEPARTMENT MANAGER PHYSICAL FITNESS SPECIALIST PROGRAM COORDINATOR PROJECT MANAGER PROJECT TRAINING SPECIALIST	MATERIAL HANDLER

Number and Length of Absences

As in the 1994 report, this report includes absences that lasted at least five consecutive workdays. The five-day length of absence is used because DOE Order 440.1 requires contractor management to notify Occupational Medicine when a worker has been absent for five or more consecutive workdays. Epidemiologic surveillance refers to these absences as "health events." Throughout this report worker health is examined in terms of gender, age, and occupation because the risk of illness and injury varies by these factors. When the number of days absent is reported, they include weekends unless otherwise stated.

Among both men and women, the percentage of health events increased with age. Men had about 70% more health events than women during 1995; since the work force contained over twice as many men as women, the percentage of women (14%) with at least one health event was greater than men (9%) (figure 6). This gender difference in health events was also seen in 1994, although the percentage of both men and women with one or more absences was lower (6.4% of women, 4.0% of men). The higher percentages reported in 1995 may reflect improved data collection in 1995 rather than a genuine increase in health events. Most sites participating in epidemiologic surveillance improve their reporting as data collection issues are resolved during startup. The shaded box explains how these percentages were calculated. Overall, the average length of absence for a health event was 40% longer for women (24.0 days) than for men (17.2 days) (figure 9).

Comparing the duration of absences between men and women, the age groups that showed large differences were the 16-29, 30-39, and 60+ age groups. The longer average duration of absence among women aged 16 to 39 may reflect maternity leave; pregnancy/childbirth was the diagnostic category most frequently reported for women in this age group (figure 13; appendix F). Two of the eight absences among women aged 60 and older were over 70 days. The diagnoses for these two absences were for arthritis and problems of the reproductive system. The other six absences lasted fewer than 30 days.

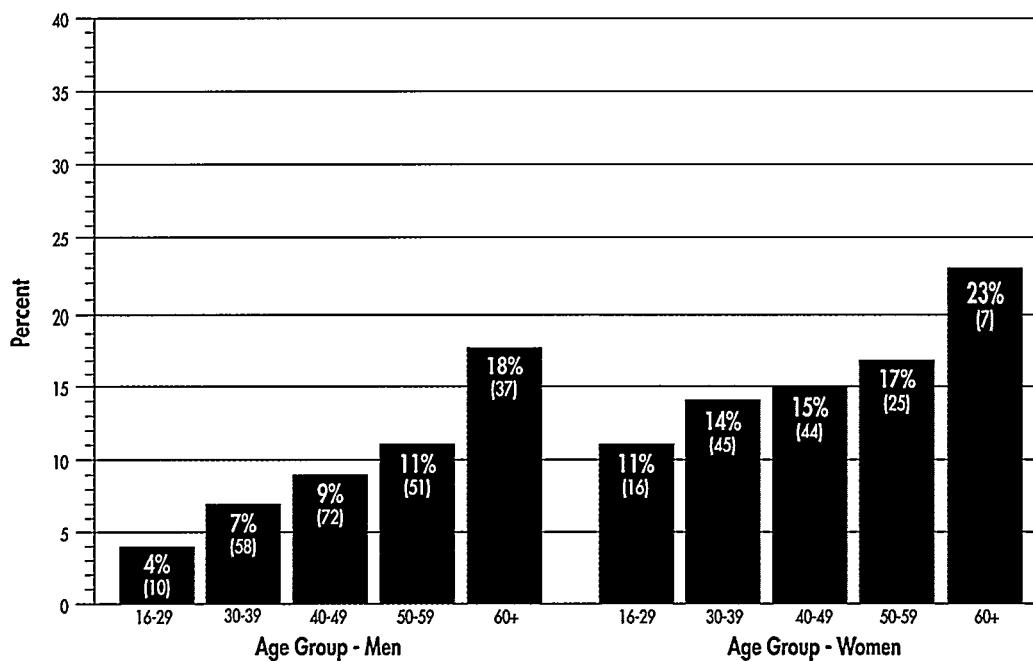
The service group had the highest percentage of workers with a health event; 21% of the men (figure 7) and 36% of the women (figure 8) reported at least one absence. The percentage of material handlers with at least one absence was similar (18% of men, 38% of women). Although these two groups had the highest percentage of workers with at least one absence, the average length of their absences was among the lowest (figure 10). For men and women combined, workers in the administrative (28.4 days) and the engineering, scientific, and health care (29.7 days) groups had the highest average number of days absent for each health event. Appendixes B-E provide more detail about the number and length of absences for men and women in different age and occupational groups. The diagnoses underlying these absences are examined in the Rates of Disease Occurrence section of this report.

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:

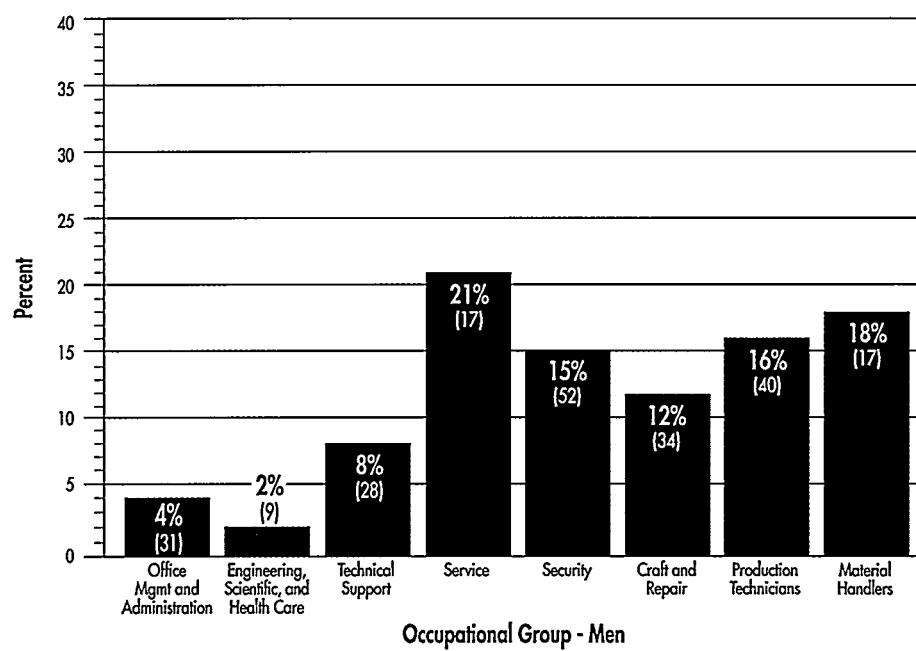
$$\begin{aligned} & 10 \text{ (number of men aged 16-29 with at least one health event from figure 6)} \\ & \div 257 \text{ (number of men aged 16-29 in the work force from figure 1)} \\ & = .039 \times 100 = 4\% \end{aligned}$$

Figure 6. Workers with at Least One Health Event by Gender and Age*



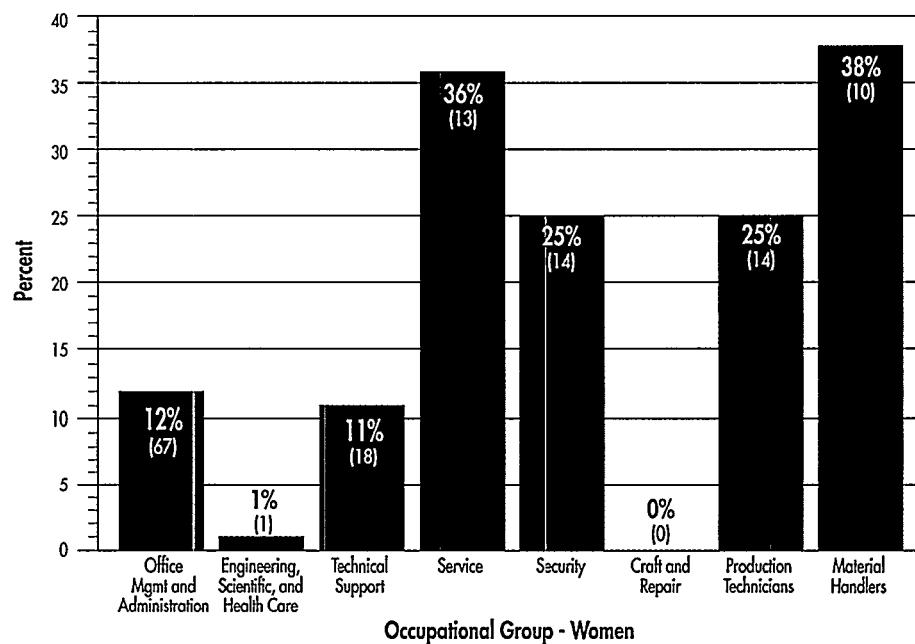
*Numbers in parentheses represent number of workers with at least one event.

Figure 7. Men with at Least One Health Event by Occupation*



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

Figure 8. Women with at Least One Health Event by Occupation*



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

Figure 9. Number of Days Absent by Gender and Age

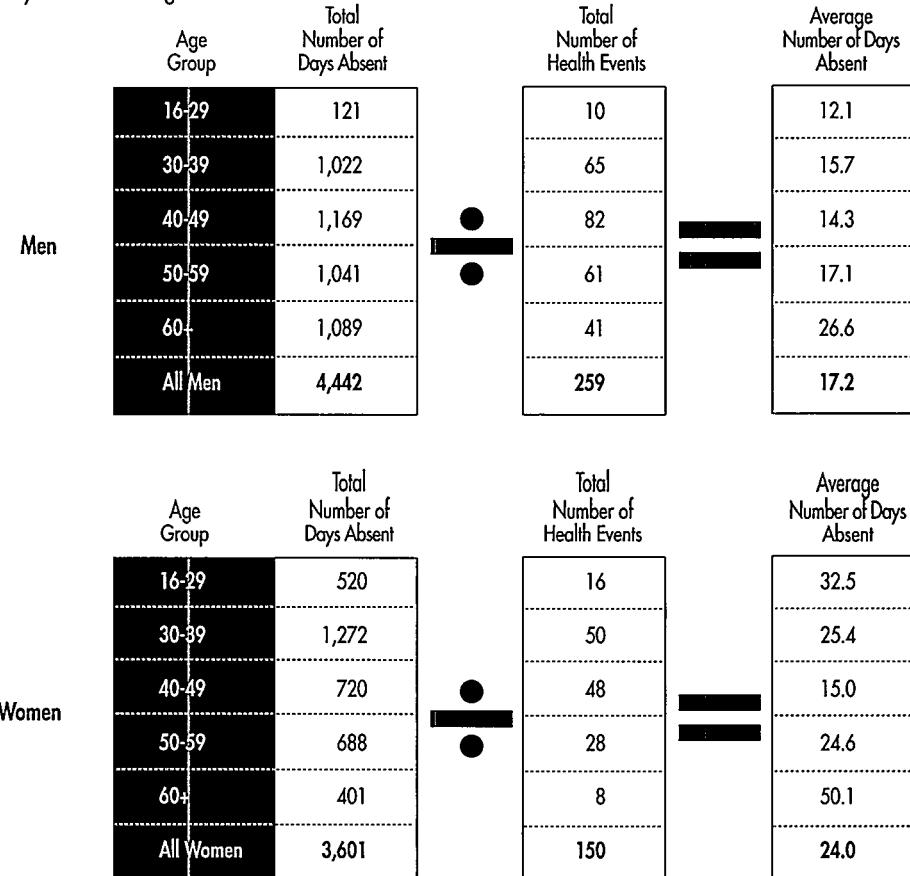
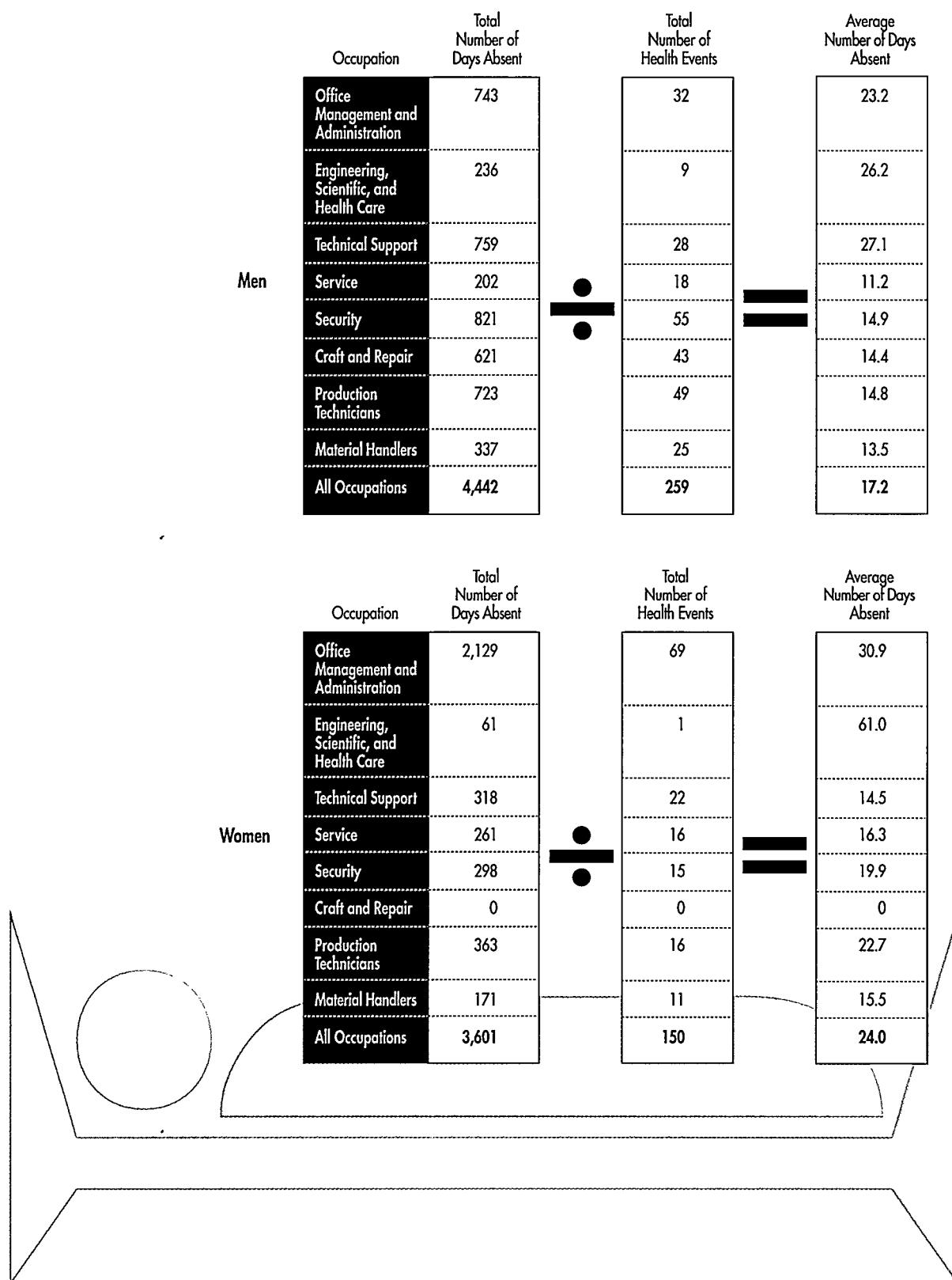


Figure 10. Number of Days Absent by Gender and Occupation



Diagnostic Categories

Epidemiologic surveillance monitors both occupational and nonoccupational illnesses and injuries among active workers. For many health conditions it is simply not possible to say with certainty what caused the condition, so epidemiologic surveillance assesses the health of the work force in a very broad way. Most of the diagnoses analyzed in epidemiologic surveillance are reported by the workers when they visit their site's occupational medicine clinic and receive a return-to-work clearance following an absence. Separate analyses are conducted of the occupational injuries and illnesses recorded on the OSHA 200 Log.

This report organizes diagnostic categories by type of disease or condition (e.g., cancer) or body system (e.g., lung/respiratory). 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 under lung/respiratory. You can find the specific health conditions in each diagnostic category in the Explanation of Diagnostic Categories in 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.

In 1995, two of the three categories of health conditions reported most often by both men and women were lung/respiratory and muscles and skeleton. The other category for men was injury and poisoning and for women, pregnancy/childbirth. With the exception of lung/respiratory conditions, these also tended to be the diagnostic groups with the most calendar days of absence (figure 11). The three categories reported most frequently by men did not change from 1994, but health conditions associated with the digestive tract ranked third for women in 1994 and fifth in 1995. Some of the more frequent diagnoses within these categories are shown in figure 12. The most frequently reported health conditions varied with age and gender (figure 13 and appendix F). Health conditions involving the muscles and skeleton ranked among the top three for men in all age groups. Almost half (47.5%) of these ailments were back problems and arthritis, and rheumatism made up most of the remainder. For men under age 60, lung/respiratory conditions were among the most commonly reported, and acute respiratory infections accounted for almost half (44.9%) of these conditions. Sinusitis, pneumonia, and bronchitis made up the remainder.

Diagnoses associated with pregnancy/childbirth were the most common reasons for absence for 16-39 year old women (figure 13). Lung/respiratory diagnoses were among the top three conditions reported for women aged 30-59. The types of conditions were similar to those reported by men. Diagnoses involving the digestive system were prominent among men in all age groups except 16-39 year olds and women of all ages except 30-49 year olds. The types of diagnoses observed among men and women were similar except for hernias. For both men and women, disorders of the teeth, gastroenteritis and colitis, and gallbladder disease were the most frequently reported diagnoses, but hernias were reported only among men (appendix F).

Diagnoses for injury and poisoning occurred relatively frequently in this work force. While poisoning is included in this diagnostic category, only one (1.3%) of the 78 diagnoses was related to poisoning, an allergic reaction to medicine. Complications of medical care are also included in the injury and poisoning category; two such diagnoses were reported. Injury and poisoning was among the three most common diagnostic categories for men in all occupational groups (figure 14). The predominant type of injury was sprains and strains followed by dislocations and fractures (appendix H). Among women, these diagnoses were among the top three for office management and administration and service workers. With the addition of bruises, the most common types of injuries among women were the same as among men. It is clear that injuries, including both occupational and nonoccupational injuries, affect many occupational groups and are not confined to a narrow age range (figures 13 and 14). Other sections of this report focus specifically on job-related health events that are reported under Occupational Safety and Health Administration (OSHA) guidelines.

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	3	25	4	83
Blood	0	0	1	12
Cancer	1	48	4	27
Digestive	40	3 618	20	266
Endocrine/Metabolic	5	82	2	19
Existing Birth Condition	1	14	1	41
Genitourinary	10	144	21	3 402
Heart/Circulatory	30	568	6	305
Infections/Parasites	4	208	3	32
Injury and Poisoning	2 63	2 890	15	193
Lung/Respiratory	1 72	575	1 32	264
Mental	4	25	8	139
Muscles and Skeleton	3 61	1 140	3 22	2 595
Nervous System	21	226	11	140
Pregnancy/Childbirth	NA	NA	2 24	1 1,150
Skin	5	63	3	32
Unspecified Symptoms	12	123	7	76

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

	Men	Women
Cancer	<ul style="list-style-type: none"> • Prostate 	<ul style="list-style-type: none"> • Breast • Skin
Injury and Poisoning	<ul style="list-style-type: none"> • Burns • Confusions • Dislocations • Fractures • Open Wounds • Sprains and Strains 	
Lung/Respiratory	<ul style="list-style-type: none"> • Bronchitis • Flu • Sinusitis • Sore Throat • Upper Respiratory Infection 	<ul style="list-style-type: none"> • Bronchitis • Laryngitis • Sinusitis • Upper Respiratory Infection
Muscles and Skeleton	<ul style="list-style-type: none"> • Acquired Toe Deformities • Arthritis • Back Problems • Disc Disorders • Lumbago • Pain in a Limb • Rheumatism 	<ul style="list-style-type: none"> • Back Problems • Bursitis • Joint Disorders • Tendonitis
Genitourinary		<ul style="list-style-type: none"> • Disorders of the Female Reproductive Organs • Ovarian Cyst • Urinary Tract 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; Muscles and Skeleton	Lung/Respiratory; Injury and Poisoning	Heart/Circulatory
	Second Most Common Diagnostic Category	Muscles and Skeleton	Lung/Respiratory	Injury and Poisoning	Digestive; Muscles and Skeleton	Muscles and Skeleton
	Third Most Common Diagnostic Category	(3)	Muscles and Skeleton	Digestive	Heart/Circulatory	Digestive
Women	Most Common Diagnostic Category	Pregnancy/Childbirth	Pregnancy/Childbirth	Lung/Respiratory	Digestive	Genitourinary; Injury and Poisoning
	Second Most Common Diagnostic Category	Genitourinary	Lung/Respiratory	Muscles and Skeleton	Heart/Circulatory	Muscles and Skeleton
	Third Most Common Diagnostic Category	Digestive	(3)	Injury and Poisoning	Lung/Respiratory	Nervous System; Digestive

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

(2) No additional health conditions were reported.

(3) More than two diagnostic categories tied.

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

		Office Management and Administration	Engineering, Scientific, and Health Care	Technical Support	Service
Men	Most Common Diagnostic Category	Muscles and Skeleton	Heart/Circulatory	Injury and Poisoning	Muscles and Skeleton
	Second Most Common Diagnostic Category	Heart/Circulatory; Digestive	Digestive; Injury and Poisoning	Muscles and Skeleton	Injury and Poisoning
	Third Most Common Diagnostic Category	Nervous System; Injury and Poisoning	(3)	Lung/Respiratory; Digestive	Lung/Respiratory; Digestive
Women	Most Common Diagnostic Category	Pregnancy/Childbirth	Pregnancy/Childbirth	Cancer; Lung/Respiratory	Lung/Respiratory
	Second Most Common Diagnostic Category	Lung/Respiratory; Muscles and Skeleton	(2)	Muscles and Skeleton	Injury and Poisoning
	Third Most Common Diagnostic Category	Injury and Poisoning	(2)	(3)	Nervous System; Genitourinary
Men		Security	Craft and Repair	Production Technicians	Material Handlers
	Most Common Diagnostic Category	Lung/Respiratory	Lung/Respiratory; Injury and Poisoning	Lung/Respiratory	Lung/Respiratory
	Second Most Common Diagnostic Category	Injury and Poisoning	Nervous System	Muscles and Skeleton	Muscles and Skeleton
Women	Most Common Diagnostic Category	Digestive; Pregnancy/Childbirth	(2)	Digestive; Genitourinary	Lung/Respiratory
	Second Most Common Diagnostic Category	Lung/Respiratory	(2)	Nervous System	Digestive
	Third Most Common Diagnostic Category	Genitourinary; Muscles and Skeleton	(2)	Heart/Circulatory	(3)

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

(2) No additional health conditions were reported.

(3) 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 eight occupational groups were combined into four larger groups. The five age groups were also combined into two age groups for the same reasons (figure 15). 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 cancer diagnoses were reported only among older workers (figure 16). Only five such diagnoses were reported during 1995, four of them among women. These five diagnoses were reported by three technical support workers. The two women who reported cancers were in the 40-49 year old age group. One reported cancer of the breast and an unspecified site and the other reported skin cancer. The man was over 60 years old who reported prostate cancer. Three cancer diagnoses were reported in 1994, one among women and two among men. None of these workers reported cancer during 1995.

Production technicians and material handlers showed the highest rates of diseases affecting the circulatory system. Of the 36 circulatory system diagnoses reported, only 1 occurred among workers under age 40 (figure 16, appendix F). Among the 30 diagnoses reported by men, 10 were for ischemic heart disease (restricted blood flow through an artery) and 8 involved either varicose veins or hemorrhoids. Six diagnoses were reported among women, 3 of which were for ischemic heart disease. Three of these 6 diagnoses occurred among production technicians and material handlers (appendix H). The risk of circulatory disease was 6.9 times greater among material handlers than other workers (appendix J).

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 63 diagnoses involving injuries; women reported 15. You can honestly say that men reported over four times as many injuries as women. Does this mean that men were at greater risk of injury in 1995? Comparing the number of injuries 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 over two and a half times as many men as women working at Pantex, it is reasonable to expect more injuries among men than women. A more accurate way to compare men and women is to calculate the injury rate for each group. The rates are calculated by dividing the number of injuries in a given group by the number of employees in the same group. The number is multiplied by 1,000 to give a rate per 1,000 workers. For example:

$$(63 \text{ injuries} \div \text{among 2,518 men}) = 0.0250 \times 1,000 = 25.0 \text{ injuries per 1,000 men}$$

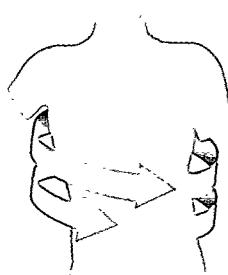
$$(15 \text{ injuries} \div \text{among 960 women}) = 0.156 \times 1,000 = 15.6 \text{ injuries per 1,000 women}$$

These rates account for differences in the number of men and women in the work force, and comparing them suggests that the rate of reported injuries among women is lower than among men, although not as different as a comparison of 63 injuries versus 15 injuries might suggest. They are called crude rates because they do not account for possible differences between men and women with regard to age, occupation, and other factors that might affect the individual's risk of getting an injury. 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 of this report shows that injury rates vary not only by occupation, but by both age and gender. Among men, injury and poisoning rates are relatively similar for men under age 40 compared with older men, but the difference in injury and poisoning are very different for women under age 40 compared with older women. Because these differences can be dramatic, age-specific rates for workers under age 40 and those age 40 or older are presented in this section of the report. Definitions of diagnostic rates and age-specific rates also appear in the Glossary of this report.

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. Over half of the diagnoses in this category involved acute infections or sinusitis. Respiratory disease rates were consistently higher among workers in service, security, craft and repair and production technicians and material handlers than among other occupational groups. For both men and women, rates were lower in younger workers in all occupational groups except production technicians and material handlers. The majority of diagnoses among the production technicians and material handlers were for acute infections and other diseases of the upper respiratory tract (appendix H). The respiratory disease risk among production technicians was 2.6 times higher and among material handlers was 5.5 times higher than other workers (appendix J).

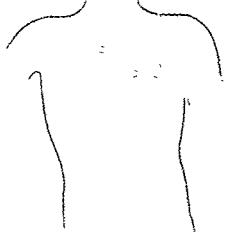
In the injury and poisoning category, only one diagnosis involved poisoning, so this category really focuses on injuries. Injury rates did not change consistently with age. The variation in the rates among the women was probably due to the small number of diagnoses reported (15). The high rate among women in the service, security, and craft and repair group was based on 4 diagnoses of which 2 were bruises (figure 16 and appendix H). Among the men, about half of the diagnoses were for sprains and strains. Production technicians were particularly likely to have this type of injury with 8 of the 12 diagnoses reported for this group being sprains and strains (appendix H). They were 4.8 times more likely to sustain a back sprain or strain as were other workers (appendix J). Men in the security group were 4.8 times as likely to report a dislocation as were other occupational groups. Five of the 10 dislocations reported by men were among security workers, which made up 14% of the men in the work force.

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



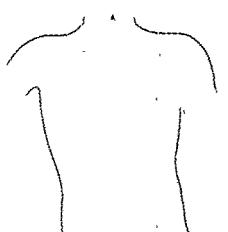
All Diagnostic Categories	Occupational Group	Age	Rate per 1,000	
			Men	Women
Office Management and Administration		<40	31	145
		40+	61	165
Engineering, Scientific, and Health Care/Technical Support		<40	18	84
		40+	117	176
Service/Security/Craft and Repair		<40	136	367
		40+	253	436
Production Technicians/Material Handlers		<40	250	267
		40+	319	462

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



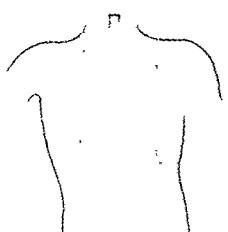
Diagnostic Category

Occupational Group	Age	Rate per 1,000	
		Men	Women
Office Management and Administration	<40	0	0
	40+	0	0
Engineering, Scientific, and Health Care/Technical Support	<40	0	0
	40+	3	44
Service/Security/Craft and Repair	<40	0	0
	40+	0	0
Production Technicians/Material Handlers	<40	0	0
	40+	0	0



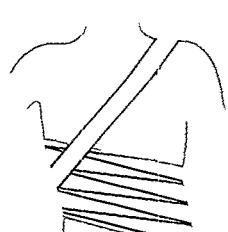
Heart/Circulatory

Office Management and Administration	<40	0	0
Engineering, Scientific, and Health Care/Technical Support	<40	0	0
Service/Security/Craft and Repair	<40	3	0
Production Technicians/Material Handlers	<40	0	0
	40+	12	3
	40+	27	11
	40+	16	26
	40+	33	58



Lung/Respiratory

Office Management and Administration	<40	0	20
Engineering, Scientific, and Health Care/Technical Support	<40	0	7
Service/Security/Craft and Repair	<40	39	50
Production Technicians/Material Handlers	<40	129	100
	40+	4	30
	40+	13	33
	40+	52	128
	40+	67	58



Injury and Poisoning

Office Management and Administration	<40	8	4
Engineering, Scientific, and Health Care/Technical Support	<40	12	0
Service/Security/Craft and Repair	<40	39	0
Production Technicians/Material Handlers	<40	64	33
	40+	6	24
	40+	16	22
	40+	44	103
	40+	43	0

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. These disease conditions can be considered in the following three categories (Appendix K has additional information about what diseases and conditions are included in each SHEO group).

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.

In 1995, 8 of the 409 health events (2%) reported were identified as SHEOs of which three involved accidents (figures 17 and 18). None of the accidents were specifically indicated as occurring in the workplace. Among the five SHEOs that were not accidents, three were carpal tunnel syndrome. Two of these were reported by women aged 30-39 years old. One woman worked in office management and administration, and the other was a material handler. The man was in the 40-49 year old age group and a technical support worker. These three absences accounted for 36.7% of the total number of days absent from SHEOs.

Figure 17. 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	0	0	0
	Possible	2	2	2
	Accident	2	2	22
	Total	4	4	53
Women	Definite	0	0	0
	Possible	3	3	36
	Accident	1	1	9
	Total	4	4	45

Figure 18. Number of Accidents by Gender, Age, and Occupation*

Occupation	Age Group - Men		Age Group - Women
	30-39	40-49	40-49
Technical Support	1		
Service			1
Craft and Repair		1	
Total	1	1	1

*Blank space is equal to zero.

Disability Among Active Workers

At Pantex, a worker is placed on long-term disability when absent 30 days or more. Forty-two workers were placed on long-term disability during 1995, but information about the medical reason for the disability was available for only 11 of the 42. Among these 11 workers, 6 went on disability for heart/circulatory conditions and 1 each for autoimmune disease, emphysema, knee surgery, back surgery, and post-traumatic stress. Production technicians and material handlers, especially those at least 50 years old, appeared to be at higher risk than other workers. Thirty-six percent of the disabilities occurred among production technicians and material handlers, who made up 12% of the total work force (figure 19b). While workers over 49 years old made up 25% of the work force, they accounted for 64% of the disabled workers (figure 19a). The percentage of disabled workers among production technicians and material handlers aged 50 or more was even higher (73%), although the average age of workers in these two occupational groups was not different from that of other occupational groups. The total of five workers reported as placed on disability in 1994 probably underestimated the number of disabilities because the mechanism for reporting them was not well established during Pantex's first year of participation in epidemiologic surveillance.

Figures 19a and 19b. Workers Placed on Long-Term Disability by Age and Gender; Workers Placed on Long-Term Disability by Gender and Occupation

Age	Total Number of Disabilities		Occupation	Total Number of Disabilities	
	Men	Women		Men	Women
16-29	0	0	Office Management and Administration	6	7
30-39	4	1	Engineering, Scientific, and Health Care	2	1
40-49	3	7	Technical Support	1	1
50-59	15	4	Service	1	1
60+	8	0	Security	3	1
Total	30	12	Craft and Repair	3	0

Age and Gender

Occupation	Total Number of Disabilities	
	Men	Women
Office Management and Administration	6	7
Engineering, Scientific, and Health Care	2	1
Technical Support	1	1
Service	1	1
Security	3	1
Craft and Repair	3	0
Production Technicians	7	1
Material Handlers	7	0
Total	30	12

Gender and Occupation

Deaths Among Active Workers

During 1995, nine deaths occurred among active workers: eight men and one woman. As in 1994, the predominant causes of death were cancer and cardiovascular disease. Four deaths were due to heart/circulatory disease, two to cancer (one lung cancer and one prostate cancer), and one each to kidney disease, Lou Gehrig's disease, and a foreign substance entering the lungs. Additional characteristics of the workers who died are given in figure 20.

Figure 20. Active Workers Who Died by Gender, Age, and Occupation*

Occupation	Age Group - Men				Age Group - Women
	30-39	40-49	50-59	60+	
Office Management and Administration		1			
Engineering, Scientific, and Health Care			1	2	1
Service				1	
Security	1				
Production Technicians			1	1	
Total	1	1	2	4	1

*Blank space is equal to zero.

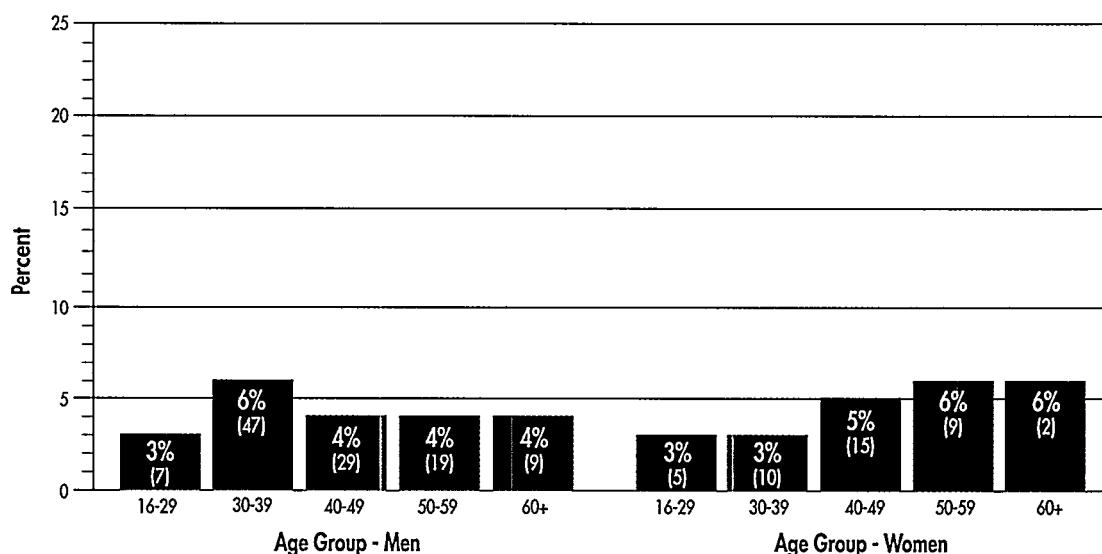
OSHA-Recordable Events

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. Information from these OSHA-recordable events is maintained 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 job-related.

The 152 workers with at least one OSHA event in 1995 represented an approximate 7% increase over the number of workers with a recordable event in 1994. The percentage of workers with an OSHA event was about the same for men and women in 1995. The distribution of these events by age of the workers involved tended to follow the age distribution of the work force (figures 1 and 21). The number of workdays lost or with restricted activity averaged 10 days longer for women (16.1 days) than for men (6.2 days) (figure 24).

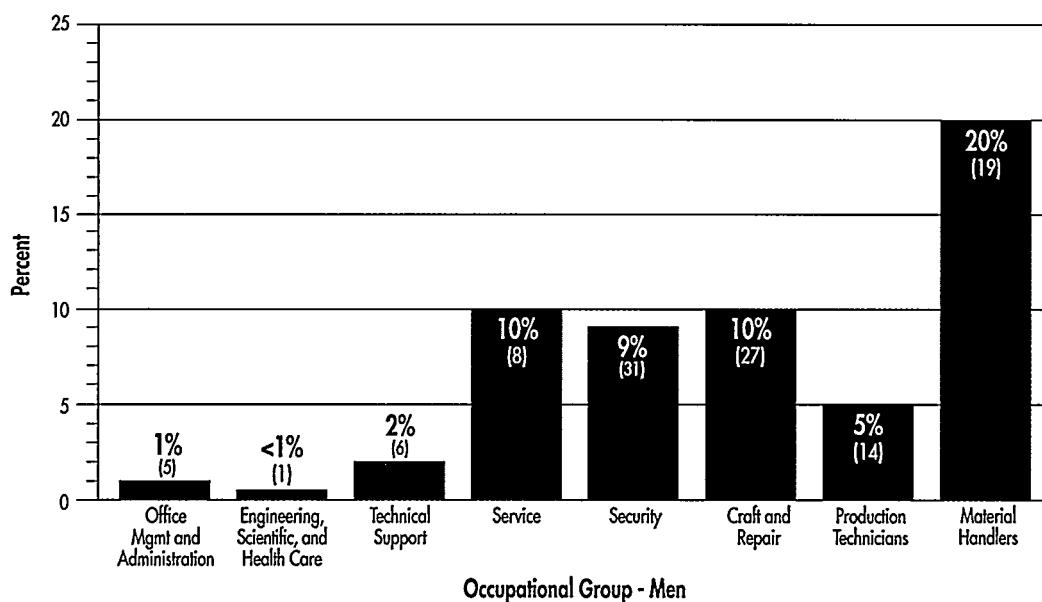
For men and women combined, material handlers (16.5%) and service workers (13.7%) had the highest percentage of workers with an OSHA event (figures 22 and 23). Twenty percent of the men classified as material handlers had at least one OSHA event. In women, the highest category was service, in which 22% had at least one OSHA event. There was a higher percentage of women in the production technician group with one or more OSHA events (14%, figure 23) than among men in this group (5%, figure 22). Among security workers, OSHA events occurred at about the same rate in men and women. Technical workers had the highest average number of workdays lost or with restricted activity for each OSHA event (19.1 days for men and women combined; figure 25). Appendixes 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 21. Workers with at Least One OSHA Event by Gender and Age*



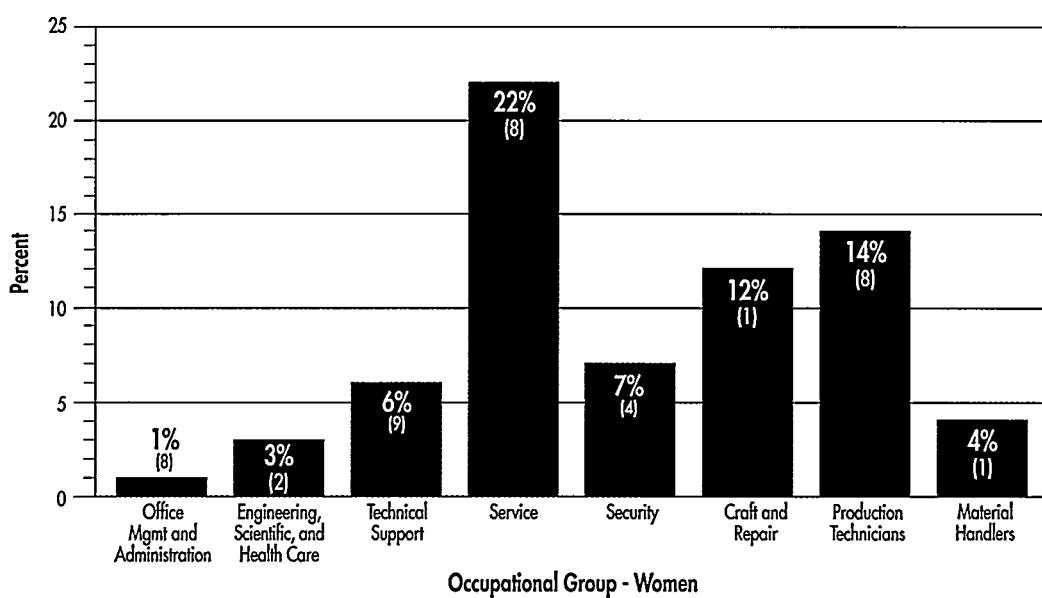
*Numbers in parentheses represent number of workers with at least one event.

Figure 22. Men with at Least One OSHA Event by Occupation*



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

Figure 23. Women with at Least One OSHA Event by Occupation*



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

Figure 24. Lost and Restricted Workdays by Gender and Age

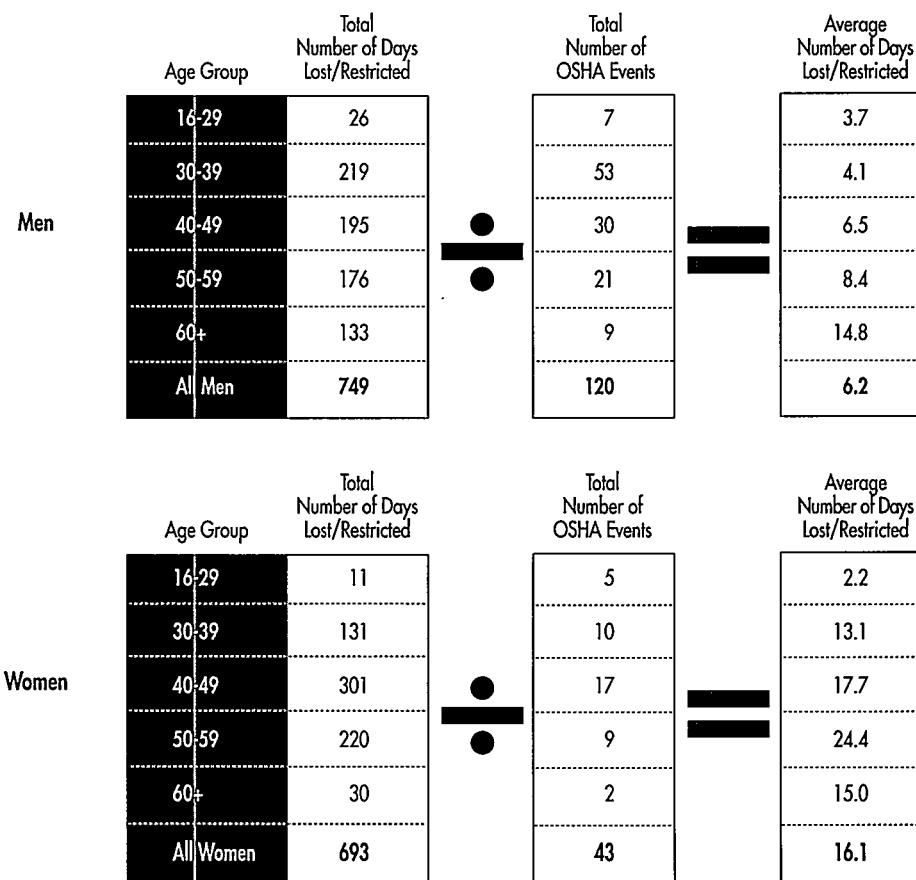
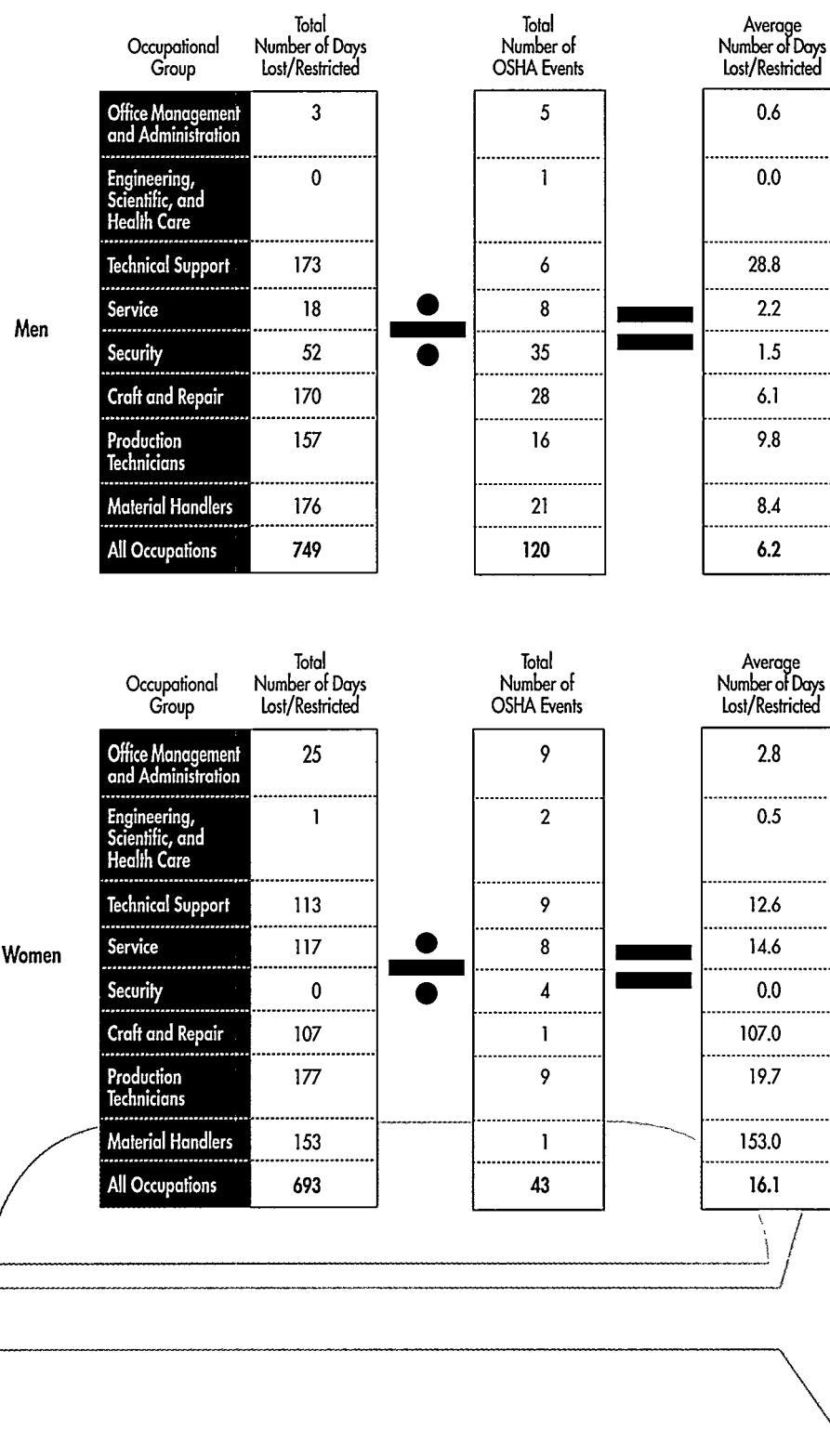


Figure 25. Lost and Restricted Workdays by Gender and Occupation



Diagnostic and Accident Categories for OSHA-Recordable Events

Over 75% of the health conditions reported were for injury and poisoning. Sprains and strains remained the most common type of OSHA-recordable injury among both men and women, accounting for 48% of all OSHA-recordable injuries in 1995 (43% in 1994). Open wounds also occurred frequently among men, as did conditions related to the muscles and skeleton among women (figure 30). Age and occupation did not appear strongly related to the type of accident or the type of injury sustained (figures 30, 31, 32, and 33; appendixes O and S).

Twenty-five OSHA events were not the result of an accident. To be defined as an accident, an injury or poisoning diagnosis resulted from the OSHA event. In this group, 67% of the diagnoses were related to the muscles and skeleton and 21% to the nervous system. Over half of the latter were carpal tunnel syndrome. Of the 138 OSHA events that resulted from an accident, the type of accident was not reported for 54 (39.1%). The types of accidents reported most often were "other accidents," a broad category that includes being struck by an object, injuries from cutting or piercing objects, lifting, overexertion, and contact with hot or corrosive material (figures 27, 28, 31, and 33). Overexertion or strenuous movements accounted for 60% of these accidents. Five of the 8 injuries among women were sprains and strains. Men sustained 29 sprains and strains as well as 11 open wounds (figures 29a and 29b).

Figure 26. Health Conditions by Gender and Diagnostic Category

Diagnostic Category	Total Number of Health Conditions Reported	
	Men	Women
Mental	0	2
Nervous System	4	3
Lung/Respiratory	1	2
Skin	4	1
Muscles and Skeleton	15	14
Unspecified Symptoms	2	0
Injury and Poisoning	114	39
• Upper Limb Fractures	4	0
• Dislocations	1	1
• Back Sprains and Strains	21	7
• Other Sprains and Strains	35	10
• Open Wounds - Head, Neck, Trunk	3	1
• Open Wounds - Upper Limb	15	3
• Open Wounds - Lower Limb	1	0
• Superficial Injuries	4	0
• Bruises	10	7
• Crushing Injuries	0	1
• Foreign Bodies Entering Orifice	3	0
• Burns	6	1
• Unspecified Injuries	0	2
• Adverse Reaction to Nonmedical Substances	5	3
• Adverse Reaction to External Causes	6	3

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	11	4	0	0	0
Motor Vehicle Nontraffic	0	0	0	1	0	0
Other Road Vehicle	1	0	0	0	0	0
Accidental Poisoning by Other Substances	4	0	0	2	0	0
Falls	4	8	3	4	4	1
Natural/Environmental Factors	9	8	0	1	0	4
Submersion/Suffocation/Foreign Bodies	2	0	0	0	0	0
Other Accidents	44	362	117	9	218	9
Adverse Reaction to Medication	1	0	0	1	0	0

Figure 28. Types of Accidents that Occurred within the Category of Other Accidents by Gender

Men	Women
Cutting/piercing instrument/object	Hot, corrosive, or caustic material/steam
Hot, corrosive, or caustic material/steam	Overexertion and strenuous movements
Overexertion and strenuous movements	Struck by an object
Struck by an object	

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

Type of Injury	Type of Accident - Men						
	Motor Vehicle Traffic	Accidental Poisoning by Other Substances	Falls	Natural/Environmental Factors	Submersion/Suffocation/Foreign Bodies	Other Accidents	Adverse Reaction to Medication
Upper Limb Fractures			1			2	
Dislocations							
Back Sprains and Strains						9	
Other Sprains and Strains			2			20	
Open Wounds- Head, Neck, Trunk							3
Open Wounds – Upper Limb							8
Open Wounds – Lower Limb				1			
Superficial Injuries				3			
Bruises	1					1	
Foreign Bodies Entering Orifice					2	1	
Burns							4
Unspecified Injuries							
Adverse Reaction to Nonmedical Substances		4		1			
Adverse Reaction to External Causes				5			1

*Blank space is equal to zero.

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

Type of Injury	Type of Accident - Women						
	Motor Vehicle	Nontraffic	Accidental Poisoning by Other Substances	Falls	Natural/Environmental Factors	Other Accidents	Adverse Reaction to Medication
Upper Limb Fractures							
Dislocations				1			
Back Sprains and Strains				2		2	
Other Sprains and Strains						3	
Open Wounds - Head, Neck, Trunk					1		
Open Wounds - Upper Limb							
Open Wounds - Lower Limb							
Superficial Injuries							
Bruises	1		2			1	
Foreign Bodies Entering Orifice							
Burns						1	
Unspecified Injuries			1			1	
Adverse Reaction to Nonmedical Substances		2			1		
Adverse Reaction to External Causes			1				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	Sprains and Strains	Open Wounds
	Second Most Common Diagnostic Category	Open Wounds	Muscles and Skeleton	Open Wounds	Open Wounds	Sprains and Strains; Adverse Reaction to Nonmedical Substances
	Third Most Common Diagnostic Category	Muscles and Skeleton; Adverse Reaction to Nonmedical Substances	Bruises	(3)	Muscles and Skeleton	(3)
Women	Most Common Diagnostic Category	Adverse Reaction to External Causes	Sprains and Strains	Sprains and Strains	Muscles and Skeleton; Sprains and Strains	Muscles and Skeleton
	Second Most Common Diagnostic Category	(3)	Mental; Bruises	Muscles and Skeleton	Open Wounds; Nervous System	Sprains and Strains; Bruises
	Third Most Common Diagnostic Category	(2)	(3)	Bruises	(3)	(2)

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

(2) No additional health conditions were reported.

(3) More than two diagnostic categories tied.

Figure 31. Three Accident Categories Reported Most Often by Gender and Age¹

	16-29	30-39	40-49	50-59	60+
Men	Most Common Accident Category Other Accidents	Other Accidents	Other Accidents	Other Accidents	Accidental Poisoning by Other Substances; Other Accidents
	Second Most Common Accident Category Accidental Poisoning by Other Substances	Falls; Natural/Environmental Factors	Natural/Environmental Factors	Natural/Environmental Factors	Natural/Environmental Factors
	Third Most Common Accident Category (3)	(4)	(4)	(3)	(3)
Women	Most Common Accident Category Motor Vehicle Nontraffic	Other Accidents	Other Accidents	Falls	(3)
	Second Most Common Accident Category Accidental Poisoning by Other Substances (2)	(3)	Falls	Natural/Environmental Factors (2)	(3)
	Third Most Common Accident Category Falls (2); Other Accidents (2)	(3)	Accidental Poisoning by Other Substances; Adverse Reaction to Medication	Other Accidents (2)	(3)

(1) Type of accident was not reported for 39 OSHA events among men and 15 OSHA event among women.

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

(3) No additional accident categories were reported.

(4) More than two accident categories tied.

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

	Office Management and Administration	Engineering, Scientific, and Health Care	Technical Support	Service
Men	Most Common Diagnostic Category Sprains and Strains	Open Wounds	Sprains and Strains	Open Wounds
	Second Most Common Diagnostic Category Nervous System	(2)	Muscles and Skeleton	Unspecified Effects External Causes
	Third Most Common Diagnostic Category (3)	(2)	Open Wounds; Unspecified Effects External Causes	Toxic Effects Nonmedical Substances; Muscles and Skeleton
Women	Most Common Diagnostic Category Muscles and Skeleton	Dislocations	Sprains and Strains	Sprains and Strains
	Second Most Common Diagnostic Category Nervous System	Sprains and Strains (1)	Muscles and Skeleton	Muscles and Skeleton
	Third Most Common Diagnostic Category Sprains and Strains; Mental Disorders	(2)	(3)	Contusions
Men	Most Common Diagnostic Category Sprains and Strains	Sprains and Strains	Sprains and Strains	Sprains and Strains
	Second Most Common Diagnostic Category Contusions; Muscles and Skeleton	Open Wounds	Toxic Effects Nonmedical Substances	Muscles and Skeleton
	Third Most Common Diagnostic Category (3)	Burns	Open Wounds; Contusions	Open Wounds
Women	Most Common Diagnostic Category Sprains and Strains	(2)	Sprains and Strains	Open Wounds
	Second Most Common Diagnostic Category Contusions (1); Burns (1)	(2)	Contusions; Toxic Effects Nonmedical Substances	Crushing Injuries (1)
	Third Most Common Diagnostic Category Unspecified Effects External Causes (1)	(2)	Muscles and Skeleton	(2)

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

(2) No additional health conditions were reported.

(3) More than two diagnostic categories tied.

Figure 33. Three Accident Categories Reported Most Often by Gender and Occupation¹

		Office Management and Administration	Engineering, Scientific, and Health Care	Technical Support	Service
Men	Most Common Accident Category	Other Accidents	{3}	Other Accidents	Natural/Environmental Factors; Other Accidents
	Second Most Common Accident Category	Falls	{3}	Natural/Environmental Factors	Other Road Vehicles
	Third Most Common Accident Category	{3}	{3}	{3}	Adverse Reaction to Medication (2)
Women	Most Common Accident Category	Natural/Environmental Factors	Falls	Falls	Other Accidents
	Second Most Common Accident Category	Other Accidents (2)	{3}	{3}	{3}
	Third Most Common Accident Category	{3}	{3}	{3}	{3}
		Security	Craft and Repair	Production Technicians	Material Handlers
Men	Most Common Accident Category	Other Accidents	Other Accidents	Accidental Poisoning by Other Substances	Other Accidents
	Second Most Common Accident Category	Falls	Natural/Environmental Factors	Other Accidents	Falls
	Third Most Common Accident Category	Natural/Environmental Factors; Submersion/ Suffocation/ Foreign Bodies	Motor Vehicle Traffic; Submersion/ Suffocation/Foreign Bodies	{3}	{3}
Women	Most Common Accident Category	Other Accidents	{3}	Accidental Poisoning by Other Substances; Other Accidents	{3}
	Second Most Common Accident Category	Motor Vehicle Nontraffic	{3}	Falls	{3}
	Third Most Common Accident Category	Adverse Reaction to Medication (2)	{3}	{3}	{3}

(1) Type of accident was not reported for 39 OSHA events among men and 15 OSHA events among women.

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

(3) No additional accident categories were reported.

(4) More than two accident categories tied.

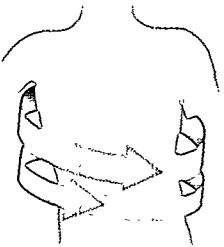
Rates of OSHA-Recordable Events

Workers in the service, security, and craft and repair group and the production technicians and material handlers had the highest rates for all occupational health conditions combined. These rates were higher among women aged 40 or older than among younger women, but in men the relationship with age was less clear. The data suggest that men under age 40 may have had higher rates than older men (figure 34). Most of the OSHA health conditions were occupational injuries and poisonings (figure 35).

When the category of injury and poisoning was considered separately, high rates were noted among production technicians and material handlers and among women aged 40 or greater in the service, security, and craft and repair occupations. Age did not appear to be related to rates of injury among women working as production technicians and material handlers, but in this occupational group the injury rates were lower among men aged 40 or older than among younger men. By contrast, injury rates among men in the service, security, and crafts and repair occupations varied little with age, but women aged 40 or older in these occupations had an injury rate about three times higher than that of younger women. Some of this variation in injury rates for older versus younger workers may simply reflect the necessity to combine several occupational groups for analysis due to small numbers of health events in a given occupational category. It is also possible that within a given occupational group men and women may be performing duties with different injury risks. Future reports with additional years of data may explore the relationship between age and injury risk more fully, but at present there does not appear to be a consistent relationship between the age of the worker and the risk of occupational injury at Pantex.

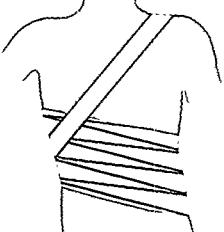
Occupational injuries were responsible for substantial numbers of restricted and lost workdays. Production technicians and material handlers were more likely to have an OSHA event that resulted in days lost from work or with restricted activity than were other groups of workers. Together these two groups of workers comprised 12% of the work force but had 38% of the days lost and 48% of the days restricted (appendix N); all of these lost and restricted workdays resulted from "other accidents" (appendix V). The material handlers were at particularly high risk for occupational injuries with an overall risk 4.5 times greater than other groups of workers. They were at significantly higher risk for back strains (7 times the risk of other workers), other sprains and strains (6.5 times the risk of other workers), and open wounds involving the arm (8.8 times the risk of other workers) (appendix W). The magnitude of these risks suggests that additional attention should be given to injuries among material handlers. The 22 OSHA events among these workers resulted in 299 days of restricted activity and 30 lost workdays, representing substantial lost productivity. Further investigation may reveal opportunities for injury reduction efforts that can contribute to lower injury rates, reduced health care costs, and greater productivity among these workers.

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



All Diagnostic Categories	Occupational Group	Age	Rate per 1,000	
			Men	Women
Office Management and Administration	<40	16	12	
		8	40	
Engineering, Scientific, and Health Care/Technical Support	<40	9	49	
		13	99	
Service/Security/Craft and Repair	<40	127	67	
		104	308	
Production Technicians/Material Handlers	<40	150	167	
		100	173	

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



Injury and Poisoning	Occupational Group	Age	Rate per 1,000	
			Men	Women
Office Management and Administration	<40	4	0	
		6	17	
Engineering, Scientific, and Health Care/Technical Support	<40	6	35	
		11	77	
Service/Security/Craft and Repair	<40	97	67	
		94	179	
Production Technicians/Material Handlers	<40	129	133	
		86	135	

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	001-982	All reported health events
Infectious and parasitic diseases		
· Intestinal infections	001-139	Diseases caused by bacteria, viruses, and parasites
· Tuberculosis	001-009	Infections of the bowel or gut
· Zoonotic bacterial diseases	010-018	TB in the lungs and other organs
· Other bacterial diseases	020-027	Bacterial diseases that animals transmit to humans
· Human Immunodeficiency Virus (HIV) infection	030-041	Whooping cough, diphtheria, strep throat, and gangrene
· Poliomyelitis and other nonarthropod diseases of central nervous system	042	AIDS
· Viral diseases accompanied by exanthem	045-049	Viral meningitis (swelling of the layers covering the brain and spinal cord); viral encephalitis (swelling of the brain); and polio
· Arthropod-borne viral diseases	050-057	Diseases accompanied by rashes or blisters like chickenpox, measles, shingles, and herpes
· Other diseases caused by viruses and chlamydiae	060-066	Encephalitis (swelling of the brain) caused by bites from virus-carrying ticks or mosquitoes
· Rickettsioses and other arthropod-borne diseases	070-079	Viral hepatitis, mumps, rabies, and mononucleosis
· Other spirochetal diseases	080-088	Rocky Mountain spotted fever, malaria, and Lyme disease
· Mycoses	100-104	Trench mouth and Weil's disease (jaundice caused by coil-shaped bacteria)
· Helminthiases	110-118	Athlete's foot; fungal infections of fingernails and toenails; and thrush
· Other infectious and parasitic diseases	120-129	Pinworms, tapeworms, roundworms, whipworms
· Late effects of infectious or parasitic diseases	130-136	Lice, chiggers, scabies, and mites
	137-139	Side effects of TB, chickenpox, or polio even though the disease is no longer active
Malignant neoplasms		
· Lip, oral cavity, and pharynx	140-208, 230-234	All cancers, regardless of the part of the body affected
· Digestive organs and peritoneum	140-149	Lip, mouth, throat, and tongue
· Respiratory system and intrathoracic organs	150-159	Cancers of the stomach, esophagus (tube that transports food to the stomach), intestines, colon, rectum, anus, liver, pancreas, and gallbladder
· Bone, connective tissue, and skin	160-165	Sinuses, throat, voice box, lungs, and heart
· Genitourinary organs	170-173	Bone, muscle, ligament, tendon, blood vessels, fat, and skin
· Other and unspecified sites	179-189	Cervix, uterus, prostate, kidney, and bladder
· Lymphatic and hematopoietic tissue	190-199	Eye, brain, and thyroid
· Carcinoma in situ	200-208	Leukemia, lymphoma, Hodgkin's disease, multiple myeloma, lymphosarcoma, and reticulum cell sarcoma
	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		
• Nephritis, nephrotic syndrome, and nephrosis	580-589	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
• Other diseases of the urinary system	590-599	Swelling of the kidney; swelling of the small blood vessels in the kidney; and kidney failure
• Diseases of the male genital organs	600-608	Swelling and infection of the kidney and bladder; kidney stones; and difficulty urinating
• Disorders of the breast	610-611	Enlarged prostate; swelling of the scrotum and prostate; and abscess of the prostate
• Inflammatory disease of the female pelvic organs	614-616	Benign tumors, cysts, and infections of the breast
• Other diseases of the female genital tract	617-629	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		
• Ectopic and molar pregnancy	630-676	Miscarriage; complications of pregnancy, such as hemorrhage; pregnancy-related high blood pressure; preeclampsia; and premature labor or other complications of labor
• Other pregnancy with abortive outcome	630-633	Development of fetus outside the uterus and growth of cysts
• Complications mainly related to pregnancy	634-639	Miscarriage and complications associated with miscarriage
• Normal delivery, and other indications for care in pregnancy, labor, and delivery	640-648	Abnormal bleeding and possible miscarriage; infections; high blood pressure caused by pregnancy; and premature labor
• Complications occurring mainly in the course of 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 of the puerperium	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		
• Infections of the skin and subcutaneous tissue	680-709	Acne, cellulitis, sunburn, psoriasis, and seborrhea
• Other inflammatory conditions of skin and subcutaneous tissue	680-686	Abscesses, boils, hair-containing cysts, and pus-filled blisters
• Other diseases of the 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		
• Arthropathies and related disorders	710-739	Arthritis, systemic lupus erythematosus, ankylosing spondylitis, herniated intervertebral disc ("slipped disc"), lumbago, sciatica, rheumatism, tendonitis, and osteoporosis
• Dorsopathies	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
• Rheumatism, excluding the back	720-724	Swelling of the spine; rheumatoid arthritis of the spine; lumbago; and sciatica
• Osteopathies, chondropathies, and acquired musculoskeletal deformities	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		
• Symptoms	780-799	Blackout, chills, dizziness, fatigue, pallor, abnormal weight loss, undiagnosed chest pain, and heartburn
• Nonspecific abnormal findings	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
• 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
• Fractures, all sites	800-829	Cracks or breaks of any bone
• Dislocations	830-839	Separation of a bone from its normal socket or joint
• 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
• 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
• 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
• Open wounds	870-897	Animal bites; cuts; lacerations; punctures; and amputations, excluding the arteries and veins
• 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...)

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Pantex 1995 Appendixes

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Appendix C.	Total Number of Health Events by Gender, Age, and Occupation
Appendix D.	Distribution of the Number of Calendar Days Absent/Health Event by Gender and Age
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Appendix R.	Number of Work Days Lost or with Restricted Activity for Each Accident Category by Gender and Age
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Appendix T.	Number of Work Days Lost or with Restricted Activity in Each Diagnostic Category by Gender and Occupation
Appendix U.	Number of Occurrences in Each Accident Category by Gender and Occupation
Appendix V.	Number of Work Days Lost or with Restricted Activity in Each Accident Category by Gender and Occupation
Appendix W.	Relative Risk Estimates for Selected Diagnostic Categories Among OSHA Events

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

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

	Gender											Total	
	Women						Men						
	Age Group			Age Group			Age Group			Age Group			
	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	
Occupational Group													
Office Management and Administration	10	21	23	10	3	67	0	7	4	11	9	31	
Engineering, Scientific, and Health Care	0	1	0	0	1	0	0	0	4	2	3	9	
Technical Support	1	6	9	2	0	18	0	4	9	5	10	23	
Service	0	5	5	2	1	13	2	4	5	2	4	17	
Security	4	6	2	2	0	14	4	19	18	9	2	52	
Craft and Repair	0	0	0	0	0	0	0	9	11	11	3	34	
Production Technicians	0	3	3	5	3	14	4	7	16	7	6	40	
Material Handlers	1	3	2	4	0	10	0	8	5	4	0	17	
Total	16	45	44	25	7	137	10	58	72	51	37	228	

		Gender										Total	
		Women					Men						
		Age Group					Age Group						
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	
Occupational Group													
Office Management and Administration	10	21	24	11	3	69	0	7	4	12	9	32	
Engineering, Scientific, and Health Care	0	1	0	0	1	0	0	0	4	2	3	9	
Technical Support	1	7	12	2	0	22	0	4	9	5	10	28	
Service	0	8	5	2	1	16	2	5	5	2	4	18	
Security	4	7	2	2	0	15	4	20	18	11	2	55	
Craft and Repair	0	0	0	0	0	0	0	9	14	15	5	43	
Production Technicians	0	3	3	6	4	16	4	8	21	8	8	49	
Material Handlers	1	3	2	5	0	11	0	12	7	6	0	25	
Total	16	50	48	28	8	150	10	65	82	61	41	259	

# of Calendar Days	Gender											
	Women						Men					
	Age Group			Age Group			Age Group			Age Group		
	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total
< 15	6	30	36	15	1	88	7	45	58	40	22	172
15 - 28	3	6	5	5	5	24	3	13	16	12	5	49
29 - 42	0	1	2	4	0	7	0	3	5	3	6	17
43 - 56	5	6	5	1	0	17	0	2	2	4	4	12
57 - 91	2	6	0	3	1	12	0	2	1	2	2	7
92 - 182	0	1	0	0	0	1	0	0	0	0	0	2
183 +	0	0	0	0	1	1	0	0	0	0	0	0
Total	16	50	48	28	8	150	10	65	82	61	41	259

# of calendar Days	Occupation		Gender						Occupation								
			Women			Men			Women			Men					
	Office Management and Administration	Engineering, Scientific and Technical Support	Administrative Health Care	Productivity Technicians	Material Handling	Administrative Health Care	Engineering, Scientific and Technical Support	Administrative Health Care	Productivity Technicians	Material Handling	Administrative Health Care	Engineering, Scientific and Technical Support	Administrative Health Care	Productivity Technicians	Material Handling	Total	
< 15	33	0	18	10	8	9	88	18	2	18	12	36	30	35	21	172	
15 - 28	10	0	2	4	3	5	0	24	6	3	1	6	15	8	8	2	49
29 - 42	5	0	0	1	0	0	1	7	3	3	1	0	3	3	4	0	17
43 - 56	12	0	1	1	1	1	17	1	1	6	0	0	2	1	1	12	
57 - 91	7	1	0	1	2	0	12	3	0	1	0	1	0	1	1	7	
92 - 182	1	0	0	0	0	0	1	1	0	1	0	0	0	0	0	2	
183 +	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
Total	69	1	22	16	15	16	11	150	32	9	28	18	55	43	49	259	

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

Diagnostic Category	ICD-9-CM Codes	Gender										
		Women					Men					
		Age Group		Age Group			Age Group		Age Group			
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 60 +	Total
INFECTIOUS & PARASITIC DISEASES	001-139	0	2	1	0	0	3	0	0	2	0	4
-Other Viral Diseases & Chlamydiae	070-079	0	2	1	0	0	3	0	0	2	0	4
MALIGNANT NEOPLASMS	140-208, 230-234	0	0	4	0	0	4	0	0	0	0	5
-Bone, Connective Tissue, Skin	170-173, 176	0	0	1	0	0	1	0	0	0	0	1
-Breast	174-175	0	0	2	0	0	2	0	0	0	0	2
-Genitourinary	179-189	0	0	0	0	0	0	0	0	0	0	1
-Other & Unspecified Sites	190, 193-199	0	0	1	0	0	1	0	0	0	0	1
BENIGN & OTHER NEOPLASMS	210-229, 235-239	0	0	2	2	0	4	0	1	1	0	3
ENDOCRINE & METABOLIC DISEASES	240-279	0	1	1	0	0	2	0	0	1	0	7
-Thyroid Gland	240-246	0	1	0	0	0	1	0	0	0	0	1
-Other Endocrine Glands	250-259	0	0	0	0	0	0	0	1	0	3	4
-Other Metabolic & Immunity Disorders	270-279	0	0	1	0	0	1	0	0	0	0	1
												2

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

(CONTINUED)

Diagnostic Category	Gender											
	Women						Men					
	Age Group			Age Group			Age Group			Age Group		
	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total
ICD-9-CM Codes												
BLOOD & BLOOD-FORMING ORGANS	0	1	0	0	0	1	0	0	0	0	0	1
MENTAL DISORDERS	0	1	3	4	0	8	0	0	0	4	0	4
-Psychotic Conditions	0	0	1	0	0	1	0	0	0	1	0	1
-Non-Psychotic Conditions	0	0	2	4	0	6	0	0	0	2	0	2
-Alcohol Dependence	0	1	0	0	0	1	0	0	0	1	0	1
NERVOUS SYSTEM & SENSE ORGANS	0	5	3	2	1	11	1	4	7	5	4	32
-Other Disorders of CNS	0	0	0	0	0	0	0	1	2	0	0	3
-Disorders of Peripheral NS	0	2	1	0	0	3	0	3	2	3	0	8
-Disorders of Eye	0	0	2	1	1	4	0	0	2	2	4	12
-Diseases of Ear & Mastoid	0	3	0	1	0	4	1	0	1	0	0	2
CIRCULATORY SYSTEM	0	0	6	0	6	0	1	5	8	16	30	36
-Hypertensive Disease	0	0	0	0	0	0	0	0	2	0	2	4
-Ischemic Heart Disease	0	0	0	3	0	3	0	0	0	4	6	10
-Other Heart Disease	0	0	0	1	0	1	0	0	2	1	2	5

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

(CONTINUED)

Diagnostic Category	ICD-9-CM Codes	Gender												
		Women					Men							
		Age Group		Age Group			Age Group		Age Group					
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	Total
Diseases of Arteries & Capillaries	440-448	0	0	0	1	0	1	0	0	0	2	1	3	4
Diseases of Veins, Lymphatics, Other	451-459	0	0	0	1	0	1	0	1	1	1	5	8	9
RESPIRATORY SYSTEM	460-519	1	11	15	5	0	32	11	20	25	13	3	72	104
-Acute Respiratory Infections	460-466	0	6	6	4	0	16	4	11	10	6	1	32	48
-Other Diseases Upper Respiratory Tract	470-478	1	3	1	0	0	5	6	3	3	1	0	13	18
-Pneumonia and Influenza	480-487	0	1	1	0	0	2	0	3	4	2	0	9	11
-Chronic Obstructive Diseases	490-496	0	1	5	1	0	7	1	3	7	4	2	17	24
-Other Respiratory Diseases	510-519	0	0	2	0	0	2	0	0	1	0	0	1	3
DIGESTIVE SYSTEM	520-579	2	6	4	7	1	20	1	6	16	9	8	40	60
-Oral Cavity, Saliv Glands, Jaw	520-529	1	1	2	0	0	4	0	1	1	2	2	6	10
-Esophagus, Stomach, Duodenum	530-537	0	2	0	0	0	2	0	0	1	0	0	1	3
-Appendicitis	540-543	0	0	0	0	0	0	0	1	1	0	0	2	2

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

Diagnostic Category	ICD-9-CM Codes	Gender										Total	
		Women					Men						
		Age Group		Age Group			Age Group		Age Group				
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	
Diagnostic Category	ICD-9-CM Codes												
-Hernias	550-553	0	0	0	1	0	1	0	1	1	2	2	
-Enteritis, Colitis	555-558	0	2	0	2	1	5	1	2	4	1	1	
-Other Intestinal Diseases	560-569	0	0	1	1	0	2	0	0	3	0	1	
-Other Digestive Diseases	570-579	1	1	1	3	0	6	0	1	5	4	6	
GENTOURINARY SYSTEM	580-629	4	6	8	0	3	21	0	2	2	5	1	
-Other Urinary Diseases	580-599	0	1	1	0	0	2	0	0	1	1	3	
-Male Genital Organs	600-608	0	0	0	0	0	0	2	1	4	0	7	
-Disorders of the Breast	610-611	1	0	0	0	1	0	0	0	0	0	1	
-Pelvic Inflammatory Diseases	614-616	1	0	0	0	1	0	0	0	0	0	1	
-Other Diseases of Females	617-629	2	5	7	0	3	17	0	0	0	0	17	
PREGNANCY & CHILDBIRTH	630-677	9	15	0	0	0	24	0	0	0	0	24	
-Ectopic & Molar Pregnancy	630-633	1	1	0	0	0	2	0	0	0	0	2	
-Other Pregnancy with Abortive Outcome	634-639	0	1	0	0	0	1	0	0	0	0	1	

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

(CONTINUED)

Diagnostic Category	ICD-9-CM Codes	Gender										Total	
		Women					Men						
		Age Group		Age Group			Age Group		Age Group				
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	29	30 - 39	40 - 49	50 - 59	60 +	Total
-Complications of Pregnancy	640-648	0	4	0	0	0	4	0	0	0	0	0	4
-Normal Delivery and Care	650-659	8	8	0	0	0	16	0	0	0	0	0	16
-Complications of Labor & Delivery	660-669	0	1	0	0	0	1	0	0	0	0	0	1
SKIN & SUBCUTANEOUS TISSUE	680-709	1	0	1	0	0	3	1	1	2	0	1	8
-Infections	680-686	0	0	0	0	0	0	0	1	1	0	0	2
-Other Inflammatory Conditions	690-698	1	0	0	0	0	1	0	0	0	0	0	1
-Other Diseases	700-709	0	0	1	0	0	2	1	0	1	0	1	5
MUSCULOSKELETAL SYSTEM	710-739	1	6	11	2	2	22	2	14	25	9	11	83
-Arthropathies	710-719	0	0	1	0	2	3	1	2	2	0	5	10
-Dorsopathies	720-724	1	5	3	1	0	10	1	6	10	7	5	39
-Rheumatism, Excluding Back	725-729	0	0	6	1	0	7	0	6	9	1	1	17
-Acquired Deformities	730-739	0	1	1	0	0	2	0	0	4	1	0	5
CONGENITAL ANOMALIES	740-759	0	0	1	0	0	1	0	0	0	0	1	2

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

(CONTINUED)

Diagnostic Category	ICD-9-CM Codes	Gender									
		Women					Men				
		Age Group		Age Group		Age Group		Age Group		Total	Total
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	59
SYMPTOMS, SIGNS & ILL DEFINED COND.	780-799	0	4	3	0	0	7	0	1	1	7
-Symptoms	780-789	0	4	3	0	0	7	0	1	1	7
-Non-Specific Abnormal Findings	790-796	0	0	0	0	0	0	0	0	0	0
INJURY AND POISONING	800-999	0	2	9	1	3	15	0	28	17	13
-Neck and Trunk Fractures	805-809	0	0	0	0	0	0	0	0	0	0
-Upper Limb Fractures	810-819	0	0	1	0	0	1	0	0	1	1
-Lower Limb Fractures	820-829	0	0	1	0	0	1	0	0	0	1
-Dislocations	830-839	0	0	0	1	1	2	0	7	2	0
-Back Sprains & Strains	846-847	0	1	0	0	0	1	0	3	7	2
-Other Sprains & Strains	840-845, 848	0	1	1	0	0	2	0	9	4	1
-Intracranial Injury	850-854	0	0	0	0	0	0	0	0	1	0
-Open Wound Head, Neck, Trunk	870-879	0	0	0	0	1	1	0	0	0	0
-Open Wound Upper Limb	880-887	0	0	0	0	0	0	0	1	1	0
-Open Wound Lower Limb	890-897	0	0	0	0	0	0	1	0	0	1

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

(CONTINUED)

Diagnostic Category	ICD-9-CM Codes	Women		Men		Gender								
						Age Group			Age Group			Age Group		
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	Total
-Superficial Injury	910-919	0	0	0	0	0	0	0	0	0	0	0	0	2
-Contusion	920-924	0	0	3	0	0	3	0	4	0	1	0	5	8
-Burns	940-949	0	0	0	0	0	0	0	0	0	2	0	2	2
-Injury to Nerves & Spinal Cord	950-957	0	0	0	0	0	0	0	1	0	0	0	1	1
-Unspecified Injuries	958-959	0	0	2	0	1	3	0	1	1	0	0	0	5
-Unspecified Effects External Causes	990-995	0	0	1	0	0	1	0	0	0	0	0	0	2
-Complications of Surgical/Medical Care	996-999	0	0	0	0	0	0	0	0	0	0	0	0	1
HEALTH STATUS/HEALTH SERVICE CONTACT	V01-V82	0	1	0	2	0	3	0	0	0	1	0	1	4
-Specific Procedure/Aftercare	V50-V59	0	1	0	1	0	2	0	0	0	1	0	1	3
-Examinations & Investigations	V70-V82	0	0	0	1	0	1	0	0	0	0	0	0	1
Total		18	61	66	32	10	187	16	78	104	75	60	333	520

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

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

Diagnostic Category	Gender									
	Women					Men				
	Age Group		Age Group		Age Group		Age Group		Age Group	
	16 - 29	30 - 39	40 - 49	50 - 59	60 + Total	16 - 29	30 - 39	40 - 49	50 - 59	60 + Total
Infectious & Parasitic Diseases	0	17	15	0	0	32	0	0	16	0
Malignant Neoplasms	0	0	27	0	0	27	0	0	0	48
Benign & Other Neoplasms	0	0	62	21	0	83	0	8	6	11
Endocrine & Metabolic Diseases	0	8	11	0	0	19	0	0	8	0
Blood & Blood-Forming Organs	0	12	0	0	0	12	0	0	0	0
Mental Disorders	0	52	29	58	0	139	0	0	0	25
Nervous System & Sense Organs	0	55	35	23	27	140	11	66	77	50
Circulatory System	0	0	0	305	0	305	0	35	45	266
Respiratory System	11	84	99	70	0	264	58	153	223	115
Digestive System	36	53	43	118	16	266	8	75	157	171
Genitourinary System	52	85	173	0	92	402	0	38	16	82
Pregnancy & Childbirth	423	727	0	0	0	1150	0	0	0	0
Skin & Subcutaneous Tissue	9	0	15	8	0	32	15	8	28	0
Musculoskeletal System	9	166	163	31	226	595	40	287	452	79
Congenital Anomalies	0	0	41	0	0	41	0	0	0	14

* Absences with >1 ICD-9-CM code in the same category were counted only once.

(CONTINUED)

Diagnostic Category	Gender											
	Women					Men						
	Age Group		Age Group		Age Group		Age Group		Age Group			
	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total
Symptoms, Signs, & Ill-Defined Cond.	0	56	20	0	0	76	0	8	9	81	25	123
Injury and Poisoning	0	25	87	25	56	193	0	415	215	163	97	890
Health Status/Health Service Contact	0	14	0	52	0	66	0	0	0	25	0	25

* Absences with >1 ICD-9-CM code in the same category were counted only once.

Diagnostic Category	Gender										Occupational Group										
	Women					Men					Occupational Group					Occupational Group					
	Office- Engi- neer- ing, Man- ag- ing, Scie- ntif- ic, and Tech- ni- cal Admi- nistr- a- tion	Engi- neer- ing, Man- ag- ing, Scie- ntif- ic, and Tech- ni- cal Admi- nistr- a- tion	Prod- ucti- on	Mat- erial Hand- lers	Tech- ni- cal Hand- lers	Mat- erial Hand- lers	Tech- ni- cal Hand- lers	Mat- erial Hand- lers	Office- Engi- neer- ing, Man- ag- ing, Scie- ntif- ic, and Tech- ni- cal Admi- nistr- a- tion	Tech- ni- cal Hand- lers	Tech- ni- cal Hand- lers	Prod- ucti- on	Craft and Tech- ni- cal Hand- lers	Secu- rity	Secu- rity	Prod- ucti- on	Craft and Tech- ni- cal Hand- lers	Secu- rity	Prod- ucti- on		
INFECTIOUS & PARASITIC DISEASES	001-139	1	0	1	0	0	0	3	0	1	1	1	0	1	0	0	0	0	0	4	7
-Other Viral Diseases & Chlamydiae	070-079	1	0	1	0	0	0	3	0	1	1	1	0	1	0	0	0	0	0	4	7
MALIGNANT NEOPLASMS	140-208, 230-234	0	0	4	0	0	0	4	0	0	1	0	0	0	0	0	0	0	0	1	5
-Bone, Connective Tissue, Skin	170-173, 176	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
-Breast	174-175	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
-Genitourinary	179-189	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1
-Other & Unspecified Sites	190, 193-199	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
BENIGN & OTHER NEOPLASMS	210-229, 235-239	3	0	0	0	1	0	4	0	0	0	0	2	0	0	1	0	1	3	7	

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

(CONTINUED)

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

Diagnostic Category	ICD-9-CM Codes	Occupational Group										Gender				
		Women					Men					Occupational Group				
		Office- Engi- neer- ing, Man- a- ge- ment and Sci- entif- ic, Tech- ni- cal and Admi- nist- rati- on on	Engi- neer- ing, Man- a- ge- ment and Sci- entif- ic, Tech- ni- cal and Admi- nist- rati- on on	Prod- ucti- on Tech- ni- cal and Admi- nist- rati- on on	Mat- erial Hand- lers Total	Office- Engi- neer- ing, Man- a- ge- ment and Sci- entif- ic, Tech- ni- cal and Admi- nist- rati- on on	Engi- neer- ing, Man- a- ge- ment and Sci- entif- ic, Tech- ni- cal and Admi- nist- rati- on on	Prod- ucti- on Tech- ni- cal and Admi- nist- rati- on on	Mat- erial Hand- lers Total	Prod- ucti- on Tech- ni- cal and Admi- nist- rati- on on	Mat- erial Hand- lers Total	Total	Total	Total	Total	
ENDOCRINE & METABOLIC DISEASES	240-279	0	0	1	0	0	1	0	2	0	0	0	1	2	2	0
- Thyroid Gland	240-246	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0
- Other Endocrine Glands	250-259	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1
- Other Metabolic & Immunity Disorders	270-279	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0
BLOOD & BLOOD-FORMING ORGANS	280-289	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
MENTAL DISORDERS	290-319	6	0	0	1	0	8	0	0	0	1	0	3	0	0	4
- Psychotic Conditions	290-299	1	0	0	0	0	0	1	0	0	0	0	1	0	0	1
- Non-Psychotic Conditions	300-302, 306-316	5	0	0	0	0	1	0	6	0	0	0	2	0	0	2
- Alcohol Dependence	303	0	0	0	1	0	0	0	1	0	0	0	1	0	0	1

* 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*

Diagnostic Category	ICD-9-CM Codes	Occupational Group										Occupational Group						Gender	
		Women					Men					Women			Men			Men	
		Offi- ce Engi- neer- ing Mana- ging, geme- nt Sci- entif- ic, and ic, Admi- nistr- ative and Tech- nical Heal- th Supp- ort Care	Prod- ucti- on Tech- nici- ans Serv- ice ice Care	Mat- erial Tech- nici- ans Secu- rity	Hand- lers Total														
NERVOUS SYSTEM & SENSE ORGANS	320-389	1	0	2	3	1	3	1	11	5	0	2	0	4	8	2	0	21	32
-Other Disorders of CNS	340-349	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3	3
-Disorders of Peripheral NS	350-359	1	0	0	0	0	2	0	3	1	0	1	0	1	4	1	0	8	11
-Disorders of Eye	360-379	0	0	2	0	0	1	1	4	3	0	1	0	2	2	0	0	8	12
-Diseases of Ear & Mastoid	380-389	0	0	0	3	1	0	0	4	0	0	0	0	1	0	1	0	2	6
CIRCULATORY SYSTEM	390-459	1	0	1	0	1	2	1	6	6	9	1	0	4	3	3	4	30	36
-Hypertensive Disease	401-405	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	1	4	4
-Ischemic Heart Disease	410-414	0	0	0	0	1	2	0	3	5	1	0	0	1	0	2	1	10	13
-Other Heart Disease	420-429	1	0	0	0	0	0	0	1	1	0	0	2	1	0	0	0	5	6
-Diseases of Arteries & Capillaries	440-448	0	0	0	0	0	0	0	1	1	0	1	1	0	1	0	0	3	4

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

Diagnostic Category	Gender									
	Women					Men				
	Occupational Group		Occupational Group							
	Offi- ce Engi- neer- ing, Mana- ge- ment Sci- entif- ic, and Tech- ni- cal Admi- nist- rat- ion and Health Care Sup- port	Engi- neer- ing, Mana- ge- ment Sci- entif- ic, and Tech- ni- cal Admi- nist- rat- ion and Health Care Sup- port	Prod- ucti- on Tech- nici- ans Secu- rity	Mat- erial Tech- nici- ans Hand- lers	Offi- ce Engi- neer- ing, Mana- ge- ment Sci- entif- ic, and Tech- ni- cal Admi- nist- rat- ion and Health Care Sup- port	Engi- neer- ing, Mana- ge- ment Sci- entif- ic, and Tech- ni- cal Admi- nist- rat- ion and Health Care Sup- port	Prod- ucti- on Tech- nici- ans Hand- lers	Craft and Tech- nici- ans Repa- ir Secu- rity	Offi- ce Engi- neer- ing, Mana- ge- ment Sci- entif- ic, and Tech- ni- cal Admi- nist- rat- ion and Health Care Sup- port	Total Total
ICD-9-CM Codes										
-Diseases of Veins, Lymphatics, Other	451-459	0	0	1	0	0	1	0	5	0
RESPIRATORY SYSTEM	460-519	14	0	4	5	3	1	5	32	2
-Acute Respiratory Infections	460-466	8	0	1	3	1	1	2	16	0
-Other Diseases Upper Respiratory Tract	470-478	1	0	1	1	0	1	5	0	0
-Pneumonia and Influenza	480-487	2	0	0	0	0	0	2	0	2
-Chronic Obstructive Diseases	490-496	3	0	1	0	1	0	7	2	0
-Other Respiratory Diseases	510-519	0	0	1	1	0	0	2	0	1
DIGESTIVE SYSTEM	520-579	7	0	2	1	4	4	2	20	6

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

(CONTINUED)

Diagnostic Category	ICD-9-CM Codes	Gender																		
		Women					Men													
		Occupational Group		Occupational Group																
		Office- Engi- neer- ing Man- ag- ing, gene- ral Sci- entif- ic, and Admi- nistr- ative Tech- nical Health- Care Serv- ice Supp- ort Care																		
-Oral Cavity, Saliv Glands, Jaw	520-529	2	0	0	1	0	1	4	0	0	2	1	1	2	0	0	0	6	10	
-Esophagus, Stomach, Duodenum	530-537	2	0	0	0	0	0	2	0	0	0	0	0	0	1	0	1	0	1	3
-Appendicitis	540-543	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	2
-Hernias	550-553	1	0	0	0	0	0	1	1	0	1	0	2	1	1	0	0	6	7	
-Enteritis, Colitis	555-558	0	0	1	0	1	2	1	5	1	0	1	3	0	0	2	2	9	14	
-Other Intestinal Diseases	560-569	0	0	0	1	1	0	2	0	0	1	0	0	2	1	0	0	4	6	
-Other Digestive Diseases	570-579	2	0	1	1	1	0	6	4	1	0	1	0	2	2	2	2	12	18	
GENITOURINARY SYSTEM	580-629	9	0	2	3	2	4	1	21	2	1	2	2	1	2	0	0	10	31	
-Other Urinary Diseases	590-599	1	0	0	0	0	1	0	2	0	0	1	1	0	0	0	0	3	5	
-Male Genital Organs	600-608	0	0	0	0	0	0	0	2	1	1	1	1	0	0	0	7	7		

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

(CONTINUED)

PANTEX 1995
Appendix H.

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

Diagnostic Category	ICD-9-CM Codes	Gender									
		Women					Men				
		Occupational Group		Occupational Group							
Offi- ce Engi- neer- ing, Man- a- ge- ment and Sci- entif- ic, and Admi- nistr- ati- on	Engi- neer- ing, Man- a- ge- ment and Sci- entif- ic, and Admi- nistr- ati- on	Prod- ucti- on Tech- nical Supp- ort Care	Prod- ucti- on Tech- nical Supp- ort Care	Offi- ce Engi- neer- ing, Man- a- ge- ment and Sci- entif- ic, and Admi- nistr- ati- on	Engi- neer- ing, Man- a- ge- ment and Sci- entif- ic, and Admi- nistr- ati- on	Prod- ucti- on Tech- nical Supp- ort Care	Prod- ucti- on Tech- nical Supp- ort Care	Craft and Tech- nical Supp- ort	Craft and Tech- nical Supp- ort	Mat- erial Hand- lers	Total
-Disorders of the Breast	610-611	1	0	0	0	0	1	0	0	0	0
-Pelvic Inflammatory Diseases	614-616	0	0	0	1	0	0	1	0	0	0
-Other Diseases of Females	617-629	7	0	2	3	1	3	17	0	0	0
PREGNANCY & CHILDBIRTH	630-677	16	1	2	0	4	1	0	24	0	0
-Ectopic & Molar Pregnancy	630-633	1	0	0	0	1	0	2	0	0	0
-Other Pregnancy with Abortive Outcome	634-639	0	0	0	1	0	0	1	0	0	0
-Complications of Pregnancy	640-648	3	1	0	0	0	0	4	0	0	0
-Normal Delivery and Care	650-659	11	0	2	0	2	1	0	16	0	0

* 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*

Diagnostic Category	ICD-9-CM Codes	Occupational Group										Occupational Group				Gender	
		Women					Men					Productivity					
		Office- Engineer- ing, Man- age- ment and Sci- entif- ic, Ad- min- istrative and Health- care Supp- ort	Engi- neer- ing, Man- age- ment and Sci- entif- ic, Tech- nical Supp- ort	Prod- ucti- on Tech- nical Supp- ort	Mat- erial Hand- lers	Admi- nistrati- ve and Tech- nical Supp- ort	Office- Engineer- ing, Man- age- ment and Sci- entif- ic, Tech- nical Supp- ort	Engi- neer- ing, Man- age- ment and Sci- entif- ic, Ad- min- istrative and Health- care Supp- ort	Tech- nical Supp- ort	Admi- nistrati- ve and Tech- nical Supp- ort	Craft and Tech- nical Supp- ort	Secu- rity	Repa- ir	Mat- erial Hand- lers	Total	Total	
-Complications of Labor & Delivery	660-669	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
SKIN & SUBCUTANEOUS TISSUE	680-709	0	0	0	1	1	0	3	0	0	1	0	2	0	1	1	5
-Infections	680-686	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
-Other Inflammatory Conditions	690-698	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1
-Other Diseases	700-709	0	0	0	1	0	1	0	2	0	0	0	2	0	1	0	3
MUSCULOSKELETAL SYSTEM	710-739	14	0	3	2	1	0	22	9	1	7	8	12	1	15	8	61
-Arthropathies	710-719	2	0	0	0	1	0	3	2	0	3	0	2	0	3	0	10
-Dorsopathies	720-724	6	0	1	1	2	0	0	10	5	1	4	5	4	1	5	4
-Rheumatism, Excluding Back	725-729	5	0	1	1	0	0	7	1	0	0	3	5	0	4	4	17
-Acquired Deformities	730-739	1	0	1	0	0	0	2	1	0	0	0	1	0	3	0	5

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

(CONTINUED)

Diagnostic Category	ICD-9-CM Codes	Occupational Group										Occupational Group				Gender											
		Women					Men					Occupational Group				Occupational Group											
		Offi- ce Engi- neer- ing, Mana- ge- ment Sci- entif- ic, and Admi- nist- rati- on	Engi- neer- ing, Mana- ge- ment Sci- entif- ic, and Admi- nist- rati- on	Prod- ucti- on Tech- ni- cal Sup- port	Prod- ucti- on Tech- ni- cal Sup- port	Mat- erial Hand- lers	Mat- erial Hand- lers	Tech- ni- cal Sup- port	Tech- ni- cal Sup- port	Admi- nist- rati- on Care	Admi- nist- rati- on Care	Health- care Sup- port	Health- care Sup- port	Sup- port Care	Sup- port Care	Secu- rity	Secu- rity	Offi- ce Engi- neer- ing, Mana- ge- ment Sci- entif- ic, and Admi- nist- rati- on	Offi- ce Engi- neer- ing, Mana- ge- ment Sci- entif- ic, and Admi- nist- rati- on	Engi- neer- ing, Mana- ge- ment Sci- entif- ic, and Admi- nist- rati- on	Engi- neer- ing, Mana- ge- ment Sci- entif- ic, and Admi- nist- rati- on	Prod- ucti- on Tech- ni- cal Sup- port	Prod- ucti- on Tech- ni- cal Sup- port	Craft- and Rep- air	Craft- and Rep- air	Mate- ri- al Hand- lers	Mate- ri- al Hand- lers
CONGENITAL ANOMALIES	740-759	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2							
SYMPOTMS, SIGNS & ILL DEFINED COND.	780-799	4	0	2	0	0	1	0	7	3	0	1	0	2	2	3	1	12	19								
-Symptoms	780-789	4	0	2	0	0	1	0	7	2	0	1	0	2	2	2	1	10	17								
-Non-Specific Abnormal Findings	790-796	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2								
INJURY AND POISONING	800-999	8	0	2	4	0	0	1	15	5	2	8	4	14	12	12	6	63	78								
-Neck and Trunk Fractures	805-809	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1								
-Upper Limb Fractures	810-819	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	2	3								
-Lower Limb Fractures	820-829	1	0	0	0	0	0	1	1	0	1	0	0	0	1	0	3	4									
-Dislocations	830-839	1	0	0	1	0	0	0	2	0	0	0	5	1	2	0	10	12									
-Back Sprains & Strains	846-847	0	0	0	0	0	0	1	1	0	0	3	1	1	3	5	0	13	14								

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

(CONTINUED)

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

Diagnostic Category	ICD-9-CM Codes	Occupational Group										Occupational Group											
		Women					Men					Women					Men						
		Offi- ce Engi- neer- ing, Mana- ge- ment and Sci- entif- ic, Tech- ni- cal Admi- nist- rat- ion and Health Care	Prod- ucti- on Tech- nici- ans	Mate- ri- al Hand- lers	Total																		
-Other Sprains & Strains	840-845, 848	1	0	0	1	0	0	0	2	1	0	1	2	0	1	2	4	4	3	1	16	18	
-Intracranial Injury	850-854	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	
-Open Wound Head, Neck, Trunk	870-879	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
-Open Wound Upper Limb	880-887	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	2	
-Open Wound Lower Limb	890-897	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
-Superficial Injury	910-919	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	2	
-Contusion	920-924	1	0	0	2	0	0	0	3	0	0	0	2	1	1	0	0	1	0	0	1	5	8
-Burns	940-949	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	
-Injury to Nerves & Spinal Cord	950-957	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	
-Unspecified Injuries	958-959	2	0	1	0	0	0	0	3	0	0	0	0	0	1	1	0	0	0	2	2	5	

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

(CONTINUED)

Diagnostic Category	Gender										Total	
	Women					Men						
	Occupational Group		Occupational Group			Occupational Group		Occupational Group				
ICD-9-CM Codes	Office-Engineer- ing, Manag- ement, Scien- tific and Admin- istrative and Health- care	Office-Engineer- ing, Manag- ement, Scien- tific and Admin- istrative and Health- care	Prod- ucti- on Tech- nical Sup- port	Mat- erial Tech- nicians	Mat- erial Hand- lers	Office- Engineer- ing, Manag- ement, Scien- tific and Admin- istrative and Health- care	Office- Engineer- ing, Manag- ement, Scien- tific and Admin- istrative and Health- care	Tech- nical Sup- port	Craft and Repairs	Secu- rity	Total	
-Unspecified Effects External Causes	990-995	0	0	1	0	0	1	0	0	0	0	
-Complications of Surgical/Medical Care	996-999	0	0	0	0	0	0	0	0	0	0	
HEALTH STATUS/HEALTH SERVICE CONTACT	V01-V82	1	0	0	1	0	1	3	1	0	0	
-Specific Procedure/Aftercare	V50-V59	0	0	0	1	0	1	2	1	0	0	
-Examinations & Investigations	V70-V82	1	0	0	0	0	1	0	0	0	0	
Total		86	1	27	21	19	21	12	187	39	16	
											34	
											67	
											53	
											66	
											36	
											333	
											520	

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

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

Diagnostic Category	Occupational Group										Occupational Group							
	Women					Men					Women					Men		
	Engineering	Office Management	Scientific and Technical	Administrative and Health Care	Support Services	Production Technicians	Material Handlers	Administrative Support	Health Care	Total	Engineering	Office Management and Scientific	Administrative and Technical Support	Health Care	Craft and Security	Service and Repair	Production Technicians	Material Handlers
Infectious & Parasitic Diseases	9	0	8	15	0	0	0	32	0	29	163	8	0	8	0	0	0	208
Malignant Neoplasms	0	0	27	0	0	0	0	27	0	0	48	0	0	0	0	0	0	48
Benign & Other Neoplasms	71	0	0	0	0	12	0	83	0	0	0	0	0	17	0	0	0	25
Endocrine & Metabolic Diseases	0	0	8	0	0	11	0	19	0	0	0	0	0	8	27	47	0	82
Blood & Blood-Forming Organs	0	0	12	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0
Mental Disorders	71	0	0	52	0	16	0	139	0	0	0	0	9	0	16	0	0	25
Nervous System & Sense Organs	8	0	26	28	11	55	12	140	26	0	22	0	72	80	26	0	226	
Circulatory System	88	0	8	0	89	81	39	305	150	79	67	0	52	107	25	88	568	
Respiratory System	81	0	41	57	30	8	47	264	18	0	65	30	119	93	165	85	575	
Digestive System	111	0	20	25	48	44	18	266	70	40	113	30	67	133	120	45	618	
Genitourinary System	208	0	8	46	29	100	11	402	10	50	22	19	27	16	0	0	144	
Pregnancy & Childbirth	852	61	110	0	79	48	0	1150	0	0	0	0	0	0	0	0	0	

* Absences with >1 ICD-9-CM code in the same diagnostic category were counted only once.

(CONTINUED)

Diagnostic Category	Occupational Group										Gender						
	Women					Men					Men		Women				
	Occupational Group					Occupational Group					Office- Engin- eerin- g, Manag- ement Scienc- e and Tech- nical Admin- istrative Health Care Suppor- t						
Skin & Subcutaneous Tissue	0	0	15	9	8	0	32	0	0	9	0	27	0	19	8	63	
Musculoskeletal System	511	0	42	8	18	16	0	595	334	41	157	76	221	15	245	51	1140
Congenital Anomalies	41	0	0	0	0	0	0	41	0	0	0	0	14	0	0	0	14
Symptoms, Signs, & Ill-Defined Cond.	32	0	33	0	0	11	0	76	46	0	11	0	17	17	17	15	123
Injury and Poisoning	128	0	16	38	0	0	11	193	85	55	111	38	255	140	111	95	890
Health Status/Health Service Contact	8	0	0	0	14	0	44	66	25	0	0	0	0	0	0	0	25

* Absences with >1 ICD-9-CM code in the same diagnostic category were counted only once.

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

Diagnostic Category	Office Management & Administration				Engineering, Scientific & Health Care				Technical Support			
	1,233 Person-Years		452 Person-Years		489 Person-Years		489 Person-Years		489 Person-Years		489 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 Diagnostic Categories	98	0.5	0.4	0.6	10	0.2	0.1	0.4	46	0.9	0.6	1.2
Nervous System and Sense Organs	3	0.2	0.1	0.5	0				4	1.0	0.4	3.0
Circulatory System	6	0.4	0.2	1.0	4	1.4	0.5	4.1	2	0.5	0.1	2.0
Respiratory System	12	0.2	0.1	0.5	0				6	0.5	0.2	1.2
Digestive System	12	0.4	0.2	0.7	2	0.3	0.1	1.2	7	0.8	0.4	1.9
Genitourinary System	10	0.7	0.3	1.7	1	0.4	0.05	2.6	3	0.8	0.2	2.5
Musculoskeletal System	20	0.6	0.3	1.1	1	0.1	0.05	0.8	10	1.0	0.5	2.0
Symptoms, Signs, and Ill-Defined Conditions	6	0.8	0.3	2.2	0				3	1.3	0.4	4.9
Injury and Poisoning	12	0.4	0.2	0.8	2	0.2	0.1	1.0	8	1.0	0.5	2.0
Injury and Poisoning: Dislocations	3	0.6	0.2	2.7	0				0			
Injury and Poisoning: Back Sprains and Strains	0				0				3	2.2	0.6	8.1
Injury and Poisoning: Other Sprains and Strains	2	0.3	0.1	1.3	0				1	0.4	0.1	3.2

Diagnostic Category	Service				410 Person-Years				Security			
	117 Person-Years		410 Person-Years		410 Person-Years		410 Person-Years		410 Person-Years		410 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 Diagnostic Categories	30	2.5	1.7	3.6	66	2.1	1.6	2.8				
Nervous System and Sense Organs	3	3.3	1.0	10.8	5	2.3	0.8	6.1				
Circulatory System	0				4	2.4	0.9	6.9				
Respiratory System	6	2.3	1.0	5.4	16	2.1	1.2	3.6				
Digestive System	4	2.0	0.7	5.5	10	2.1	1.0	4.4				
Genitourinary System	3	4.4	1.3	15.1	3	1.6	0.4	5.7				
Musculoskeletal System	7	3.2	1.4	6.9	14	2.2	1.2	4.0				
Symptoms, Signs, and Ill-Defined Conditions	0				1	0.8	0.1	5.8				
Injury and Poisoning	6	3.0	1.3	7.0	13	1.9	1.0	3.6				
Injury and Poisoning: Dislocations	1	2.3	0.3	19.2	5	4.8	1.4	16.7				
Injury and Poisoning: Back Sprains and Strains	1	2.9	0.4	22.0	1	0.5	0.1	4.6				
Injury and Poisoning: Other Sprains and Strains	2	4.2	0.9	18.9	4	2.0	0.6	6.6				

* 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.

(CONTINUED)

Among Five-Day Absences

Diagnostic Category	Craft & Repair 265 Person-Years				Production Technicians 311 Person-Years				Material Handlers 121 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 Diagnostic Categories	34	1.3	0.9	1.9	54	1.8	1.3	2.4	27	2.3	1.6	3.5
Nervous System and Sense Organs	6	4.3	1.6	11.9	5	2.4	0.9	6.3	1	1.1	0.1	8.2
Circulatory System	3	1.1	0.3	3.9	4	1.3	0.4	3.8	5	6.9	2.6	18.4
Respiratory System	10	1.8	0.9	3.6	15	2.6	1.4	4.6	13	5.5	3.0	9.9
Digestive System	6	1.3	0.6	3.2	11	2.2	1.1	4.4	6	3.4	1.4	7.8
Genitourinary System	2	1.8	0.4	8.9	2	1.1	0.2	5.0	1	1.4	0.2	9.8
Musculoskeletal System	1	0.2	0.02	1.1	12	2.0	1.1	3.9	5	2.2	0.9	5.5
Symptoms, Signs, and Ill-Defined Conditions	2	1.8	0.4	8.3	3	2.5	0.7	9.0	1	2.1	0.3	16.1
Injury and Poisoning	8	1.5	0.7	3.1	8	1.4	0.7	3.0	5	2.2	0.9	5.5
Injury and Poisoning: Dislocations	1	0.9	0.1	7.0	2	1.8	0.4	7.7	0			12
Injury and Poisoning: Back Sprains and Strains	2	1.6	0.3	7.7	4	4.8	1.4	16.0	1	2.3	0.3	17.3
Injury and Poisoning: Other Sprains and Strains	3	2.1	0.6	7.7	3	2.5	0.7	8.8	1	1.6	0.2	12.2
												16

* 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.

Appendix K: Occupational Sentinel Health Events (SHEO)

The following two tables list the disease conditions that have been identified as definite SHEOs or as possibly SHEOs, respectively (Rutstein DD 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, these two SHEO categories have been evaluated taking into account workplace exposures in the DOE complex to define two additional groups of health conditions called *production* and *nonproduction*. These are designated 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. There are 11 conditions in this group.

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
354.0	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

Health Conditions - Possibly SHEOs		
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

(CONTINUED)

Health Conditions - Possibly SHEOs (continued)		
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	

Appendix B: Number of Workers with at Least One OSHA Event by Gender, Age, and Occupation

		Gender													
		Women					Men								
		Age Group		Age Group			Age Group		Age Group			Age Group		Age Group	
16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59
Occupational Group															
Office Management and Administration	0	2	3	3	0	8	1	1	1	2	0	5	13		
Engineering, Scientific, and Health Care	1	0	1	0	0	2	1	0	0	0	0	1	3		
Technical Support	1	3	4	1	0	9	1	1	1	1	2	6	15		
Service	0	2	2	3	1	8	0	3	2	3	0	8	16		
Security	2	0	2	0	0	4	0	18	9	4	0	31	35		
Craft and Repair	0	0	1	0	0	1	0	12	10	3	2	27	28		
Production Technicians	1	3	2	1	1	8	1	3	3	2	5	14	22		
Material Handlers	0	0	0	1	0	1	3	9	3	4	0	19	20		
Total	5	10	15	9	2	41	7	47	29	19	9	111	152		

	Gender		Total						
	Women	Men	Days Restricted	# of Events	Days Restricted	# of Events	Days Lost	Days Restricted	Days Lost
Age Group	# of Restricted Events	Days Lost	# of Events	Days Lost	# of Events	Days Lost	Days Restricted	Days Lost	
16 - 29	5	10	1	7	26	0	12	36	1
30 - 39	10	102	29	53	200	19	63	302	48
40 - 49	17	293	8	30	99	96	47	392	104
50 - 59	9	164	56	21	163	13	30	327	69
60 +	2	30	0	9	102	31	11	132	31
Total	43	599	94	120	590	159	163	1189	253

Appendix N: Total Number of Work Days Lost or with Restricted Activity from OSHA Events by Gender and Occupation

	Gender		Total						
	Women	Men	# of Events	Days Restricted	# of Events	Days Lost	# of Events	Days Restricted	Days Lost
Occupational Group									
Office Management and Administration	9	8	17	5	3	0	14	11	17
Engineering, Scientific, and Health Care	2	0	1	1	0	0	3	0	1
Technical Support	9	90	23	6	117	56	15	207	79
Service	8	92	25	8	18	0	16	110	25
Security	4	0	0	35	34	18	39	34	18
Craft and Repair	1	107	0	28	154	16	29	261	16
Production Technicians	9	177	0	16	90	67	25	267	67
Material Handlers	1	125	28	21	174	2	22	299	30
Total	43	599	94	120	590	159	163	1189	253

Diagnostic Category	ICD-9-CM Codes	Gender										Total
		Women					Men					
		Age Group			Age Group			Age Group				
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +
MENTAL DISORDERS	280-319	0	2	0	0	0	2	0	0	0	0	0
-Non-Psychotic Conditions	300-302, 306-316	0	2	0	0	0	2	0	0	0	0	2
NERVOUS SYSTEM & SENSE ORGANS	320-389	0	1	0	2	0	3	0	4	0	0	4
-Other Disorders of CNS	340-349	0	0	0	0	0	0	1	0	0	0	1
-Disorders of Peripheral NS	350-359	0	1	0	2	0	3	0	2	0	0	5
-Disorders of Eye	360-379	0	0	0	0	0	0	0	1	0	0	1
RESPIRATORY SYSTEM	460-519	0	1	1	0	0	2	0	0	0	1	3
-Acute Respiratory Infections	460-466	0	0	1	0	0	1	0	0	0	0	1
-Other Diseases Upper Respiratory Tract	470-478	0	1	0	0	0	1	0	0	0	1	2
SKIN & SUBCUTANEOUS TISSUE	680-709	1	0	0	0	0	1	0	2	2	0	4
-Other Inflammatory Conditions	690-698	1	0	0	0	0	1	0	2	2	0	4

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

(CONTINUED)

Diagnostic Category	ICD-9-CM Codes	Gender										Total	
		Women					Men						
		Age Group		Age Group			Age Group		Age Group				
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	
MUSCULOSKELETAL SYSTEM	710-739	0	1	6	5	2	14	1	8	2	4	0	
-Arthropathies	710-719	0	0	0	1	0	1	0	1	0	1	0	
-Dorsopathies	720-724	0	1	0	1	0	2	1	1	0	0	0	
-Rheumatism, Excluding Back	725-729	0	0	6	3	2	11	0	6	1	3	0	
-Acquired Deformities	730-739	0	0	0	0	0	0	0	0	1	0	1	
SYMPOMS, SIGNS & ILL-DEFINED COND.	780-799	0	0	0	0	0	0	0	2	0	0	0	
-Symptoms	780-789	0	0	0	0	0	0	0	0	0	0	0	
INJURY AND POISONING	800-999	6	7	14	10	2	39	7	46	28	23	10	
-Upper Limb Fractures	810-819	0	0	0	0	0	0	0	2	0	0	0	
-Dislocations	830-839	1	0	0	0	0	1	0	1	0	0	1	
-Back Sprains & Strains	846-847	1	1	2	3	0	7	2	11	5	3	0	
-Other Sprains & Strains	840-845, 848	0	2	5	2	1	10	2	16	8	7	2	
-Open Wound Head, Neck, Trunk	870-879	0	0	0	1	0	1	0	1	2	0	0	

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

(CONTINUED)

Diagnostic Category	ICD-9-CM Codes	Gender										Total	
		Women					Men						
		Age Group		Age Group			Age Group			Age Group			
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	29	30 - 39	40 - 49	50 - 59	60 +	Total
-Open Wound Upper Limb	880-887	0	1	1	0	3		2	3	2	5	3	15
-Open Wound Lower Limb	890-897	0	0	0	0	0		0	0	1	0	1	1
-Superficial Injury	910-919	0	0	0	0	0		0	2	2	0	0	4
-Contusion	920-924	1	2	2	1	1		7	0	5	2	2	17
-Crushing Injury	925-929	0	0	0	1	0		1	0	0	0	0	1
-Foreign Body Entering Orifice	930-939	0	0	0	0	0		0	1	2	0	0	3
-Burns	940-949	0	0	1	0	0		1	0	3	2	0	1
-Unspecified Injuries	950-959	0	1	1	0	0		2	0	0	0	0	2
-Toxic Effects	980-989	1	0	1	1	0		3	1	0	1	1	6
Nonmedical Substances													7
-Unspecified Effects	990-995	2	0	1	0	0		3	0	2	2	1	5
External Causes													8
Total		7	12	21	17	4		61	8	62	32	28	10
													201

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

Diagnostic Category	Gender											
	Women						Men					
	Age Group			Age Group			Age Group			Age Group		
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +	
	Days Res-trict- ed											
-Disorders of Peripheral NS	350-359	0	0	5	0	0	0	0	0	0	0	0
-Acute Respiratory Infections	460-466	0	0	0	10	0	0	0	0	0	0	0
-Other Inflammatory Conditions	690-698	10	0	0	0	0	0	0	0	0	0	0
-Arthropathies	710-719	0	0	0	0	0	0	0	0	0	0	0
-Dorsopathies	720-724	0	0	0	0	11	24	0	18	0	0	0
-Rheumatism, Excluding Back	725-729	0	0	0	132	0	35	24	30	0	0	0
-Upper Limb Fractures	810-819	0	0	0	0	0	0	0	0	2	0	0
-Dislocations	830-839	0	1	0	0	0	0	0	0	5	0	0
-Back Sprains & Strains	846-847	0	0	0	4	0	15	24	0	5	0	0
-Other Sprains & Strains	840-845, 848	0	35	23	164	8	24	0	0	3	0	74
-Open Wound Head, Neck, Trunk	870-879	0	0	0	0	0	4	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 with at least one occurrence appear in this table.

Diagnostic Category	ICD-9-CM Codes	Age Group										Age Group									
		Women					Men					Women					Men				
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	16 - 29	30 - 39	40 - 49	50 - 59	60 +	16 - 29	30 - 39	40 - 49	50 - 59	60 +	16 - 29	30 - 39	40 - 49	50 - 59	60 +
-Open Wound Upper Limb	880-887	0	0	0	0	0	125	28	0	0	0	0	0	25	0	0	0	53	1	0	0
-Open Wound Lower Limb	890-897	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0
-Superficial Injury	910-919	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
-Contusion	920-924	0	0	11	1	4	0	0	0	0	0	0	0	26	4	0	0	21	0	0	0
-Crushing Injury	925-929	0	0	0	0	0	125	28	0	0	0	0	0	0	0	0	0	0	0	0	0
-Burns	940-949	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0
-Unspecified Injuries	958-959	0	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Toxic Effects	980-989	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	6	0	0	0
-Nonmedical Substances																					
-Unspecified Effects	990-995	10	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
-External Causes																					

* OSHA events 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.

Type of Accident	E Codes	Gender									
		Women					Men				
		Age Group		Age Group							
		16 - 29	30 - 39	40 - 49	50 - 59	Total 29	16 - 39	30 - 49	40 - 59	50 - 59	60 + Total
Motor Vehicle Traffic	E810-E819	0	0	0	0	0	0	1	0	0	0
Motor Vehicle Nontraffic	E820-E825	1	0	0	0	1	0	0	0	0	0
Other Road Vehicle	E826-E829	0	0	0	0	0	0	1	0	0	0
Accidental Poisoning by Other Substances	E860-E869	1	0	1	0	2	1	0	1	0	2
Falls	E880-E888	1	0	2	1	4	0	3	1	0	4
Natural/Environmental Factors	E900-E909	0	0	0	1	1	0	3	3	2	1
Submersion/Suffocation- /Foreign Bodies	E910-E915	0	0	0	0	0	0	1	1	0	0
Other Accidents	E916-E928	1	2	5	1	9	2	19	13	8	2
Adverse Effect of Therapeutic Drug	E930-E949	0	0	1	0	1	0	0	1	0	1

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

Type of Accident	E Codes	Gender											
		Women						Men					
		Age Group		Age Group		Age Group		Age Group		Age Group		Age Group	
		16 - 29	30 - 39	40 - 49	50 - 59	16 - 29	30 - 39	40 - 49	50 - 59	16 - 29	30 - 39	40 - 49	50 +
		Days Rest- strict- ed	Days Lost										
Motor Vehicle Traffic	E810-E819	0	0	0	0	0	0	0	0	11	4	0	0
Falls	E880-E888	0	1	0	4	0	0	0	0	8	3	0	0
Natural/Environmental Factors	E900-E909	0	0	0	0	0	4	0	0	1	0	6	0
Other Accidents	E916-E928	0	0	67	1	147	8	4	0	3	0	85	8
												68	97
												10	102
												31	

* 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.

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

Diagnostic Category	ICD-9-CM Codes	Occupational Group										Occupational Group				Gender	
		Women					Men					Men				Men	Women
		Offi- ce Engi- neer- ing, Man- a- ge- ment and Admi- nistrati- on	Man- a- ge- ment and Tech- ni- cal and Heal- th Sup- port	Sci- entif- ic, Tech- ni- cal and Heal- th Sup- port	Prod- ucti- on Craft and Tech- ni- cians	Prod- ucti- on Craft and Tech- ni- cians	Offi- ce Engi- neer- ing, Man- a- ge- ment and Tech- ni- cians	Engi- neer- ing, Man- a- ge- ment and Tech- ni- cians	Prod- ucti- on Craft and Tech- ni- cians	Prod- ucti- on Craft and Tech- ni- cians	Prod- ucti- on Craft and Tech- ni- cians	Prod- ucti- on Craft and Tech- ni- cians	Prod- ucti- on Craft and Tech- ni- cians	Total			
MENTAL DISORDERS	290-319	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
-Non-Psychotic Conditions	300-302, 306-316	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
NERVOUS SYSTEM & SENSE ORGANS	320-389	3	0	0	0	0	0	0	3	2	0	0	0	2	0	0	4
-Other Disorders of CNS	340-349	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
-Disorders of Peripheral NS	350-359	3	0	0	0	0	0	0	3	2	0	0	0	0	0	0	2
-Disorders of Eye	360-379	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
RESPIRATORY SYSTEM	460-519	0	0	1	0	0	1	0	2	0	0	0	0	1	0	0	1
-Acute Respiratory Infections	460-466	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0

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

(CONTINUED)

Diagnostic Category	ICD-9-CM Codes	Gender										Occupational Group														
		Women					Men					Office-Engineering, Management, Scientific, and Technical					Production, Technical, Health Support					Production, Technical, Handlers				
		Offi-ce	Engi-neer-ing	Man-a-gement	Sci-entif-ic	Produc-tion	Craft and Tech-nical	Mat-erial Hand-lers	Mat-erial Hand-lers	Secu-rity	Serv-ice	Secu-rity	Craft and Repa-ir	Secu-rity	Secu-rity	Secu-rity	Secu-rity	Secu-rity	Secu-rity	Secu-rity	Total	Total	Total	Total	Total	
-Other Diseases Upper Respiratory Tract	470-478	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	
SKIN & SUBCUTANEOUS TISSUE	680-709	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	1	1	1	0	4	0	4	
-Other Inflammatory Conditions	690-698	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	1	1	1	0	4	0	4
MUSCULOSKELETAL SYSTEM	710-739	5	0	3	0	1	2	0	14	1	0	2	1	4	2	1	4	2	1	4	15	15	15	15	15	
-Arthropathies	710-719	1	0	0	0	0	0	0	1	0	0	1	0	1	0	1	0	1	0	0	0	0	0	2	2	
-Dorsopathies	720-724	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	1	2	2	
-Rheumatism, Excluding Back	725-729	4	0	2	2	0	1	2	0	11	1	0	1	1	2	1	1	2	1	1	3	10	10	10		
-Acquired Deformities	730-739	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1		

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

OSHA DATA	Number of Health Conditions	Number of Diagnostic Category	Gender	Occupation*
Amended	1	1	1	1
Original	1	1	1	1
Amended	1	1	1	1
Original	1	1	1	1

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

(CONTINUED)

Diagnostic Category	ICD-9-CM Codes	Occupational Group										Occupational Group				Gender	
		Women					Men					Occupational Group				Men	
		Offi- ce Engi- neer- ing Man- ag- eme- nt Scie- ntif- ic and Admi- nistr- ati- on	Engi- neer- ing Man- ag- eme- nt Scie- ntif- ic and Tech- nical Heal- th Supp- ort Care	Prod- ucti- on Craft and Tech- nical Repa- ir Serv- ice Secu- rity	Offi- ce Engi- neer- ing Man- ag- eme- nt Scie- ntif- ic and Tech- nical Heal- th Supp- ort Care	Offi- ce Engi- neer- ing Man- ag- eme- nt Scie- ntif- ic and Tech- nical Heal- th Supp- ort Care	Offi- ce Engi- neer- ing Man- ag- eme- nt Scie- ntif- ic and Tech- nical Heal- th Supp- ort Care	Prod- ucti- on Craft and Tech- nical Repa- ir Serv- ice Secu- rity	Offi- ce Engi- neer- ing Man- ag- eme- nt Scie- ntif- ic and Tech- nical Heal- th Supp- ort Care	Prod- ucti- on Craft and Tech- nical Repa- ir Serv- ice Secu- rity	Total	Total	Total	Total	Total	Total	
-Open Wound Lower Limb	890-897	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
-Superficial Injury	910-919	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4
-Contusion	920-924	1	0	1	2	1	0	2	0	7	0	0	0	4	2	2	10
-Crushing Injury	925-929	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
-Foreign Body Entering Orifice	930-939	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
-Burns	940-949	0	0	0	1	0	0	0	1	0	0	0	0	1	4	1	6
-Unspecified Injuries	958-959	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0
-Toxic Effects Nonmedical Substances	980-989	1	0	0	0	0	0	2	0	3	0	0	1	0	0	4	0
-Unspecified Effects External Causes	990-995	0	0	1	0	1	0	1	0	3	0	0	1	3	0	2	6
Total		15	2	14	11	4	1	12	2	61	8	1	7	9	40	33	17
																	140

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

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

Diagnostic Category	ICD-9-CM Codes	Occupational Group												Occupational Group														
		Women						Men						Women						Men								
		Gander		Gander		Gander		Gander		Gander		Gander		Gander		Gander		Gander		Gander		Gander		Gander				
		Office Management, Adminstration	Engineering, Scientific, and Technical	Health Care	Technical Support	Service	Security	Craft and Repair	Producti- on Technicians	Producti- on Material Handlers	Office Management, Adminstration	Engineering, Scientific, and Technical	Health Care	Technical Support	Service	Security	Craft and Repair	Producti- on Technicians	Producti- on Material Handlers	Office Management, Adminstration	Engineering, Scientific, and Technical	Health Care	Technical Support	Service	Security	Craft and Repair	Producti- on Technicians	Producti- on Material Handlers
Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	
Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted	Res- tri- cted		
Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost	Lost
-Disorders of Peripheral Ns	350-359	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Acute Respiratory Infections	460-466	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Inflammatory Conditions	690-698	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Arthropathies	710-719	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Dorsopathies	720-724	0	0	0	0	11	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
-Rheumatism, Excluding Back	725-729	8	0	0	0	41	0	11	24	0	0	107	0	30	0	0	0	0	0	7	0	0	0	0	0	0	0	0
-Upper Limb Fractures	810-819	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	27	0	0	26
																											1	

* OSHA events 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)

Diagnostic Category	ICD-9-CM Codes	Occupational Group												Occupational Group												
		Women						Men						Women						Men						
		Gender		Occupational Group										Gender		Occupational Group										
Office-Management-ment and Adminis-tration	Engineering, Scientific-ic, and Health Care	Office-Management-ment and Adminis-tration	Engineering, Scientific-ic, and Health Care	Producti-on Technicians	Producti-on Technicians	Craft and Repair	Craft and Repair	Material Handlers	Material Handlers	Office-Management-ment and Adminis-tration	Office-Management-ment and Adminis-tration	Engineering, Scientific-ic, and Health Care	Engineering, Scientific-ic, and Health Care	Office-Management-ment and Adminis-tration	Office-Management-ment and Adminis-tration	Producti-on Technicians	Producti-on Technicians	Craft and Repair	Craft and Repair	Material Handlers	Material Handlers	Producti-on Technicians	Producti-on Technicians	Material Handlers	Material Handlers	
Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted	Days Res-trict-cted		
-Dislocations	830-839	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Back Sprains & Strains	846-847	0	0	0	4	0	15	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Sprains & Strains	840-845, 848	0	8	0	76	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Open Wound Head, Neck, Trunk	870-879	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Open Wound Upper Limb	880-887	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Open Wound Lower Limb	890-897	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Superficial Injury	910-919	0	0	0	0	0	0	0	0	0	0	0	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 with at least one occurrence appear in this table.

(CONTINUED)

Diagnostic Category	Gender												Occupational Group													
	Women						Men						Product-on Technicians						Craft and Repair							
	Occupational Group			Product-on Technicians			Craft and Repair			Office Management and Administration			Engineering, Scientific, and Health Care			Technical Support			Service Security			Craft and Repair			Product-on Technicians	
	Office Management, Scientific, and Health Care	Technical Support	Product-on Technicians	Craft and Repair	Security	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost				
	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	Days Res-trict Lost	
-Contusion	0	0	4	0	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Crushing Injury	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Burns	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Unspecified Injuries	958-959	0	0	0	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Toxic Effects Nonmedical Substances	980-989	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Unspecified Effects External Causes	990-995	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0

* OSHA events 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.

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

Type of Accident	E Codes	Occupational Group										Occupational Group					
		Women					Men					Women			Men		
		Offi- ce Engi- neer- ing, Man- a- ge- ment Sci- entif- ic, and Tech- ni- cal Admi- nist- rat- ive Heal- th Supp- ort Care	Prod- ucti- on Tech- nici- ans	Prod- ucti- on Tech- nici- ans	Offi- ce Man- a- ge- ment and Admi- nist- rat- ive Tech- nical Supp- ort Care												
Motor Vehicle Traffic	E810-E819	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Motor Vehicle Nontraffic	E820-E825	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
Other Road Vehicle	E826-E829	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Accidental Poisoning by Other Substances	E860-E869	0	0	0	0	2	2	0	0	0	0	0	0	4	0	4	4
Falls	E880-E888	0	1	2	0	0	1	4	1	0	0	2	0	0	1	4	4
Natural/Environmental Factors	E900-E909	1	0	0	0	0	1	0	1	3	1	4	0	0	9	0	9
Submersion/Suffocation- /Foreign Bodies	E910-E915	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
Other Accidents	E916-E928	1	0	0	4	2	2	9	2	2	3	12	12	3	10	44	44
Adverse Effect of Therapeutic Drug	E930-E949	0	0	0	1	0	1	0	1	0	0	0	0	0	0	1	1

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

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OSHA DATA
Appendix V. Number of Work Days Lost or With Restricted Activity in Each Accident Category by Gender and Occupation*

Type of Accident	Occupational Group										Occupational Group						
	Women					Men					Women			Men			
	Office Management	Engineering, Scientific, and Health Care	Technical Support	Production Technicians	Security	Office Management	Administrative Support	Technical Support	Service	Security	Craft and Repair	Production Technicians	Material Handlers	Production Technicians	Material Handlers	Production Technicians	
Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	
Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed		
Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	Days	
Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	Res-trict- ed	
E Codes																	
Motor Vehicle Traffic	E810-E819	0	0	0	0	0	0	0	0	0	0	0	0	11	4	0	0
Falls	E880-E888	0	0	0	1	4	0	0	0	0	0	0	0	3	0	0	0
Natural Environmental Factors	E900-E909	0	4	0	0	0	0	0	0	0	0	6	0	2	0	0	0
Other Accidents	E916-E928	0	8	0	0	0	71	1	0	147	0	31	12	0	10	8	92
																	2

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

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

Diagnostic Category	Office Management and Administration				Engineering, Scientific, and Health Care				Technical Support				
	1,293 Person-Years	Persons with 1+ Event*	RR**	Lower 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***
All Diagnostic Categories	13	0.1	0.2	0.1	3	0.1	0.04	0.4	15	0.7	0.4	0.4	1.2
Musculoskeletal System	4	0.2	0.1	0.8	0				5	1.9	0.7	5.1	
Injury and Poisoning	7	0.1	0.04	0.2	3	0.2	0.1	0.5	14	0.8	0.4	1.4	
Injury and Poisoning: Back Sprains and Strains	0				1	0.3	0.04	1.7	3	0.8	0.2	2.7	
Injury and Poisoning: Other Sprains and Strains	5	0.2	0.1	0.5	0				6	1.0	0.4	2.5	
Injury and Poisoning: Open Wound Upper Limb	1	0.1	0.01	0.7	1	0.3	0.04	3.2	2	0.8	0.2	3.4	
Injury and Poisoning: Contusion	1	0.1	0.01	0.7	0				1	0.4	0.1	3.1	

Diagnostic Category	Service				Security				410 Person-Years				
	117 Person-Years	Persons with 1+ Event*	RR**	Lower 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***
All Diagnostic Categories	16	3.3	1.9	5.6	35	2.3	1.5	1.5	3.4				
Musculoskeletal System	3	3.7	1.1	12.8	3	1.5	0.4	5.7					
Injury and Poisoning	13	3.3	1.8	5.9	29	2.2	1.5	1.5	3.5				
Injury and Poisoning: Back Sprains and Strains	2	2.2	0.5	10.2	7	2.5	1.0	6.1					
Injury and Poisoning: Other Sprains and Strains	2	1.3	0.3	5.6	10	2.2	1.0	4.7					
Injury and Poisoning: Open Wound Upper Limb	2	3.3	0.8	13.9	1	0.5	0.1	1.0					
Injury and Poisoning: Contusion	2	4.0	0.9	18.4	5	4.4	1.4	13.8					

Diagnostic Category	Craft and Repair				Production Technicians				Material Handlers				Total Persons with 1+ Event
	285 Person-Years	Persons with 1+ Event*	RR**	Lower 95% CI***	311 Person-Years	Persons with 1+ Event*	RR**	Lower 95% CI***	121 Person-Years	Persons with 1+ Event*	RR**	Lower 95% CI***	
All Diagnostic Categories	28	2.6	1.7	4.0	22	1.7	1.1	2.7	20	4.0	2.5	6.5	152
Injury and Poisoning	25	2.7	1.7	4.3	18	1.7	1.0	2.7	18	4.5	2.7	7.4	127
Musculoskeletal System	2	1.5	0.4	6.4	2	1.1	0.2	5.0	3	3.9	1.2	13.2	22
Injury and Poisoning: Back Sprains and Strains	3	1.4	0.4	4.8	5	2.4	0.9	6.5	6	7.1	2.9	17.5	27
Injury and Poisoning: Other Sprains and Strains	3	2.4	1.1	5.3	4	1.0	0.4	2.7	9	6.5	3.1	13.7	44
Injury and Poisoning: Open Wound Upper Limb	4	3.1	1.0	10.0	3	1.8	0.5	6.2	4	8.8	2.8	28.4	18
Injury and Poisoning: Contusion	2	2.0	0.4	9.4	3	2.4	0.7	7.9	2	4.1	0.9	18.5	16

* 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.