1995

Annual Epidemiologic
Surveillance Report for

Hanford Site

Analyze and
Report Findings

This report is issued by the Office of Epidemiologic Studies, U.S. Department of Energy.
Questions or comments may be directed to:

Dr. Cliff Strader
U.S. Department of Energy
Office of Epidemiologic Studies
Mail Stop: 270CC/EH-62
19901 Germantown Road
Germantown, MD 20874-1290

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:

<http://tis-nt.eh.doe.gov/epi>

MASTER

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, make any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

ERRATUM...

Table 8 in the 1994 Epidemiologic Surveillance Report for Hanford Site is incorrect. The correct version of this table appears below. If you have a copy of the 1994 Annual Report for Hanford, please attach this corrected version of Table 8 to the report.

Table 8. Diagnoses by Occupational Category – Men

	Occupational Category	Number of Workers in 1994	Number of Diagnoses†	Age- Adjusted Rate per 1,000*	Lower 95% Confidence Limit per 1,000	Upper 95% Confidence Limit per 1,000
Salaried	<i>Administrative</i>	3,185	222	65.2	54.7	77.7
	<i>Professional</i>	4,328	240	55.6	48.4	63.8
	<i>Technical</i>	1,446	114	82.6	68.2	100.0
	<i>Other/Unknown</i>	423	21	40.9	26.5	63.2
	Subtotal	9,382	597	62.8	57.4	68.7
Hourly	<i>Service</i>	876	113	115.8	93.9	142.8
	<i>Crafts and Manual Labor</i>	1,279	174	115.9	97.2	138.3
	<i>Nuclear</i>	401	73	219.6	162.0	297.6
	<i>Other/Unknown</i>	1,190	141	128.1	108.5	151.3
	Subtotal	3,746	501	127.7	116.5	140.0
	TOTAL	13,128	1,098	79.3	74.5	84.5

† Includes all diagnoses reported with an absence of 5 or more days, including absences for pregnancy and delivery.

*Standardized to the age distribution of 1970 U.S. population.

Introduction	1	Rates of Disease Occurrence	17
Hanford at a Glance — 1995	2	Rates for All Diagnostic Categories Combined by Gender, Age, and Occupation	19
Site Overview	3	Rates for Selected Diagnostic Categories by Gender, Age, and Occupation	20
Timeline of Major Activities at the Hanford Site	3	Cancer	20
The Hanford Work Force	4	Heart/Circulatory	20
The Work Force by Gender and Age	4	Lung/Respiratory	21
Percentage of Workers by Gender and Occupation	5	Injury and Poisoning	21
Most Common Job Titles in Each Occupational Group	5	Distribution of Occupations and Injuries	22
Work Force Demographics	7	Time Trends	23
Percentage of Men in Different Age Groups, 1993 to 1995	7	Age-Adjusted Rates for All Diagnostic Categories Combined for Men by Occupation, 1993 to 1995	24
Percentage of Women in Different Age Groups, 1993 to 1995	8	Age-Adjusted Rates for All Diagnostic Categories Combined for Women by Occupation, 1993 to 1995	25
Percentage of Men in Different Occupational Groups, 1993 to 1995	8	Age-Adjusted Rates for Selected Diagnostic Categories by Gender, 1993 to 1995	26
Percentage of Women in Different Occupational Groups, 1993 to 1995	8	Occupational Sentinel Health Events	27
Number and Length of Absences	9	Characteristics of Health Events for SHEOs and Days Absent by Gender	27
Percentage of Workers with at Least One Health Event by Gender and Age	10	Number of Accidents by Gender, Age, and Occupation	28
Percentage of Workers with at Least One Health Event by Gender and Occupation	10	OSHA-Recordable Events	29
Number of Days Absent by Gender and Age	11	Percentage of Workers with at Least One OSHA Event by Gender and Age	29
Number of Days Absent by Gender and Occupation	12	Percentage of Workers with at Least One OSHA Event by Gender and Occupation	30
Diagnostic Categories	13	Lost and Restricted Workdays by Gender and Age	30
Total Number of Health Conditions Reported and Total Number of Days Absent from Work by Gender and Diagnostic Category	14	Lost and Restricted Workdays by Gender and Occupation	31
Health Conditions Reported Under Selected Diagnostic Categories by Gender ...	15	Diagnostic and Accident Categories for OSHA-Recordable Events	32
Three Diagnostic Categories Reported Most Often by Gender and Age	15	Health Conditions by Gender and Diagnostic Category	32
Three Diagnostic Categories Reported Most Often by Gender and Occupation	16	Types of Accidents and the Number of Lost or Restricted Workdays by Gender	33
		Types and Number of Accidents that Occurred Within the Category of Other Accidents by Gender	33

Injuries Associated with Each Type of Accident by Gender	34
Three Diagnostic Categories Reported Most Often by Gender and Age	36
Three Accident Categories Reported Most Often by Gender and Age	36
Three Diagnostic Categories Reported Most Often by Gender and Occupation	37
Three Accident Categories Reported Most Often by Gender and Occupation	38
Rates of OSHA-Recordable Events	39
Rates per 1,000 for All Diagnostic Categories by Gender, Age, and Occupation	40
Rates per 1,000 for Selected Diagnostic Categories by Gender, Age, and Occupation	40
Glossary	41
Explanation of Diagnostic Categories	43
Reader Response	
Hanford 1995 Appendices	

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 Hanford Site from January 1, 1995 through December 31, 1995. The data were collected by a coordinator at Hanford 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 and absences that lasted at least five consecutive workdays (health events). This 1995 report provides additional information describing the work force by age and occupational groups.

The information in the main body of the report provides a descriptive analysis of the data collected from the site, and the appendices provides additional detail. The report also contains an expanded Glossary and an Explanation of Diagnostic Categories which gives examples of health conditions in each of the diagnostic categories.

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

Hanford AT A GLANCE — 1995:

We observed few changes in patterns of illness and injury from those observed in 1994. As in past years, rates were lower in administrative, professional, and technical occupations than among service, crafts and manual laborers, and workers in the nuclear trades.

6.8% of the Hanford work force had at least one absence in 1995, essentially unchanged from the 1994 percentage. Occupational injuries resulted in 4,504 lost workdays and 5,566 restricted workdays in 1995.

Technical workers, who comprise about 9% of the work force, had the highest percentage of lost and restricted workdays of any occupational group (29%).

Both men and women had lower occupational injury rates in workers aged 40 or older than in younger workers, a pattern also noted frequently at other epidemiologic surveillance sites.

The highest rates of injury and poisoning occurred among women in the nuclear group and men in the service group.

Although there was no evidence of an overall change in the occurrence of cancer among women, 8 of 9 breast cancers reported by female Hanford workers in 1995 were among women younger than 50; only one breast cancer was reported among women aged 50 or older. This pattern was not observed in 1993 or 1994. The age distribution is noteworthy because breast cancer rates generally increase with age in women.

Hanford reported the service and security job categories separately for the first time in 1995. Subsequent reports will continue to distinguish between these groups.

Site Overview

The Hanford Site covers 560 square miles in southeastern Washington State near the city of Richland. Construction of the site began in March 1943 by the Army Corps of Engineers and the DuPont Corporation. Hanford's original mission was to produce plutonium for the world's first atomic bombs.

Construction of the world's first large-scale nuclear reactor, the B Reactor, began in August 1943 and was completed in 13 months. The plutonium from the B Reactor was used in the Trinity test bomb in New Mexico and in the Fat Man bomb that was dropped on Nagasaki, Japan in 1945 and resulted in the end of World War II.

After World War II, a gigantic nuclear arms race between the United States and the Soviet Union developed resulting in what is known as the Cold War. The increased tensions between the two countries eventually lead to the addition of eight reactors to the Hanford Site. Defense production at the site peaked during 1956 to 1963.

The Johnson Administration determined in 1964 that the United States had a decreased need for special nuclear materials. As a result, all of the defense reactors at Hanford were shut down with the exception of the N Reactor. The N Reactor was the newest reactor at Hanford that produced electricity. From 1964 to 1971, the reactors deemed unnecessary were shut down and prepared for decontamination and decommissioning.

During the 1970s, the mission of the Hanford site began to diversify with the addition of energy research and development and technology development. The Hanford site was selected as the location for the Fast Flux Breeder Reactor prototype in January 1967, and construction of the facility began in December 1970. Initial startup occurred in February 1980 to test oxide fuels and address other fuel performance issues.

From 1980 to 1989, defense production was increased at Hanford's N Reactor as a result of the Reagan Administration's pledge to bolster the nation's military power. Waste management was added to the site mission during this time but remained secondary to the defense production.

Changing world conditions in the 1990s eventually halted defense production at Hanford. Congress officially declared the end of the Cold War on September 27, 1991. Today, Hanford's mission includes the safe clean up and management of the site's legacy wastes and the development and deployment of science and technology.

Timeline of Major Activities at the Hanford Site

The Hanford Work Force

A total of 18,719 Hanford employees were included in epidemiologic surveillance in 1995, 936 fewer workers than in 1994. There were almost twice as many men (12,448) as women (6,271). The Hanford work force was relatively young compared with the general population. The average age of Hanford workers was 42 years among men and 38 years among women (figure 1). Men and women were not represented equally among the various occupational groups (figure 2 and Appendix A). The professional, technical, crafts and manual labor, and nuclear occupational categories contained many more men than women, while the administrative category had slightly more women than men.

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 too few in number to analyze separately. The analyses presented in this report use broad occupational categories (figure 2) 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 3. 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

Figure 2. Percentage of Workers by Gender and Occupation

Figure 3. Most Common Job Titles in Each Occupational Group

ADMINISTRATIVE	DECLASSIFIER	GROUP LEADER	PROGRAM PLANNER
ACCOUNTANT	DEPARTMENT ADMINISTRATOR	GROUP MANAGER	PROGRAM SPECIALIST
ADMINISTRATIVE ANALYST	DEPARTMENT COORDINATOR	HISTORIAN	PROJECT ANALYST
ADMINISTRATIVE ASSISTANT	DEPARTMENT DIRECTOR	INSPECTOR	PROJECT ASSISTANT
ADMINISTRATIVE SPECIALIST	DEPARTMENT MANAGER	INSTRUCTOR	PROJECT COORDINATOR
ADMINISTRATOR	DEPUTY CHIEF	INTERN	PROJECT MANAGER
ADVISOR	DEPUTY DIRECTOR	LANDLORD	PROJECT SPECIALIST
AGENT	DEPUTY MANAGER	LEADER	PROJECT SUPERINTENDENT
AIDE	DIRECTOR	LIAISON	RECEPTIONIST
ANALYST	DIRECTOR ADMINISTRATOR	LIBRARIAN	RECRUITER
ASSISTANT	DIRECTOR ASSISTANT	LOGISTICS OFFICER	REPRESENTATIVE
ASSISTANT ADMINISTRATOR	DISPATCHER	MANAGER	SAFETY OFFICER
ASSISTANT MANAGER	DOE MENTOR	OFFICE ADMINISTRATOR	SCHEDULER
ASSOC. DIRECTOR	DUTY OFFICER	OFFICE ASSISTANT	SECRETARY
ASSOC. MANAGER	EDITOR	OFFICE MANAGER	SECTION ADMINISTRATOR
ASSOCIATE	ESCORT	OFFICER CLASSIFICATION	SECTION ANALYST
ATTORNEY	ESTIMATOR	OPERATOR TELEPHONE	SECTION MANAGER
AUDITOR	EVALUATOR	PARALEGAL	SPECIALIST
BUYER	EXECUTIVE	PATENT AGENT	SUPERINTENDENT
CLERK	EXECUTIVE ASSISTANT	PAYMASTER	SUPERVISOR
CONSULTANT	EXECUTIVE DIRECTOR	PAYROLL ASSISTANT	SWITCHBOARD OPERATOR
CONTRACTOR	EXECUTIVE SECRETARY	PLANNER	TEAM LEADER
CONTROLLER	EXECUTIVE VICE PRESIDENT	PRESIDENT	TRAINER
COORDINATOR	EXPEDITER	PROGRAM ADMINISTRATOR	VICE PRESIDENT
COUNSELOR	GENERAL COUNSEL	PROGRAM ANALYST	WORD PROCESSOR
DATA ENTRY ASSISTANT	GENERAL MANAGER	PROGRAM ASSISTANT	WRITER
DATA ENTRY OPERATOR	GENERAL SUPERINTENDENT	PROGRAM MANAGER	

(continued)

Figure 3. Most Common Job Titles in Each Occupational Group (continued)

PROFESSIONAL ADVISOR ANALYST ARCHITECT CHEMIST COMPUTER CONSULTANT COMPUTER PROGRAMMER COMPUTER SCIENTIST DATA BASE ADMIN. DOSIMETRY SPECIALIST ECONOMIST ENGINEER EPIDEMIOLOGIST FIREFIGHTER EMT FIREFIGHTER PARAMEDIC FITNESS COORDINATOR GEOLOGIST HEALTH PHYSICIST HYDROGEOLOGIST HYDROLOGIST HYGIENIST INDUSTRIAL HYGIENIST MEDICAL ASSISTANT NETWORK DESIGNER NURSE OPERATIONS PERSONNEL PARAMEDIC PATHOLOGIST PHYSICIAN PHYSICIST PHYSIOLOGY DIRECTOR PROGRAMMER PROGRAMMER ANALYST PSYCHOLOGIST RADIOCHEMIST RESPIRATORY PROTECTION SAFETY & HEALTH REP SCIENTIST SOFTWARE ANALYST STATISTICIAN TOXICOLOGIST	ENGINEER STUDENT ENGINEER TECH ENVIRONMENTAL TECH FFTF TECH FTF REACTOR TECH HEALTH CARE CTR SPEC HEALTH INFORMATION TECH HEALTH PHYSICS TECHNICIAN IEM CELL TECH ILLUSTRATOR INDUSTRIAL HYGIENE TECH INVENTORY TECH ISOTOPE PWR TECH LAB AIDE LAB INSTRUMENT SPEC LAB TECHNICIAN LASER TECH MEDIA TECHNICIAN MEDICAL/CHEMICAL TECH NDE TECHNICIAN NON DESTRUCTIVE TEST TECHNICIAN PRIN TECH EDITOR PROJECT TECH QA INSPECTOR QA TECHNICIAN QC INSPECTOR QC TECHNICIAN RADIATION MONITOR RADIATION PROTECTION TECH RECORDS TECH REPRODUCTION LEADER RESEARCH ASSISTANT RESEARCH TECHNICIAN RESOURCE TECH RESPIRATORY TECH SAFETY TECHNICIAN SCHEDULING TECHNICIAN SCIENCE SPECIALIST SCIENTIFIC TECHNICIAN STUDENT TECH SUMMER TECH TECH ANALYST TECH ASST. TECH CONSULTANT TECH DIRECTOR TECHNICAL SPECIALIST TECHNICAL SUPPORT TECHNICIAN TELECOM TECH WEAPONS TECHNICIAN	VISITOR WATER TREATMENT WIT SERVICE BLASTER BUS DRIVER CAPTAIN CHIEF HANFORD FIRE DEPT. CHIEF OPERATOR CHIEF SYS ELEC. DIS CONDUCTOR COPY CAMERA OPERATOR CRANE INSPECTOR DRIVER DRIVER TRUCK HEAVY DRIVER TRUCK LIGHT DUPLICATING OPERATOR ELEVATOR INSPECTOR FIRE MARSHALL FIREFIGHTER FLOOR SERVICEMAN FUELS OPERATOR FUELS PROCESS OPERATOR GROUNDS MAINTENANCE GROUNDSKEEPER HALON INSPECTOR SERVICE (CONT.) HOURLY SECURITY ESCORT HVAC TECHNICAL IP OPERATOR JANITOR LAUNDRY WORKER LEAD OPERATOR LEADER DUPLICATING LEADER ENGINEER REPRO MAIL MESSENGER MASK PROC OPERATOR OFFICER FIRE TRAINING OFFICER IN CHARGE OPERATOR OPERATOR APPRENTICE OPERATOR FAC SUP OPERATOR REPRODUCTION OPERATOR TECH OPERATOR TERMINAL SENIOR OPERATOR TRAINEE PATROL CHIEF PHOTOGRAPHER POWER OPERATOR POWER TRAINER PRESSURE VESSEL INSPECTOR PRIN. SURVEYOR PROCESS OPERATOR REPRODUCTION OPERATOR RES EQUIPMENT MAN SAMPLE CUSTODIAN SENIOR ILLUSTRATOR SENIOR MATERIAL CHECKER SENIOR MATERIAL COORD SENIOR PHOTO TECH SENIOR SURVEYOR SERVICEPERSON STOREKEEPER SUBSTATION OPERATOR SURVEYOR SWITCHMAN TECH INSTRUCTOR	TECH ILLUSTRATOR TELCOM WORKER TELEPHONE ENGINEER TRACK EQUIPMENT OPERATOR TRACK INSPECTOR TRACKMAN SECURITY CAPT AMS CAPT FIRE PROTECT CAPT PATROL AREA CAPT PLATOON CAPTAIN CAPTAIN HM LDR CHIEF BATTALION CHIEF HANFORD PATROL CMDR PATROL CMDR PLATOON CMDR SHIFT CMDR SPO GUARD GUARD PATROL INSPECTOR SECURITY LT CENTRAL ALARM LT COORD ALARM MON SYSTEM LT RELIEF PLATOON LT SPECIAL RESPONSE LT TESTING AND SERVICES OFFICER ALARM MON SYSTEM OFFICER PATROL PATROL SRT PATROL TRN PATROLMAN SEC INSPC CAPT SEC INSPECTOR SRT SEC SERVICES SECURITY GUARD SECURITY INSPECTOR SECURITY POLICE OFFICER SECURITY WATCHMAN SHIFT LT SHIFT COMMANDER SR SAFEGUARDS SRT LIEUTENANT
TECHNICAL ACCEPTANCE INSPECTOR ANIMAL CARE TECH ANIMAL RESEARCH TECH BHS TECHNICIAN BIOLOGY TECHNICIAN BUILDING TECHNICIAN CAD SPEC CHEMICAL TECHNOLOGIST CINEMATOGRAPHER CLINICAL TECH COLOR TECHNICIAN COMMUNICATION TECH COMPUTER OPERATOR COMPUTER PROGRAMMER COMPUTER SPECIALIST COMPUTER TECHNICIAN DATA TECH DESIGNER DOSIMETRY TECH DRAFTER EHS TECHNICIAN ELECTRONIC TECH ENGINEER AIDE ENGINEER INTERN ENGINEER SPECIALIST	OTHER/UNKNOWN SALARIED ASSISTANT ASSOCIATE CONSULTANT CONTRACTOR ENVIRONMENTAL GENERALIST JOB TITLE UNKNOWN POSTDOCTORAL FELLOW STAFF STUDENT SUB CONTRACTOR SUMMER HIRE TRAINEE UNDERGRADUATE INTERN VENDOR	CRAFTS AND MANUAL LABOR ASBESTOS ABATEMENT AUTOBODY REPAIR & PAINT AUTOMOTIVE PARTS HANDLER BOILERMAKER BUILDING TRADES CARPENTER CEMENT FINISHER CEMENT MASON CONSTRUCTION CRANE OPERATOR CRANE RIGGING DRILLER ELECTRICIAN EQUIPMENT OPERATOR GENERAL LABORER GLAZIER GLASSMAKER INSTRUMENT OPTICIAN INSTRUMENT SPECIALIST INSTRUMENT TECHNICIAN INSTRUMENT WORKER INSULATOR	

(continued)

Figure 3. Most Common Job Titles in Each Occupational Group (continued)

IRONWORKER	PAINTER SIGN	HOT CELL TECH	CONSULTANT
LAB MACHINIST	PIPEFITTER	NUCLEAR OPERATOR	CONTRACTOR
LABORER	PLUMBER STEAMFITTER	NUCLEAR REACTOR OPERATOR	FOREIGN NATIONAL
LINEMAN	RIGGER	NUCLEAR CHEMICAL OPERATOR	JOB TITLE UNKNOWN
LOCKSMITH	SHEETMETAL WORKER	NUCLEAR CONTROL POWER	OPER PERS
LOCOMOTIVE ENGINEER	SIGN WRITER	OPER CHIEF	OWNER
LUBE AND TIREMAN	SPRINKLER FITTER	NUCLEAR FUELS OPERA	POSTDOCTORAL APPT
MACHINIST	STOCK & TOOL ATTENDANT	NUCLEAR POWER OPERATOR	RESEARCH FELLOW
MASTER CRAFTSMAN	STOCK BINDERY OPERATOR	NUCLEAR PROCESS OPERATOR	STUDENT
MECHANIC	TEAMSTER	NUCLEAR REACTOR CONT. OPR	SUB CONTRACTOR
MECHANICAL DESIGNER	WELDER	POWER OPERATOR	SUMMER INTERN
METAL OPERATOR	WELL DRILLER	REACTOR CONT RM OPR	SUPPORT
METER RELAY TECHNICIAN	WIREMAN	REACTOR FUELS OPERATOR	TEMP
MILLWRIGHT		REACTOR OPERATOR	UNDERGRADUATE INTERN
OILIER	NUCLEAR	REACTOR OPERATOR TECH	VENDOR
OPERATING ENGINEER	DECONTAM DECOMM WORKER		VISITING CONSULTANT
PAINTER	FFTF OPS REACT	OTHER/UNKNOWN	VISITOR
PAINTER CARPET INSTALLER	HAZ WASTE TECH	COM SERV ASST.	WIT

Work Force Demographics

Hanford reported the job categories service and security separately for the first time in 1995. To look at time trends for 1993 to 1995, it was necessary to combine these two categories.

The Hanford work force increased from 17,807 workers in 1993 to 19,655 workers in 1994 and then declined to 18,719 workers in 1995. There was a slight shift in the age of the workers. For men (figure 4) there was a decrease in workers under 40 years of age and an increase in workers aged 40 to 49. The percentage of women (figure 5) under 30 years of age decreased from 1994 to 1995 and women aged 30 to 49 increased. Over the three years, there was also an increase among both men and women administrative workers and a decrease in technical workers (figures 6 and 7). These changes may indicate a real shift in the type of work being done at Hanford or reflect changes in the way that workers are classified.

Figure 4. Percentage of Men in Different Age Groups, 1993 to 1995

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

Figure 6. Percentage of Men in Different Occupational Groups, 1993 to 1995

Figure 7. Percentage of Women in Different Occupational Groups, 1993 to 1995

Number and Length of Absences

As in the 1994 report, this report includes illness 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, it includes weekends unless otherwise stated.

Among women, the age group with the highest percentage of health events was 30 to 39 years (12%). Among men the highest percentage (6%) occurred in the 40 to 49 and 50 to 59 age groups (figure 8). Men and women had about the same number of health events during 1995; since the work force contained almost twice as many men as women, the percentage of women (10%) with at least one health event was greater than men (5%). This gender difference in health events was also seen in 1994, as the percentage of both men (5%) and women (9%) with one or more absences was approximately the same as in 1995. The shaded box explains how these percentages were calculated. Overall, the average length of absence for a health event was 65% longer for women (45.8 days) than for men (27.8 days) (figure 10).

When the length of absences of men and women were compared, women aged 16 to 39 had longer absences than men. The longer absences among women aged 16 to 39 may reflect maternity leave, as pregnancy/childbirth was the diagnostic category most frequently reported for women in these age groups (figure 14; appendix F). Among workers aged 60 years or older, men had longer absences than women. Each of five men experienced an absence of over 90 days. These absences involved diagnoses of cancer, heart disease, hernia, arthritis, and a shoulder problem.

The nuclear group had the highest percentage of workers with a health event; 13% of the men and 26% of the women (figure 9) reported at least one absence. Although the percentage of nuclear workers with at least one absence was elevated, the average length of their absences (35.6 days) was not very different from those of other occupational groups. Workers in the other/unknown (43.9 days) and service (43.2 days) groups had the highest average number of days absent for each health event (figure 11). 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:

$$\begin{array}{rcl} 49 & \text{(number of men aged 16-29 with at} & \\ & \text{least one health event from figure 8)} & \\ \div 1,519 & \text{(number of men aged 16-29 in the} & \\ & \text{work force from figure 1)} & \\ \hline = .032 \times 100 = 3\% & & \end{array}$$

Figure 8. Percentage of Workers with at Least One Health Event by Gender and Age*

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

Figure 9. Percentage of Workers with at Least One Health Event by Gender and Occupation*

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

Figure 10. Number of Days Absent by Gender and Age

	Age Group	Total Number of Days Absent		Total Number of Health Events		Average Number of Days Absent
Men	16-29	1,179	÷	55	=	21.4
	30-39	5,576		216		25.8
	40-49	7,984		295		27.1
	50-59	4,847		157		30.9
	60+	1,353		31		43.6
	Total	20,939		754		27.8
Women	16-29	8,192	÷	140	=	58.5
	30-39	12,346		253		48.8
	40-49	8,109		213		38.1
	50-59	3,525		91		38.7
	60+	187		9		20.8
	Total	32,359		706		45.8

Figure 11. Number of Days Absent by Gender and Occupation

	Occupation	Total Number of Days Absent		Total Number of Health Events	Average Number of Days Absent
Men	Administrative	4,030	$\div$	147	27.4
	Professional	4,721		182	25.9
	Technical	1,626		91	17.9
	Other/Unknown Salaried	30		2	15.0
	Service	3,823		78	49.0
	Security	215		9	23.9
	Crafts and Manual Labor	4,154		150	27.7
	Nuclear	2,216		93	23.8
	Other/Unknown	124		2	62.0
	Total	20,939		754	27.8
Women	Administrative	16,796	$\div$	385	43.6
	Professional	5,464		111	49.2
	Technical	4,174		86	48.5
	Other/Unknown Salaried	131		3	43.7
	Service	1,620		48	33.8
	Security	115		1	115.0
	Crafts and Manual Labor	1,275		25	51.0
	Nuclear	2,513		40	62.8
	Other/Unknown	271		7	38.7
	Total	32,359		706	45.8

Diagnostic Categories

Epidemiologic surveillance monitors both occupational and nonoccupational illnesses and injuries among active workers. For many health conditions it is not possible to say with certainty what caused the 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.

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, all of them were counted.

The categories of health conditions reported most often by men and women changed little during 1993-1995. Among men, respiratory conditions, injuries, and problems involving the digestive system showed the highest rates during those three years. For the same period, respiratory conditions, pregnancy and childbirth, and injuries reflected the highest diagnosis rates among women (figures 12 and 13).

The most frequently reported health conditions varied with gender and age (figure 14 and appendix F). Lung/respiratory conditions ranked among the top three diagnosis categories for men in all age groups. Approximately one-fourth of these ailments were upper respiratory infections. Sinusitis, pneumonia, bronchitis, flu, deviated septum, and asthma accounted for the remainder. Digestive disorders were among the more commonly reported diagnoses by men aged 30 to 39 and 50 and older. Hernias accounted for one-third of these diagnoses. Appendicitis, colitis, and gallbladder disease were also commonly reported.

Diagnoses associated with pregnancy/childbirth were the most common reasons for absence among 16 to 39 year old women (figure 14). Lung/respiratory diagnoses were among the top three conditions reported for women aged 30 and older. Diagnoses involving the muscles and skeleton were prominent among women over 40 years old, with rheumatism being the most common diagnosis. Back problems were also common and included degenerated and herniated discs and back pain. Arthritis and other joint disorders were responsible for 20% of the muscles and skeleton diagnoses.

Heart/circulatory problems were among the more common health problems for men aged 50 and older and women aged 60 and older. Over half of the diagnoses for men were for ischemic heart disease (restricted blood flow through an artery). The more common diagnoses among women were ischemic heart disease, hemorrhoids, and other circulatory problems in the legs. Only two women in the 60+ age group reported heart/circulatory diagnoses; these were ischemic heart disease and a heart valve problem.

Diagnoses for injury and poisoning occurred relatively frequently in this work force. While poisoning is included in this diagnostic category, only nine (2.7%) of the 328 diagnoses were related to poisoning; one was a reaction to a toxic vapor and the remainder involved allergic reactions to medicine. Complications of medical care are also included in the injury and poisoning category; nine such diagnoses were reported. Injury and poisoning was among the three most common diagnostic categories for men in the professional, technical, service, security, crafts and manual labor, and nuclear groups (figure 15). The predominant type of injury was sprains and strains followed by fractures and dislocations (appendix H). For women, these diagnoses were

among the top three for professional, technical, service, crafts and manual labor, nuclear, and other/unknown workers. With the addition of bruises, the most common types of injuries among women were the same as among men. Injuries, including both occupational and nonoccupational injuries, affect many occupational groups and are not confined to a narrow age range (figures 14 and 15).

Figure 12. 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	15	370	18	612
Blood	5	184	3	33
Cancer	21	827	18	1,163
Digestive	3 127	3 2,954	89	2,439
Endocrine/Metabolic	9	320	11	417
Existing Birth Condition	2	110	3	222
Genitourinary	15	450	78	2,597
Heart/Circulatory	78	2,842	22	833
Infections/Parasites	37	541	22	324
Injury and Poisoning	1 197	1 5,420	1 131	3 3,635
Lung/Respiratory	2 182	2 2,651	2 129	1,647
Mental	31	1,010	56	3,115
Muscles and Skeleton	120	2 4,759	3 125	2 5,249
Nervous System	38	949	41	1,501
Pregnancy/Childbirth	NA	NA	121	1 11,966
Skin	17	324	8	211
Unspecified Symptoms	28	462	27	1,423

Figure 13. Health Conditions Reported Under Selected Diagnostic Categories by Gender

Men		Women	
Cancer	Lung/Respiratory	Cancer	Lung/Respiratory
<ul style="list-style-type: none"> Brain Chest Colon Gallbladder Kidney Liver Lymph Nodes Male Reproductive System Other Lymphomas Prostate Tonsils 	<ul style="list-style-type: none"> Asthma Bronchitis Deviated Septum Flu Pneumonia Sinusitis Upper Respiratory Infection 	<ul style="list-style-type: none"> Brain Colon Lymph Nodes Malignant Melanoma Ovary Uterus 	<ul style="list-style-type: none"> Asthma Bronchitis Flu Pneumonia Sinusitis Upper Respiratory Infection
Injury and Poisoning	Digestive	Injury and Poisoning	Muscles and Skeleton
<ul style="list-style-type: none"> Dislocations Fractures Late Effects of an Injury Sprains and Strains Toxic Effects 	<ul style="list-style-type: none"> Appendicitis Colitis Gallbladder Disease Hernias 	<ul style="list-style-type: none"> Bruises Dislocations Fractures Late Effects of an Injury Sprains and Strains 	<ul style="list-style-type: none"> Acquired Toe Deformities Arthritis Back Pain Bunions Disc Disorders Joint Disorders Lumbago Rheumatism

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

		16-29	30-39	40-49	50-59	60+
Men	Most Common Diagnostic Category	Injury and Poisoning	Injury and Poisoning	Injury and Poisoning	Heart/Circulatory; Lung/Respiratory	Cancer; Digestive
	Second Most Common Diagnostic Category	Lung/Respiratory	Lung/Respiratory	Lung/Respiratory	Digestive; Injury and Poisoning	Heart/Circulatory (1)
	Third Most Common Diagnostic Category	Muscles and Skeleton	Digestive	Muscles and Skeleton	Muscles and Skeleton	Lung/Respiratory
Women	Most Common Diagnostic Category	Pregnancy/Childbirth	Pregnancy/Childbirth	Muscles and Skelton	Muscles and Skeleton	Heart/Circulatory
	Second Most Common Diagnostic Category	Injury and Poisoning	Lung/Respiratory	Lung/Respiratory	Lung/Respiratory	Lung/Respiratory (1)
	Third Most Common Diagnostic Category	Genitourinary	Injury and Poisoning	Injury and Poisoning	Digestive; Injury and Poisoning	Muscles and Skelton

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

Figure 15. Three Diagnostic Categories Reported Most Often by Gender and Occupation

		Administrative	Professional	Technical	Other/Unknown Salaried	Service
Men	Most Common Diagnostic Category	Digestive	Injury and Poisoning	Lung/Respiratory; Muscles and Skeleton	Lung/Respiratory	Injury and Poisoning
	Second Most Common Diagnostic Category	Lung/Respiratory	Lung/Respiratory	Injury and Poisoning	None	Lung/Respiratory (1)
	Third Most Common Diagnostic Category	Heart/Circulatory	Digestive	Digestive	None	Digestive
Women	Most Common Diagnostic Category	Lung/Respiratory	Injury and Poisoning	Injury and Poisoning	Pregnancy/Childbirth	Lung/Respiratory
	Second Most Common Diagnostic Category	Pregnancy/Childbirth	Pregnancy/Childbirth	Muscles and Skeleton	Genitourinary	Injury and Poisoning; Mental
	Third Most Common Diagnostic Category	Muscles and Skeleton	Lung/Respiratory	Pregnancy/Childbirth	None	Muscles and Skeleton (1)
		Security	Crafts and Manual Labor	Nuclear	Other/Unknown	
Men	Most Common Diagnostic Category	Injury and Poisoning	Injury and Poisoning	Lung/Respiratory	Cancer	
	Second Most Common Diagnostic Category	Muscles and Skeleton	Lung/Respiratory	Injury and Poisoning	Heart/Circulatory (1)	
	Third Most Common Diagnostic Category	(2)	Muscles and Skeleton	Muscles and Skeleton	None	
Women	Most Common Diagnostic Category	Pregnancy/Childbirth	Muscles and Skeleton	Lung/Respiratory; Muscles and Skeleton	Injury and Poisoning	
	Second Most Common Diagnostic Category	None	Injury and Poisoning; Lung/Respiratory	Digestive; Injury and Poisoning	Pregnancy/Childbirth	
	Third Most Common Diagnostic Category	None	Nervous System (1)	Mental	(2)	

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

(2) More than two diagnostic categories tied.

Rates of Disease Occurrence

Some occupational groups had only a small number of workers who reported very few health events in 1995 (appendix H). Because rates based on health events among a small number of workers can vary widely just by chance, the nine occupational groups were combined into eight groups. Other/Unknown Salaried and Other/Unknown were combined into one occupational group. Figure 16 shows the rates of disease by broad job category in two age categories, under 40 years of age and those aged 40 and older. These age groups were chosen because the rates of many illnesses begin to change more rapidly among persons over 40 years of age.

The risk of getting cancer increases with age, and most cancer diagnoses were reported among workers aged 40 or older (figure 17). Overall, 14 women reported 18 cancer-related absences and 14 men reported 21 cancer-related absences in 1995. Three men and one woman under the age of 40 reported cancer. Two of these men reported 3 diagnoses of testicular cancer; the third man had a diagnosis of cancer involving the chest wall. The one cancer in a female worker under age 40 was a breast cancer.

We observed no excess of any specific type of cancer among men working at Hanford in 1995. Among men aged 40 and older, one brain cancer, two prostate, two bladder, and three colon cancers were reported. Three diagnoses of secondary cancer of the lymph nodes were reported by two men.

Nine diagnoses of breast cancer were reported by nine women in 1995. Seven of the nine women were in the 40-49 age group. In general, rates of breast cancer tend to be higher among women aged 50 or older than they are among those in their 40s. The age distribution of women reporting cancer may reflect the age distribution of women in the work force as a whole (figure 1). An examination of the occupations of the women reporting breast cancer did not suggest a pattern; secretarial, clerical, engineering, and administrative positions were reflected in their job titles. A comparison of breast cancer rates among Hanford women with those of the National Cancer Institute's Surveillance, Epidemiology, and

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 12 shows that during 1995 men reported 197 diagnoses involving injuries; women reported 131. You can honestly say that men reported almost 50% more 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 almost twice as many men as women working at Hanford, 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. This number is multiplied by 1,000 to give a rate per 1,000 workers. For example:

$$(197 \text{ injuries} \div \text{among } 12,448 \text{ men}) = .0158 \times 1,000 = 15.8 \text{ injuries per } 1,000 \text{ men}$$

$$(131 \text{ injuries} \div \text{among } 6,271 \text{ women}) = .0209 \times 1,000 = 20.9 \text{ injuries per } 1,000 \text{ women}$$

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 higher than among men. 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 17 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 rates are 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.

End Results cancer registry covering western Washington State showed breast cancer rates among women in the Hanford work force age 40-49 to be about twice the rate in western Washington. However, the rate among Hanford women aged 50-59 was about one-third the rate in the western Washington registry. This age distribution for women with breast cancer was not observed in 1993 or 1994, nor was there any indication of an overall trend toward increased cancer rates among women over the three-year period (figure 21).

Men 40+ years of age had higher rates of heart/circulatory diagnoses than women and younger men. Only 17 of the 122 diagnoses for heart/circulatory conditions occurred in workers less than 40 years old; 6 diagnoses in men and 11 in women. The diagnoses observed in workers under age 40 were different and less serious than those observed among older workers. Among older workers, the most common diagnosis was for ischemic disease (e.g., heart attacks) in contrast to younger workers who were more likely to have diseases of the veins (e.g., varicose veins and hemorrhoids). In women, heart/circulatory diagnoses were less likely related to heart disease and more related to other problems with the circulatory system, including diseases of the veins and arteries.

The lung/respiratory category contains many different kinds of diseases: acute infectious diseases such as colds, influenza, and pneumonia; allergies, sinusitis, and bronchitis; and chronic diseases like asthma and emphysema. Seventy percent of the diagnoses in this category involved acute infections or sinusitis. For both men and women, rates were similar in younger and older workers. Respiratory disease rates were higher among service, crafts and manual labor, and nuclear workers. The respiratory disease risk among nuclear workers was 4.8 times higher, among service workers 3.4 times higher, and among crafts and manual labor workers 1.6 times higher than other workers (appendix J).

In the injury and poisoning category, only 9 of the 326 diagnoses involved poisoning, so this category really focuses on injuries. Injury rates did not change consistently with age, but did vary by gender and occupational group. In most job categories, women had a higher injury rate than men at both younger and older ages. This was particularly true for women in the crafts and manual labor, service, and technical job categories. Overall, the highest rates were seen in women aged 40 or older in the crafts and manual labor category, followed by women in the service and nuclear categories. Men in the service and nuclear job categories experienced higher rates of injury than did men in other job categories. The high rates among workers in the service, crafts and manual labor, and nuclear groups were based on 127 diagnoses of which 60 were sprains and strains, 17 were dislocations, 12 were fractures, and 11 were late effects of injuries (figure 17 and appendix H). These groups were at least 2.6 times more likely to sustain an injury than other groups (appendix J). Service workers made up 3.8% of the work force but sustained 12.8% of the injuries and poisonings. They were 5.1 times more likely to experience dislocations, 5.8 times more likely to have back sprains or strains, and 6.7 times more likely to report other types of sprains and strains than other groups of workers. Nuclear workers made up 3.8% of the work force but reported 10.4% of the injuries and poisonings. Nuclear workers were 4.1 times more likely to fracture lower limbs, 3.9 times more likely to experience dislocations, and 4.3 times more likely to report sprains and strains other than of the back. Although crafts and manual labor workers made up 8.4% of the work force, they had 15.5% of the injuries and poisonings. Their risk of sprains and strains of areas other than the back was 3.5 times greater and late effects of an injury was 4.2 times greater than for other workers (appendix J).

A total of 9,055 days were lost in 1995 due to injury and poisoning diagnoses. The service, crafts and manual labor, and nuclear groups combined accounted for half of these days (50.2%). These same three groups were responsible for 38.7% of the injury and poisoning diagnoses even though they represented only 16% of the total Hanford work force in 1995 (Figure 18).

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

All Diagnostic Categories	Occupational Group	Age	Rate per 1,000	
			Men	Women
Administrative	<40	52	139
		40+	52	117
	Professional	<40	51	157
		40+	54	157
	Technical	<40	76	260
		40+	111	211
	Service	<40	139	306
		40+	229	342
	Security	<40	83	167
		40+	79	0
	Crafts and Manual Labor	<40	71	214
		40+	139	625
	Nuclear	<40	196	333
		40+	199	406
	Other/Unknown	<40	2	17
		40+	14	11

Figure 17. Rates for Selected Diagnostic Categories by Gender, Age, and Occupation

Diagnostic Category	Occupational Group	Age	Rate per 1,000	
			Men	Women
Cancer	Administrative	<40	2	0
		40+	2	6
	Professional	<40	2	4
		40+	3	11
	Technical	<40	2	0
		40+	0	5
	Service	<40	0	0
		40+	4	0
	Security	<40	0	0
		40+	0	0
	Crafts and Manual Labor	<40	0	0
		40+	0	0
	Nuclear	<40	0	0
		40+	0	0
	Other/Unknown	<40	0	0
		40+	5	0
Heart/Circulatory	Administrative	<40	0	5
		40+	11	4
	Professional	<40	1	0
		40+	9	3
	Technical	<40	0	10
		40+	7	5
	Service	<40	0	0
		40+	14	9
	Security	<40	0	0
		40+	0	0
	Crafts and Manual Labor	<40	0	0
		40+	12	0
	Nuclear	<40	9	0
		40+	5	0
	Other/Unknown	<40	2	0
		40+	0	0

(continued)

Figure 17. Rates for Selected Diagnostic Categories by Gender, Age, and Occupation (continued)

Diagnostic Category	Occupational Group	Age	Rate per 1,000	
			Men	Women
Lung/Respiratory	Administrative	<40	10	21
		40+	8	18
	Professional	<40	11	16
		40+	7	22
	Technical	<40	14	19
		40+	24	23
	Service	<40	20	56
		40+	54	90
	Security	<40	14	0
		40+	0	0
	Crafts and Manual Labor	<40	17	48
		40+	23	50
	Nuclear	<40	68	40
		40+	65	125
	Other/Unknown	<40	0	0
		40+	9	0
Injury and Poisoning	Administrative	<40	7	17
		40+	7	13
	Professional	<40	11	28
		40+	10	39
	Technical	<40	12	39
		40+	17	41
	Service	<40	53	83
		40+	68	36
	Security	<40	56	0
		40+	0	0
	Crafts and Manual Labor	<40	29	0
		40+	33	100
	Nuclear	<40	54	80
		40+	32	31
	Other/Unknown	<40	0	5
		40+	0	0

Figure 18. Distribution of Occupations and Injuries

Time Trends

Over the three-year period, the rates for all diagnostic categories combined remained fairly stable for most occupational groups. Overall, rates remained lower among both men and women in administrative, professional, and technical occupations than among service, crafts and manual labor, and nuclear workers. Men in the crafts and manual labor group had a slight decrease in disease rates while women in the same group showed a steady increase in rates. In the nuclear group, the elevation in disease rates among men was greater in the past two years, but disease rates among women were high during all three years (figures 19 and 20). Nuclear workers had the highest overall disease rates of any occupational group for the three-year period, and rates were higher for women than for men in this group. The changes we observed over the three-year period may reflect true changes in the occurrence of illness, changes in absence reporting requirements, or administration of sick leave, heightened awareness of medical clearance requirements, or the combined effects of these and other factors.

Cancer rates among Hanford workers showed little evidence of systematic change from 1993 to 1995 (figure 21). Rates for most types of cancer were stable over the three-year period. An exception was the diagnosis rate for breast cancer among women, which dropped from 2.2 per 1,000 women in 1993 to 0.4 per 1,000 in 1994 and then increased to 1.5 per 1,000 in 1995. A change of this magnitude over such a brief period is unlikely to reflect a true change in breast cancer rates. The reporting of only two diagnoses in 1994 suggests that the fluctuation could be related to completeness of reporting. Breast cancer rates in 1993 and 1995 were similar to those reported by the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program. SEER's cancer registry for the Seattle/Puget Sound area is closest geographically to Hanford, and in 1995, reported an age-adjusted breast cancer rate of 192.6 per 100,000 (or approximately 1.93 per 1,000) for Caucasian women in western Washington aged 20-69.

Heart and circulatory system disease rates appeared to decrease consistently among men over the three years but remained stable among women. The decrease among men reflected a 50% decline in the rate of ischemia (obstructed flow of blood through arteries). Rates of other forms of circulatory system disease remained stable for both men and women.

Overall, respiratory disease rates declined about 28% for both men and women from 1993 to 1995. A reduction in pneumonia and bronchitis diagnoses was the primary reason for the decline. Other types of respiratory disease did not show a consistent change over time. Respiratory disease rates among women were higher than among men, a gender difference that has been noted with some consistency at sites participating in epidemiologic surveillance. At Hanford, higher respiratory disease rates among women in 1993-1995 were observed across the major categories of respiratory disease other than cancer, but the difference was very small for pneumonia and bronchitis. Rates of upper respiratory conditions such as colds and sinusitis decreased among women and increased among men over the three years. In 1993, the rate of upper respiratory conditions among women was twice that of men, but by 1995 the rates for men and women were quite similar (7.5 per 1,000 in men and 8.4 per 1,000 in women).

We saw no systematic changes in the rate of injuries among Hanford workers between 1993 and 1995 (figure 21). Most of the injuries reflected in this analysis were nonoccupational. Occupational injuries recorded for Occupational Safety and Health Administration reporting were not included in Hanford epidemiologic surveillance prior to 1995. They are considered separately in this report following the discussion of occupational sentinel health events

Figure 19. Age-Adjusted Rates for All Diagnostic Categories Combined for Men by Occupation, 1993 to 1995

*There were no other/unknown salaried workers in 1993.

**For 1993 to 1995 time trends, service and security categories are combined. Separate data for two categories not available prior to 1995.

Figure 20. Age-Adjusted Rates for All Diagnostic Categories Combined for Women by Occupation, 1993 to 1995

*There were no other/unknown salaried workers in 1993.

**For 1993 to 1995 time trends, service and security categories are combined. Separate data for two categories not available prior to 1995.

Why Are Rates Age-Adjusted?

The injury and illness rates compared for 1993 through 1995 are **age-adjusted**; they take into account differences in the age distribution of the workers over the three years. Age-adjustment which results in one rate calculated for the whole group of workers removes the influence of age differences in the disease and injury rates calculated for various groups of workers. The difference between an age-adjusted rate and an age-specific rate (discussed on page 17) is that an age-adjusted rate is a rate for all ages combined and the age-specific rate is a rate for workers in a particular age group. Comparisons of age-adjusted rates can be made between different occupational groups but not between age groups within the same occupational group. Age-specific rates allow these latter types of comparisons. In figures 19 through 21, the bars around each symbol are the upper and lower bounds on the rate, which indicate the confidence that can be placed in the value of the age-adjusted rate. As the length of the bar increases, the confidence decreases. Long bar lengths are usually the result of having very small numbers for the rate calculation. For example, 1 event among 50 workers will have a longer bar than 10 events among 500 workers even though the rate per 1,000 is the same. When two rates are compared, bars that do not overlap indicate that the values of the rates are significantly different from each other. If the bars around rates overlap, the rates are not considered to be different even though the values of the two rates may appear quite different.

Figure 21. Age-Adjusted Rates for Selected Diagnostic Categories by Gender, 1993 to 1995

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 is 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, 170 (11.6%) of the 1,460 health events reported were identified as SHEOs. One hundred forty-one involved accidents, one of which occurred in the workplace and therefore is listed as a "definite" SHEO in figure 22. Among the 29 possible SHEOs, 22 were carpal tunnel syndrome reported by 18 workers. Fifteen of these workers were 40 years of age and older. Eleven of the events were reported by nine women in the administrative group. The 22 carpal tunnel absences accounted for 728 days or 9% of the total number of days absent from SHEOs (figures 22 and 23).

Figure 22. 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	1	1	1	13
	Possible	13	14	14	401
	Accident	80	84	143	4,139
	Total	94	99	158	4,553
Women	Definite	0	0	0	0
	Possible	12	15	15	440
	Accident	50	56	103	2,755
	Total	62	71	118	3,195

Figure 23. Number of Accidents by Gender, Age, and Occupation

Occupation	Age Group - Men					Age Group - Women				All Ages
	16-29	30-39	40-49	50-59	60+	16-29	30-39	40-49	50-59	
Administrative	0	2	0	4	0	5	9	9	1	30
Professional	2	8	6	2	0	1	5	3	1	28
Technical	0	5	1	0	1	1	3	5	1	17
Other/Unknown Salaried	0	0	0	0	0	0	0	0	0	0
Service	1	8	9	3	0	0	3	0	0	24
Security	0	2	0	0	0	0	0	0	0	2
Crafts and Manual Labor	0	3	11	1	0	0	1	2	1	19
Nuclear	3	8	5	0	0	1	0	2	1	20
Other/Unknown	0	0	0	0	0	1	0	0	0	1
All Occupations	6	36	32	10	1	9	21	21	5	141

OSHA-Recordable Events

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

The percentage of workers with an OSHA event was 3%, well within the range observed for epidemiologic surveillance sites in 1995. The percentage was the same for men and women and was not strongly related to age (figure 24). As at other sites, the percentage of workers in service, crafts and manual labor, nuclear, and technical occupations had a relatively high percentage of workers with at least one OSHA-recordable event; professionals and administrative staff had a much lower percentage (figure 25).

The average number of workdays lost or with restricted activity varied for men and women. On average for each OSHA event, women had 25 days lost or restricted and men had 12 days lost or restricted (figures 26 and 27). Comparing men and women within occupational groups, the average number of days lost or with restricted activities was highest for women in the nuclear (47 days), service (44 days), and technical (42 days) groups and men in the service group (19 days) (figure 27). Appendices L-N contain more detailed data about the number of OSHA events and days of work lost or with restricted activity for Hanford workers.

Figure 24. Percentage of Workers with at Least One OSHA Event by Gender and Age*

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

Figure 25. Percentage of Workers with at Least One OSHA Event by Gender and Occupation*

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

Figure 26. Lost and Restricted Workdays by Gender and Age

Men

Age Group	Total Number of Days Lost/Restricted		Total Number of OSHA Events		Average Number of Days Lost/Restricted
16-29	392	÷	40	=	9.8
30-39	1,885		161		11.7
40-49	1,269		132		9.6
50-59	1,463		78		18.8
60+	22		7		3.1
Total	5,031		418		12.0

Women

Age Group	Total Number of Days Lost/Restricted		Total Number of OSHA Events		Average Number of Days Lost/Restricted
16-29	636	÷	47	=	13.5
30-39	1,632		65		25.1
40-49	1,858		66		28.2
50-59	913		22		41.5
60+	0		2		0
Total	5,039		202		24.9

Figure 27. Lost and Restricted Workdays by Gender and Occupation

		Total Number of Days Lost/Restricted	Total Number of OSHA Events	Average Number of Days Lost/Restricted
Men	Occupation			
	Administrative	66	22	3.0
	Professional	300	39	7.7
	Technical	684	52	13.2
	Other/Unknown Salaried	0	0	0.0
	Service	1,334	69	19.3
	Security	82	7	11.7
	Crafts and Manual Labor	1,799	165	10.9
	Nuclear	678	58	11.7
	Other/Unknown	88	6	14.7
	Total	5,031	418	12.0
		$\div$		
Women	Occupation	Total Number of Days Lost/Restricted	Total Number of OSHA Events	Average Number of Days Lost/Restricted
	Administrative	1,023	93	11.0
	Professional	315	13	24.2
	Technical	2,239	54	41.5
	Other/Unknown Salaried	0	0	0.0
	Service	755	17	44.4
	Security	0	0	0.0
	Crafts and Manual Labor	10	7	1.4
	Nuclear	517	11	47.0
	Other/Unknown	180	7	25.7
	Total	5,039	202	24.9
		$\div$		

Diagnostic and Accident Categories for OSHA-Recordable Events

Sprains and strains were the most common OSHA-recordable injuries (36%) among men and women (figures 28, 32, and 34). Men reported open wounds (18%) and bruises (10%) relatively frequently, and bruises also accounted for 21% of the OSHA-recordable injuries among women. Unspecified injuries (14%) were the third most frequently occurring type of event for women workers. Seventy-two percent of the unspecified injuries were pain, numbness, and tingling of the arms, hands, wrists, and fingers caused by overuse while performing computer tasks. Most of the thirty-eight OSHA events that were not the result of a specific accident involved skin problems (18) or nervous system disorders (4 carpal tunnel syndrome, 3 eye problems, and 3 hearing loss).

Overexertion accounted for 29% of the accidents recorded in 1995, the most common cause of occupational injuries. Falls caused an additional 13%. Overexertion injuries were responsible for 4,271 lost or restricted workdays, with an average of 25 days per injury (figures 29, 30, 33, and 35). The injuries reported most often by men and women were sprains and strains, followed by open wounds for men and bruises for women (figures 31a and 31b).

Diagnostic Category	Total Number of OSHA Events Reported	
	Men	Women
Endocrine/Metabolic	1	0
Mental	2	2
Nervous System	18	20
Lung/Respiratory	5	4
Digestive	4	1
Genitourinary	1	1
Skin	12	9
Muscles and Skeleton	93	99
Unspecified Symptoms	63	50
Injury and Poisoning	387	130
• Skull Fractures	0	1
• Neck and Trunk Fractures	5	0
• Upper Limb Fractures	6	1
• Lower Limb Fractures	5	2
• Dislocations	8	4
• Back Sprains and Strains	81	30
• Other Sprains and Strains	61	12
• Intracranial Injuries	1	0
• Open Wounds – Head, Neck, Trunk	18	3
• Open Wounds – Upper Limb	44	7
• Open Wounds – Lower Limb	6	0
• Late Effects	1	0
• Superficial Injuries	13	2
• Bruises	39	27
• Crushing Injuries	2	0
• Foreign Bodies Entering Orifice	30	5
• Burns	9	2
• Injuries to Nerves and Spinal Cord	2	0
• Unspecified Injuries	15	18
• Poisoning by Drugs	1	0
• Adverse Reaction to Nonmedical Substances	27	14
• Adverse Reaction to External Causes	13	2

Figure 28. Health Conditions by Gender and Diagnostic Category

Figure 29. 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	3	0	251	4	17	8
Motor Vehicle Nontraffic	4	40	3	3	3	681
Air and Space Transport	1	5	0	0	0	0
Accidental Poisoning by Drugs/Medicine	1	0	0	0	0	0
Accidental Poisoning by Other Substances	22	0	28	12	3	0
Falls	54	767	389	20	238	99
Fire	1	0	0	0	0	0
Natural/Environmental Factors	22	23	134	6	251	1
Submersion/Suffocation/Foreign Bodies	28	6	1	4	0	3
Other Accidents	262	2,096	1,264	134	1,837	1,262
Late Effects of Accident	1	0	0	0	0	0

Figure 30. Types and Number of Accidents that Occurred Within the Category of Other Accidents by Gender

Other Accidents Category	Number of Accidents	
	Men	Women
Caught Between Objects	13	5
Cutting/Piercing Instrument/Object	42	6
Exposure to Noise	1	0
Exposure to Visible and Ultraviolet Light	0	1
Hot, Corrosive, or Caustic Material/Steam	11	3
Overexertion and Strenuous Movements	121	48
Repetitive Trauma	34	60
Struck by an Object	40	11
Total	262	134

Figure 31a. Injuries Associated with Each Type of Accident by Gender

Type of Injury	Type of Accident – Men										
	Motor Vehicle Traffic	Motor Vehicle Nontraffic	Air and Space Transport	Accidental Poisoning by Drugs/Medicine	Accidental Poisoning by Other Substances	Falls	Fire	Natural/Environmental Factors	Submersion/Suffocation/Foreign Bodies	Other Accidents	Late Effects of Accident
Neck and Trunk Fractures	1	0	0	0	0	3	0	0	0	1	0
Upper Limb Fractures	0	0	0	0	0	2	0	0	0	4	0
Lower Limb Fractures	0	0	0	0	0	2	0	0	0	3	0
Dislocations	0	0	0	0	0	2	0	0	0	6	0
Back Sprains and Strains	3	2	1	0	0	11	0	0	0	65	0
Other Sprains and Strains	0	1	0	0	0	30	0	0	0	30	0
Intracranial Injuries	0	0	0	0	0	0	0	0	0	1	0
Open Wounds – Head, Neck, Trunk	0	0	0	0	0	1	0	0	0	17	0
Open Wounds – Upper Limb	0	0	0	0	0	2	0	0	0	42	0
Open Wounds – Lower Limb	0	0	0	0	0	1	0	0	0	5	0
Late Effects	0	0	0	0	0	0	0	0	0	0	1
Superficial Injuries	0	0	0	0	0	1	0	8	0	4	0
Bruises	0	1	0	0	0	17	0	0	0	21	0
Crushing Injuries	0	0	0	0	0	0	0	0	0	2	0
Foreign Bodies Entering Orifice	0	0	0	0	0	0	0	0	28	2	0
Burns	0	0	0	0	0	0	0	0	0	9	0
Injuries to Nerves and Spinal Cord	0	0	0	0	0	0	0	0	0	2	0
Unspecified Injuries	0	0	0	0	0	1	0	0	0	14	0
Poisoning by Drugs	0	0	0	1	0	0	0	0	0	0	0
Adverse Reaction to Nonmedical Substances	0	0	0	0	22	0	1	4	0	0	0
Adverse Reaction to External Causes	0	0	0	0	1	0	0	12	0	0	0

Figure 31b. Injuries Associated with Each Type of Accident by Gender

Type of Injury	Type of Accident – Women						
	Motor Vehicle Traffic	Motor Vehicle Nontraffic	Accidental Poisoning by Other Substances	Falls	Natural/Environmental Factors	Submersion/Suffocation/Foreign Bodies	Other Accidents
Skull Fractures	0	0	0	0	0	0	1
Upper Limb Fractures	0	0	0	0	0	0	1
Lower Limb Fractures	0	1	0	0	0	0	1
Dislocations	0	0	0	0	0	0	4
Back Sprains and Strains	3	1	0	2	0	0	24
Other Sprains and Strains	0	1	0	5	0	0	6
Open Wounds – Head, Neck, Trunk	1	0	0	2	0	0	0
Open Wounds – Upper Limb	0	0	0	0	0	0	7
Superficial Injuries	0	0	0	2	0	0	
Bruises	4	2	0	12	0	0	9
Foreign Bodies Entering Orifice	0	0	0	0	0	4	1
Burns	0	0	0	0	0	0	2
Unspecified Injuries	1	0	0	1	0	0	15
Adverse Reaction to Nonmedical Substances	0	0	12	0	2	0	0
Adverse Reaction to External Causes	0	0	0	0	2	0	0

Figure 32. 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	Muscles and Skeleton	Muscles and Skeleton
	Second Most Common Diagnostic Category	Open Wounds	Muscles and Skeleton	Muscles and Skeleton	Open Wounds	Sprains and Strains
	Third Most Common Diagnostic Category	Unspecified Symptoms; Bruises	Open Wounds	Unspecified Symptoms	Unspecified Symptoms	(2)
Women	Most Common Diagnostic Category	Muscles and Skeleton	Muscles and Skeleton	Muscles and Skeleton	Muscles and Skeleton	Muscles and Skeleton
	Second Most Common Diagnostic Category	Unspecified Symptoms	Sprains and Strains	Sprains and Strains	Unspecified Symptoms	Nervous System
	Third Most Common Diagnostic Category	Sprains and Strains; Bruises	Unspecified Symptoms	Unspecified Symptoms	Sprains and Strains	Skin (1)

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

(2) More than two diagnostic categories tied.

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

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

*Type of accident was not reported for 20 OSHA events among men and 19 OSHA events among women.

Figure 34. Three Diagnostic Categories Reported Most Often by Gender and Occupation

		Administrative	Professional	Technical	Other/Unknown Salaried	Service
Men	Most Common Diagnostic Category	Muscles and Skeleton	Muscles and Skeleton	Sprains and Strains	None	Sprains and Strains
	Second Most Common Diagnostic Category	Open Wounds; Bruises	Sprains and Strains	Unspecified Symptoms	None	Muscles and Skeleton
	Third Most Common Diagnostic Category	Sprains and Strains	Unspecified Symptoms; Unspecified Injuries	Muscles and Skeleton	None	Bruises
Women	Most Common Diagnostic Category	Muscles and Skeleton	Bruises	Muscles and Skeleton	None	Muscles and Skeleton
	Second Most Common Diagnostic Category	Unspecified Symptoms	Muscles and Skeleton; Sprains and Strains	Unspecified Symptoms	None	Sprains and Strains
	Third Most Common Diagnostic Category	Sprains and Strains	Nervous System; Open Wounds	Sprains and Strains	None	Bruises

		Security	Crafts and Manual Labor	Nuclear	Other/Unknown
Men	Most Common Diagnostic Category	Sprains and Strains	Sprains and Strains	Sprains and Strains	Sprains and Strains
	Second Most Common Diagnostic Category	Fractures	Open Wounds	Unspecified Symptoms	Dislocations; Bruises
	Third Most Common Diagnostic Category	(2)	Muscles and Skeleton	Bruises	Foreign Bodies Entering Orifice (1)
Women	Most Common Diagnostic Category	None	Muscles and Skeleton	Sprains and Strains	Muscles and Skeleton
	Second Most Common Diagnostic Category	None	Foreign Bodies Entering Orifice (1)	Muscles and Skeleton	Bruises; Foreign Bodies Entering Orifice
	Third Most Common Diagnostic Category	None	(2)	Dislocations	(2)

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

(2) More than two diagnostic categories tied.

Figure 35. Three Accident Categories Reported Most Often by Gender and Occupation (1)

		Administrative	Professional	Technical	Other/Unknown Salaried	Service
Men	Most Common Accident Category	Other Accidents	Other Accidents	Other Accidents	None	Other Accidents
	Second Most Common Accident Category	Falls	Motor Vehicle; Falls	Accidental Poisoning by Other Substances	None	Falls
	Third Most Common Accident Category	Natural/Environmental Factors	(3)	Natural/Environmental Factors	None	Submersion/Suffocation/Foreign Bodies
Women	Most Common Accident Category	Other Accidents	Other Accidents	Other Accidents	None	Other Accidents
	Second Most Common Accident Category	Accidental Poisoning by Other Substances; Falls	Motor Vehicle; Falls	Falls	None	Falls
	Third Most Common Accident Category	Motor Vehicle	Natural/Environmental Factors	Accidental Poisoning by Other Substances	None	None

		Security	Crafts and Manual Labor	Nuclear	Other/Unknown
Men	Most Common Accident Category	Other Accidents	Other Accidents	Other Accidents	Other Accidents
	Second Most Common Accident Category	Falls	Falls	Falls	Submersion/Suffocation/Foreign Bodies
	Third Most Common Accident Category	Submersion/Suffocation/Foreign Bodies	Submersion/Suffocation/Foreign Bodies	Natural/Environmental Factors	None
Women	Most Common Accident Category	None	Other Accidents	Other Accidents	Other Accidents
	Second Most Common Accident Category	None	Submersion/Suffocation/Foreign Bodies	Motor Vehicle; Accidental Poisoning by Other Substances	Submersion/Suffocation/Foreign Bodies
	Third Most Common Accident Category	None	None	Natural/Environmental Factors (2)	Falls

(1) Type of accident was not reported for 20 OSHA events among men and 19 OSHA events among women.

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

(3) More than two accident categories tied.

Rates of OSHA-Recordable Events

Women in the technical and nuclear groups and men in the service, crafts and manual labor, and nuclear groups had relatively high rates for all occupational diagnoses combined. Among men, younger workers tended to have higher diagnosis rates, but there was no clear age pattern among women (figure 36). Most of the OSHA diagnoses involved occupational injury and poisoning. When these diagnoses were considered separately, both men and women had lower rates in workers aged 40 or older. The highest rates of injury and poisoning occurred among women in the nuclear group and men in the service group (figure 37).

Hanford workers missed 4,504 days of work and had 5,566 restricted workdays as a result of occupational injuries. Technical workers, who comprise about 9% of the work force, had the highest percentage of lost and restricted workdays of any occupational group (26% of the restricted workdays and 33% of the lost workdays). Service workers, 4% of the work force, experienced 29% of the lost workdays and 14% of the restricted workdays (appendix N). The proportion of lost versus restricted workdays varied with occupation. Among security, crafts and manual labor, and nuclear workers, the proportion of restricted workdays was much higher than lost workdays. Service workers and professionals had a much larger percentage of lost workdays. Lost and restricted workdays were equally divided among technical workers (appendix N).

Compared with the work force as a whole, crafts and manual labor, service, technical, and nuclear workers were at higher risk for occupational injury (appendix W). The risks for various types of injuries varied by occupational group. Reports of toxic effects of nonmedical substances were prominent among technical workers. Service workers were at relatively higher risk for sprains and strains, dislocations, bruises, and conditions affecting the muscles and skeleton. Crafts and manual laborers were at highest risk for open wounds and were also at high risk for sprains and strains, bruises, burns, and foreign bodies entering a body opening. The risks for burns, toxic effects of nonmedical substances, and various symptoms and ill-defined conditions were higher among nuclear workers (appendix W). The 433 OSHA events in these four occupational groups resulted in 4,556 days of restricted activity and 3,460 lost workdays—a substantial loss of productivity (appendix N).

Figure 36. Rate per 1,000 for All Diagnostic Categories Combined by Gender, Age, and Occupation

All Diagnostic Categories	Occupational Group	Age	Rate per 1,000	
			Men	Women
	Administrative	<40	13	38
		40+	9	41
	Professional	<40	10	5
		40+	17	50
	Technical	<40	73	180
		40+	48	138
	Service	<40	204	194
		40+	143	63
	Security	<40	83	0
		40+	63	0
	Crafts and Manual Labor	<40	161	95
		40+	138	100
	Nuclear	<40	202	147
		40+	102	172
	Other/Unknown	<40	6	17
		40+	19	11

Figure 37. Rate per 1,000 for Selected Diagnostic Categories by Gender, Age, and Occupation

Diagnostic Category	Occupational Group	Age	Rate per 1,000	
			Men	Women
Injury and Poisoning	Administrative	<40	10	16
		40+	5	12
	Professional	<40	5	5
		40+	6	31
	Technical	<40	40	55
		40+	33	64
	Service	<40	155	83
		40+	108	36
	Security	<40	56	0
		40+	48	0
	Crafts and Manual Labor	<40	143	71
		40+	89	50
	Nuclear	<40	134	107
		40+	51	94
	Other/Unknown	<40	6	8
		40+	19	0

Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Explanation of Diagnostic Categories

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

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

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

(continued)

Categories and Subcategories of Diagnoses	ICD-9-CM Codes	Diseases
• Hereditary and degenerative diseases of the central nervous system	330-337	Alzheimer's and Parkinson's disease, tremors, and Huntington's chorea
• Other disorders of the central nervous system	340-349	Multiple sclerosis (MS), cerebral palsy, epilepsy, and migraine
• Disorders of the peripheral nervous system	350-359	Nerve disorders of the face, carpal tunnel syndrome, muscular dystrophy
• Disorders of the eye	360-379	Inflammation and ulcers of the eye and eyelid; detached retina; pink eye; problems with tear ducts; glaucoma; and cataracts
• Diseases of the ear and mastoid process	380-389	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
• Acute rheumatic fever	390-392	High fever and joint pain with possible heart damage
• Chronic rheumatic heart disease	393-398	Long lasting swelling and damage to the heart which results from rheumatic fever
• Hypertensive disease	401-405	High blood pressure
• Ischemic heart disease	410-414	Heart attack and angina
• Diseases of pulmonary circulation	415-417	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)
• Other forms of heart disease	420-429	Swelling of the inner lining, middle lining, or sac enclosing the heart; heart failure; and irregular heartbeat
• Cerebrovascular disease	430-438	Stroke, bleeding in the brain, and blockage or low blood flow in blood vessels of the brain
• Diseases of the arteries and capillaries	440-448	Hardening of the arteries; aneurysm (bulge that develops in the walls of arteries); and blood clots
• Diseases of the veins, lymphatics, and other	451-459	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
• Acute respiratory infections	460-466	Colds, sore throat, sinus infections, swollen tonsils, and bronchitis
• Other diseases of the upper respiratory tract	470-478	Allergies, hay fever, sinus infections, bronchitis, and sore throat that continue for a long time
• Pneumonia and influenza	480-487	"The flu" and pneumonia caused by a bacteria or virus
• Chronic obstructive pulmonary diseases and allied conditions	490-496	Emphysema and asthma
• Pneumoconiosis and other lung diseases caused by external agents	500-508	Black lung; miners' asthma; asbestosis; silicosis; berylliosis; and conditions caused by chemical fumes and vapors
• Other diseases of respiratory system	510-519	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
• Diseases of the oral cavity, salivary glands, and jaw	520-529	Tooth problems (too many, too few, abnormal shape or size, cavities, bleeding gums, toothaches), and infections and swelling of the mouth, jaw, and tongue
• Diseases of the esophagus, stomach, and duodenum	530-537	Ulcers of the esophagus (tube that transports food to the stomach), stomach, and small intestine; indigestion; and uncontrollable vomiting
• Appendicitis	540-543	Swelling of the appendix (rupture, surgery, or both may result)
• Hernia of the abdominal cavity	550-553	Ruptures of the groin and diaphragm (muscle which separates the chest area from the lower part of the trunk)
• Noninfectious enteritis and colitis	555-558	Crohn's disease and swelling of the intestine and colon
• Other diseases of the intestines and peritoneum	560-569	Irritable bowel syndrome, blockage of the intestine, constipation, and diarrhea
• Other diseases of digestive system	570-579	Diseases of the liver, gallbladder, and pancreas; hepatitis; blood in stool; and bleeding in the stomach and intestine

(continued)

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

(continued)

Categories and Subcategories of Diagnoses	ICD-9-CM Codes	Diseases
• 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...)

☐ U.S. Department of Energy (DOE)

☐ DOE contractor or subcontractor

☐ Other Federal agency

☐ Military

☐ State or Local government

☐ Other

(ESS/HAN95)

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS MAIL PERMIT NO. 65 OAK RIDGE, TN

POSTAGE WILL BE PAID BY ADDRESSEE

ATTN: SANDRA KING, B&AR-CER, MS-45
Oak Ridge Associated Universities
PO Box 117
Oak Ridge, TN 37831-9923

Hanford 1995 Appendices

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
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
Appendix E.	Distribution of the Number of Calendar Days Absent/Health Event by Gender and Occupation
Appendix F.	Number of Health Conditions in Each Diagnostic Category by Gender and Age
Appendix G.	Total Number of Calendar Days Absent in Each Diagnostic Category by Gender and Age
Appendix H.	Number of Health Conditions in Each Diagnostic Category by Gender and Occupation
Appendix I.	Total Number of Calendar Days Absent in Each Diagnostic Category by Gender and Occupation
Appendix J.	Relative Risk Estimates for Selected Diagnostic Categories Among Five-Day Absences
Appendix K.	Occupational Sentinel Health Events (SHEO)
Appendix L.	Number of Workers with at Least One OSHA Event by Gender, Age, and Occupation
Appendix M.	Total Number of Workdays Lost or with Restricted Activity from OSHA Events by Gender and Age
Appendix N.	Total Number of Workdays Lost or with Restricted Activity from OSHA Events by Gender and Occupation
Appendix O.	Number of Health Conditions in Each Diagnostic Category by Gender and Age
Appendix P.	Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Age
Appendix Q.	Number of Occurrences in Each Accident Category by Gender and Age
Appendix R.	Number of Workdays Lost or with Restricted Activity for Each Accident Category by Gender and Age
Appendix S.	Number of Health Conditions in Each Diagnostic Category by Gender and Occupation
Appendix T.	Number of Workdays 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 Workdays 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

HANFORD 1995

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

	Gender												Total
	Women						Men						
	Age Group					Total	Age Group					Total	
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Occupational Group													
Administrative	745	1023	1203	617	122	3710	188	750	1361	841	206	3346	7056
Professional	191	375	260	84	13	923	510	1350	1484	884	281	4509	5432
Technical	130	181	140	64	14	529	220	435	311	176	52	1194	1723
Other/Unknown Salaried	59	17	17	8	2	103	14	29	47	36	12	138	241
Service	16	56	52	51	8	183	73	172	173	86	20	524	707
Security	3	3	3	2	1	12	5	67	42	11	10	135	147
Crafts & Manual Labor	11	31	31	9	0	82	74	403	609	356	49	1491	1573
Nuclear	21	54	42	20	2	139	86	266	170	39	7	568	707
Other/Unknown	479	50	49	6	6	590	349	74	58	41	21	543	1133
Total	1655	1790	1797	861	168	6271	1519	3546	4255	2470	658	12448	18719

HANFORD 1995

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

	Gender												Total
	Women						Men						
	Age Group					Total	Age Group					Total	
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Occupational Group													
Administrative	70	113	104	41	6	334	5	30	50	40	8	133	467
Professional	22	39	25	8	0	94	16	46	59	40	6	167	261
Technical	20	26	18	7	1	72	10	29	30	6	4	79	151
Other/Unknown Salaried	2	1	0	0	0	3	0	0	1	0	0	1	4
Service	1	13	13	9	0	36	4	21	26	15	2	68	104
Security	1	0	0	0	0	1	0	5	3	0	0	8	9
Crafts & Manual Labor	0	7	8	4	0	19	5	24	67	40	5	141	160
Nuclear	3	15	10	7	1	36	9	37	24	4	1	75	111
Other/Unknown	5	0	1	0	0	6	0	1	0	0	1	2	8
Total	124	214	179	76	8	601	49	193	260	145	27	674	1275

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

	Gender													
	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 +	Total	
Occupational Group														
Administrative	78	130	122	49	6	385		5	33	57	43	9	147	532
Professional	22	48	29	12	0	111		16	51	64	44	7	182	293
Technical	27	30	20	7	2	86		11	33	37	6	4	91	177
Other/Unknown Salaried	2	1	0	0	0	3		0	0	2	0	0	2	5
Service	1	18	18	11	0	48		4	24	28	18	4	78	126
Security	1	0	0	0	0	1		0	5	4	0	0	9	10
Crafts & Manual Labor	0	10	11	4	0	25		6	25	74	40	5	150	175
Nuclear	3	16	12	8	1	40		13	44	29	6	1	93	133
Other/Unknown	6	0	1	0	0	7		0	1	0	0	1	2	9
Total	140	253	213	91	9	706		55	216	295	157	31	754	1460

HANFORD 1995
Appendix D. Distribution of the Number of Calendar Days Absent/Health Event by Gender and Age

	Gender													
	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 +	Total	
# of Calendar Days														
< 15	27	83	63	29	6	208		28	124	137	58	11	358	
15 - 28	28	53	67	25	1	174		18	53	86	48	4	209	
29 - 42	10	22	21	13	1	67		4	12	25	23	5	69	
43 - 56	15	20	29	11	1	76		1	9	17	10	4	41	
57 - 91	29	34	17	5	0	85		3	11	16	9	2	41	
92 - 182	29	32	11	6	0	78		1	6	12	8	5	32	
183 +	2	9	5	2	0	18		0	1	2	1	0	4	
Total	140	253	213	91	9	706		55	216	295	157	31	754	

HANFORD 1995

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

	Gender																			
	Women										Men									
	Occupation									Total	Occupation									Total
	Admin- istra- tive	Profe- ssion- al	Techn- ical	Other- /Unkn- own Salar- ied	Servi- ce	Secur- ity	Crafts & Manual Labor	Nucle- ar	Other- /Unkn- own		Admin- istra- tive	Profe- ssion- al	Techn- ical	Other- /Unkn- own Salar- ied	Servi- ce	Secur- ity	Crafts & Manual Labor	Nucle- ar	Other- /Unkn- own	
# of calendar Days																				
< 15	109	31	25	0	21	0	6	15	1	208	69	88	46	0	33	3	68	51	0	358
15 - 28	97	27	20	1	14	0	5	7	3	174	41	49	37	2	20	2	34	24	0	209
29 - 42	40	10	6	0	2	0	3	6	0	67	11	15	6	0	6	3	22	5	1	69
43 - 56	46	11	9	1	2	0	4	2	1	76	12	11	0	0	1	1	10	6	0	41
57 - 91	47	12	13	1	4	0	4	2	2	85	6	14	1	0	8	0	9	2	1	41
92 - 182	39	16	11	0	4	1	2	5	0	78	7	5	1	0	7	0	7	5	0	32
183 +	7	4	2	0	1	0	1	3	0	18	1	0	0	0	3	0	0	0	0	4
Total	385	111	86	3	48	1	25	40	7	706	147	182	91	2	78	9	150	93	2	754

HANFORD 1995

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

		Gender												Total
		Women						Men						
		Age Group					Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
INFECTIOUS & PARASITIC DISEASES	001-139	5	6	8	3	0	22	5	7	21	4	0	37	59
-Intestinal Infections	001-009	0	3	2	1	0	6	1	0	5	0	0	6	12
-Other Bacterial Diseases	030-041	0	1	2	0	0	3	1	2	2	0	0	5	8
-Viral Diseases with Exanthem	050-057	2	1	0	1	0	4	1	1	5	0	0	7	11
-Other Viral Diseases & Chlamydiae	070-079	3	1	3	1	0	8	2	4	9	4	0	19	27
-Mycoses	110-118	0	0	1	0	0	1	0	0	0	0	0	0	1
MALIGNANT NEOPLASMS	140-208, 230-234	0	2	12	4	0	18	1	6	1	6	7	21	39
-Lip, Oral Cavity, Pharynx	140-149	0	0	0	0	0	0	0	0	0	1	0	1	1
-Digestive Organs	150-159	0	0	0	1	0	1	0	0	0	2	2	4	5
-Bone, Connective Tissue, Skin	170-173, 176	0	0	0	1	0	1	0	0	0	0	0	0	1
-Breast	174-175	0	2	8	1	0	11	0	0	0	0	0	0	11

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

(CONTINUED)

HANFORD 1995

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

		Gender												
		Women						Men						
		Age Group						Age Group						
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
-Genitourinary	179-189	0	0	2	1	0	3	1	2	0	2	3	8	11
-Other & Unspecified Sites	190, 193-199	0	0	2	0	0	2	0	4	0	0	2	6	8
-Nervous System	191-192	0	0	0	0	0	0	0	0	1	0	0	1	1
-Leukemia, Lymphoma	200-208	0	0	0	0	0	0	0	0	0	1	0	1	1
BENIGN & OTHER NEOPLASMS	210-229, 235-239	0	10	6	1	1	18	1	3	6	5	0	15	33
ENDOCRINE & METABOLIC DISEASES	240-279	1	5	4	0	1	11	2	3	2	2	0	9	20
-Thyroid Gland	240-246	0	2	3	0	0	5	2	0	0	0	0	2	7
-Other Endocrine Glands	250-259	0	0	1	0	0	1	0	2	1	2	0	5	6
-Other Metabolic & Immunity Disorders	270-279	1	3	0	0	1	5	0	1	1	0	0	2	7
BLOOD & BLOOD-FORMING ORGANS	280-289	0	1	2	0	0	3	0	3	1	1	0	5	8
MENTAL DISORDERS	290-319	13	21	21	1	0	56	3	12	7	7	2	31	87
-Psychotic Conditions	290-299	1	4	1	0	0	6	1	2	2	0	0	5	11

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

(CONTINUED)

HANFORD 1995

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

		Gender												Total
		Women						Men						
		Age Group					Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
-Non-Psychotic Conditions	300-302, 306-316	7	16	18	1	0	42	1	5	2	5	2	15	57
-Alcohol Dependence	303	0	0	0	0	0	0	0	1	0	2	0	3	3
-Drug Dependence	304-305	5	1	2	0	0	8	1	4	3	0	0	8	16
NERVOUS SYSTEM & SENSE ORGANS	320-389	3	12	17	9	0	41	4	11	14	7	2	38	79
-Other Disorders of CNS	340-349	0	4	3	0	0	7	0	0	0	0	0	0	7
-Disorders of Peripheral NS	350-359	1	3	9	7	0	20	1	2	4	4	1	12	32
-Disorders of Eye	360-379	0	3	2	1	0	6	0	5	5	3	0	13	19
-Diseases of Ear & Mastoid	380-389	2	2	3	1	0	8	3	4	5	0	1	13	21
CIRCULATORY SYSTEM	390-459	1	10	5	3	3	22	0	6	33	32	7	78	100
-Chronic Rheumatic Heart Disease	393-398	0	0	0	0	1	1	0	0	0	0	0	0	1
-Hypertensive Disease	401-405	0	0	0	1	0	1	0	1	2	2	0	5	6
-Ischemic Heart Disease	410-414	0	2	1	1	2	6	0	2	20	18	4	44	50

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

(CONTINUED)

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

Diagnostic Category		Gender													
		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 +	Total	
ICD-9-CM Code															
-Other Heart Disease	420-429	0	1	0	1	0	2	0	1	6	3	1	11	13	
-Cerebrovascular Disease	430-438	1	1	0	0	0	2	0	0	1	2	0	3	5	
-Diseases of Arteries & Capillaries	440-448	0	2	0	0	0	2	0	0	0	2	2	4	6	
-Diseases of Veins, Lymphatics, Other	451-459	0	4	4	0	0	8	0	2	4	5	0	11	19	
RESPIRATORY SYSTEM	460-519	13	48	47	18	3	129	16	61	68	32	5	182	311	
-Acute Respiratory Infections	460-466	7	17	13	4	0	41	3	20	17	5	4	49	90	
-Other Diseases Upper Respiratory Tract	470-478	2	10	8	2	0	22	7	12	14	15	1	49	71	
-Pneumonia & Influenza	480-487	1	10	10	8	0	29	3	14	22	8	0	47	76	
-Chronic Obstructive Diseases	490-496	3	9	16	4	3	35	3	13	14	4	0	34	69	
-Other Respiratory Diseases	510-519	0	2	0	0	0	2	0	2	1	0	0	3	5	

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

(CONTINUED)

HANFORD 1995

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

		Gender												Total
		Women						Men						
		Age Group					Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
DIGESTIVE SYSTEM	520-579	14	29	32	13	1	89	7	37	46	30	7	127	216
-Oral Cavity, Saliv. Glands, Jaw	520-529	3	1	1	0	0	5	1	2	3	0	0	6	11
-Esophagus, Stomach, Duodenum	530-537	2	2	3	2	0	9	1	2	3	2	1	9	18
-Appendicitis	540-543	3	1	1	0	0	5	2	5	2	2	0	11	16
-Hernias	550-553	1	3	7	2	1	14	1	8	16	14	4	43	57
-Enteritis, Colitis	555-558	1	1	3	1	0	6	0	8	4	1	0	13	19
-Other Intestinal Diseases	560-569	2	4	7	0	0	13	0	6	5	2	1	14	27
-Other Digestive Diseases	570-579	2	17	10	8	0	37	2	6	13	9	1	31	68
GENITOURINARY SYSTEM	580-629	16	25	28	9	0	78	1	3	4	6	1	15	93
-Nephritis, Nephrosis	580-589	1	0	0	0	0	1	0	1	0	1	0	2	3
-Other Urinary Diseases	590-599	1	3	3	2	0	9	0	2	1	2	1	6	15
-Male Genital Organs	600-608	0	0	0	0	0	0	1	0	2	3	0	6	6

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

(CONTINUED)

HANFORD 1995

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

		Gender												
		Women						Men						
		Age Group						Age Group						
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
-Disorders of the Breast	610-611	1	1	3	1	0	6	0	0	1	0	0	1	7
-Pelvic Inflammatory Diseases	614-616	3	1	2	0	0	6	0	0	0	0	0	0	6
-Other Diseases of Females	617-629	10	20	20	6	0	56	0	0	0	0	0	0	56
PREGNANCY & CHILDBIRTH	630-677	71	49	1	0	0	121	0	0	0	0	0	0	121
-Other Pregnancy with Abortive Outcome	634-639	2	1	0	0	0	3	0	0	0	0	0	0	3
-Complications of Pregnancy	640-648	18	11	0	0	0	29	0	0	0	0	0	0	29
-Normal Delivery & Care	650-659	50	37	1	0	0	88	0	0	0	0	0	0	88
-Complications of Puerperium	670-677	1	0	0	0	0	1	0	0	0	0	0	0	1
SKIN & SUBCUTANEOUS TISSUE	680-709	0	2	4	2	0	8	0	6	11	0	0	17	25
-Infections	680-686	0	1	1	0	0	2	0	2	5	0	0	7	9

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

(CONTINUED)

HANFORD 1995

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

		Gender												
		Women						Men						
		Age Group						Age Group						
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code													
-Other Inflammatory Conditions	690-698	0	0	0	0	0	0	0	1	1	0	0	2	2
-Other Diseases	700-709	0	1	3	2	0	6	0	3	5	0	0	8	14
MUSCULOSKELETAL SYSTEM	710-739	8	33	52	30	2	125	10	33	50	23	4	120	245
-Arthropathies	710-719	4	5	7	9	0	25	4	8	13	5	3	33	58
-Dorsopathies	720-724	0	10	23	9	0	42	5	20	21	9	0	55	97
-Rheumatism, Excluding Back	725-729	2	17	20	11	1	51	1	3	16	8	1	29	80
-Acquired Deformities	730-739	2	1	2	1	1	7	0	2	0	1	0	3	10
CONGENITAL ANOMALIES	740-759	1	0	2	0	0	3	1	1	0	0	0	2	5
SYMPTOMS, SIGNS, & ILL-DEFINED COND.	780-799	6	5	12	4	0	27	3	6	12	6	1	28	55
-Symptoms	780-789	6	5	11	3	0	25	3	5	12	6	1	27	52
-Non-Specific Abnormal Findings	790-796	0	0	0	1	0	1	0	0	0	0	0	0	1

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

(CONTINUED)

HANFORD 1995

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

Diagnostic Category		Gender													
		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 +	Total	
ICD-9-CM Code															
-Ill-defined & Unknown Causes	797-799	0	0	1	0	0	1	0	1	0	1	0	0	1	2
INJURY & POISONING	800-999	29	44	45	13	0	131	17	69	78	30	3	197	328	
-Skull Fractures	800-804	2	1	0	0	0	3	0	0	0	0	1	0	1	4
-Neck & Trunk Fractures	805-809	0	2	1	2	0	5	0	2	2	1	0	0	5	10
-Upper Limb Fractures	810-819	1	0	3	0	0	4	3	1	1	3	0	8	12	
-Lower Limb Fractures	820-829	1	2	6	1	0	10	2	4	6	4	0	16	26	
-Dislocations	830-839	0	5	4	2	0	11	2	11	6	3	1	23	34	
-Back Sprains & Strains	846-847	8	13	9	2	0	32	3	13	17	4	0	37	69	
-Other Sprains & Strains	840-845, 848	5	4	5	3	0	17	3	12	19	5	1	40	57	
-Intracranial Injuries	850-854	2	2	0	0	0	4	1	1	2	0	0	4	8	
-Internal Injuries Thorax, Abdomen, Pelvis	860-869	0	0	1	0	0	1	0	0	0	0	0	0	0	1

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

(CONTINUED)

HANFORD 1995

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

		Gender												
		Women						Men						
		Age Group						Age Group						
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		Total	16 - 29	30 - 39	40 - 49	50 - 59		
Diagnostic Category	ICD-9-CM Code													
-Open Wound Head, Neck, Trunk	870-879	2	1	1	0	0	4	0	1	1	0	0	2	6
-Open Wound Upper Limb	880-887	0	1	1	0	0	2	0	2	0	0	0	2	4
-Open Wound Lower Limb	890-897	0	0	0	0	0	0	0	0	1	0	0	1	1
-Late Effects	905-909	4	5	4	1	0	14	2	5	7	1	0	15	29
-Superficial Injury	910-919	0	0	0	0	0	0	0	4	1	0	0	5	5
-Contusion	920-924	1	5	2	1	0	9	1	4	2	1	0	8	17
-Crushing Injuries	925-929	0	0	1	0	0	1	0	0	0	0	0	0	1
-Foreign Bodies Entering Orifice	930-939	0	0	1	0	0	1	0	2	0	1	0	3	4
-Injuries to Nerves & Spinal Cord	950-957	0	0	0	0	0	0	0	0	1	0	0	1	1
-Unspecified Injuries	958-959	1	2	2	1	0	6	0	2	8	2	1	13	19
-Toxic Effects Nonmedical Substances	980-989	0	0	0	0	0	0	0	1	0	0	0	1	1

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

(CONTINUED)

HANFORD 1995

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

Diagnostic Category		Gender												
		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 +	Total	Total
ICD-9-CM Code														
-Unspecified Effects External Causes	990-995	0	1	2	0	0	3	0	3	2	2	0	7	10
-Complications of Surgical/Medical Care	996-999	2	0	2	0	0	4	0	1	2	2	0	5	9
HEALTH STATUS/HEALTH SERVICE CONTACT	V01-V02													
-Personal & Family History	V10-V19	4	8	3	1	0	16	0	8	6	5	0	19	35
-Health Services Reproduction/Development	V20-V29	0	1	1	0	0	2	0	2	2	2	0	6	8
-Health Status	V40-V49	2	3	0	0	0	5	0	4	1	0	0	5	10
-Specific Procedure/Aftercare	V50-V59	0	0	0	0	0	0	0	1	0	1	0	2	2
Total		185	310	301	111	11	918	71	275	360	196	39	941	1859

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

HANFORD 1995

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

Diagnostic Category	Gender											
	Women						Men					
	Age Group					Total	Age Group					Total
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +	
Infectious & Parasitic Diseases	79	63	114	68	0	324	84	97	278	82	0	541
Malignant Neoplasms	0	46	563	554	0	1163	15	67	190	212	343	827
Benign & Other Neoplasms	0	320	262	18	12	612	17	92	145	116	0	370
Endocrine & Metabolic Diseases	50	252	102	0	13	417	39	178	24	79	0	320
Blood & Blood-Forming Organs	0	15	18	0	0	33	0	144	21	19	0	184
Mental Disorders	480	1580	902	153	0	3115	90	252	278	356	34	1010
Nervous System & Sense Organs	66	297	946	192	0	1501	146	150	322	277	54	949
Circulatory System	173	351	149	101	59	833	0	155	991	1319	377	2842
Respiratory System	150	576	631	248	42	1647	247	858	1013	459	74	2651
Digestive System	344	704	810	539	42	2439	121	697	1073	821	242	2954
Genitourinary System	427	842	1055	273	0	2597	13	197	102	100	38	450
Pregnancy & Childbirth	6241	5678	47	0	0	11966	0	0	0	0	0	0
Skin & Subcutaneous Tissue	0	27	101	83	0	211	0	88	236	0	0	324
Musculoskeletal System	364	1128	2433	1305	19	5249	183	1533	1941	912	190	4759
Congenital Anomalies	175	0	47	0	0	222	27	83	0	0	0	110
Symptoms, Signs, & Ill-defined Cond.	223	222	911	67	0	1423	39	155	154	99	15	462

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

(CONTINUED)

HANFORD 1995

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

	Gender											
	Women						Men					
	Age Group					Total	Age Group					Total
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +	
Diagnostic Category												
Injury & Poisoning	773	1135	1249	478	0	3635	338	1787	2570	611	114	5420
Health Status/Health Service Contact	200	375	174	32	0	781	0	168	80	121	0	369

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

HANFORD 1995

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

		Gender																									
		Women										Men															
		Occupational Group										Occupational Group															
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown	Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Tot- al	Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown	Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear			Oth- er/- Unk- nown	Tot- al		
Diagnos- tic Category	ICD-9-CM Code																										
INFECTI- OUS & PARASIT- IC DISEASES	001-139	15	3	2	0	2	0	0	0	0	22	5	8	7	0	1	1	13	2	0	37	59					
-Intest- inal Infecti- ons	001-009	4	0	0	0	2	0	0	0	0	6	0	1	0	0	0	0	3	2	0	6	12					
-Other Bacteri- al Diseases	030-041	2	1	0	0	0	0	0	0	0	3	1	2	1	0	0	0	1	0	0	5	8					
-Viral Diseases with Exanthem	050-057	3	0	1	0	0	0	0	0	0	4	1	3	0	0	0	0	3	0	0	7	11					

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

(CONTINUED)

HANFORD 1995

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

		Gender																				Tot- al		
		Women										Men												
		Occupational Group											Occupational Group										Tot- al	
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Total		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown			Total
Diagnos- tic Category	ICD-9-CM Code																							
-Other Viral Diseases & Chlamyd- iae	070-079	5	2	1	0	0	0	0	0	0	8	3	2	6	0	1	1	6	0	0	19	27		
-Mycoses	110-118	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
MALIG- NANT NEOPLAS- MS	140-208, 230-234	11	6	1	0	0	0	0	0	0	18	7	11	1	0	1	0	0	0	1	21	39		
-Lip, Oral Cavity, Pharynx	140-149	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1		
-Digest- ive Organs	150-159	1	0	0	0	0	0	0	0	0	1	2	1	0	0	1	0	0	0	0	4	5		

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

(CONTINUED)

HANFORD 1995

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

		Gender																											
		Women										Men																	
		Occupational Group											Occupational Group																
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Tot- al		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown				Tot- al				
Diagnos- tic Category	ICD-9-CM Code																												
-Bone, Connective Tissue, Skin	170-173, 176	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
-Breast	174-175	6	5	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
-Genito- urinary	179-189	2	0	1	0	0	0	0	0	0	3	1	5	1	0	0	0	0	0	0	0	1	8	11					
-Other & Unspeci- fied Sites	190, 193- 199	1	1	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	6	8					
-Nervous System	191-192	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1					
-Leukem- ia, Lymphoma	200-208	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1					

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

(CONTINUED)

HANFORD 1995

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

		Gender																				Total				
		Women										Men														
		Occupational Group											Occupational Group										Total			
		Admin- istrative	Professional	Technical	Other/ Unknown Salaried	Service	Security	Crafts & Manual Labor	Nuclear	Other/ Unknown	Admin- istrative		Professional	Technical	Other/ Unknown Salaried	Service	Security	Crafts & Manual Labor	Nuclear	Other/ Unknown						
Diagnostic Category	ICD-9-CM Code																									
BENIGN & OTHER NEOPLAS- MS	210-229, 235-239	7	6	2	0	1	0	1	1	0	18	4	5	2	0	0	0	3	1	0	15	33				
ENDOCRINE & METABOLIC DISEASES	240-279	7	1	1	0	1	0	0	1	0	11	0	4	0	0	0	0	2	3	0	9	20				
-Thyroid Gland	240-246	4	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	2	0	0	2	7				
-Other Endo- crine Glands	250-259	1	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	2	0	5	6				

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

(CONTINUED)

HANFORD 1995

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

		Gender																		Tot- al	Tot- al				
		Women										Men													
		Occupational Group											Occupational Group									Tot- al			
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Tot- al		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor				Nuc- lear	Oth- er/- Unk- nown	
Diagnos- tic Category	ICD-9-CM Code																								
-Other Metabol- ic & Immunity Disorde- rs	270-279	2	1	1	0	0	0	0	1	0	5	0	1	0	0	0	0	0	1	0	2	7			
BLOOD & BLOOD- FORMING ORGANS	280-289	1	2	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0	3	0	5	8			
MENTAL DISORDE- RS	290-319	20	8	11	0	10	0	3	3	1	56	9	4	7	0	5	0	2	4	0	31	87			
-Psychotic Condi- tions	290-299	3	3	0	0	0	0	0	0	0	6	2	1	1	0	0	0	0	1	0	5	11			

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

(CONTINUED)

HANFORD 1995

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

		Gender																												
		Women										Men																		
		Occupational Group											Occupational Group																	
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Tot- al		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown			Tot- al						
Diagnos- tic Category	ICD-9-CM Code																													
-Non- Psycho- tic Condi- tions	300-302, 306-316	14	5	8	0	9	0	2	3	1	42	4	1	4	0	4	0	1	1	0	15	57								
-Alcohol Depende- nce	303	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	3	3								
-Drug Depende- nce	304-305	3	0	3	0	1	0	1	0	0	8	2	1	2	0	0	0	1	2	0	8	16								
NERVOUS SYSTEM & SENSE ORGANS	320-389	24	7	4	0	0	0	4	2	0	41	6	11	5	0	5	1	6	4	0	38	79								
-Other Disorde- rs of CNS	340-349	5	0	1	0	0	0	0	1	0	7	0	0	0	0	0	0	0	0	0	0	7								

*Only those diagnostic categories 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 Code	Gender													
		Women							Men						
		Occupational Group							Occupational Group						
		Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al	Adm- ini. Pro- fession- al
-Disorders of Peripheral NS	350-359	15	3	1	0	0	0	0	0	0	0	0	0	0	0
-Disorders of Eye	360-379	0	3	0	0	0	0	0	0	0	0	0	0	0	0
-Diseases of Ear & Mastoid	380-389	4	1	2	0	0	0	0	0	0	0	0	0	0	0
CIRCULATORY SYSTEM	390-459	16	1	4	0	1	0	0	0	0	0	0	0	0	0
-Chronic Rheumatic Heart Disease	399-398	1	0	0	0	0	0	0	0	0	0	0	0	0	0

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

(CONTINUED)

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

			Gender																				
			Women							Men													
			Occupational Group							Occupational Group													
			Admi- ni- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual Labor	Oth- er/ Un- known	Admi- ni- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual Labor	Oth- er/ Un- known	Tot- al						
Diagnos- tic Category	ICD-9-CM Code	0	1	0	0	0	0	0	0	0	1	2	0	0	1	0	0	1	0	0	5	6	
-Ischem- ic Heart Disease	410-414	4	0	1	0	1	0	0	0	0	6	16	18	0	2	0	2	0	6	1	1	44	50
-Other Heart Disease	420-429																						
		1	0	1	0	0	0	0	0	0	2	4	2	2	0	1	0	1	1	0	1	11	13
-Cerebr- ovascu- lar Disease	430-438																						
		1	0	1	0	0	0	0	0	0	2	1	1	0	0	0	0	1	0	0	3	5	
-Diseas- es of Arteries & Capilla- ries	440-448																						
		1	0	1	0	0	0	0	0	0	2	3	0	0	0	0	0	1	0	0	4	6	

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

(CONTINUED)

HANFORD 1995

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

		Gender																				Total						
		Women										Men																
		Occupational Group											Occupational Group															
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- now- n	Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- now- n		Tot- al	Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- now- n	Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor		Nuc- lear	Oth- er/- Unk- now- n	Tot- al			
Diagnos- tic Category	ICD-9-CM Code																											
-Diseas- es of Veins, Lymphat- ics, Other	451-459	8	0	0	0	0	0	0	0	0	8	2	3	2	0	0	0	2	2	0	11	19						
RESPIRA- TORY SYSTEM	460-519	72	17	11	0	14	0	4	11	0	129	28	40	22	2	20	1	31	38	0	182	311						
-Acute Respira- tory Infecti- ons	460-466	23	4	6	0	4	0	2	2	0	41	5	13	4	0	5	0	8	14	0	49	90						
-Other Diseases Upper Respira- tory Tract	470-478	10	4	2	0	3	0	1	2	0	22	9	14	3	2	7	1	6	7	0	49	71						

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

(CONTINUED)

HANFORD 1995

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

		Gender																									
		Women										Men															
		Occupational Group											Occupational Group														
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Tot- al		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear				Oth- er/- Unk- nown	Tot- al		
Diagnos- tic Category	ICD-9-CM Code																										
-Pneumo- nia & Influen- za	480-487	14	4	2	0	4	0	1	4	0	29	8	10	10	0	3	0	9	7	0	47	76					
-Chronic Obstruc- tive Diseases	490-496	23	5	1	0	3	0	0	3	0	35	4	2	5	0	5	0	8	10	0	34	69					
-Other Respira- tory Diseases	510-519	2	0	0	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	3	5					
DIGESTI- VE SYSTEM	520-579	56	4	14	0	4	0	2	8	1	89	37	33	15	0	15	1	19	7	0	127	216					
-Oral Cavity, Saliv. Glands, Jaw	520-529	3	0	2	0	0	0	0	0	0	5	1	0	1	0	4	0	0	0	0	6	11					

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

(CONTINUED)

HANFORD 1995

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

		Gender																			Tot- al	
		Women										Men										
		Occupational Group									Tot- al	Occupational Group										Tot- al
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown		
Diagnos- tic Category	ICD-9-CM Code																					
-Esopha- gus, Stomach, Duodenum	530-537	6	1	2	0	0	0	0	0	0	9	5	1	0	0	2	0	1	0	0	9	18
-Append- icitis	540-543	2	2	1	0	0	0	0	0	0	5	2	5	2	0	0	0	2	0	0	11	16
-Hernias	550-553	10	0	3	0	0	0	0	1	0	14	12	14	3	0	4	0	8	2	0	43	57
-Enteri- tis, Colitis	555-558	3	1	0	0	1	0	0	1	0	6	5	1	3	0	0	0	0	4	0	13	19
-Other Intesti- nal Diseases	560-569	8	0	0	0	2	0	0	3	0	13	3	2	2	0	5	1	1	0	0	14	27
-Other Digesti- ve Diseases	570-579	24	0	6	0	1	0	2	3	1	37	9	10	4	0	0	0	7	1	0	31	68

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

(CONTINUED)

HANFORD 1995

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

		Gender																							
		Women										Men													
		Occupational Group											Occupational Group												
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Tot- al		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown				Tot- al
Diagnos- tic Category	ICD-9-CM Code																								
GENITOU- RINARY SYSTEM	580-629	44	11	12	1	5	0	2	2	1	78	1	6	3	0	0	0	3	2	0	15	93			
-Nephrit- is, Nephros- is	580-589	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	2	3			
-Other Urinary Diseases	590-599	6	1	1	0	1	0	0	0	0	9	0	2	3	0	0	0	1	0	0	6	15			
-Male Genital Organs	600-608	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	2	1	0	6	6			
-Disord- ers of the Breast	610-611	3	0	2	0	1	0	0	0	0	6	1	0	0	0	0	0	0	0	0	1	7			

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

(CONTINUED)

HANFORD 1995

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

		Gender																				Total					
		Women										Men															
		Occupational Group											Occupational Group										Total				
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Tot- al		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown			Tot- al			
Diagnos- tic Category	ICD-9-CM Code																										
-Pelvic Inflamm- atory Diseases	614-616	2	2	1	0	0	0	1	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
-Other Diseases of Females	617-629	32	8	8	1	3	0	1	2	1	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
PREGNAN- CY & CHILDBI- RTH	630-677	69	28	15	2	1	1	1	2	2	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	121
-Other Pregnan- cy with Abortive Outcome	634-639	0	1	2	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3

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

(CONTINUED)

HANFORD 1995

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

		Gender																			Tot- al			
		Women										Men												
		Occupational Group											Occupational Group									Tot- al		
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- aried	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Tot- al		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- aried	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear			Oth- er/- Unk- nown	Tot- al
Diagnos- tic Category	ICD-9-CM Code																							
-Compli- cations of Pregnan- cy	640-648	17	7	3	0	0	0	0	1	1	29	0	0	0	0	0	0	0	0	0	0	0	0	29
-Normal Delivery & Care	650-659	52	19	10	2	1	1	1	1	1	88	0	0	0	0	0	0	0	0	0	0	0	0	88
-Compli- cations of Puerper- ium	670-677	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
SKIN & SUBCUTA- NEOUS TISSUE	680-709	4	1	1	0	0	0	1	1	0	8	3	4	1	0	1	0	3	5	0	17	25		
-Infect- ions	680-686	1	1	0	0	0	0	0	0	0	2	1	3	1	0	0	0	2	0	0	7	9		

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

(CONTINUED)

HANFORD 1995

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

		Gender																				Tot- al		
		Women										Men												
		Occupational Group										Tot- al	Occupational Group										Tot- al	
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown	Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown	Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown		
Diagnos- tic Category	ICD-9-CM Code																							
-Other Inflamm- atory Condi- tions	690-698	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	2
-Other Diseases	700-709	3	0	1	0	0	0	1	1	0	6	2	0	0	0	1	0	1	4	0	8	14		
MUSCULO- SKELETAL SYSTEM	710-739	58	16	19	0	10	0	11	11	0	125	19	27	22	0	11	3	29	9	0	120	245		
-Arthro- pathies	710-719	13	4	3	0	1	0	2	2	0	25	6	5	8	0	3	0	9	2	0	33	58		
-Dorsop- athies	720-724	17	3	8	0	6	0	3	5	0	42	9	16	10	0	4	2	9	5	0	55	97		
-Rheuma- tism, Exclud- ing Back	725-729	27	9	6	0	1	0	4	4	0	51	3	6	4	0	3	0	11	2	0	29	80		

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

(CONTINUED)

HANFORD 1995

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

		Gender																									
		Women										Men															
		Occupational Group											Occupational Group														
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Tot- al		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown				Tot- al		
Diagnos- tic Category	ICD-9-CM Code																										
-Acquir- ed Deformi- ties	730-739	1	0	2	0	2	0	2	0	0	7	1	0	0	0	0	1	1	0	0	0	0	3	10			
CONGENI- TAL ANOMALI- ES	740-759	2	0	1	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	1	0	2	5			
SYMPTOMS, SIGNS, & ILL- DEFINED COND.	780-799	12	4	8	0	1	0	1	1	0	27	5	8	4	0	3	0	5	3	0	5	3	0	28	55		
-Sympto- ms	780-789	11	4	8	0	1	0	0	1	0	25	5	8	4	0	3	0	4	3	0	4	3	0	27	52		
-Non- Specific Abnormal Findings	790-796	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		

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

(CONTINUED)

HANFORD 1995

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

		Gender																				Total	Total		
		Women										Men													
		Occupational Group											Occupational Group											Total	
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Total		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown				Total
Diagnos- tic Category	ICD-9-CM Code																								
-Ill- Defined & Unknown Causes	797-799	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2			
INJURY & POISONI- NG	800-999	55	30	21	0	10	0	4	8	3	131	23	48	17	0	32	4	47	26	0	197	328			
-Skull Fractur- es	800-804	1	2	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	1	4			
-Neck & Trunk Fractur- es	805-809	2	0	3	0	0	0	0	0	0	5	1	1	1	0	1	0	1	0	0	5	10			

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

(CONTINUED)

HANFORD 1995

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

		Gender																							
		Women										Men													
		Occupational Group											Occupational Group												
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Tot- al		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown				Tot- al
Diagnos- tic Category	ICD-9-CM Code																								
-Upper Limb Fractur- es	810-819	3	0	0	0	0	0	0	0	1	4	2	2	2	0	0	0	2	0	0	8	12			
-Lower Limb Fractur- es	820-829	6	4	0	0	0	0	0	0	0	10	2	5	1	0	0	0	5	3	0	16	26			
-Disloc- ations	830-839	2	3	2	0	3	0	0	1	0	11	5	3	1	0	3	1	6	4	0	23	34			
-Back Sprains & Strains	846-847	17	6	4	0	2	0	0	2	1	32	2	9	4	0	8	1	10	3	0	37	69			
-Other Sprains & Strains	840-845, 848	3	3	4	0	3	0	1	2	1	17	3	5	1	0	9	2	13	7	0	40	57			

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

(CONTINUED)

HANFORD 1995

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

		Gender																								
		Women										Men														
		Occupational Group											Occupational Group													
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown	Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown		Tot- al	Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown	Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor		Nuc- lear	Oth- er/- Unk- nown	Tot- al	Tot- al
Diagnos- tic Category	ICD-9-CM Code																									
-Intrac- ranial Injuries	850-854		0	2	1	0	0	0	0	0	1	0	4	0	2	1	0	1	0	0	0	0	0	4	8	
-Intern- al Injuries Thorax, Abdomen, Pelvis	860-869		0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
-Open Wound Head, Neck, Trunk	870-879		3	1	0	0	0	0	0	0	0	4	0	1	1	0	0	0	0	0	0	0	2	6		
-Open Wound Upper , Limb	880-887		1	1	0	0	0	0	0	0	0	2	0	0	0	0	1	0	1	0	0	0	2	4		

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

(CONTINUED)

HANFORD 1995

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

		Gender																						
		Women										Men												
		Occupational Group										Occupational Group												
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown		Tot- al	Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear			Oth- er/- Unk- nown	Tot- al
Diagnos- tic Category	ICD-9-CM Code																							
-Open Wound Lower Limb	890-897	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1		
-Late Effects	905-909	6	2	3	0	1	0	2	0	0	14	2	3	2	0	2	0	4	2	0	15	29		
-Superf- icial Injury	910-919	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	2	0	5	5		
-Contus- ion	920-924	4	4	0	0	0	0	0	1	0	9	0	3	1	0	2	0	1	1	0	8	17		
-Crushi- ng Injuries	925-929	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
-Foreign Bodies Entering Orifice	930-939	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	2	0	3	4		

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

(CONTINUED)

HANFORD 1995
Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

Diagnostic Category	ICD-9-CM Code	Gender													
		Women							Men						
		Occupational Group							Occupational Group						
		Admin- instr- ati- ve	Pro- fes- sio- nal	tec- hni- cal	Ser- vice	Oth- er/ Un- known	Cra- fts & Man- ual La- bor	Oth- er/ Un- known	Adm- ini- str- ati- ve	Pro- fes- sio- nal	tec- hni- cal	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Oth- er/ Un- known
-Injuries to Nerves & Spinal Cord	950-957	0	0	0	0	0	0	0	0	0	0	0	0	1	1
-Unspecified Injuries	958-959	2	1	2	0	0	0	1	0	6	3	4	2	0	13
-Toxic Effects	980-989														
-Unspecified Effects	990-995	0	0	0	0	0	0	0	0	0	1	0	0	0	1
-Unspecified External Causes		2	0	0	0	1	0	0	3	1	3	0	0	0	7

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

(CONTINUED)

HANFORD 1995

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

		Gender																				Tot- al			
		Women										Men													
		Occupational Group										Tot- al	Occupational Group										Tot- al		
		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Adm- ini- str- ati- ve		Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown					
Diagnos- tic Category	ICD-9-CM Code																								
-Complica- tions of Surgical /Medical Care	996-999	3	0	1	0	0	0	0	0	0	4	2	3	0	0	0	0	0	0	0	0	0	0	5	9
HEALTH STATUS/ HEALTH SERVICE CONTACT	V01-V82	9	1	3	0	1	0	1	1	0	16	4	8	1	0	2	0	2	2	0	19	35			
-Person- al & Family History	V10-V19	1	0	1	0	0	0	0	0	0	2	0	3	0	0	2	0	1	0	0	6	8			
-Health Services Reprodu- ction/ Develop- ment	V20-V29	2	0	1	0	1	0	0	1	0	5	1	1	0	0	0	0	1	2	0	5	10			

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

(CONTINUED)

HANFORD 1995

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

		Gender																				Total	
		Women										Men											
		Occupational Group											Occupational Group										
		Adm- ini- strati- ve	Pro- fes- sional	Tec- hni- cal	Oth- er/- Unk- nown Sal- aried	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown	Tot- al		Adm- ini- strati- ve	Pro- fes- sional	Tec- hni- cal	Oth- er/- Unk- nown Sal- aried	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual La- bor	Nuc- lear	Oth- er/- Unk- nown		Tot- al
Diagnos- tic Category	ICD-9-CM Code																						
-Health Status	V40-V49	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	2
-Specif- ic Procedu- re/Afte- rcare	V50-V59	6	1	1	0	0	0	1	0	0	9	3	2	1	0	0	0	0	0	0	6	15	
Total		482	146	130	3	61	1	35	52	8	918	179	245	111	2	100	11	177	114	2	941	1859	

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

HANFORD 1995

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

Diagnostic Category	Gender																			
	Women										Men									
	Occupational Group										Occupational Group									
	Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual Lab- or	Nuc- lear	Oth- er/- Unk- nown	Tot- al	Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual Lab- or	Nuc- lear	Oth- er/- Unk- nown	Tot- al
Infectious & Parasitic Diseases	229	43	21	0	31	0	0	0	0	324	80	127	108	0	10	41	155	20	0	541
Malignant Neoplasms	987	134	42	0	0	0	0	0	0	1163	519	227	15	0	26	0	0	0	40	827
Benign & Other Neoplasms	239	205	31	0	76	0	26	35	0	612	123	159	25	0	0	0	50	13	0	370
Endocrine & Metabolic Diseases	278	62	13	0	14	0	0	50	0	417	0	229	0	0	0	0	39	52	0	320
Blood & Blood-Forming Organs	15	18	0	0	0	0	0	0	0	33	0	29	0	0	0	0	0	155	0	184
Mental Disorders	1032	472	578	0	276	0	119	571	67	3115	547	101	114	0	63	0	48	137	0	1010
Nervous System & Sense Organs	813	75	265	0	0	0	262	86	0	1501	86	348	112	0	140	41	171	51	0	949
Circulatory System	547	14	259	0	13	0	0	0	0	833	693	952	62	0	347	0	642	62	84	2842
Respiratory System	960	177	130	0	184	0	46	150	0	1647	475	686	274	30	350	18	339	479	0	2651

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

(CONTINUED)

HANFORD 1995

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

Diagnostic Category	Gender																			
	Women										Men									
	Occupational Group										Occupational Group									
	Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- aried	Sec- vice	Sec- uri- ty	Cra- fts & Man- ual Lab- or	Nuc- lear	Oth- er/- Unk- nown	Total	Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- aried	Sec- vice	Sec- uri- ty	Cra- fts & Man- ual Lab- or	Nuc- lear	Oth- er/- Unk- nown	Tot- al
Digestive System	1566	52	515	0	51	0	63	167	25	2439	656	961	280	0	448	8	445	156	0	2954
Genitourinary System	1437	371	510	23	111	0	91	35	19	2597	15	258	54	0	0	0	91	32	0	450
Pregnancy & Childbirth	6617	3038	1499	108	117	115	162	189	121	11966	0	0	0	0	0	0	0	0	0	0
Skin & Subcutaneous Tissue	114	8	15	0	0	0	62	12	0	211	77	71	9	0	29	0	83	55	0	324
Musculoskeletal System	1758	631	876	0	555	0	426	1003	0	5249	649	634	301	0	1751	61	946	417	0	4759
Congenital Anomalies	47	0	175	0	0	0	0	0	0	222	83	0	0	0	0	0	0	27	0	110
Symptoms, Signs, & Ill-Defined Cond.	819	174	355	0	9	0	55	11	0	1423	67	89	109	0	30	0	117	50	0	462
Injury & Poisoning	1488	462	650	0	318	0	244	434	39	3635	415	1020	341	0	1478	87	1389	690	0	5420

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

(CONTINUED)

HANFORD 1995

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

	Gender																			
	Women										Men									
	Occupational Group										Occupational Group									
	Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual Lab- or	Nuc- lear	Oth- er/- Unk- nown		Adm- ini- str- ati- ve	Pro- fes- sio- nal	Tec- hni- cal	Oth- er/- Unk- nown Sal- ari- ed	Ser- vice	Sec- uri- ty	Cra- fts & Man- ual Lab- or	Nuc- lear	Oth- er/- Unk- nown	
Diagnostic Category																				
Health Status/Health Service Contact	296	19	271	0	117	0	9	69	0	781	66	198	28	0	17	0	39	21	0	369

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

HANFORD 1995

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

Diagnostic Category	Administrative 7,056 Person Years				Professional 5,432 Person Years			
	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	467	0.7	0.7	0.8	261	0.7	0.6	0.8
Infectious & Parasitic Diseases	18	0.7	0.4	1.3	11	0.6	0.3	1.3
Malignant Neoplasms	15	1.3	0.6	2.7	9	1.4	0.6	3.1
Benign & Other Neoplasms	11	0.6	0.3	1.1	10	1.3	0.6	2.7
Endocrine & Metabolic Diseases	7	0.6	0.2	2.0	4	0.9	0.3	3.0
Mental Disorder	25	0.8	0.5	1.3	8	0.4	0.2	0.9
Nervous System & Sense Organs	25	0.7	0.4	1.3	14	0.7	0.4	1.4
Circulatory System	33	1.0	0.6	1.6	24	0.8	0.5	1.3
Respiratory System	81	0.6	0.5	0.8	46	0.5	0.4	0.7
Digestive System	79	1.0	0.7	1.3	35	0.6	0.4	0.8
Genitourinary System	39	0.8	0.5	1.3	16	1.1	0.6	1.9
Skin & Subcutaneous Tissue	7	0.6	0.2	1.4	5	0.6	0.2	1.7
Musculoskeletal System	61	0.5	0.4	0.7	39	0.7	0.5	1.0
Symptoms, Signs, & Ill-Defined Conditions	17	0.5	0.3	1.0	12	0.9	0.4	1.6
Injury & Poisoning	63	0.5	0.4	0.7	47	0.6	0.4	0.8
Neck & Trunk Fractures	3	0.5	0.1	1.8	1	0.3	0.03	2.7
Upper Limb Fractures	4	1.0	0.2	5.3	2	0.6	0.1	2.9
Lower Limb Fractures	7	0.6	0.2	1.6	8	1.4	0.6	3.0
Dislocations	7	0.4	0.2	0.9	6	0.5	0.2	1.2
Back Sprains & Strains	17	0.6	0.3	1.1	10	0.6	0.3	1.1
Other Sprains & Strains	6	0.2	0.1	0.5	7	0.4	0.2	0.8
Late Effects	8	0.5	0.2	1.2	4	0.5	0.2	1.3
Contusions	3	0.3	0.1	1.3	6	1.8	0.6	4.9
Poisoning by Drugs	4	0.4	0.1	1.4	4	0.8	0.3	2.6
Complications of Surgical/Medical Care	3	0.6	0.1	2.9	3	1.0	0.2	4.1

* 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)

HANFORD 1995

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

Diagnostic Category	Technical 1,723 Person Years				Other/Unknown Salaried 241 Person Years			
	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	151	1.4	1.2	1.6	4	0.2	0.1	0.6
Infectious & Parasitic Diseases	9	2.0	1.0	4.1	0			
Malignant Neoplasms	2	0.9	0.2	3.7	0			
Benign & Other Neoplasms	4	1.5	0.5	4.3	0			
Endocrine & Metabolic Diseases	1	0.6	0.1	4.3	0			
Mental Disorder	15	3.0	1.7	5.3	0			
Nervous System & Sense Organs	9	1.6	0.8	3.3	0			
Circulatory System	7	1.0	0.5	2.2	0			
Respiratory System	28	1.2	0.8	1.8	1	0.3	0.05	2.4
Digestive System	27	1.7	1.1	2.6	0			
Genitourinary System	10	1.6	0.8	3.0	1	0.9	0.1	6.6
Skin & Subcutaneous Tissue	2	0.9	0.2	3.9	0			
Musculoskeletal System	30	0.9	1.3	2.8	0			
Symptoms, Signs, & Ill-Defined Conditions	11	2.7	1.4	5.3	0			
Injury & Poisoning	27	1.2	0.8	1.8	0			
Neck & Trunk Fractures	4	7.0	1.9	25.5	0			
Upper Limb Fractures	2	2.1	0.4	9.7	0			
Lower Limb Fractures	1	0.5	0.1	3.3	0			
Dislocations	3	0.9	0.3	2.9	0			
Back Sprains & Strains	6	1.2	0.5	2.7	0			
Other Sprains & Strains	4	0.8	0.3	2.3	0			
Late Effects	5	2.1	0.8	5.6	0			
Contusions	1	0.7	0.1	4.7	0			
Poisoning by Drugs	4	3.7	1.2	11.6	0			
Complications of Surgical/Medical Care	0				0			

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

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

*** CI= Confidence Limit

(CONTINUED)

HANFORD 1995

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

Diagnostic Category	Service 707 Person Years				Security 147 Person Years			
	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	104	2.4	1.9	2.9	9	1.1	0.5	2.0
Infectious & Parasitic Diseases	3	1.5	0.5	4.7	1	2.6	0.4	19.0
Malignant Neoplasms	1	1.0	0.1	7.2	0			
Benign & Other Neoplasms	1	0.9	0.1	6.1	0			
Endocrine & Metabolic Diseases	1	1.6	0.2	12.0	0			
Mental Disorder	7	3.5	1.6	7.6	0			
Nervous System & Sense Organs	4	1.6	0.6	4.5	1	2.2	0.3	16.3
Circulatory System	5	1.6	0.7	3.9	0			
Respiratory System	31	3.4	2.3	4.9	1	0.5	0.1	3.5
Digestive System	16	2.3	1.4	3.9	1	0.7	0.1	5.1
Genitourinary System	4	1.7	0.6	4.6	0			
Skin & Subcutaneous Tissue	1	1.0	0.1	7.5	0			
Musculoskeletal System	18	2.5	1.5	4.1	2	1.6	0.4	6.4
Symptoms, Signs, & Ill-Defined Conditions	3	1.6	0.5	5.1	0			
Injury & Poisoning	37	4.5	3.2	6.4	3	1.5	0.5	4.8
Neck & Trunk Fractures	1	2.5	0.3	19.6	0			
Upper Limb Fractures	0				0			
Lower Limb Fractures	0				0			
Dislocations	6	5.1	2.1	12.3	1	3.2	0.4	24.5
Back Sprains & Strains	10	5.8	2.9	11.5	1	2.3	0.3	17.4
Other Sprains & Strains	11	6.7	3.4	13.1	2	4.7	1.1	19.9
Late Effects	3	3.3	1.0	11.1	0			
Contusions	2	3.9	0.9	17.6	0			
Poisoning by Drugs	1	1.7	0.2	13.2	0			
Complications of Surgical/Medical Care	3	10.8	2.8	41.9	0			

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

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

*** CI= Confidence Limit

(CONTINUED)

HANFORD 1995

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

Diagnostic Category	Crafts and Manual Labor 1,573 Person Years				Nuclear 707 Person Years			
	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	160	1.9	1.6	2.3	111	2.7	2.2	3.3
Infectious & Parasitic Diseases	11	3.1	1.5	6.6	2	1.0	0.2	4.0
Malignant Neoplasms	0				0			
Benign & Other Neoplasms	4	2.1	0.7	6.4	2	2.0	0.5	8.6
Endocrine & Metabolic Diseases	1	1.0	0.1	6.9	4	8.7	2.8	26.7
Mental Disorder	3	0.8	0.2	2.4	6	2.9	1.2	6.9
Nervous System & Sense Organs	8	1.8	0.9	3.8	5	2.3	0.9	5.6
Circulatory System	11	1.2	0.6	2.3	4	1.7	0.6	4.8
Respiratory System	32	1.6	1.1	2.4	40	4.8	3.4	6.7
Digestive System	20	1.3	0.8	2.2	12	1.9	1.0	3.3
Genitourinary System	5	2.0	0.8	5.3	3	1.5	0.5	4.9
Skin & Subcutaneous Tissue	4	2.0	0.7	5.8	5	5.8	2.2	15.33
Musculoskeletal System	29	2.4	1.6	3.7	17	2.6	1.6	4.3
Symptoms, Signs, & Ill-Defined Conditions	6	1.8	0.7	4.3	4	2.4	0.9	6.6
Injury & Poisoning	44	2.6	1.8	3.6	24	2.6	1.7	4.1
Neck & Trunk Fractures	1	1.5	0.2	13.3	0			
Upper Limb Fractures	2	3.1	0.7	14.6	0			
Lower Limb Fractures	4	2.6	0.8	7.8	3	4.1	1.1	14.9
Dislocations	6	2.5	1.0	6.4	5	3.9	1.4	10.3
Back Sprains & Strains	8	2.1	0.9	4.7	4	1.9	0.7	5.1
Other Sprains & Strains	13	3.5	1.8	6.8	8	4.3	2.0	9.1
Late Effects	6	4.2	1.6	10.9	2	2.0	0.5	8.4
Contusions	1	1.0	0.1	8.2	2	3.6	0.8	16.4
Poisoning by Drugs	1	0.7	0.1	5.6	2	3.9	0.9	17.2
Complications of Surgical/Medical Care	0				1	2.7	0.3	24.4

* 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)

HANFORD 1995

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

Diagnostic Category	Other/Unknown 1,133 Person Years				Total Persons with 1+ Event
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	
All Diagnostic Categories	8	0.1	0.05	0.2	1275
Infectious & Parasitic Diseases	0				55
Malignant Neoplasms	1	1.2	0.2	8.5	28
Benign & Other Neoplasms	0				32
Endocrine & Metabolic Diseases	0				18
Mental Disorder	1	0.2	0.01	1.4	65
Nervous System & Sense Organs	0				66
Circulatory System	1	0.5	0.1	3.6	85
Respiratory System	0				260
Digestive System	1	0.1	0.02	0.7	191
Genitourinary System	1	0.1	0.02	1.1	79
Skin & Subcutaneous Tissue	0				24
Musculoskeletal System	0				196
Symptoms, Signs, & Ill-Defined Conditions	0				53
Injury & Poisoning	2	0.1	0.03	0.5	247
Neck & Trunk Fractures	0				10
Upper Limb Fractures	1	0.8	0.1	9.2	11
Lower Limb Fractures	0				23
Dislocations	0				34
Back Sprains & Strains	1	0.2	0.03	2.0	57
Other Sprains & Strains	1	0.3	0.03	2.7	52
Late Effects	0				28
Contusions	0				15
Poisoning by Drugs	0				16
Complications of Surgical/Medical Care	0				10

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

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

*** CI= Confidence Limit

HANFORD 1995

OSHA DATA

Appendix K: Occupational Sentinel Health Events (SHEO)

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

Production: Disease conditions that can result from exposures that may occur during production or cleanup activities within the DOE complex. This group includes 22 conditions.

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

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

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

(CONTINUED)

HANFORD 1995

OSHA DATA

Appendix K: Occupational Sentinel Health Events (SHEO)

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 immuno-deficiency 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)

HANFORD 1995

OSHA DATA

Appendix K: Occupational Sentinel Health Events (SHEO)

Health Conditions - Possibly SHEOs		
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	Lymphoid leukemia Acute	Production
205.0	Myeloid leukemia, acute	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
388.1	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	

HANFORD 1995

OSHA DATA

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

	Women						Men						Total
	Age Group					Total	Age Group					Total	
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Occupational Group													
Administrative	19	25	32	14	1	91	3	4	7	7	1	22	113
Professional	1	1	9	2	0	13	4	7	17	9	2	39	52
Technical	10	20	13	2	1	46	7	23	12	9	0	51	97
Service	3	9	4	1	0	17	4	30	19	8	0	61	78
Security	0	0	0	0	0	0	0	4	3	0	0	7	7
Crafts & Manual Labor	0	3	4	0	0	7	10	48	57	38	2	155	162
Nuclear	2	4	1	3	0	10	9	30	10	3	1	53	63
Other/Unknown	4	1	1	0	0	6	1	1	1	1	1	5	11
Total	39	63	64	22	2	190	38	147	126	75	7	393	583

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

HANFORD 1995

OSHA DATA

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

	Gender						Total		
	Women			Men					
	# of Events	Days Restr- icted	Days Lost	# of Events	Days Restr- icted	Days Lost	# of Events	Days Restr- icted	Days Lost
Age Group									
16 - 29	47	278	358	40	248	144	87	526	502
30 - 39	65	1117	515	161	1141	744	226	2258	1259
40 - 49	66	550	1308	132	841	428	198	1391	1736
50 - 59	22	661	252	78	720	743	100	1381	995
60 +	2	0	0	7	10	12	9	10	12
Total	202	2606	2433	418	2960	2071	620	5566	4504

HANFORD 1995

OSHA DATA

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

	Gender						Total		
	Women			Men					
	# of Events	Days Restr- icted	Days Lost	# of Events	Days Restr- icted	Days Lost	# of Events	Days Restr- icted	Days Lost
Occupational Group									
Administrative	93	618	405	22	25	41	115	643	446
Professional	13	78	237	39	46	254	52	124	491
Technical	54	1032	1207	52	421	263	106	1453	1470
Service	17	175	580	69	596	738	86	771	1318
Security	0	0	0	7	58	24	7	58	24
Crafts & Manual Labor	7	7	3	165	1275	524	172	1282	527
Nuclear	11	517	0	58	533	145	69	1050	145
Other/Unknown	7	179	1	6	6	82	13	185	83
Total	202	2606	2433	418	2960	2071	620	5566	4504

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

HANFORD 1995

OSHA DATA

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

Diagnostic Category		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 +	Total
ICD-9-CM Codes													
Endocrine & Metabolic Diseases	240-279	0	0	0	0	0	0	0	0	1	0	0	1
-Other Metabolic & Immunity Disorders	270-279	0	0	0	0	0	0	0	0	1	0	0	1
Mental Disorders	290-319	0	0	0	2	0	2	0	1	1	0	0	2
-Non-Psychotic Conditions	300-302, 306-316	0	0	0	2	0	2	0	1	1	0	0	2
Nervous System & Sense Organs	320-389	2	9	8	0	1	20	1	3	9	4	1	18
-Disorders of Peripheral NS	350-359	1	7	7	0	0	15	0	1	4	1	0	6
-Disorders of Eye	360-379	1	1	1	0	1	4	1	2	0	2	0	5
-Diseases of Ear & Mastoid	380-389	0	1	0	0	0	1	0	0	5	1	1	7
Respiratory System	460-519	1	1	2	0	0	4	0	3	2	0	0	5

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women						Men						Total	
		Age Group						Age Group							
		16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total	16 - 29	30 - 39	40 - 49	50 - 59	60 +	Total		
Diagnostic Category	ICD-9-CM Codes														
-Acute Respiratory Infections	460-466	0	0	0	0	0	0	0	0	1	0	0	0	0	2
-Other Diseases Upper Respiratory Tract	470-478														2
		0	0	1	0	0	1	0	1	0	0	0	0	1	2
-Pneumonia and Influenza	480-487	0	0	1	0	0	1	0	1	0	0	0	0	0	1
-Chronic Obstructive Diseases	490-496														
		1	0	0	0	0	1	0	1	0	0	0	0	0	1
-Other Respiratory Diseases	510-519	0	1	0	0	0	1	0	1	1	0	0	0	2	3
Digestive System	520-579	0	1	0	0	0	1	0	1	2	1	0	0	4	5
-Esophagus, Stomach, Duodenum	530-537	0	1	0	0	0	1	0	0	2	0	0	0	2	3
-Hernias	550-553	0	0	0	0	0	0	0	0	1	0	1	0	2	2

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women						Men						
		Age Group						Age Group						
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Codes													
Genitourinary System	580-629	0	1	0	0	0	1	0	1	0	0	0	1	2
-Other Urinary Diseases	590-599	0	1	0	0	0	1	0	1	0	0	0	1	2
Skin & Subcutaneous Tissue	680-709	4	2	2	0	1	9	2	6	3	1	0	12	21
-Infections	680-686	0	0	0	0	0	0	0	1	0	0	0	1	1
-Other Inflammatory Conditions	690-698	4	2	2	0	1	9	2	3	3	1	0	9	18
-Other Diseases	700-709	0	0	0	0	0	0	0	2	0	0	0	2	2
Musculoskeletal System	710-739	21	26	38	12	2	99	4	30	31	25	3	93	192
-Arthropathies	710-719	6	7	12	4	2	31	0	10	9	6	1	26	57
-Dorsopathies	720-724	5	4	8	1	0	18	2	12	8	8	0	30	48

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women						Men						Total
		Age Group					Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Codes													
-Rheumatism, Excluding Back	725-729	10	15	18	7	0	50	2	8	14	11	2	37	87
Symptoms, Signs & Ill-Defined Cond.	780-799	16	12	13	9	0	50	7	22	15	19	0	63	113
-Symptoms	780-789	16	12	13	9	0	50	7	22	15	19	0	63	113
Injury and Poisoning	800-999	28	42	43	17	0	130	40	164	118	60	5	387	517
-Skull Fractures	800-804	0	1	0	0	0	1	0	0	0	0	0	0	1
-Neck and Trunk Fractures	805-809	0	0	0	0	0	0	0	0	4	1	0	5	5
-Upper Limb Fractures	810-819	0	0	1	0	0	1	1	2	1	1	1	6	7
-Lower Limb Fractures	820-829	0	1	1	0	0	2	0	3	1	1	0	5	7
-Dislocations	830-839	0	1	0	3	0	4	3	1	3	0	1	8	12

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women						Men						Total
		Age Group					Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Codes													
-Back Sprains & Strains	846-847	6	10	10	4	0	30	8	39	27	6	1	81	111
-Other Sprains & Strains	840-845, 848	0	6	5	1	0	12	4	28	21	7	1	61	73
-Intracranial Injury	850-854	0	0	0	0	0	0	0	1	0	0	0	1	1
-Open Wound Head, Neck, Trunk	870-879	0	0	2	1	0	3	2	6	4	6	0	18	21
-Open Wound Upper Limb	880-887	3	2	2	0	0	7	6	15	9	14	0	44	51
-Open Wound Lower Limb	890-897	0	0	0	0	0	0	0	4	1	1	0	6	6
-Late Effects	905-909	0	0	0	0	0	0	0	0	1	0	0	1	1
-Superficial Injury	910-919	0	0	1	1	0	2	1	3	5	3	1	13	15
-Contusion	920-924	6	8	9	4	0	27	7	17	13	2	0	39	66

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		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 +	Total		
Diagnostic Category		ICD-9-CM Codes													
-Crushing Injury	925-929	0	0	0	0	0	0	0	2	0	0	0	0	2	2
-Foreign Body Entering Orifice	930-939	2	0	2	1	0	5	2	16	10	2	0	0	30	35
-Burns	940-949	2	0	0	0	0	2	2	2	3	2	0	0	9	11
-Injury to Nerves & Spinal Cord	950-957	0	0	0	0	0	0	0	1	0	1	0	0	2	2
-Unspecified Injuries	958-959	3	8	7	0	0	18	1	7	5	2	0	0	15	33
-Poisoning by Drugs	960-979	0	0	0	0	0	0	0	0	1	0	0	0	1	1
-Toxic Effects Nonmedical Substances	980-989	5	4	3	2	0	14	2	10	5	10	0	0	27	41
-Unspecified Effects External Causes	990-995	1	1	0	0	0	2	1	7	4	1	0	0	13	15
Total		72	94	106	40	4	316	54	231	182	110	9	586	902	

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

HANFORD 1995

OSHA DATA

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

		Women										Men									
		Age Group										Age Group									
		16 - 29		30 - 39		40 - 49		50 - 59		60 +		16 - 29		30 - 39		40 - 49		50 - 59		60 +	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diagnostic Category	ICD-9-CM Codes																				
-Non-Psychotic Conditions	300-302, 306-316	0	0	0	0	0	0	0	61	0	0	0	0	0	0	5	1	0	0	0	0
-Disorders of Peripheral NS	350-359	0	0	167	47	288	194	0	0	0	0	0	0	29	0	19	40	0	0	0	0
-Disorders of Eye	360-379	0	0	251	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Diseases of Ear & Mastoid	380-389	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
-Pneumonia and Influenza	480-487	0	0	0	0	18	184	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Respiratory Diseases	510-519	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	10	0	0	0	0
-Esophagus, Stomach, Duodenum	530-537	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0
-Hernias	550-553	0	0	0	0	0	0	0	0	0	0	0	0	21	35	0	0	43	14	0	0
-Infections	680-686	0	0	0	0	0	0	0	0	0	0	0	0	0	3	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)

HANFORD 1995

OSHA DATA

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

		Women										Men									
		Age Group										Age Group									
		16 - 29		30 - 39		40 - 49		50 - 59		60 +		16 - 29		30 - 39		40 - 49		50 - 59		60 +	
		Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost
Diagnostic Category	ICD-9-CM Codes																				
-Other Inflammatory Conditions	690-698	0	0	0	0	0	0	0	0	0	0	18	0	0	0	5	0	0	0	0	0
-Arthropathies	710-719	189	0	5	7	95	15	90	4	0	0	0	0	107	3	133	2	23	3	0	0
-Dorsopathies	720-724	7	98	252	372	50	174	10	0	0	0	67	107	143	66	108	12	50	177	0	0
-Rheumatism, Excluding Back	725-729	181	0	366	84	293	218	561	187	0	0	0	0	36	0	36	2	116	112	0	0
-Symptoms	780-789	182	0	339	5	19	8	0	0	0	0	1	28	1	0	5	1	24	40	0	0
-Neck and Trunk Fractures	805-809	0	0	0	0	0	0	0	0	0	0	0	0	0	0	179	0	0	7	0	0
-Upper Limb Fractures	810-819	0	0	0	0	0	0	0	0	0	0	46	0	45	2	0	0	21	0	10	0
-Lower Limb Fractures	820-829	0	0	0	0	0	678	0	0	0	0	0	0	111	21	0	0	10	0	0	0
-Dislocations	830-839	0	0	0	1	0	0	0	0	0	0	82	6	6	0	0	0	0	0	0	12
-Back Sprains & Strains	846-847	71	260	10	3	62	22	0	0	0	0	17	16	517	475	104	248	117	150	0	0
-Other Sprains & Strains	840-845, 848	0	0	50	3	43	5	0	0	0	0	9	6	290	222	181	123	34	0	0	12

*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)

HANFORD 1995

OSHA DATA

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

		Women										Men									
		Age Group										Age Group									
		16 - 29		30 - 39		40 - 49		50 - 59		60 +		16 - 29		30 - 39		40 - 49		50 - 59		60 +	
		Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost
Diagnostic Category	ICD-9-CM Codes																				
-Open Wound Head, Neck, Trunk	870-879	0	0	0	0	16	8	90	4	0	0	4	0	2	0	0	0	3	0	0	0
-Open Wound Upper Limb	880-887	6	0	0	0	3	0	0	0	0	0	2	0	50	3	6	0	54	0	0	0
-Open Wound Lower Limb	890-897	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0
-Superficial Injury	910-919	0	0	0	0	0	0	90	4	0	0	11	0	2	1	1	0	3	0	0	0
-Contusion	920-924	1	0	139	94	40	8	0	0	0	0	60	0	29	13	70	1	0	146	0	0
-Foreign Body Entering Orifice	930-939	0	0	0	0	0	3	0	0	0	0	0	0	2	1	4	0	0	0	0	0
-Burns	940-949	2	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
-Injury to Nerves & Spinal Cord	950-957	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	261	146	0	0
-Unspecified Injuries	958-959	0	0	9	5	0	33	0	0	0	0	0	0	38	65	0	2	0	0	0	0
-Toxic Effects Nonmedical Substances	980-989	3	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	20	134	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.

HANFORD 1995

OSHA DATA

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

		Women						Men					
		Age Group					Total	Age Group					Total
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +	
Type of Accident	E Codes												
Motor Vehicle Traffic	E810-E819	2	0	2	0	0	4	0	1	1	1	0	3
Motor Vehicle Nontraffic	E820-E825	0	2	1	0	0	3	0	1	2	1	0	4
Air & Space Transport	E840-E845	0	0	0	0	0	0	0	1	0	0	0	1
Accidental Poisoning by Drugs/Medicine	E850-E858	0	0	0	0	0	0	0	0	1	0	0	1
Accidental Poisoning by Other Substances	E860-E869	5	3	2	2	0	12	2	9	4	7	0	22
Falls	E880-E888	3	7	7	3	0	20	4	24	18	8	0	54
Fire	E890-E899	0	0	0	0	0	0	0	0	0	1	0	1
Natural/Environmental Factors	E900-E909	1	4	1	0	0	6	1	8	8	4	1	22
Submersion/Suffocation/Foreign Bodies	E910-E915	2	0	1	1	0	4	2	16	8	2	0	28
Other Accidents	E916-E928	28	47	44	14	1	134	27	97	81	52	5	262
Late Effects of Accident	E929	0	0	0	0	0	0	0	0	1	0	0	1

*Only those accident types with at least one occurrence appear in this table.

HANFORD 1995

OSHA DATA

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

		Women										Men									
		Age Group										Age Group									
		16 - 29		30 - 39		40 - 49		50 - 59		60 +		16 - 29		30 - 39		40 - 49		50 - 59		60 +	
		Days Rest- rict- ed	Days Lost	Days Rest- rict- ed	Days Lost	Days Rest- rict- ed	Days Lost	Days Rest- rict- ed	Days Lost	Days Rest- rict- ed	Days Lost	Days Rest- rict- ed	Days Lost	Days Rest- rict- ed	Days Lost	Days Rest- rict- ed	Days Lost	Days Rest- rict- ed	Days Lost	Days Rest- rict- ed	Days Lost
Type of Accident	E Codes																				
Motor Vehicle Traffic	E810-E819	1	0	0	0	16	8	0	0	0	0	0	0	0	244	0	0	0	7	0	0
Motor Vehicle Nontraffic	E820-E825	0	0	3	3	0	678	0	0	0	0	0	0	37	3	3	0	0	0	0	0
Air & Space Transport	E840-E845	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
Accidental Poisoning by Other Substances	E860-E869	3	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0
Falls	E880-E888	0	2	139	91	9	2	90	4	0	0	150	94	229	93	330	52	58	150	0	0
Natural/Environmental Factors	E900-E909	0	0	251	1	0	0	0	0	0	0	0	0	0	0	0	0	23	134	0	0
Submersion/Suffocation/Foreign Bodies	E910-E915	0	0	0	0	0	3	0	0	0	0	0	0	2	1	4	0	0	0	0	0
Other Accidents	E916-E928	274	356	724	420	268	299	571	187	0	0	80	22	873	403	494	375	639	452	10	12

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

HANFORD 1995

OSHA DATA

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

		Women								Men								
		Occupational Group							Total	Occupational Group							Total	
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Craf- ts & Manu- al Labor	Nucl- ear	Othe- r/Un- known		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts & Manu- al Labor	Nucl- ear		Othe- r/Un- known
Diagnostic Category	ICD-9-CM Codes																	
Endocrine & Metabolic Diseases	240-279	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
-Other Metabolic & Immunity Disorders	270-279	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Mental Disorders	290-319	2	0	0	0	0	0	0	2	0	1	0	0	0	0	1	0	2
-Non-Psychotic Conditions	300-302, 306-316	2	0	0	0	0	0	0	2	0	1	0	0	0	0	1	0	2
Nervous System & Sense Organs	320-389	10	2	7	0	0	0	1	20	2	3	4	1	0	5	3	0	18
-Disorders of Peripheral NS	350-359	7	2	5	0	0	0	1	15	1	1	1	0	0	1	2	0	6
-Disorders of Eye	360-379	2	0	2	0	0	0	0	4	0	0	2	0	0	2	1	0	5
-Diseases of Ear & Mastoid	380-389	1	0	0	0	0	0	0	1	1	2	1	1	0	2	0	0	7
Respiratory System	460-519	2	0	2	0	0	0	0	4	0	0	1	2	0	0	2	0	5
-Acute Respiratory Infections	460-466	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
-Other Diseases Upper Respiratory Tract	470-478	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women								Men								
		Occupational Group							Total	Occupational Group							Total	
		Admi-nist-rati-ve	Prof-essional	Tech-nical	Serv-ice	Craf-ts & Manu-al Labor	Nucl-ear	Othe-r/Un-known		Admi-nist-rati-ve	Prof-essional	Tech-nical	Serv-ice	Secu-rity	Craf-ts & Manu-al Labor	Nucl-ear		Othe-r/Un-known
Diagnostic Category	ICD-9-CM Codes																	
-Pneumonia and Influenza	480-487	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
-Chronic Obstructive Diseases	490-496	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
-Other Respiratory Diseases	510-519	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	2
Digestive System	520-579	0	0	0	0	0	1	0	1	0	1	0	0	0	3	0	0	4
-Esophagus, Stomach, Duodenum	530-537	0	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	2
-Hernias	550-553	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
Genitourinary System	580-629	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	1
-Other Urinary Diseases	590-599	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	1
Skin & Subcutaneous Tissue	680-709	2	0	7	0	0	0	0	9	1	0	3	1	0	1	6	0	12

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women								Men								
		Occupational Group							Total	Occupational Group							Total	
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Craf- ts & Manu- al Labor	Nucl- ear	Othe- r/Un- known		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts & Manu- al Labor	Nucl- ear		Othe- r/Un- known
Diagnostic Category	ICD-9-CM Codes																	
-Infections	680-686	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
-Other Inflammatory Conditions	690-698	2	0	7	0	0	0	0	9	1	0	3	0	0	1	4	0	9
-Other Diseases	700-709	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2
Musculoskeletal System	710-739	52	4	22	11	2	4	4	99	8	26	10	14	1	30	4	0	93
-Arthropathies	710-719	19	0	6	3	1	1	1	31	2	8	1	1	1	12	1	0	26
-Dorsopathies	720-724	5	1	5	4	0	2	1	18	4	2	6	9	0	7	2	0	30
-Rheumatism, Excluding Back	725-729	28	3	11	4	1	1	2	50	2	16	3	4	0	11	1	0	37
Symptoms, Signs, & Ill-Defined Cond.	780-799	28	1	17	0	1	2	1	50	2	6	12	4	1	19	19	0	63
-Symptoms	780-789	28	1	17	0	1	2	1	50	2	6	12	4	1	19	19	0	63
Injury and Poisoning	800-999	51	14	31	10	5	14	5	130	20	25	44	68	7	158	58	7	387
-Skull Fractures	800-804	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
-Neck and Trunk Fractures	805-809	0	0	0	0	0	0	0	0	1	1	1	0	1	0	1	0	5

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women								Men								
		Occupational Group							Total	Occupational Group							Total	
		Admi-nist-rati-ve	Prof-essional	Tech-nical	Serv-ice	Craf-ts & Manu-al Labor	Nucl-ear	Othe-r/Un-known		Admi-nist-rati-ve	Prof-essional	Tech-nical	Serv-ice	Secu-rity	Craf-ts & Manu-al Labor	Nucl-ear		Othe-r/Un-known
Diagnostic Category	ICD-9-CM Codes																	
-Upper Limb Fractures	810-819	0	0	1	0	0	0	0	1	0	0	0	2	0	4	0	0	6
-Lower Limb Fractures	820-829	1	0	1	0	0	0	0	2	0	0	0	1	1	2	1	0	5
-Dislocations	830-839	0	0	0	0	0	3	1	4	1	0	0	2	0	3	1	1	8
-Back Sprains & Strains	846-847	9	4	6	5	0	6	0	30	1	7	6	21	1	28	15	2	81
-Other Sprains & Strains	840-845, 848	6	0	4	2	0	0	0	12	2	2	7	18	2	20	8	2	61
-Intracranial Injury	850-854	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
-Open Wound Head, Neck, Trunk	870-879	1	1	1	0	0	0	0	3	0	0	2	0	0	14	2	0	18
-Open Wound Upper Limb	880-887	3	1	1	1	1	0	0	7	3	3	4	6	0	27	1	0	44
-Open Wound Lower Limb	890-897	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	6

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women								Men								
		Occupational Group							Total	Occupational Group							Total	
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Craf- ts & Manu- al Labor	Nucl- ear	Othe- r/Un- known		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts & Manu- al Labor	Nucl- ear		Othe- r/Un- known
Diagnostic Category	ICD-9-CM Codes																	
-Late Effects	905-909	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
-Superficial Injury	910-919	1	0	1	0	0	0	0	2	2	0	2	2	0	5	2	0	13
-Contusion	920-924	7	6	7	2	1	2	2	27	4	1	1	7	0	18	7	1	39
-Crushing Injury	925-929	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
-Foreign Body Entering Orifice	930-939	1	0	0	0	2	0	2	5	1	1	3	4	1	15	4	1	30
-Burns	940-949	1	0	0	0	0	1	0	2	0	1	1	0	0	5	2	0	9
-Injury to Nerves & Spinal Cord	950-957	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2
-Unspecified Injuries	958-959	14	1	2	0	1	0	0	18	2	6	3	2	1	1	0	0	15
-Poisoning by Drugs	960-979	0	0	0	0	0	0	0	0	0	0	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)

HANFORD 1995

OSHA DATA

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

		Women								Men								
		Occupational Group							Total	Occupational Group							Total	
		Admi-nist-rati-ve	Prof-essi-onal	Tech-nical	Serv-ice	Craf-ts & Manu-al Labor	Nucl-ear	Othe-r/Un-known		Admi-nist-rati-ve	Prof-essi-onal	Tech-nical	Serv-ice	Secu-rity	Craf-ts & Manu-al Labor	Nucl-ear		Othe-r/Un-known
Diagnostic Category	ICD-9-CM Codes																	
-Toxic Effects Nonmedical Substances	980-989	7	1	4	0	0	2	0	14	2	2	9	1	0	7	6	0	27
-Unspecified Effects External Causes	990-995	0	0	2	0	0	0	0	2	0	0	3	2	0	3	5	0	13
Total		147	21	86	21	8	22	11	316	33	62	74	90	10	217	93	7	586

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

HANFORD 1995

OSHA DATA

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

		Women														Men															
		Occupational Group														Occupational Group															
		Administ-rative		Professi-onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un-known		Administ-rative		Professi-onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un-known	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diag-nost-ic Category	ICD-9-CM Codes																														
-Non-Psyc-hotic Con-dit-io-n	300-302, 306-316	0	61	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
-Dis-orde-rs of Peri-pher-al NS	350-359	59	29	0	9	396	203	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	0	0	0	19	40	0	0
-Dis-orde-rs of Eye	360-379	0	0	0	0	251	1	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 and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women														Men															
		Occupational Group														Occupational Group															
		Administ-rative		Professi-onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un-known		Administ-rative		Professi-onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un-known	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diag-nost-ic Cate-gory	ICD-9-CM Codes																														
-Pne-umonia and Infl-uenza	480-487	0	0	0	0	18	184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
-Oth-er Respiratory Diseases	510-519	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	10	0	0	0	0	0	0	0	

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women														Men															
		Occupational Group														Occupational Group															
		Administ-rative		Professi-onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un-known		Administ-rative		Professi-onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un-known	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diag-nost-ic Category	ICD-9-CM Codes																														
-Eso-phag-us, Stom-ach, Duod-enum	530-537	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0
-Her-nias	550-553	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64	49	0	0	0	0
-Inf-ecti-ons	680-686	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	3	0	0

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women														Men															
		Occupational Group														Occupational Group															
		Administ-rative		Professi-onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un-known		Administ-rative		Professi-onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un-known	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diag-nost-ic Cate-gory	ICD-9-CM Codes																														
-Oth-er Infl-amma-tory Con-ditio-ns	690-698	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
-Art-hrop-ath-ies	710-719	98	19	0	0	92	3	10	4	0	0	0	0	179	0	0	0	0	0	23	3	16	0	0	0	139	5	85	0	0	0

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women														Men															
		Occupational Group														Occupational Group															
		Administ-rative		Professi-onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un-known		Administ-rative		Professi-onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un-known	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diag-nost-ic Cate-gory	ICD-9-CM Codes																														
-Dor-sopa-thies	720-724	116	187	0	0	189	130	14	327	0	0	0	0	0	0	0	2	0	0	136	23	49	65	0	0	33	178	150	94	0	0
-Rhe-umat-ism, Excl-uding Back	725-729	271	80	46	220	293	185	92	4	5	0	515	0	179	0	0	0	7	1	1	0	119	112	0	0	61	1	0	0	0	0
-Sym-ptoms	780-789	91	4	16	8	254	1	0	0	0	0	0	0	179	0	0	28	5	1	1	0	24	40	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 and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women														Men																
		Occupational Group														Occupational Group																
		Administ-rative		Professi-onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un-known		Administ-rative		Professi-onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un-known		
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	
Diag-nost-ic Cate-gory	ICD-9-CM Codes																															
-Neck and Trunk Frac-tures	805-809	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	179	0	0	0
-Upp-er Limb Frac-tures	810-819	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	2	0	0	89	0	0	0	0	0	
-Low-er Limb Frac-tures	820-829	0	0	0	0	0	678	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	58	21	10	0	0	0	0	0	
-Dis-loc-a-tions	830-839	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	52	6	36	0	0	12	

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women														Men															
		Occupational Group														Occupational Group															
		Administ-rative		Professi-onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un-known		Administ-rative		Professi-onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un-known	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diag-nost-ic Cate-gory	ICD-9-CM Codes																														
-Back Sprains & Strains	846-847	12	16	17	8	56	8	58	253	0	0	0	0	0	0	0	10	4	244	224	111	173	472	0	3	216	44	132	2	6	3
-Other Sprains & Strains	840-845, 848	48	8	0	0	21	0	24	0	0	0	0	0	0	0	2	1	4	0	5	7	115	143	58	21	317	104	13	8	0	79
-Open Wound Head, Neck, Trunk	870-879	90	4	16	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	5	0	0	0	0	0

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women														Men															
		Occupational Group														Occupational Group															
		Administ-rative		Professi-onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un-known		Administ-rative		Professi-onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un-known	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diag-nost-ic Category	ICD-9-CM Codes																														
-Open Wound Upper Limb	880-887	3	0	0	0	6	0	0	0	0	0	0	0	0	0	6	1	0	0	7	0	43	2	0	0	56	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	2	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0
-Superficial Injury	910-919	90	4	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	11	0	0	0	1	0	0	0	0	0

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women														Men															
		Occupational Group														Occupational Group															
		Administ-rative		Professi-onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un-known		Administ-rative		Professi-onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un-known	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diag-nost-ic Category	ICD-9-CM Codes																														
-Con-tusi-on	920-924	121	94	32	8	9	0	16	0	2	0	0	0	0	0	3	1	0	0	5	0	69	147	0	0	68	6	14	6	0	0
-For-eign Body Entering Orif-ice	930-939	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	2	1	0	0	
-Burns	940-949	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women												Men																	
		Occupational Group												Occupational Group																	
		Administ-rative		Professi-onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un-known		Administ-rative		Professi-onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un-known	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diag-nost-ic Cate-gory	ICD-9-CM Codes																														
-Inj-ury to Nerv-es & Spin-al Cord	950-957	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	261	146	0	0	0	0
-Un-speci-fied Inju-ries	958-959	9	5	0	33	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	37	65	0	0	0	0	0	0	0	0	

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

(CONTINUED)

HANFORD 1995
OSHA DATA

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

Diagnostic Category	Women										Men																			
	Occupational Group										Occupational Group																			
	Administrative		Professional		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Unknown		Administrative		Professional		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Unknown	
Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	Days Res- tri- cted	
ICD-9-CM Codes																														
-Toxic Effects Nonmed- ical Substances	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	28	3	2	17	132	0	0	0	0	0	0	0	0	0

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

HANFORD 1995

OSHA DATA

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

		Women								Men								
		Occupational Agroup							Total	Occupational Agroup							Total	
		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Craf- ts & Manu- al Labor	Nucl- ear	Othe- r/Un- known		Admi- nist- rati- ve	Prof- essi- onal	Tech- nical	Serv- ice	Secu- rity	Craf- ts & Manu- al Labor	Nucl- ear		Othe- r/Un- known
Type of Accident	E Codes																	
Motor Vehicle Traffic	E810-E819	1	2	1	0	0	0	0	4	0	2	0	0	0	1	0	0	3
Motor Vehicle Nontraffic	E820-E825	1	0	1	0	0	1	0	3	0	1	1	2	0	0	0	0	4
Air & Space Transport	E840-E845	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Accidental Poisoning by Drugs/Medicine	E850-E858	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Accidental Poisoning by Other Substances	E860-E869	7	0	4	0	0	1	0	12	1	0	8	1	0	7	5	0	22
Falls	E880-E888	7	2	8	2	0	0	1	20	4	3	3	15	2	15	12	0	54
Fire	E890-E899	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Natural/Environmental Factors	E900-E909	1	1	3	0	0	1	0	6	2	1	5	2	0	5	7	0	22
Submersion/Suffocation/Foreign Bodies	E910-E915	1	0	0	0	1	0	2	4	1	1	2	4	1	14	4	1	28
Other Accidents	E916-E928	67	8	27	15	5	8	4	134	12	29	26	44	4	118	24	5	262
Late Effects of Accident	E929	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1

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

HANFORD 1995

OSHA DATA

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

		Women												Men																																																																																																																																																																																																																																																																																																			
		Occupational Group												Occupational Group																																																																																																																																																																																																																																																																																																			
		Administ- rative		Professi- onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un- known		Administ- rative		Professi- onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un- known																																																																																																																																																																																																																																																																																			
Days Res- tri- cted	Days Res- tri- cted	 

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women														Men															
		Occupational Group														Occupational Group															
		Administ-rative		Professi-onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un-known		Administ-rative		Professi-onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un-known	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Type of Acci-dent	E Codes																														
Acci-dent-al Pois-oning by Other Substanc-es	E860-E869	0	0	0	0	3	0	0	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Falls	E880-E888	206	97	0	0	16	2	16	0	0	0	0	0	0	0	3	3	7	0	5	0	149	184	58	21	221	79	324	102	0	0
Natu-ral/- Envi-ronm-ental Facto-rs	E900-E909	0	0	0	0	251	1	0	0	0	0	0	0	0	0	0	0	3	2	20	132	0	0	0	0	0	0	0	0	0	0

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

(CONTINUED)

HANFORD 1995

OSHA DATA

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

		Women														Men															
		Occupational Group														Occupational Group															
		Administ-rative		Professi-onal		Technical		Service		Crafts & Manual Labor		Nuclear		Other/Un-known		Administ-rative		Professi-onal		Technical		Service		Security		Crafts & Manual Labor		Nuclear		Other/Un-known	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Type of Acci-dent	E Codes																														
Subm-ersi-on/S-uffo-cati-on/F-orei-gn Bodi-es	E910-E915	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	2	1	0	0
Other Acci-dents	E916-E928	409	244	61	229	505	208	159	580	7	0	517	0	179	1	4	10	31	0	396	131	403	551	0	3	1049	445	207	42	6	82

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

HANFORD 1995

OSHA DATA

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

Diagnostic Category	Administrative 7,056 Person Years				Professional 5,432 Person Years			
	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	113	0.3	0.3	0.4	52	0.2	0.2	0.3
Nervous System & Sense Organs	12	0.5	0.3	1.1	4	0.4	0.1	1.0
Skin & Subcutaneous Tissue	3	0.3	0.1	0.9	0			
Musculoskeletal System	49	0.5	0.4	0.8	22	0.5	0.3	0.8
Symptoms, Signs, & Ill-Defined Conditions	23	0.6	0.3	1.0	6	0.2	0.1	0.5
Injury & Poisoning	59	0.3	0.2	0.3	30	0.2	0.1	0.2
Dislocations	1	0.2	0.04	1.6	0			
Back Sprains & Strains	8	0.1	0.05	0.3	9	0.2	0.1	0.4
Other Sprains & Strains	8	0.2	0.1	0.5	2	0.1	0.01	0.2
Open Wound Head, Neck, Trunk	1	0.05	0.002	1.0	1	0.1	0.02	0.8
Open Wound Upper Limb	6	0.3	0.1	0.7	4	0.2	0.1	0.5
Superficial Injury	3	0.5	0.1	2.0	0			
Contusion	8	0.3	0.1	0.6	5	0.3	0.1	0.7
Foreign Bodies Entering Orifice	2	0.1	0.02	0.5	1	0.1	0.01	0.4
Burns	1	0.2	0.02	2.0	1	0.2	0.03	1.7
Unspecified Injuries	16	1.3	0.6	2.8	7	0.8	0.3	1.8
Toxic Effects Nonmedical Substances	9	0.4	0.2	0.9	3	0.2	0.1	0.6
Unspecified Effects External Causes	0				0			

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

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

*** CI = Confidence Limit.

(CONTINUED)

HANFORD 1995

OSHA DATA

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

Diagnostic Category	Technical 1,723 Person Years				Other/Unknown Salaried 241 Person Years			
	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	97	1.9	1.5	2.4	0			
Nervous System & Sense Organs	11	4.7	2.3	9.7	0			
Skin & Subcutaneous Tissue	9	6.8	3.0	15.7	0			
Musculoskeletal System	27	2.3	1.5	3.4	0			
Symptoms, Signs, & Ill-Defined Conditions	16	2.7	1.5	4.7	0			
Injury & Poisoning	62	1.6	1.2	2.1	0			
Dislocations	0				0			
Back Sprains & Strains	11	1.1	0.6	2.1	0			
Other Sprains & Strains	10	1.5	0.8	3.0	0			
Open Wound Head, Neck, Trunk	3	1.7	0.5	6.0	0			
Open Wound Upper Limb	5	1.0	0.4	2.5	0			
Superficial Injury	2	1.9	0.4	8.2	0			
Contusion	5	0.9	0.4	2.3	0			
Foreign Bodies Entering Orifice	3	0.8	0.3	2.7	0			
Burns	1	0.9	0.1	8.1	0			
Unspecified Injuries	5	1.7	0.7	4.6	0			
Toxic Effects Nonmedical Substances	13	4.8	2.4	9.5	0			
Unspecified Effects External Causes	5	4.3	1.5	12.4	0			

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

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

*** CI = Confidence Limit.

(CONTINUED)

HANFORD 1995

OSHA DATA

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

Diagnostic Category	Service 707 Person Years				Security 147 Person Years			
	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	78	3.9	3.0	4.9	7	1.4	0.7	3.0
Nervous System & Sense Organs	1	0.8	0.1	5.9	0			
Skin & Subcutaneous Tissue	1	1.4	0.2	10.5	0			
Musculoskeletal System	22	4.7	3.0	7.5	1	1.1	0.2	7.7
Symptoms, Signs, & Ill-Defined Conditions	2	0.7	0.2	2.9	1	2.1	0.3	15.5
Injury & Poisoning	60	4.1	3.1	5.3	6	1.5	0.7	3.4
Dislocations	2	5.4	1.2	25.1	0			
Back Sprains & Strains	25	7.7	4.9	12.1	1	0.9	0.1	6.9
Other Sprains & Strains	19	8.8	5.2	15.0	2	2.7	0.7	11.3
Open Wound Head, Neck, Trunk	0				0			
Open Wound Upper Limb	7	3.8	1.7	8.5	0			
Superficial Injury	2	4.3	0.9	19.5	0			
Contusion	8	4.3	2.0	9.2	0			
Foreign Bodies Entering Orifice	4	2.9	1.0	8.4	1	2.4	0.3	17.2
Burns	0				0			
Unspecified Injuries	2	1.8	0.4	7.7	1	4.6	0.6	34.1
Toxic Effects Nonmedical Substances	1	0.7	0.1	4.8	0			
Unspecified Effects External Causes	2	3.6	0.8	16.3	0			

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

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

*** CI = Confidence Limit.

(CONTINUED)

HANFORD 1995

OSHA DATA

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

Diagnostic Category	Crafts and Manual Labor 1,573 Person Years				Nuclear 707 Person Years			
	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	162	4.6	3.8	5.6	63	2.9	2.2	3.8
Nervous System & Sense Organs	4	1.9	0.6	6.1	3	2.8	0.8	9.7
Skin & Subcutaneous Tissue	1	0.7	0.1	5.4	6	11.6	4.0	33.8
Musculoskeletal System	23	2.8	1.7	4.5	5	1.0	0.4	2.5
Symptoms, Signs, & Ill-Defined Conditions	12	2.6	1.3	5.1	15	7.2	4.0	13.1
Injury & Poisoning	139	5.4	4.3	6.7	52	3.1	2.3	4.2
Dislocations	3	4.8	1.3	17.5	2	5.5	1.2	25.4
Back Sprains & Strains	27	3.8	2.4	6.1	18	4.4	2.6	7.3
Other Sprains & Strains	19	3.4	2.0	5.9	7	2.3	1.0	5.1
Open Wound Head, Neck, Trunk	13	24.4	7.7	78.1	2	2.5	0.6	11.0
Open Wound Upper Limb	28	11.7	6.5	21.0	1	0.4	0.1	3.3
Superficial Injury	5	5.9	1.8	19.8	1	2.2	0.3	19.0
Contusion	16	6.8	3.5	13.2	9	4.6	2.2	9.6
Foreign Bodies Entering Orifice	17	8.3	4.3	16.4	4	2.4	0.8	6.9
Burns	5	11.7	2.6	52.3	3	9.2	2.4	35.0
Unspecified Injuries	2	0.9	0.2	3.8	0			
Toxic Effects Nonmedical Substances	7	2.3	1.0	5.7	8	6.7	3.0	14.8
Unspecified Effects External Causes	3	2.2	0.6	8.5	5	9.8	3.1	30.4

* 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)

HANFORD 1995

OSHA DATA

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

Diagnostic Category	Other/Unknown 1,133 Person Years				Total Persons with 1+ Event
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	
All Diagnostic Categories	11	0.3	0.2	0.6	583
Nervous System & Sense Organs	1	0.6	0.1	4.0	36
Skin & Subcutaneous Tissue	0				20
Musculoskeletal System	2	0.2	0.04	0.8	151
Symptoms, Signs, & Ill-Defined Conditions	1	0.1	0.02	1.2	76
Injury & Poisoning	10	0.4	0.2	0.8	418
Dislocations	2	2.6	0.7	9.5	10
Back Sprains & Strains	2	0.4	0.1	1.5	101
Other Sprains & Strains	2	0.9	0.2	3.5	69
Open Wound Head, Neck, Trunk	0				20
Open Wound Upper Limb	0				51
Superficial Injury	0				13
Contusion	3	0.7	0.2	2.3	54
Foreign Bodies Entering Orifice	3	2.4	0.6	10.1	35
Burns	0				11
Unspecified Injuries	0				33
Toxic Effects Nonmedical Substances	0				41
Unspecified Effects External Causes	0				15

* 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.