

Injury Experience in Coal Mining, 1976



U.S. Department of Labor
Ray Marshall, Secretary
Mine Safety and Health Administration
Robert B. Lagather, Assistant Secretary
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INJURY EXPERIENCE IN COAL MINING, 1976

by

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Health and Safety Analysis Center ^{1/}

ABSTRACT

This Mine Safety and Health Administration (MSHA) report reviews in detail accident, injury, and illness experience in the anthracite and bituminous coal industries of the United States for 1976. Fifty-seven tables summarize the reported work injuries by work location, principal cause of injury, degree of injury, part of body injured, and nature of injury, and contain correlative information on employment, worktime, and operating activity. Concise historical information is presented in nine tables.

INTRODUCTION

Under provisions of Section 111, Public Law 91-173, Federal Coal Mine Health and Safety Act of 1969, the Mining Enforcement and Safety Administration collected accident, injury, illness, employment, and production data for anthracite and bituminous coal mines and preparation plants in the United States by a mandatory reporting system. In 1972, the report formats and procedures for reporting and data processing were modified. Consequently, some information previously published is not now available, while other information, such as nondisabling injury data not formerly collected, is available for years after 1971.

For 1972 and subsequent years, only those data reported by operators are incorporated into the data base. No estimates are made of employment, man-hours, injuries, or tons of coal produced for nonrespondent operations except only as necessary to meet statistical processing requirements by providing minimum employment data for reported unmatched injury data in file. Prior to 1972, employment, nonfatal injury data, and coal production were estimated for nonrespondent operations based on Bureau of Mines production statistics.

^{1/} Technical Support, Denver, Colorado.

SCOPE OF STATISTICS

The statistical data in this report cover the work experience of all coal industry personnel engaged in exploration, development, production, maintenance and repair, and construction work, including contractors on mine property as well as supervisory and technical personnel. Information concerning onsite officeworkers at coal mines and preparation plants appears in the Salient Statistics table and where specifically mentioned in table title.

The compiled information is based on reports covering 4,759 mines, 976 preparation plants, and 116 independent shops in operation during all or part of 1976.

The terminology used throughout this report is that generally used by the mineral-extractive industries and by MSHA. The recording and measuring of work injury experience follow the American National Standard Method.^{2/}

DEFINITION OF TERMS

Key terms used in this publication series are defined or described as follows:

Disabling work injury.--Any injury suffered by a person that arises out of and in the course of employment that results in death, permanent total disability, permanent partial disability, or temporary total disability.

Fatality.--Any death resulting from a work injury.

Permanent total disability.--Any disabling work injury other than death that permanently and totally incapacitates an employee from following any gainful occupation, or that results in the loss, or the complete loss of use, of both or any two: hands, arms, legs, feet, or eyes.

Permanent partial disability.--Any disabling work injury other than death or permanent total disability that results in the loss, or the complete loss of use, of any member or part of a member of the body, or any permanent impairment of functions of the body or part thereof, regardless of any preexisting disability of the injured member or impaired body function.

^{2/} American National Standards Institute, Inc. American National Standard Method of Recording and Measuring Work Injury Experience. ANSI Z16.1-1967 (R1973).

Temporary total disability.--Any disabling work injury that does not result in death or permanent impairment, but which renders the injured person unable to perform a regularly established job that is open and available to him, during the entire time interval corresponding to the hours of his regular shift on any one or more days (including Sundays, days off, or plant shutdown) subsequent to the date of injury.

Injury-frequency rates.--The number of work injuries per million man-hours of exposure or per million short tons of coal, calculated by multiplying the total number of work injuries by one million and dividing the product by the total man-hours of worktime or the total short tons of coal, respectively.

Days lost.--The number of full calendar days the injured employee was unable to work as the result of a temporary total disability.

Days charged.--All fatalities and permanent total disabilities have a standard time-loss charge of 6,000 days. Injuries resulting in permanent partial disability are assigned a time-loss charge depending upon the particular injury as specified in ANSI Z16.1-1967 (R1973).

Disabling injury-severity rates.--The number of days lost or charged from disabling work injuries per million man-hours of exposure or per million short tons of coal. Rates are calculated by multiplying the total number of days lost or charged by one million and dividing the product by the total man-hours of worktime or total short tons of coal.

Average severity.--The average number of days lost or charged per disabling injury. It is calculated from the total number of days lost or charged divided by the total number of disabling injuries.

Nondisabling work injury.--An injury suffered by a person that arises out of and in the course of his employment and requires medical treatment in excess of first aid but does not result in a permanent disability or cause the person to stay away from work for one or more days.

Average men working daily.--Average number of persons at work during the time period(s) that mines or plants were active for production or development. It is computed for each mine or plant by summing the reported number of persons working during each period of active operation and then dividing by the number of periods for which activity was reported. The figure is not the average number of employees working a full year in the coal mining industry.

Principal cause classification.--The cause classification used in this report has been developed through many years of analyzing descriptions of accidents resulting in injuries at mineral extracting and processing operations. It is designed to meet the need for a coding structure to classify injuries into standard accident categories to be used in comparisons and determination of trends.

The following descriptions of the principal causes provide definitions, particularly in the inclusions or exclusions of accidents, for which the principal cause may be subject to misinterpretation.

Falls of roof.--Falls of rock, coal, or slate from their in-place location in the mine roof. Excludes falls of roof caused by equipment knocking out support and falls from pressure bumps or bursts.

Falls of face, rib, or overburden.--Falls of face, side, rib, or pillar from their in-place location in underground workings and falls of high-walls in strip pits and auger mines. Excludes falls from equipment knocking out support and falls from pressure bumps or bursts.

Pressure bumps or bursts.--Falling or flying roof, face, or rib material caused by pressure bumps or bursts.

Inrush of water or material.--Includes inrushes of water or unconsolidated material caused by mining into or too close to flooded old workings, or unconsolidated sediments such as sand.

Sliding or falling material or objects.--Rolling, shifting, sliding, or falling materials or objects not being handled or disturbed by the injured worker. Includes coal or rock already broken from its in-place position.

Slips or falls of persons.--Slips or falls on the same level and from an elevation are grouped separately. Slips or falls in or from haulage equipment that resulted from an accident on haulage, from the motion of haulage equipment, or while getting on or off haulage equipment are excluded. Slips or falls into moving or operating machinery or into electrical equipment also are excluded.

Handling materials.--Injuries occurring while installing, moving, lifting, or carrying coal, rock, supplies, or materials; and injuries from flying particles from materials being handled or moved.

Handtools.--Accidents from tools in hands of injured worker or tools in hands of fellow worker, except power-driven tools. Includes flying pieces from tools being used or materials being worked on.

Stepping or kneeling on sharp or loose objects.--Stepping or kneeling on sharp or loose objects, slips or falls from stepping on loose objects, and cases resulting in bursitis or "miner's knee" from working on hands and knees.

Striking or bumping against objects.--Cases of walking or bumping into stationary objects. Excludes cases of striking or bumping in the course of servicing equipment, repairing, handling materials, using handtools, or operating machinery or haulage equipment, etc. Excludes cases of striking or bumping against moving or operating machinery or electrically powered equipment.

Haulage.--Haulage accidents are divided into the following six groups: (1) Mine-gage rail haulage; (2) standard-gage (railroad) haulage; (3) shuttle cars, mobile electric trucks, rubber-tired equipment, and other nonrail equipment; (4) water transportation; (5) automobile, gasoline or diesel trucks, tractors, etc.; and (6) miscellaneous equipment (ropes, animals, cages, belts, etc.). Included in the haulage category are falls of roof, face, or side from haulage equipment knocking out supports; slips or falls of persons in or from haulage equipment that resulted from an accident to the equipment, from the motion of the equipment, or while getting on or off equipment; and flying particles set in motion by haulage equipment or draft therefrom.

Explosions of gas or dust.--Explosions of gas or dust in the mine environment.

Explosives and breaking agents.--Cases in which the cause of injury was the detonation, fumes, flying fragments, or use of the explosive or breaking agent, fuses, caps, or detonators.

Electricity.--Cases resulting from contact with electric current or from arcs or flashes.

Machinery.--Accidents while operating machines are separated from those while moving or tramping a whole machine. Injuries occurring while moving a repair part of a machine are classed under "handling materials." Included in the machinery classification are falls of roof, face, or side from nonhaulage machinery knocking out support, setting up or servicing machinery, and flying particles set in motion by machinery. Excluded from the classification are accidents occurring in the course of repairing machines, unless the accident resulted from in-motion machinery.

Suffocation.--Divided into suffocation from: (1) natural mine gases or oxygen-deficient atmosphere; or (2) foreign gases such as fumes from oil or gasoline motors, gases and smoke drawn underground from a surface fire, or from gas wells. Excludes gases from mine fires, explosions, and explosives use.

Fires and suffocation from fires.--Fire accidents are divided into: (1) mine fires in which coal or timber is burning; and (2) other fires in which equipment or material other than coal or timber is burning.

Occupational pneumoconiosis.--A chronic dust disease of the lungs, such as might be caused by prolonged inhalation of pulverized coal or other minerals.

Miscellaneous causes.--Includes flying particles from draft or wind; gas or burns from carbide; gas, burns, or flying materials or flashes from acetylene and electric welding and cutting; irritations and burns from battery fluid or other acids; burns from controlled wood or coal fires, steam, hot grease, oil, etc.; and all other accidents not elsewhere classified.

HISTORICAL DATA

Injury experience, employment, and worktime data (excluding office-workers) for the bituminous coal, Pennsylvania anthracite, and total coal mining industries are shown for 1930-76 in tables 49-51. The man-hour data for 1930-44 in these tables have been converted to a portal-to-portal basis, which became the basis of pay in 1945. Hence the injury-frequency and the productivity rates are directly comparable for each year since 1930.^{3/}

Historical information (excluding officeworkers) in the coal mining industry is given in tables 52-57. Figures from 1910 through 1976 represent the entire industry, while those prior to 1910 cover only the States that maintained records of fatal injuries.

GENERAL INJURY EXPERIENCE, 1976

During 1976, the disabling injury experience (excluding office-workers) at 5,851 coal mines, plants, and shops was 141 fatal and 14,389 nonfatal disabling work injuries. These injuries resulted in a combined fatal and nonfatal disabling injury-frequency rate of 37.92 per million man-hours of exposure, consisting of a fatality rate of 0.37 and a nonfatal disabling rate of 37.55. The combined disabling injury-severity rate of 3,958 days lost per million man-hours of exposure consisted of a fatal injury-severity rate of 2,208 days lost and nonfatal disabling injury-severity rate of 1,750. The average severity of all disabling injuries (excluding officeworkers) was 104 days lost or charged per injury.

This is the fifth year in which data are available concerning nondisabling injuries, except first aid cases. A total of 12,768 nondisabling injuries (excluding officeworkers) were reported during 1976, resulting in a nondisabling injury-frequency rate of 33.32. The "all injury" frequency rate shown in tables 1, 2, and 3 for 1972 through 1976 is higher than for previous years, but only because of the inclusion of nondisabling injuries in the overall frequency rate.

^{3/} Methodology given on pages 4-5, BuMines Bull. 509: Injury Experience in Coal Mining, 1948.

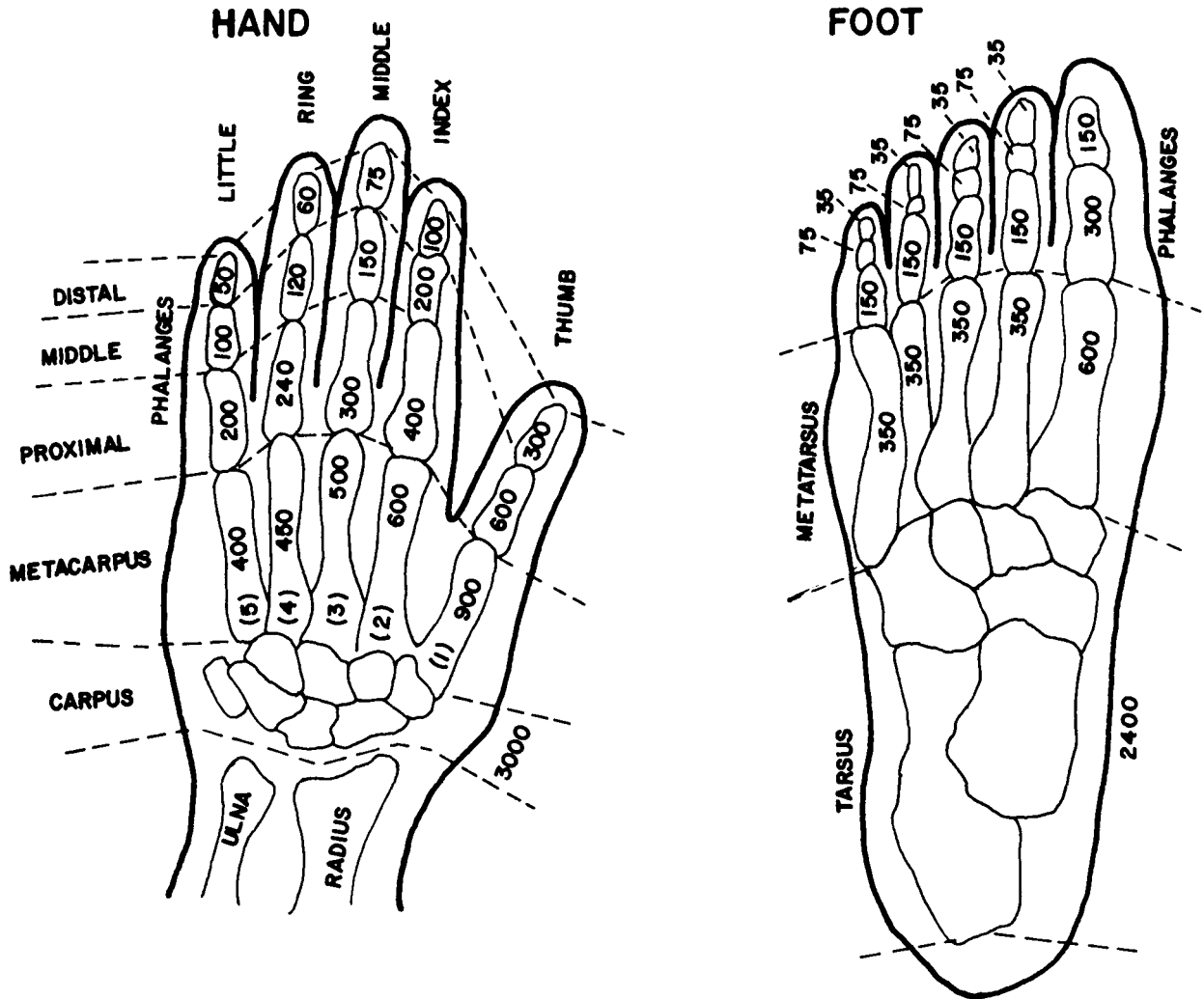
FIGURE A. - Scale of time charges^{1/} for weighting deaths, permanent total disabilities, and permanent partial disabilities for computing severity of injuries

Injury	Time charge (days)
Death.....	6,000
Permanent total disability.....	6,000
Dismemberment ^{2/} or total loss of use:	
Arm above elbow.....	4,500
Arm at or below elbow and above wrist.....	3,600
Hand at wrist.....	3,000
Thumb.....	(3/)
Finger.....	(3/)
Leg above knee.....	4,500
Leg at or below knee and above ankle.....	3,000
Foot at ankle.....	2,400
Great toe.....	(3/)
Other toes.....	(3/)
Loss of sight:	
One eye (whether or not there is sight in the other eye)....	1,800
Both eyes (in one accident).....	6,000
Complete industrial loss of hearing:	
One ear (whether or not there is hearing in the other ear)..	600
Both ears (in one accident).....	3,000
Unrepaired hernia.....	50

^{1/} American National Standards Institute, Inc. American National Standard Method of Recording and Measuring Work Injury Experience. ANSI Z16.1-1967 (R1973).

^{2/} Dismemberment means severance of any part of the bone.

^{3/} See figure B for scheduled charges for hand and foot.



NOTE:
 NUMBERS SHOWN ON DIAGRAM ARE CHARGES IN DAYS LOST FOR LOSS OF ALL OR PART OF BONE. FOR ADDITIONAL INFORMATION ON USE OF THE CHART SEE 2.3.1.1 THROUGH 2.3.1.5 ANSI. Z.16.1-1967 (R1973) AMERICAN NATIONAL STANDARD METHOD OF RECORDING AND MEASURING WORK INJURY EXPERIENCE.

FIGURE B.- Chart of scheduled charges for loss or loss of use involving hand or foot.

3000-2
(October 1974)

**UNITED STATES
DEPARTMENT OF THE INTERIOR
MINING ENFORCEMENT AND SAFETY ADMINISTRATION**

Form Approved
O.M.B. No. 42-R 1639



EMPLOYMENT AND PRODUCTION REPORT

MESA ID Number _____ For the month of _____ 19__

Mine Name _____

Company Name _____

Mailing Address _____

1. Classification of Coal Mined: (1) Anthracite (2) Bituminous (3) Subbituminous (4) Lignite

2. Current Status of Mine: (1) Active (2) Temporarily Closed Date: _____

(3) Permanently Abandoned Date: _____ (4) Sold (5) Leased (6) Subcontracted Date: _____

If any transaction occurred, indicate name and address of the other party: _____

3. Employment, Manhours, and Production

Operations Sub-Unit (1)	Code	Number of persons working during pay period including 1/2 hr of the month (2)	Total man-hours worked during the month (3)	Production of clean coal (Short tons) (4)
UNDERGROUND MINE				
Underground	01			
Surface Shops, Yards, etc	02			
SURFACE MINE (including shops and yards)				
Strip	03			
Auger	04			
Culm Bank	05			
Dredge	06			
MECHANICAL CLEANING, PREPARATION PLANT OR BREAKER	30			
OFFICE (workers at mine and/or preparation facility)	00			

4. Other Reportable Data:

Did you have any reportable accidents, injuries, illness, during this report period (1) Yes (2) No.

If yes, total number of accidents _____ total number of injuries and illness _____

Person to be contacted regarding this report:

Name _____ Title _____

Date report completed _____ 19__

FIGURE C. - Employment and production report form.

Form No. 3000-1
(October 1974)

UNITED STATES
DEPARTMENT OF THE INTERIOR
MINING ENFORCEMENT & SAFETY ADMIN.

Form Approved
O.M.B. No. 42-R1640



COAL ACCIDENT, INJURY
AND ILLNESS REPORT

Date of Accident or Illness _____ Time of Accident _____ A.M. P.M.
Time shift started _____ P.M. (1) Production (2) Maintenance

MESA ID Number _____ Company Name _____
Mine Name _____ Mailing Address _____

(1) _____ (2) _____ (3) _____ (4) _____ (5) _____ (6) _____
(7) _____ (8) _____ (9) _____ (10) _____ (11) _____ (12) _____ (13) _____
(14) _____ (15) _____ (16) _____ (17) _____ (18) _____ (19) _____ (20) _____ (21) _____
(22) _____ (23) _____ (24) _____ (25) _____ (26) _____ (27) _____ (28) _____
(29) _____ (30) _____ (31) _____ (32) _____ (33) _____ (34) _____ (35) _____
(36) _____ (37) _____ (38) _____ (39) _____ (40) _____ (41) _____ (42) _____
(43) _____ (44) _____ (45) _____ (46) _____ (47) _____ (48) _____ (49) _____
(50) _____ (51) _____ (52) _____ (53) _____

DO NOT WRITE IN THIS BLOCK — FOR OFFICIAL USE ONLY

A. LOCATION OF ACCIDENT OR ILLNESS (Circle the applicable code)	B. TYPE OF ACCIDENT (Circle the applicable code)	C. OCCUPATIONAL ILLNESS (Circle the applicable code)
(a) Underground Mine On Section (1) <input type="checkbox"/> Section ID Number _____ Operator Section Number _____ Off Section (2) <input type="checkbox"/> Operator Location number or name _____ (On Section, circle code for applicable method. Off Section, circle code for principal method used.) 01 Continuous 02 Conventional 03 Hand 04 Longwall (Whether on section or off section, circle location codes describing accident) 01 Shaft 02 Slope 03 Drift 04 Entry 05 Room 06 Face Area 07 Intersection (On section, circle applicable status code. Off section, circle principal status code.) 01 Development 02 Retreat (b) Surface Mine 03 Strip 04 Auger 05 Culm bank 06 Dredge (c) Surface Operation 01 Tipple 02 Mechanical Cleaning Plant 03 Preparation Plant or Breaker 04 Tramline or railroad 05 Central Shops 00 Office at mine 06 Other surface operations: Specify _____	14 Electricity 15 Machinery 13 Explosive & Breaking Agent 17 Mine Fire 12 Explosion of Gas or Dust 02 Pressure Bump or Burst 03 Fall of Face, Rib, or Side 05 Sliding/Falling Material 01 Fall of Roof 06 Slip or Fall (Person) 08 Handtool 09 Stepping/Kneeling on object 07 Handling material 11 Haulage 10 Striking or Bumping 20 Ignition of Gas or Dust 16 Suffocation 04 Inundation 18 Other: Specify _____ 19 Lifting/Pulling	21 Occupational skin diseases 22 Dust diseases of the lungs 23 Respiratory diseases (toxic agents) 24 Poisoning (toxic materials) 25 Disorders (physical agents) 26 Disorders (repeated trauma) 29 All other occupational illness

D. ACCIDENT OCCURRENCE DATA: What brought about the accident or illness reported _____

What was unsafe physical or mechanical condition(s) contributing to accident _____

Name equipment, material, or tool involved _____ Model number _____

Describe any unsafe act(s) contributing to accident _____

Personnel injured (1) Yes (2) No Number of persons injured _____

COMPLETE DATA BELOW FOR EACH PERSON INJURED OR ILL

1. REGARDING INJURY OR ILLNESS
 What was the agent, object, or tool inflicting injury _____ (1) Fatal (2) Nonfatal
 Type of injury or illness _____ Part of Body injured _____
 Amputation (1) Yes (2) No. If yes, part of body lost _____

2. REGARDING INJURED OR ILL PERSON
 Full Name of Injured or ill person _____
 Social Security Number _____ Sex _____ Age _____ Total years of mining experience _____ Total years experience in this mine _____
 Regular job title _____ Years of experience on regular job _____ What was employee doing when injured _____
 Was that activity part of regular job (1) Yes (2) No. If no, years of experience at that activity _____
 Returned to regular job next regular shift (1) Yes (2) No. If yes, at full capacity (1) Yes (2) No. Returned to another job next regular shift (1) Yes (2) No.
 Was employee transferred to another job or terminated (1) Yes (2) No. If yes (1) after last work days (2) because of injury or illness, but without last workdays.
 Total number of lost work days _____ Number lost from regular job _____ Date returned to work _____

FIGURE D. - Accident, injury, and illness report form.

TABLE 1. - Salient statistics on injuries, injury rates, worktime, production, and productivity at bituminous coal mines in the United States, 1972-76

	Excluding officeworkers					Including officeworkers				
	1972	1973	1974	1975	1976	1972	1973	1974	1975	1976
Number of injuries:										
Fatal-----	153	131	131	153	140	153	131	131	153	140
Nonfatal disabling---	12,012	10,880	8,298	10,856	14,096	12,018	10,889	8,306	10,866	14,113
All disabling-----	12,165	11,011	8,429	11,009	14,236	12,171	11,020	8,437	11,019	14,253
Nondisabling-----	15,700	13,999	6,895	9,185	12,333	15,731	14,040	6,916	9,196	12,360
All injuries-----	27,865	25,010	15,324	20,194	26,569	27,902	25,060	15,353	20,215	26,613
Injury rates:										
Frequency per million man-hours:										
Fatal-----	0.59	0.48	0.45	0.42	0.37	0.57	0.47	0.44	0.41	0.36
Nonfatal disabling---	45.96	40.06	28.45	29.89	37.29	44.71	38.84	27.61	29.03	36.16
All disabling-----	46.55	40.54	28.90	30.31	37.66	45.28	39.31	28.05	29.44	36.52
Nondisabling-----	60.08	51.55	23.64	25.29	32.63	58.52	50.08	22.99	24.57	31.67
All injuries-----	106.62	92.09	52.54	55.59	70.29	103.80	89.38	51.04	54.01	68.19
Frequency per million tons:										
Fatal-----	0.29	0.24	0.23	0.25	0.22	0.29	0.24	0.23	0.25	0.22
Nonfatal disabling---	22.75	19.73	14.80	17.91	21.97	22.76	19.74	14.81	17.93	21.99
All disabling-----	23.04	19.97	15.03	18.17	22.19	23.05	19.98	15.04	18.18	22.21
Nondisabling-----	29.73	25.38	12.29	15.16	19.22	29.79	25.46	12.33	15.17	19.26
All injuries-----	52.77	45.35	27.32	33.32	41.40	52.84	45.44	27.38	33.36	41.47
Severity per million man-hours:										
Fatal-----	3,513	2,894	2,695	2,527	2,222	3,415	2,803	2,613	2,452	2,152
Nonfatal disabling---	1,892	1,966	1,946	1,778	1,740	1,840	1,905	1,890	1,727	1,687
All disabling-----	5,405	4,860	4,641	4,306	3,962	5,255	4,709	4,503	4,179	3,839
Severity per million tons:										
Fatal-----	1,738	1,425	1,401	1,515	1,309	1,738	1,425	1,401	1,515	1,309
Nonfatal disabling---	936	968	1,012	1,066	1,025	937	969	1,014	1,067	1,026
All disabling-----	2,675	2,393	2,414	2,581	2,334	2,675	2,394	2,415	2,581	2,335
Average severity:										
Permanent partial---	549	695	612	558	521	549	695	612	558	521
Temporary total-----	29	33	43	43	38	29	33	43	43	38
All disabling-----	116	120	161	142	105	116	120	161	142	105
Average men working daily-----	157,285	143,886	173,588	215,004	211,471	162,046	148,422	178,766	221,172	217,997
Man-hours worked-----	261,338,208	271,575,488	291,672,037	363,249,993	377,985,124	268,802,713	280,366,978	300,803,928	374,313,834	390,258,765
Production--short tons-----	528,092,677	551,482,432	560,839,763	606,006,907	641,692,046	528,092,677	551,482,432	560,839,763	606,006,907	641,692,046
Productivity:										
Tons per man-hour-----	2.02	2.03	1.92	1.67	1.70	1.96	1.97	1.86	1.62	1.64
Tons per man-day-----	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 3. - Salient statistics on injuries, injury rates, worktime, production, and productivity
at all coal mines in the United States, 1972-76

	Excluding officeworkers					Including officeworkers				
	1972	1973	1974	1975	1976	1972	1973	1974	1975	1976
Number of injuries:										
Fatal-----	156	132	133	155	141	156	132	133	155	141
Nonfatal disabling---	12,329	11,220	8,545	11,107	14,389	12,335	11,230	8,553	11,119	14,406
All disabling-----	12,485	11,352	8,678	11,262	14,530	12,491	11,362	8,686	11,274	14,547
Nondisabling-----	16,090	14,491	7,267	9,641	12,768	16,123	14,533	7,288	9,652	12,797
All injuries-----	28,575	25,843	15,945	20,903	27,298	28,614	25,895	15,974	20,926	27,344
Injury rates:										
Frequency per million man-hours:										
Fatal-----	0.58	0.48	0.45	0.42	0.37	0.57	0.46	0.43	0.41	0.36
Nonfatal disabling---	46.08	40.41	28.79	30.17	37.55	44.82	39.18	27.94	29.31	36.42
All disabling-----	46.66	40.89	29.24	30.59	37.92	45.38	39.64	28.38	29.71	36.77
Nondisabling-----	60.14	52.20	24.49	26.18	33.32	58.58	50.70	23.81	25.44	32.35
All injuries-----	106.80	93.09	53.73	56.77	71.24	103.96	90.34	52.19	55.15	69.12
Frequency per million tons:										
Fatal-----	0.29	0.24	0.24	0.25	0.22	0.29	0.24	0.24	0.25	0.22
Nonfatal disabling---	23.06	20.11	15.10	18.17	22.24	23.07	20.13	15.12	18.19	22.26
All disabling-----	23.35	20.35	15.34	18.43	22.45	23.37	20.36	15.35	18.45	22.48
Nondisabling-----	30.10	25.97	12.84	15.78	19.73	30.16	26.05	12.88	15.79	19.78
All injuries-----	53.45	46.32	28.18	34.20	42.19	53.53	46.41	28.23	34.24	42.26
Severity per million man-hours:										
Fatal-----	3,498	2,853	2,689	2,526	2,208	3,401	2,763	2,607	2,451	2,139
Nonfatal disabling---	1,911	1,960	1,940	1,778	1,750	1,858	1,900	1,883	1,727	1,696
All disabling-----	5,409	4,813	4,629	4,304	3,958	5,259	4,663	4,491	4,178	3,835
Severity per million tons:										
Fatal-----	1,751	1,419	1,410	1,522	1,307	1,751	1,419	1,410	1,522	1,307
Nonfatal disabling---	956	975	1,018	1,071	1,036	957	976	1,019	1,072	1,037
All disabling-----	2,707	2,395	2,428	2,593	2,344	2,708	2,395	2,429	2,594	2,344
Average severity:										
Permanent partial---	546	688	612	555	518	546	688	612	555	518
Temporary total-----	29	33	43	43	38	29	33	43	43	38
All disabling-----	116	118	158	141	104	116	118	158	141	104
Average men working										
daily-----	162,207	147,243	176,997	218,162	214,632	167,133	151,892	182,274	224,412	221,255
Man-hours worked-----	267,549,825	277,621,528	296,775,427	368,196,587	383,157,840	275,239,758	286,623,759	306,069,163	379,417,376	395,593,559
Production---short tons-	534,586,073	557,949,444	565,773,663	611,130,323	647,086,916	534,586,073	557,949,444	565,773,663	611,130,323	647,086,916
Productivity:										
Tons per man-hour---	2.00	2.01	1.91	1.66	1.69	1.94	1.95	1.85	1.61	1.64
Tons per man-day-----	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4. - Worktime, production, and productivity (short tons per man-hour) data at coal mines in the United States, by kind of coal and general work location, 1976

	Average men working daily	Man-hours worked	Production, short tons	Tons per man-hour	Number of operations
Bituminous coal mines:					
Underground mines:					
Underground-----	122,453	217,251,697	280,515,938	1.29	1,908
Surface-----	14,329	23,815,467	-	-	-
Total or average-----	136,782	241,067,164	280,515,938	1.16	1,908
Strip mines-----	53,514	101,203,129	355,719,544	3.51	2,349
Auger mines-----	1,198	1,147,389	4,616,597	4.02	249
Other surface mining-----	121	205,049	839,967	4.10	9
Total surface mining-----	54,833	102,555,567	361,176,108	3.52	2,607
Total or average, mining---	191,615	343,622,731	641,692,046	1.87	4,515
Independent shops and yards-----	3,664	6,711,797	-	-	111
Mechanical cleaning plants-----	16,192	27,650,596	-	-	900
Grand total or average-----	211,471	377,985,124	641,692,046	1.70	5,526
Pennsylvania anthracite mines:					
Underground mines:					
Underground-----	459	689,461	515,550	.75	84
Surface-----	75	118,070	-	-	-
Total or average-----	534	807,531	515,550	.64	84
Strip mines-----	1,281	2,121,292	2,749,914	1.30	95
Culm banks-----	259	303,637	2,121,906	6.99	63
Dredges-----	6	12,085	7,500	.62	2
Total surface mining-----	1,546	2,437,014	4,879,320	2.00	160
Total or average, mining---	2,080	3,244,545	5,394,870	1.66	244
Independent shops and yards-----	78	154,081	-	-	5
Mechanical cleaning plants-----	1,003	1,774,090	-	-	76
Grand total or average-----	3,161	5,172,716	5,394,870	1.04	325
All coal mines:					
Underground mines:					
Underground-----	122,912	217,941,158	281,031,488	1.29	1,992
Surface-----	14,404	23,933,537	-	-	-
Total or average-----	137,316	241,874,695	281,031,488	1.16	1,992
Strip mines-----	54,795	103,324,421	358,469,458	3.47	2,444
Auger mines-----	1,198	1,147,389	4,616,597	4.02	249
Culm banks-----	380	508,686	2,961,873	5.82	72
Dredges-----	6	12,085	7,500	.62	2
Total surface mining-----	56,379	104,992,581	366,055,428	3.49	2,767
Total or average, mining---	193,695	346,867,276	647,086,916	1.87	4,759
Independent shops and yards-----	3,742	6,865,878	-	-	116
Mechanical cleaning plants-----	17,195	29,424,686	-	-	976
Grand total or average-----	214,632	383,157,840	647,086,916	1.69	5,851

TABLE 5. - Injury experience at bituminous coal mines in the United States, by general work location, 1976

	Underground mines			Strip mines	Auger mines	Other surface mining	Total surface mining	Total mining	Independ-ent shops and yards	Mechanical cleaning plants	Grand total
	Underground	Surface	Total								
Number of injuries:											
Fatal-----	104	5	109	23	1	-	24	133	-	7	140
Nonfatal disabling:											
Permanent total-----	8	-	8	-	-	-	-	8	-	-	8
Permanent partial-----	101	9	110	35	-	-	35	145	2	10	157
Temporary total-----	10,512	721	11,233	1,910	31	-	1,941	13,174	102	655	13,931
All nonfatal disabling----	10,621	730	11,351	1,945	31	-	1,976	13,327	104	665	14,096
All disabling injuries----	10,725	735	11,460	1,968	32	-	2,000	13,460	104	672	14,236
Nondisabling injuries-----	8,376	786	9,162	2,232	24	-	2,256	11,418	201	714	12,333
All injuries-----	19,101	1,521	20,622	4,200	56	-	4,256	24,878	305	1,386	26,569
Days lost:											
Fatal-----	624,000	30,000	654,000	138,000	6,000	-	144,000	798,000	-	42,000	840,000
Nonfatal disabling:											
Permanent total-----	48,000	-	48,000	-	-	-	-	48,000	-	-	48,000
Permanent partial-----	45,300	3,945	49,245	20,410	-	-	20,410	69,655	3,070	9,050	81,775
Temporary total-----	406,850	26,346	433,196	60,930	1,162	-	62,092	495,288	4,399	28,289	527,976
All nonfatal disabling----	500,150	30,291	530,441	81,340	1,162	-	82,502	612,943	7,469	37,339	657,751
All disabling-----	1,124,150	60,291	1,184,441	219,340	7,162	-	226,502	1,410,943	7,469	79,339	1,497,751
Frequency rates:											
Per million man-hours:											
Fatal-----	0.48	0.21	0.45	0.23	0.87	-	0.23	0.39	-	0.25	0.37
Nonfatal disabling-----	48.89	30.65	47.09	19.22	27.02	-	19.27	38.78	15.50	24.05	37.29
All disabling injuries----	49.37	30.86	47.54	19.45	27.89	-	19.50	39.17	15.50	24.30	37.66
Nondisabling injuries-----	38.55	33.00	38.01	22.05	20.92	-	22.00	33.23	29.95	25.82	32.63
All injuries-----	87.92	63.87	85.54	41.50	48.81	-	41.50	72.40	45.44	50.13	70.29
Per million tons:											
Fatal-----	.37	-	.39	.06	.22	-	.07	.21	-	-	.22
Nonfatal disabling-----	37.86	-	40.46	5.47	6.71	-	5.47	20.77	-	-	21.97
All disabling injuries----	38.23	-	40.85	5.53	6.93	-	5.54	20.98	-	-	22.19
Nondisabling injuries-----	29.86	-	32.66	6.27	5.20	-	6.25	17.79	-	-	19.22
All injuries-----	68.09	-	73.51	11.81	12.13	-	11.78	38.77	-	-	41.40
Severity rates:											
Per million man-hours:											
Fatal-----	2,872	1,260	2,713	1,364	5,229	-	1,404	2,322	-	1,519	2,222
Nonfatal disabling-----	2,302	1,272	2,200	804	1,013	-	804	1,784	1,113	1,350	1,740
All disabling injuries----	5,174	2,532	4,913	2,167	6,242	-	2,209	4,106	1,113	2,869	3,962
Per million tons:											
Fatal-----	2,224	-	2,331	388	1,300	-	399	1,244	-	-	1,309
Nonfatal disabling-----	1,783	-	1,891	229	252	-	228	955	-	-	1,025
All disabling injuries----	4,007	-	4,222	617	1,551	-	627	2,199	-	-	2,334
Average severity:											
Permanent partial-----	449	438	448	583	-	-	583	480	1,535	905	521
Temporary total-----	39	37	39	32	37	-	32	38	43	43	38
All disabling injuries----	105	82	103	111	224	-	113	105	72	118	105

TABLE 6. - Injury experience at Pennsylvania anthracite mines, by general work location, 1976

	Underground mines			Strip mines	Culm banks	Dredges	Total surface mining	Total mining	Independent shops and yards	Mechanical cleaning plants	Grand total
	Underground	Surface	Total								
Number of injuries:											
Fatal-----	-	-	-	-	-	-	-	-	-	1	1
Nonfatal disabling:											
Permanent total-----	-	-	-	-	-	-	-	-	-	-	-
Permanent partial-----	-	-	-	-	-	-	-	-	-	1	1
Temporary total-----	37	2	39	126	6	-	132	171	10	111	292
All nonfatal disabling----	37	2	39	126	6	-	132	171	10	112	293
All disabling injuries----	37	2	39	126	6	-	132	171	10	113	294
Nondisabling injuries-----	9	1	10	202	13	-	215	225	33	177	435
All injuries-----	46	3	49	328	19	-	347	396	43	290	729
Days lost:											
Fatal-----	-	-	-	-	-	-	-	-	-	6,000	6,000
Nonfatal disabling:											
Permanent total-----	-	-	-	-	-	-	-	-	-	-	-
Permanent partial-----	-	-	-	-	-	-	-	-	-	50	50
Temporary total-----	2,632	414	3,046	3,800	488	-	4,288	7,334	348	5,007	12,689
All nonfatal disabling----	2,632	414	3,046	3,800	488	-	4,288	7,334	348	5,057	12,739
All disabling-----	2,632	414	3,046	3,800	488	-	4,288	7,334	348	11,057	18,739
Frequency rates:											
Per million man-hours:											
Fatal-----	-	-	-	-	-	-	-	-	-	0.56	0.19
Nonfatal disabling-----	53.67	16.94	48.30	59.40	19.76	-	54.16	52.70	64.90	63.13	56.64
All disabling injuries-----	53.67	16.94	48.30	59.40	19.76	-	54.16	52.70	64.90	63.69	56.84
Nondisabling injuries-----	13.05	8.47	12.38	95.22	42.81	-	88.22	69.35	214.17	99.77	84.10
All injuries-----	66.72	25.41	60.68	154.62	62.57	-	142.39	122.05	279.07	163.46	140.93
Per million tons:											
Fatal-----	-	-	-	-	-	-	-	-	-	-	.19
Nonfatal disabling-----	71.77	-	75.65	45.82	2.83	-	27.05	31.70	-	-	54.31
All disabling injuries-----	71.77	-	75.65	45.82	2.83	-	27.05	31.70	-	-	54.50
Nondisabling injuries-----	17.46	-	19.40	73.46	6.13	-	44.06	41.71	-	-	80.63
All injuries-----	89.23	-	95.04	119.28	8.95	-	71.12	73.40	-	-	135.13
Severity rates:											
Per million man-hours:											
Fatal-----	-	-	-	-	-	-	-	-	-	3,382	1,160
Nonfatal disabling-----	3,817	3,506	3,772	1,791	1,607	-	1,760	2,260	2,259	2,850	2,463
All disabling injuries-----	3,817	3,506	3,772	1,791	1,607	-	1,760	2,260	2,259	6,232	3,623
Per million tons:											
Fatal-----	-	-	-	-	-	-	-	-	-	-	1,112
Nonfatal disabling-----	5,105	-	5,908	1,382	230	-	879	1,359	-	-	2,361
All disabling injuries-----	5,105	-	5,908	1,382	230	-	879	1,359	-	-	3,473
Average severity:											
Permanent partial-----	-	-	-	-	-	-	-	-	-	50	50
Temporary total-----	71	207	78	30	81	-	32	43	35	45	43
All disabling injuries-----	71	207	78	30	81	-	32	43	35	98	64

TABLE 7. - Injury experience at all coal mines in the United States, by general work location, 1976

	Underground mines			Strip mines	Auger mines	Culm banks	Dredges	Total surface mining	Total mining	Independent shops and yards	Mechanical cleaning plants	Grand total
	Underground	Surface	Total									
Number of injuries:												
Fatal-----	104	5	109	23	1	-	-	24	133	-	8	141
Nonfatal disabling:												
Permanent total-----	8	-	8	-	-	-	-	-	8	-	-	8
Permanent partial-----	101	9	110	35	-	-	-	35	145	2	11	158
Temporary total-----	10,549	723	11,272	2,036	31	6	-	2,073	13,345	112	766	14,223
All nonfatal disabling----	10,658	732	11,390	2,071	31	6	-	2,108	13,498	114	777	14,389
All disabling injuries----	10,762	737	11,499	2,094	32	6	-	2,132	13,631	114	785	14,530
Nondisabling injuries-----	8,385	787	9,172	2,434	24	13	-	2,471	11,643	234	891	12,768
All injuries-----	19,147	1,524	20,671	4,528	56	19	-	4,603	25,274	348	1,676	27,298
Days lost:												
Fatal-----	624,000	30,000	654,000	138,000	6,000	-	-	144,000	798,000	-	48,000	846,000
Nonfatal disabling:												
Permanent total-----	48,000	-	48,000	-	-	-	-	-	48,000	-	-	48,000
Permanent partial-----	45,300	3,945	49,245	20,410	-	-	-	20,410	69,655	3,070	9,100	81,825
Temporary total-----	409,482	26,760	436,242	64,730	1,162	488	-	66,380	502,622	4,747	33,296	540,665
All nonfatal disabling----	502,782	30,705	533,487	85,140	1,162	488	-	86,790	620,277	7,817	42,396	670,490
All disabling-----	1,126,782	60,705	1,187,487	223,140	7,162	488	-	230,790	1,418,277	7,817	90,396	1,516,490
Frequency rates:												
Per million man-hours:												
Fatal-----	0.48	0.21	0.45	0.22	0.87	-	-	0.23	0.38	-	0.27	0.37
Nonfatal disabling-----	48.90	30.58	47.09	20.04	27.02	11.80	-	20.08	38.91	16.60	26.41	37.55
All disabling injuries----	49.38	30.79	47.54	20.27	27.89	11.80	-	20.31	39.30	16.60	26.68	37.92
Nondisabling injuries-----	38.47	32.88	37.92	23.56	20.92	25.56	-	23.53	33.57	34.08	30.28	33.32
All injuries-----	87.85	63.68	85.46	43.82	48.81	37.35	-	43.84	72.86	50.69	56.96	71.24
Per million tons:												
Fatal-----	.37	-	.39	.06	.22	-	-	.07	.21	-	-	.22
Nonfatal disabling-----	37.92	-	40.53	5.78	6.71	2.03	-	5.76	20.86	-	-	22.24
All disabling injuries----	38.29	-	40.92	5.84	6.93	2.03	-	5.82	21.07	-	-	22.45
Nondisabling injuries-----	29.84	-	32.64	6.79	5.20	4.39	-	6.75	17.99	-	-	19.73
All injuries-----	68.13	-	73.55	12.63	12.13	6.41	-	12.57	39.06	-	-	42.19
Severity rates:												
Per million man-hours:												
Fatal-----	2,863	1,253	2,704	1,336	5,229	-	-	1,372	2,301	-	1,631	2,208
Nonfatal disabling-----	2,307	1,283	2,206	824	1,013	959	-	827	1,788	1,139	1,441	1,750
All disabling injuries----	5,170	2,536	4,910	2,160	6,242	959	-	2,198	4,089	1,139	3,072	3,958
Per million tons:												
Fatal-----	2,220	-	2,327	385	1,300	-	-	393	1,233	-	-	1,307
Nonfatal disabling-----	1,789	-	1,898	238	252	165	-	237	958	-	-	1,036
All disabling injuries----	4,009	-	4,225	622	1,551	165	-	630	2,192	-	-	2,344
Average severity:												
Permanent partial-----	449	438	448	583	-	-	-	583	480	1,535	827	518
Temporary total-----	39	37	39	32	37	81	-	32	38	42	43	38
All disabling injuries----	105	82	103	107	224	81	-	108	104	69	115	104

TABLE 8. - Number of injuries and frequency and severity rates at coal mines in the United States, by degree of injury, 1976

Degree of injury	Bituminous coal mines			Pennsylvania anthracite mines			All coal mines		
	Number of injuries	Injury rates		Number of injuries	Injury rates		Number of injuries	Injury rates	
		Frequency	Severity		Frequency	Severity		Frequency	Severity
Fatal-----	140	0.37	2,222	1	0.19	1,160	141	0.37	2,208
Permanent total-----	8	.02	127	-	-	-	8	.02	125
Permanent partial-----	157	.42	216	1	.19	10	158	.41	214
Temporary total-----	13,931	36.86	1,397	292	56.45	2,453	14,223	37.12	1,411
All nonfatal disabling-----	14,096	37.29	1,740	293	56.64	2,463	14,389	37.55	1,750
All disabling-----	14,236	37.66	3,962	294	56.84	3,623	14,530	37.92	3,958
Nondisabling-----	12,333	32.63		435	84.10		12,768	33.32	
All injuries-----	26,569	70.29		729	140.93		27,298	71.24	

TABLE 9. - Comparative injury data at bituminous coal operations (mines and mechanical cleaning plants) with and without fatalities in the United States, 1976

	Operations reporting fatal injuries	Operations reporting no fatal injuries	All bituminous coal operations
Number of operations 1/ -----	112	5,414	5,526
Production-----short tons-----	53,177,854	588,514,192	641,692,046
Proportion of total tonnage-----percent-----	8.3	91.7	100.0
Number of employees-----	20,561	190,910	211,471
Proportion of total employees-----percent-----	9.7	90.3	100.0
Number of employees per operation-----	184	35	38
Man-hours worked-----	38,940,922	339,044,202	377,985,124
Average hours worked per man-----	1,894	1,776	1,787
Production per man-hour-----	1.37	1.74	1.70
Number of fatalities-----	140	-	140
Number of nonfatal disabling injuries-----	1,548	12,548	14,096
Number of nondisabling injuries-----	1,155	11,178	12,333
Fatality rate per million man-hours-----	3.60	-	0.37
Nonfatal disabling injury rate per million man-hours-----	39.75	37.01	37.29
Nondisabling injury rate per million man-hours-----	29.66	32.97	32.63

1/ Includes total of 4,626 mines and 900 mechanical cleaning plants.

TABLE 10. - Comparative injury data at Pennsylvania anthracite operations (mines and mechanical cleaning plants) with and without fatalities in the United States, 1976

	Operations reporting fatal injuries	Operations reporting no fatal injuries	All anthracite coal operations
Number of operations 1/ -----	1	324	325
Production-----short tons-----	-	5,394,870	5,394,870
Proportion of total tonnage-----percent-----	-	100.0	100.0
Number of employees-----	3	3,158	3,161
Proportion of total employees-----percent-----	0.1	99.9	100.0
Number of employees per operation-----	3	10	10
Man-hours worked-----	6	5,172,710	5,172,716
Average hours worked per man-----	2	1,638	1,636
Production per man-hour-----	-	1.04	1.04
Number of fatalities-----	1	-	1
Number of nonfatal disabling injuries-----	-	293	293
Number of nondisabling injuries-----	-	435	435
Fatality rate per million man-hours-----	166,666.67	-	0.19
Nonfatal disabling injury rate per million man-hours-----	-	56.64	56.64
Nondisabling injury rate per million man-hours-----	-	84.10	84.10

1/ Includes total of 249 mines and 76 mechanical cleaning plants.

TABLE 11. - Number of injuries at coal mines in the United States, by kind of coal, general work location, and principal cause of injury, 1976

General work location and principal cause of injury	Bituminous coal mines					Pennsylvania anthracite mines					All coal mines				
	Fatal	Nonfatal disabling	Total disabling	Non-disabling	All injuries	Fatal	Nonfatal disabling	Total disabling	Non-disabling	All injuries	Fatal	Nonfatal disabling	Total disabling	Non-disabling	All injuries
Underground mines:															
Underground:															
Falls of roof or back-----	34	962	996	646	1,642	-	2	2	-	2	34	964	998	646	1,644
Falls of face or rib-----	4	320	324	154	478	-	1	1	1	2	4	321	325	155	480
Pressure bumps or bursts-----	-	11	11	10	21	-	-	-	-	-	-	11	11	10	21
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	323	323	264	587	-	2	2	3	5	-	325	325	267	592
Slips or falls of persons-----	3	978	981	650	1,631	-	6	6	-	6	3	984	987	650	1,637
Handling material-----	-	3,005	3,005	2,298	5,303	-	16	16	4	20	-	3,021	3,021	2,302	5,323
Handtools-----	-	716	716	1,135	1,851	-	3	3	-	3	-	719	719	1,135	1,854
Stepping or kneeling on sharp or loose objects-----	-	285	285	252	537	-	-	-	-	-	-	285	285	252	537
Striking or bumping against objects-----	-	176	176	207	383	-	-	-	1	1	-	176	176	208	384
Haulage-----	19	1,785	1,804	1,146	2,950	-	3	3	-	3	19	1,788	1,807	1,146	2,953
Explosions of gas or dust-----	23	3	26	1	27	-	-	-	-	-	23	3	26	1	27
Explosives-----	-	39	39	19	58	-	-	-	-	-	-	39	39	19	58
Electricity-----	3	238	241	264	505	-	-	-	-	-	3	238	241	264	505
Machinery-----	17	1,537	1,554	1,005	2,559	-	2	2	-	2	17	1,539	1,556	1,005	2,561
Suffocation(no flame or smoldering)-----	-	1	1	1	2	-	-	-	-	-	-	1	1	1	2
Fires or suffocation from fires-----	-	13	13	40	53	-	-	-	-	-	-	13	13	40	53
Miscellaneous causes-----	1	229	230	284	514	-	2	2	-	2	1	231	232	284	516
Total-----	104	10,621	10,725	8,376	19,101	-	37	37	9	46	104	10,658	10,762	8,385	19,147
Surface:															
Falls of face or rib-----	1	2	3	4	7	-	-	-	-	-	1	2	3	4	7
Sliding or falling material or objects-----	-	27	27	24	51	-	-	-	-	-	-	27	27	24	51
Slips or falls of persons-----	2	175	177	117	294	-	1	1	-	1	2	176	178	117	295
Handling material-----	-	252	252	257	509	-	1	1	1	2	-	253	253	258	511
Handtools-----	-	38	38	110	148	-	-	-	-	-	-	38	38	110	148
Stepping or kneeling on sharp or loose objects-----	-	26	26	21	47	-	-	-	-	-	-	26	26	21	47
Striking or bumping against objects-----	-	8	8	11	19	-	-	-	-	-	-	8	8	11	19
Haulage-----	2	95	97	85	182	-	-	-	-	-	2	95	97	85	182
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricity-----	-	16	16	20	36	-	-	-	-	-	-	16	16	20	36
Machinery-----	-	51	51	66	117	-	-	-	-	-	-	51	51	66	117
Fires or suffocation from fires-----	-	1	1	-	1	-	-	-	-	-	-	1	1	-	1
Miscellaneous causes-----	-	39	39	71	110	-	-	-	-	-	-	39	39	71	110
Total-----	5	730	735	786	1,521	-	2	2	1	3	5	732	737	787	1,524
Total, underground mines-----	109	11,351	11,460	9,162	20,622	-	39	39	10	49	109	11,390	11,499	9,172	20,671

TABLE 11. - Number of injuries at coal mines in the United States, by kind of coal, general work location, and principal cause of injury, 1976 - Continued

General work location and principal cause of injury	Bituminous coal mines					Pennsylvania anthracite mines					All coal mines				
	Fatal	Nonfatal disabling	Total disabling	Non-disabling	All injuries	Fatal	Nonfatal disabling	Total disabling	Non-disabling	All injuries	Fatal	Nonfatal disabling	Total disabling	Non-disabling	All injuries
Strip mines:															
Falls of face or side-----	2	18	20	13	33	-	-	-	-	-	2	18	20	13	33
Sliding or falling material or objects-----	1	62	63	60	123	-	8	8	4	12	1	70	71	64	135
Slips or falls of persons-----	1	494	495	330	825	-	29	29	43	72	1	523	524	373	897
Handling material-----	-	462	462	623	1,085	-	40	40	66	106	-	502	502	689	1,191
Handtools-----	-	147	147	334	481	-	8	8	27	35	-	155	155	361	516
Stepping or kneeling on sharp or loose objects-----	-	58	58	38	96	-	2	2	3	5	-	60	60	41	101
Striking or bumping against objects-----	-	16	16	36	52	-	2	2	3	5	-	18	18	39	57
Haulage-----	10	210	220	145	365	-	11	11	7	18	10	221	231	152	383
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	15	15	8	23	-	-	-	-	-	-	15	15	8	23
Electricity-----	2	14	16	10	26	-	-	-	1	1	2	14	16	11	27
Machinery-----	6	275	281	286	567	-	10	10	18	28	6	285	291	304	595
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	12	12	11	23	-	1	1	1	2	-	13	13	12	25
Miscellaneous causes-----	1	162	163	338	501	-	15	15	29	44	1	177	178	367	545
Total-----	23	1,945	1,968	2,232	4,200	-	126	126	202	328	23	2,071	2,094	2,434	4,528
Other surface mining: 1/															
Falls of face or side-----	-	4	4	1	5	-	-	-	-	-	-	4	4	1	5
Sliding or falling material or objects-----	-	1	1	1	2	-	1	1	-	1	-	2	2	1	3
Slips or falls of persons-----	-	7	7	4	11	-	1	1	4	5	-	8	8	8	16
Handling material-----	-	7	7	4	11	-	1	1	2	3	-	8	8	6	14
Handtools-----	-	3	3	4	7	-	-	-	2	2	-	3	3	6	9
Stepping or kneeling on sharp or loose objects-----	-	1	1	-	1	-	-	-	1	1	-	1	1	1	2
Striking or bumping against objects-----	-	-	-	-	-	-	-	-	1	1	-	-	-	1	1
Haulage-----	-	1	1	-	1	-	1	1	1	2	-	2	2	1	3
Electricity-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Machinery-----	1	5	6	5	11	-	2	2	-	2	1	7	8	5	13
Fires or suffocation from fires-----	-	-	-	3	3	-	-	-	-	-	-	-	-	3	3
Miscellaneous causes-----	-	2	2	2	4	-	-	-	2	2	-	2	2	4	6
Total-----	1	31	32	24	56	-	6	6	13	19	1	37	38	37	75
Total, surface-----	24	1,976	2,000	2,256	4,256	-	132	132	215	347	24	2,108	2,132	2,471	4,603
Total, mining-----	133	13,327	13,460	11,418	24,878	-	171	171	225	396	133	13,498	13,631	11,643	25,274

See footnote at end of table.

TABLE 11. - Number of injuries at coal mines in the United States, by kind of coal, general work location, and principal cause of injury, 1976 - Continued

General work location and principal cause of injury	Bituminous coal mines					Pennsylvania anthracite mines					All coal mines				
	Fatal	Nonfatal disabling	Total disabling	Non-disabling	All injuries	Fatal	Nonfatal disabling	Total disabling	Non-disabling	All injuries	Fatal	Nonfatal disabling	Total disabling	Non-disabling	All injuries
Independent shops and yards:															
Sliding or falling material or objects-----	-	6	6	5	11	-	-	-	-	-	-	6	6	5	11
Slips or falls of persons-----	-	16	16	19	35	-	4	4	4	8	-	20	20	23	43
Handling material-----	-	29	29	74	103	-	4	4	12	16	-	33	33	86	119
Handtools-----	-	10	10	36	46	-	-	-	5	5	-	10	10	41	51
Stepping or kneeling on sharp or loose objects-----	-	1	1	-	1	-	-	-	-	-	-	1	1	-	1
Striking or bumping against objects-----	-	2	2	4	6	-	2	2	1	1	-	2	2	5	7
Haulage-----	-	17	17	14	31	-	1	1	1	2	-	18	18	15	33
Electricity-----	-	1	1	1	2	-	-	-	1	1	-	1	1	2	3
Machinery-----	-	11	11	25	36	-	-	-	4	4	-	11	11	29	40
Miscellaneous causes-----	-	11	11	23	34	-	1	1	5	6	-	12	12	28	40
Total-----	-	104	104	201	305	-	10	10	33	43	-	114	114	234	348
Mechanical cleaning plants:															
Sliding or falling material or objects-----	-	18	18	23	41	-	2	2	5	7	-	20	20	28	48
Slips or falls of persons-----	2	173	175	125	300	-	32	32	25	57	2	205	207	150	357
Handling material-----	-	181	181	222	403	-	42	42	72	114	-	223	223	294	517
Handtools-----	-	51	51	111	162	-	11	11	22	33	-	62	62	133	195
Stepping or kneeling on sharp or loose objects-----	-	17	17	16	33	-	1	1	2	3	-	18	18	18	36
Striking or bumping against objects-----	-	11	11	15	26	-	-	-	4	4	-	11	11	19	30
Haulage-----	2	82	84	51	135	-	11	11	11	22	2	93	95	62	157
Electricity-----	1	7	8	10	18	-	1	1	-	1	1	8	9	10	19
Machinery-----	2	68	70	55	125	-	3	3	12	15	2	71	73	67	140
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	1	1	-	-	-	1	1
Fires or suffocation from fires-----	-	4	4	1	5	-	-	-	-	-	-	4	4	1	5
Miscellaneous causes-----	-	53	53	85	138	1	9	10	23	33	1	62	63	108	171
Total-----	7	665	672	714	1,386	1	112	113	177	290	8	777	785	891	1,676
Grand total-----	140	14,096	14,236	12,333	26,569	1	293	294	435	729	141	14,389	14,530	12,768	27,298

1/ Includes bituminous coal auger mines and anthracite culm banks and dredges.

TABLE 12. - Days of disability from injuries at coal mines in the United States, by kind of coal, general work location, and principal cause of injury, 1976

General work location and principal cause of injury	Bituminous coal mines			Pennsylvania anthracite mines			All coal mines		
	Fatal	Nonfatal disabling	Total disabling	Fatal	Nonfatal disabling	Total disabling	Fatal	Nonfatal disabling	Total disabling
Underground mines:									
Underground:									
Falls of roof or back-----	204,000	78,967	282,967	-	76	76	204,000	79,043	283,043
Falls of face or rib-----	24,000	13,128	37,128	-	79	79	24,000	13,207	37,207
Pressure bumps or bursts-----	-	503	503	-	-	-	-	503	503
Sliding or falling material or objects----	-	12,142	12,142	-	47	47	-	12,189	12,189
Slips or falls of persons-----	18,000	35,574	53,574	-	247	247	18,000	35,821	53,821
Handling material-----	-	109,437	109,437	-	1,287	1,287	-	110,724	110,724
Handtools-----	-	20,624	20,624	-	19	19	-	20,643	20,643
Stepping or kneeling on sharp or loose objects-----	-	8,585	8,585	-	-	-	-	8,585	8,585
Striking or bumping against objects-----	-	5,416	5,416	-	-	-	-	5,416	5,416
Haulage-----	114,000	120,901	234,901	-	338	338	114,000	121,239	235,239
Explosions of gas or dust-----	138,000	30	138,030	-	-	-	138,000	30	138,030
Explosives-----	-	3,233	3,233	-	-	-	-	3,233	3,233
Electricity-----	18,000	5,463	23,463	-	-	-	18,000	5,463	23,463
Machinery-----	102,000	80,554	182,554	-	190	190	102,000	80,744	182,744
Suffocation (no flame or smoldering)-----	-	27	27	-	-	-	-	27	27
Fires or suffocation from fires-----	-	185	185	-	-	-	-	185	185
Miscellaneous causes-----	6,000	5,381	11,381	-	349	349	6,000	5,730	11,730
Total-----	624,000	500,150	1,124,150	-	2,632	2,632	624,000	502,782	1,126,782
Surface:									
Falls of face or rib-----	6,000	75	6,075	-	-	-	6,000	75	6,075
Sliding or falling material or objects----	-	1,198	1,198	-	-	-	-	1,198	1,198
Slips or falls of persons-----	12,000	7,200	19,200	-	1	1	12,000	7,201	19,201
Handling material-----	-	7,208	7,208	-	413	413	-	7,621	7,621
Handtools-----	-	720	720	-	-	-	-	720	720
Stepping or kneeling on sharp or loose objects-----	-	932	932	-	-	-	-	932	932
Striking or bumping against objects-----	-	368	368	-	-	-	-	368	368
Haulage-----	12,000	5,547	17,547	-	-	-	12,000	5,547	17,547
Electricity-----	-	666	666	-	-	-	-	666	666
Machinery-----	-	5,490	5,490	-	-	-	-	5,490	5,490
Fires or suffocation from fires-----	-	38	38	-	-	-	-	38	38
Miscellaneous causes-----	-	849	849	-	-	-	-	849	849
Total-----	30,000	30,291	60,291	-	414	414	30,000	30,705	60,705
Total, underground mines-----	654,000	530,441	1,184,441	-	3,046	3,046	654,000	533,487	1,187,487

TABLE 12. - Days of disability from injuries at coal mines in the United States, by kind of coal, general work location, and principal cause of injury, 1976 - Continued

General work location and principal cause of injury	Bituminous coal mines			Pennsylvania anthracite mines			All coal mines		
	Fatal	Nonfatal disabling	Total disabling	Fatal	Nonfatal disabling	Total disabling	Fatal	Nonfatal disabling	Total disabling
Strip mines:									
Falls of face or side-----	12,000	937	12,937	-	-	-	12,000	937	12,937
Sliding or falling material or objects-----	6,000	2,624	8,624	-	241	241	6,000	2,865	8,865
Slips or falls of persons-----	6,000	18,656	24,656	-	984	984	6,000	19,640	25,640
Handling materials-----	-	18,486	18,486	-	953	953	-	19,439	19,439
Handtools-----	-	4,597	4,597	-	254	254	-	4,851	4,851
Stepping or kneeling on sharp or loose objects-----	-	896	896	-	18	18	-	914	914
Striking or bumping against objects-----	-	516	516	-	85	85	-	601	601
Haulage-----	60,000	8,477	68,477	-	448	448	60,000	8,925	68,925
Explosives-----	-	4,549	4,549	-	-	-	-	4,549	4,549
Electricity-----	12,000	1,275	13,275	-	-	-	12,000	1,275	13,275
Machinery-----	36,000	17,910	53,910	-	562	562	36,000	18,472	54,472
Fires or suffocation from fires-----	-	243	243	-	20	20	-	263	263
Miscellaneous causes-----	6,000	2,174	8,174	-	235	235	6,000	2,409	8,409
Total-----	138,000	81,340	219,340	-	3,800	3,800	138,000	85,140	223,140
Other surface mining: 1/									
Falls of face or side-----	-	227	227	-	-	-	-	227	227
Sliding or falling material or objects-----	-	41	41	-	30	30	-	71	71
Slips or falls of persons-----	-	421	421	-	164	164	-	585	585
Handling materials-----	-	146	146	-	18	18	-	164	164
Handtools-----	-	38	38	-	-	-	-	38	38
Stepping or kneeling on sharp or loose objects-----	-	1	1	-	-	-	-	1	1
Striking or bumping against objects-----	-	-	-	-	-	-	-	-	-
Haulage-----	-	25	25	-	12	12	-	37	37
Electricity-----	-	-	-	-	-	-	-	-	-
Machinery-----	6,000	207	6,207	-	264	264	6,000	471	6,471
Miscellaneous causes-----	-	56	56	-	-	-	-	56	56
Total-----	6,000	1,162	7,162	-	488	488	6,000	1,650	7,650
Total, surface-----	144,000	82,502	226,502	-	4,288	4,288	144,000	86,790	230,790
Total, mining-----	798,000	612,943	1,410,943	-	7,334	7,334	798,000	620,277	1,418,277

1/ See footnote at end of table.

TABLE 12. - Days of disability from injuries at coal mines in the United States, by kind of coal, general work location, and principal cause of injury, 1976 - Continued

General work location and principal cause of injury	Bituminous coal mines			Pennsylvania anthracite mines			All coal mines		
	Fatal	Nonfatal disabling	Total disabling	Fatal	Nonfatal disabling	Total disabling	Fatal	Nonfatal disabling	Total disabling
Independent shops and yards:									
Sliding or falling material or objects-----	-	3,098	3,098	-	-	-	-	3,098	3,098
Slips or falls of persons-----	-	915	915	-	220	220	-	1,135	1,135
Handling material-----	-	1,203	1,203	-	118	118	-	1,321	1,321
Handtools-----	-	145	145	-	-	-	-	145	145
Stepping or kneeling on sharp or loose objects-----	-	67	67	-	-	-	-	67	67
Striking or bumping against objects-----	-	55	55	-	-	-	-	55	55
Haulage-----	-	647	647	-	7	7	-	654	654
Electricity-----	-	3	3	-	-	-	-	3	3
Machinery-----	-	688	688	-	-	-	-	688	688
Miscellaneous causes-----	-	648	648	-	3	3	-	651	651
Total-----	-	7,469	7,469	-	348	348	-	7,817	7,817
Mechanical cleaning plants:									
Sliding or falling material or objects-----	-	715	715	-	281	281	-	996	996
Slips or falls of persons-----	12,000	8,208	20,208	-	1,394	1,394	12,000	9,602	21,602
Handling material-----	-	6,945	6,945	-	1,851	1,851	-	8,796	8,796
Handtools-----	-	2,138	2,138	-	559	559	-	2,697	2,697
Stepping or kneeling on sharp or loose objects-----	-	377	377	-	30	30	-	407	407
Striking or bumping against objects-----	-	156	156	-	-	-	-	156	156
Haulage-----	12,000	8,610	20,610	-	837	837	12,000	9,447	21,447
Electricity-----	6,000	739	6,739	-	1	1	6,000	740	6,740
Machinery-----	12,000	7,821	19,821	-	39	39	12,000	7,860	19,860
Fires or suffocation from fires-----	-	200	200	-	-	-	-	200	200
Miscellaneous causes-----	-	1,430	1,430	6,000	65	6,065	6,000	1,495	7,495
Total-----	42,000	37,339	79,339	6,000	5,057	11,057	48,000	42,396	90,396
Grand total-----	840,000	657,751	1,497,751	6,000	12,739	18,739	846,000	670,490	1,516,490

1/ Includes bituminous coal auger mines and anthracite culm banks and dredges.

TABLE 13. - Average severity of all disabling injuries at coal mines in the United States, by kind of coal, general work location, and principal cause of injury, 1976

General work location and principal cause of injury	Bituminous coal mines	Pennsylvania anthracite mines	All coal mines
Underground mines:			
Underground:			
Falls of roof or back-----	284	38	284
Falls of face or rib-----	115	79	114
Pressure bumps or bursts-----	46	-	46
Sliding or falling material or objects-----	38	24	38
Slips or falls of persons-----	55	41	55
Handling material-----	36	80	37
Handtools-----	29	6	29
Stepping or kneeling on sharp or loose objects--	30	-	30
Striking or bumping against objects-----	31	-	31
Haulage-----	130	113	130
Explosions of gas or dust-----	5,309	-	5,309
Explosives-----	83	-	83
Electricity-----	97	-	97
Machinery-----	117	95	117
Suffocation (no flame or smoldering)-----	27	-	27
Fires or suffocation from fires-----	14	-	14
Miscellaneous causes-----	49	174	51
Total-----	105	71	105
Surface:			
Falls of face or rib-----	2,025	-	2,025
Sliding or falling material or objects-----	44	-	44
Slips or falls of persons-----	108	1	108
Handling material-----	29	413	30
Handtools-----	19	-	19
Stepping or kneeling on sharp or loose objects--	36	-	36
Striking or bumping against objects-----	46	-	46
Haulage-----	181	-	181
Electricity-----	42	-	42
Machinery-----	108	-	108
Fires or suffocation from fires-----	38	-	38
Miscellaneous causes-----	22	-	22
Total-----	82	207	82
Total, underground mines-----	103	78	103
Strip mines:			
Falls of face or rib-----	647	-	647
Sliding or falling material or objects-----	137	30	125
Slips or falls of persons-----	50	34	49
Handling material-----	40	24	39
Handtools-----	31	32	31
Stepping or kneeling on sharp or loose objects--	15	9	15
Striking or bumping against objects-----	32	42	33
Haulage-----	311	41	298
Explosives-----	303	-	303
Electricity-----	830	-	830
Machinery-----	192	56	187
Fires or suffocation from fires-----	20	20	20
Miscellaneous causes-----	50	16	47
Total-----	111	30	107

TABLE 13. - Average severity of all disabling injuries at coal mines in the United States, by kind of coal, general work location, and principal cause of injury, 1976 - Continued

General work location and principal cause of injury	Bituminous coal mines	Pennsylvania anthracite mines	All coal mines
Other surface mining: ^{1/}			
Falls of face or rib-----	57	-	57
Sliding or falling material or objects-----	41	30	36
Slips or falls of persons-----	60	164	73
Handling material-----	21	18	20
Handtools-----	13	-	13
Stepping or kneeling on sharp or loose objects--	1	-	1
Striking or bumping against objects-----	-	-	-
Haulage-----	25	12	18
Electricity-----	-	-	-
Machinery-----	1,034	132	809
Miscellaneous causes-----	28	-	28
Total-----	224	81	201
Total, surface-----	113	32	108
Total, mining-----	105	43	104
Independent shops and yards:			
Sliding or falling material or objects-----	516	-	516
Slips or falls of persons-----	57	55	57
Handling material-----	41	30	40
Handtools-----	14	-	14
Stepping or kneeling on sharp or loose objects--	67	-	67
Striking or bumping against objects-----	28	-	28
Haulage-----	38	7	36
Electricity-----	3	-	3
Machinery-----	63	-	63
Miscellaneous causes-----	59	3	54
Total-----	72	35	69
Mechanical cleaning plants:			
Sliding or falling material or objects-----	40	140	50
Slips or falls of persons-----	115	44	104
Handling material-----	38	44	39
Handtools-----	42	51	44
Stepping or kneeling on sharp or loose objects--	22	30	23
Striking or bumping against objects-----	14	-	14
Haulage-----	245	76	226
Electricity-----	842	1	749
Machinery-----	283	13	272
Fires or suffocation from fires-----	50	-	50
Miscellaneous causes-----	27	606	119
Total-----	118	98	115
Grand total-----	105	64	104

^{1/} Includes bituminous coal auger mines and anthracite culm banks and dredges.

TABLE 14. - Number and average severity of injuries at bituminous coal mines, by general work location, occupation at the time of injury, and degree of injury, 1976

General work location and occupation at time of injury	Number of injuries								Distri- bution of all disabling injuries, percent	Average severity		
	Fatal	Nonfatal disabling			All disabling injuries	Non- disabling injuries	All injuries	Permanent partial injuries		Temporary total injuries	All disabling injuries	
		Permanent		Temporary total								
		Total	Partial									
Underground mines:												
Underground:												
Continuous miner operators/helpers-----	10	2	5	831	838	848	647	1,495	7.9	235	42	128
Cutting-machine operators/helpers-----	-	-	-	154	154	154	63	217	1.4	-	44	44
Loading machine operators/helpers-----	1	-	2	191	193	194	156	350	1.8	242	47	79
Roof bolters/helpers-----	15	2	20	1,784	1,806	1,821	1,307	3,128	17.0	178	43	100
Timbermen and jacksetters-----	5	-	4	321	325	330	171	501	3.1	70	31	121
Belt and boom operators-----	6	-	7	528	535	541	296	837	5.0	990	33	111
Trainmen-----	9	-	5	404	409	418	388	806	3.9	124	47	176
Shuttle/scoop operators-----	13	1	10	1,139	1,150	1,163	789	1,952	10.8	1,578	39	124
Electricians/helpers-----	-	-	4	316	320	320	249	569	3.0	468	37	42
Laborers-----	9	3	18	2,177	2,198	2,207	1,714	3,921	20.6	348	32	67
Mechanics, oilers and greasers-----	4	-	8	815	823	827	842	1,669	7.7	199	38	69
Supervisors and technical-----	5	-	3	158	161	166	241	407	1.5	70	38	218
Other, not elsewhere classified-----	27	-	15	1,687	1,702	1,729	1,511	3,240	16.1	436	41	138
Not stated-----	-	-	-	7	7	7	2	9	.1	-	17	17
Total or average-----	104	8	101	10,512	10,621	10,725	8,376	19,101	-	449	39	105
Surface:												
Bulldozer, grader, mobile equipment operators-----	1	-	-	34	34	35	30	65	4.8	-	38	208
Car droppers-----	-	-	-	17	17	17	18	35	2.3	-	47	47
Electricians/helpers-----	-	-	2	40	42	42	49	91	5.7	188	37	44
Laborers-----	1	-	1	196	197	198	171	369	26.9	50	36	66
Mechanics/helpers-----	-	-	1	104	105	105	162	267	14.3	3,000	35	63
Motormen and trainmen-----	-	-	-	12	12	12	10	22	1.6	-	69	69
Supervisors and technical-----	1	-	2	35	37	38	66	104	5.2	168	35	199
Truck drivers-----	-	-	-	22	22	22	15	37	3.0	-	29	29
Other, not elsewhere classified-----	2	-	3	261	264	266	265	531	36.2	62	36	81
Not stated-----	-	-	-	-	-	-	-	-	-	-	-	-
Total or average-----	5	-	9	721	730	735	786	1,521	-	438	37	82
Total or average, underground mines (bituminous)---	109	8	110	11,233	11,351	11,460	9,162	20,622	-	448	39	103

TABLE 14. - Number and average severity of injuries at bituminous coal mines, by general work location, occupation at the time of injury, and degree of injury, 1976 - Continued

General work location and occupation at time of injury	Number of injuries								Distribution of all disabling injuries, percent	Average severity		
	Fatal	Nonfatal disabling			All disabling injuries	Non-disabling injuries	All injuries	Permanent partial injuries		Temporary total injuries	All disabling injuries	
		Permanent		Temporary total								All nonfatal disabling
		Total	Partial									
Surface mines (includes strip, auger, culm bank, dredge, and independent shops and yards):												
Auger operators/helpers-----	1	-	1	37	38	39	20	59	1.9	75	29	184
Bulldozer, grader, mobile equipment operators-----	3	-	4	405	409	412	333	745	19.6	138	34	79
Drillers/helpers-----	3	-	1	116	117	120	95	215	5.7	150	40	190
Electricians/helpers-----	1	-	-	36	36	37	101	138	1.8	-	37	198
Laborers-----	2	-	8	292	300	302	318	620	14.4	568	28	82
Mechanics/helpers-----	1	-	4	272	276	277	443	720	13.2	600	27	57
Oilers and greasers-----	2	-	5	149	154	156	174	330	7.4	757	31	130
Power shovel and dragline operators-----	-	-	1	86	87	87	95	182	4.1	300	35	38
Supervisors and technical-----	5	-	6	51	57	62	136	198	2.9	596	32	568
Truck drivers-----	3	-	2	203	205	208	148	356	9.9	145	42	129
Welders-----	1	-	2	198	200	201	343	544	9.6	1,925	26	75
Other, not elsewhere classified-----	2	-	3	197	200	202	251	453	9.6	1,320	37	115
Not stated-----	-	-	-	1	1	1	-	1	(1/)	-	24	24
Total or average-----	24	-	37	2,043	2,080	2,104	2,457	4,561	-	635	33	111
Mechanical cleaning plants:												
Bulldozer, grader, mobile equipment operators-----	-	-	-	40	40	40	31	71	6.0	-	65	65
Car droppers-----	1	-	-	43	43	44	34	78	6.5	-	61	196
Cleaning equipment operators-----	1	-	1	27	28	29	35	64	4.3	100	27	236
Laborers-----	3	-	2	181	183	186	167	353	27.7	3,750	36	172
Mechanics, oilers and greasers-----	1	-	1	123	124	125	177	302	18.6	100	39	87
Supervisors and technical-----	-	-	-	26	26	26	46	72	3.9	-	19	19
Tipple, scalper-screen operators-----	-	-	3	42	45	45	41	86	6.7	380	65	86
Truck drivers-----	-	-	-	29	29	29	25	54	4.3	-	56	56
Welders-----	1	-	1	58	59	60	74	134	8.9	60	27	127
Other, not elsewhere classified-----	-	-	2	86	88	88	84	172	13.1	75	52	52
Not stated-----	-	-	-	-	-	-	-	-	-	-	-	-
Total or average-----	7	-	10	655	665	672	714	1,386	-	905	43	118
Grand total or average (bituminous)-----	140	8	157	13,931	14,096	14,236	12,333	26,569	-	521	38	105

1/ Less than 0.05.

TABLE 15. - Number and average severity of injuries at Pennsylvania anthracite mines, by general work location, occupation at the time of injury, and degree of injury, 1976

General work location and occupation at time of injury	Number of injuries								Distribution of all disabling injuries, percent	Average severity		
	Fatal	Nonfatal disabling			All disabling injuries	Non-disabling injuries	All injuries	Permanent partial injuries		Temporary total injuries	All disabling injuries	
		Permanent		Temporary total								All nonfatal disabling
		Total	Partial									
Underground mines:												
Underground:												
Continuous miner operators/helpers-----	-	-	-	4	4	4	2	6	10.8	-	19	19
Loading machine operators/helpers-----	-	-	-	1	1	1	-	1	2.7	-	5	5
Trainmen-----	-	-	-	1	1	1	-	1	2.7	-	86	86
Laborers-----	-	-	-	27	27	27	7	34	73.0	-	88	88
Supervisors and technical-----	-	-	-	1	1	1	-	1	2.7	-	40	40
Other, not elsewhere classified-----	-	-	-	3	3	3	-	3	8.1	-	20	20
Total or average-----	-	-	-	37	37	37	9	46	-	-	71	71
Surface:												
Electricians/helpers-----	-	-	-	-	-	-	1	1	-	-	-	-
Laborers-----	-	-	-	1	1	1	-	1	50.0	-	1	1
Other, not elsewhere classified-----	-	-	-	1	1	1	-	1	50.0	-	413	413
Total or average-----	-	-	-	2	2	2	1	3	-	-	207	207
Total or average, underground mines-----	-	-	-	39	39	39	10	49	-	-	78	78

TABLE 15. - Number and average severity of injuries at Pennsylvania anthracite mines, by general work location, occupation at the time of injury, and degree of injury, 1976 - Continued

General work location and occupation at time of injury	Number of injuries								Distribution of all disabling injuries, percent	Average severity		
	Fatal	Nonfatal disabling				All disabling injuries	Non-disabling injuries	All injuries		Permanent partial injuries	Temporary total injuries	All disabling injuries
		Permanent		Temporary total	All nonfatal disabling							
		Total	Partial									
Surface mines (includes strip, auger, culm bank, dredge, and independent shops and yards):												
Bulldozer, grader, mobile equipment operators-----	-	-	-	13	13	13	21	34	9.2	-	37	37
Drillers/helpers-----	-	-	-	9	9	9	7	16	6.3	-	33	33
Electricians/helpers-----	-	-	-	2	2	2	2	4	1.4	-	18	18
Laborers-----	-	-	-	10	10	10	34	44	7.0	-	26	26
Mechanics/helpers-----	-	-	-	19	19	19	41	60	13.4	-	23	23
Oilers and greasers-----	-	-	-	16	16	16	36	52	11.3	-	41	41
Power shovel and dragline operators-----	-	-	-	15	15	15	33	48	10.6	-	38	38
Supervisors and technical-----	-	-	-	4	4	4	10	14	2.8	-	17	17
Truck drivers-----	-	-	-	19	19	19	18	37	13.4	-	32	32
Welders-----	-	-	-	25	25	25	32	57	17.6	-	28	28
Other, not elsewhere classified-----	-	-	-	10	10	10	14	24	7.0	-	51	51
Total or average-----	-	-	-	142	142	142	248	390	-	-	33	33
Mechanical cleaning plants:												
Bulldozer, grader, mobile equipment operators-----	-	-	-	3	3	3	8	11	2.7	-	6	6
Car droppers-----	-	-	-	6	6	6	6	12	5.3	-	72	72
Cleaning equipment operators-----	-	-	-	8	8	8	19	27	7.1	-	31	31
Laborers-----	-	-	1	34	35	35	60	95	31.0	50	47	47
Mechanics, oilers and greasers-----	-	-	-	17	17	17	21	38	15.0	-	38	38
Supervisors and technical-----	1	-	-	6	6	7	14	21	6.2	-	27	880
Tipple, scalper-screen operators-----	-	-	-	3	3	3	3	6	2.7	-	40	40
Truck drivers-----	-	-	-	13	13	13	9	22	11.5	-	59	59
Welders-----	-	-	-	12	12	12	15	27	10.6	-	73	73
Other, not elsewhere classified-----	-	-	-	9	9	9	22	31	8.0	-	16	16
Total or average-----	1	-	1	111	112	113	177	290	-	50	45	98
Grand total or average-----	1	-	1	292	293	294	435	729	-	50	43	64

TABLE 16. - Hour of shift of injury occurrence at bituminous coal operations,
by general work location, 1976

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
Underground:						
First shift ^{1/}						
Hour of shift:						
1st-----	-	272	272	6.1	181	453
2nd-----	5	615	620	13.9	481	1,101
3rd-----	2	733	735	16.5	614	1,349
4th-----	7	678	685	15.4	609	1,294
5th-----	8	411	419	9.4	331	750
6th-----	18	475	493	11.1	430	923
7th-----	9	653	662	14.9	514	1,176
8th-----	5	384	389	8.7	318	707
9th-----	-	97	97	2.2	51	148
10th and over-----	3	77	80	1.8	49	129
Total first shift-----	57	4,395	4,452	-	3,578	8,030
Second shift ^{2/}						
Hour of shift:						
1st-----	1	234	235	6.3	211	446
2nd-----	5	522	527	14.1	374	901
3rd-----	5	643	648	17.3	470	1,118
4th-----	4	581	585	15.6	412	997
5th-----	3	442	445	11.9	345	790
6th-----	3	457	460	12.3	350	810
7th-----	1	482	483	12.9	332	815
8th-----	10	286	296	7.9	159	455
9th-----	1	28	29	.8	25	54
10th and over-----	-	35	35	.9	33	68
Total second shift-----	33	3,710	3,743	-	2,711	6,454
Third shift ^{3/}						
Hour of shift:						
1st-----	-	227	227	9.0	192	419
2nd-----	1	425	426	16.8	340	766
3rd-----	2	446	448	17.7	393	841
4th-----	1	391	392	15.5	331	723
5th-----	1	287	288	11.4	264	552
6th-----	3	302	305	12.1	247	552
7th-----	2	246	248	9.8	189	437
8th-----	4	154	158	6.2	103	261
9th-----	-	14	14	.6	9	23
10th and over-----	-	24	24	.9	19	43
Total third shift-----	14	2,516	2,530	-	2,087	4,617
All shifts						
Hour of shift:						
1st-----	1	733	734	6.8	584	1,318
2nd-----	11	1,562	1,573	14.7	1,195	2,768
3rd-----	9	1,822	1,831	17.1	1,477	3,308
4th-----	12	1,650	1,662	15.5	1,352	3,014
5th-----	12	1,140	1,152	10.7	940	2,092
6th-----	24	1,234	1,258	11.7	1,027	2,285
7th-----	12	1,381	1,393	13.0	1,035	2,428
8th-----	19	824	843	7.9	580	1,423
9th-----	1	139	140	1.3	85	225
10th and over-----	3	136	139	1.3	101	240
Total all shifts-----	104	10,621	10,725	-	8,376	19,101

See footnotes at end of table.

TABLE 16. - Hour of shift of injury occurrence at bituminous coal operations,
by general work location, 1976 - Continued

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
Surface at underground:						
First shift <u>1/</u>						
Hour of shift:						
1st-----	-	41	41	10.0	48	89
2nd-----	-	49	49	11.9	86	135
3rd-----	-	59	59	14.4	78	137
4th-----	1	59	60	14.6	70	130
5th-----	-	29	29	7.1	42	71
6th-----	-	37	37	9.0	42	79
7th-----	-	52	52	12.7	57	109
8th-----	1	46	47	11.4	47	94
9th-----	1	22	23	5.6	14	37
10th and over-----	1	13	14	3.4	11	25
Total first shift-----	4	407	411	-	495	906
Second shift <u>2/</u>						
Hour of shift:						
1st-----	-	30	30	15.4	17	47
2nd-----	-	30	30	15.4	26	56
3rd-----	-	17	17	8.7	20	37
4th-----	-	23	23	11.8	22	45
5th-----	-	17	17	8.7	24	41
6th-----	1	29	30	15.4	21	51
7th-----	-	24	24	12.3	27	51
8th-----	-	12	12	6.2	13	25
9th-----	-	8	8	4.1	10	18
10th and over-----	-	4	4	2.1	3	7
Total second shift-----	1	194	195	-	183	378
Third shift <u>3/</u>						
Hour of shift:						
1st-----	-	30	30	23.3	20	50
2nd-----	-	10	10	7.8	18	28
3rd-----	-	21	21	16.3	16	37
4th-----	-	15	15	11.6	9	24
5th-----	-	10	10	7.8	13	23
6th-----	-	10	10	7.8	11	21
7th-----	-	12	12	9.3	11	23
8th-----	-	10	10	7.8	8	18
9th-----	-	5	5	3.9	2	7
10th and over-----	-	6	6	4.7	-	6
Total third shift-----	-	129	129	-	108	237
All shifts						
Hour of shift:						
1st-----	-	100	100	13.6	84	184
2nd-----	-	90	90	12.2	131	221
3rd-----	-	96	96	13.1	114	210
4th-----	1	98	99	13.5	101	200
5th-----	-	56	56	7.6	79	135
6th-----	1	76	77	10.5	74	151
7th-----	-	88	88	12.0	95	183
8th-----	1	68	69	9.4	68	137
9th-----	1	35	36	4.9	26	62
10th and over-----	1	23	24	3.3	14	38
Total all shifts-----	5	730	735	-	786	1,521

See footnotes at end of table.

TABLE 16. - Hour of shift of injury occurrence at bituminous coal operations,
by general work location, 1976 - Continued

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
Strip:						
First shift ^{1/}						
Hour of shift:						
1st-----	1	111	112	8.3	113	225
2nd-----	2	168	170	12.6	178	348
3rd-----	-	177	177	13.1	198	375
4th-----	-	184	184	13.7	201	385
5th-----	6	122	128	9.5	124	252
6th-----	3	122	125	9.3	141	266
7th-----	2	114	116	8.6	226	342
8th-----	1	156	157	11.7	196	353
9th-----	2	85	87	6.5	89	176
10th and over-----	1	90	91	6.8	86	177
Total first shift-----	18	1,329	1,347	-	1,552	2,899
Second shift ^{2/}						
Hour of shift:						
1st-----	-	54	54	12.1	51	105
2nd-----	-	63	63	14.1	76	139
3rd-----	-	54	54	12.1	67	121
4th-----	3	53	56	12.6	46	102
5th-----	-	37	37	8.3	58	95
6th-----	-	57	57	12.8	49	106
7th-----	-	59	59	13.2	54	113
8th-----	-	34	34	7.6	26	60
9th-----	-	12	12	2.7	7	19
10th and over-----	-	20	20	4.5	18	38
Total second shift-----	3	443	446	-	452	898
Third shift ^{3/}						
Hour of shift:						
1st-----	1	21	22	12.6	36	58
2nd-----	1	28	29	16.6	37	66
3rd-----	-	33	33	18.9	36	69
4th-----	-	17	17	9.7	31	48
5th-----	-	13	13	7.4	23	36
6th-----	-	25	25	14.3	24	49
7th-----	-	17	17	9.7	19	36
8th-----	-	13	13	7.4	13	26
9th-----	-	2	2	1.1	3	5
10th and over-----	-	4	4	2.3	6	10
Total third shift-----	2	173	175	-	228	403
All shifts						
Hour of shift:						
1st-----	2	186	188	9.6	200	388
2nd-----	3	259	262	13.3	291	553
3rd-----	-	264	264	13.4	301	565
4th-----	3	254	257	13.1	278	535
5th-----	6	172	178	9.0	205	383
6th-----	3	204	207	10.5	214	421
7th-----	2	190	192	9.8	299	491
8th-----	1	203	204	10.4	235	439
9th-----	2	99	101	5.1	99	200
10th and over-----	1	114	115	5.8	110	225
Total all shifts-----	23	1,945	1,968	-	2,232	4,200

See footnotes at end of table.

TABLE 16. - Hour of shift of injury occurrence at bituminous coal operations,
by general work location, 1976 - Continued

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
Auger:						
First shift ^{1/}						
Hour of shift:						
1st-----	-	2	2	6.5	2	4
2nd-----	-	5	5	16.1	3	8
3rd-----	-	4	4	12.9	2	6
4th-----	-	7	7	22.6	7	14
5th-----	1	3	4	12.9	2	6
6th-----	-	-	-	-	1	1
7th-----	-	3	3	9.7	2	5
8th-----	-	3	3	9.7	2	5
9th-----	-	1	1	3.2	2	3
10th and over-----	-	2	2	6.5	1	3
Total first shift-----	1	30	31	-	24	55
Second shift ^{2/}						
Hour of shift:						
1st-----	-	-	-	-	-	-
2nd-----	-	-	-	-	-	-
3rd-----	-	-	-	-	-	-
4th-----	-	-	-	-	-	-
5th-----	-	1	1	100.0	-	1
6th-----	-	-	-	-	-	-
7th-----	-	-	-	-	-	-
8th-----	-	-	-	-	-	-
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total second shift-----	-	1	1	-	-	1
Third shift ^{3/}						
Hour of shift:						
1st-----	-	-	-	-	-	-
2nd-----	-	-	-	-	-	-
3rd-----	-	-	-	-	-	-
4th-----	-	-	-	-	-	-
5th-----	-	-	-	-	-	-
6th-----	-	-	-	-	-	-
7th-----	-	-	-	-	-	-
8th-----	-	-	-	-	-	-
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total third shift-----	-	-	-	-	-	-
All shifts						
Hour of shift:						
1st-----	-	2	2	6.2	2	4
2nd-----	-	5	5	15.6	3	8
3rd-----	-	4	4	12.5	2	6
4th-----	-	7	7	21.9	7	14
5th-----	1	4	5	15.6	2	7
6th-----	-	-	-	-	1	1
7th-----	-	3	3	9.4	2	5
8th-----	-	3	3	9.4	2	5
9th-----	-	1	1	3.1	2	3
10th and over-----	-	2	2	6.2	1	3
Total all shifts-----	1	31	32	-	24	56

See footnotes at end of table.

TABLE 16. - Hour of shift of injury occurrence at bituminous coal operations,
by general work location, 1976 - Continued

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
Independent shops and yards:						
First shift ^{1/}						
Hour of shift:						
1st-----	-	9	9	12.5	12	21
2nd-----	-	13	13	18.1	19	32
3rd-----	-	11	11	15.3	22	33
4th-----	-	11	11	15.3	22	33
5th-----	-	3	3	4.2	4	7
6th-----	-	8	8	11.1	16	24
7th-----	-	7	7	9.7	19	26
8th-----	-	6	6	8.3	11	17
9th-----	-	1	1	1.4	4	5
10th and over-----	-	3	3	4.2	7	10
Total first shift-----	-	72	72	-	136	208
Second shift ^{2/}						
Hour of shift:						
1st-----	-	3	3	13.6	8	11
2nd-----	-	4	4	18.2	5	9
3rd-----	-	2	2	9.1	9	11
4th-----	-	5	5	22.7	7	12
5th-----	-	1	1	4.5	2	3
6th-----	-	1	1	4.5	7	8
7th-----	-	6	6	27.3	6	12
8th-----	-	-	-	-	5	5
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	1	1
Total second shift-----	-	22	22	-	50	72
Third shift ^{3/}						
Hour of shift:						
1st-----	-	2	2	20.0	3	5
2nd-----	-	4	4	40.0	2	6
3rd-----	-	-	-	-	2	2
4th-----	-	1	1	10.0	-	1
5th-----	-	1	1	10.0	3	4
6th-----	-	-	-	-	3	3
7th-----	-	1	1	10.0	2	3
8th-----	-	-	-	-	-	-
9th-----	-	-	-	-	-	-
10th and over-----	-	1	1	10.0	-	1
Total third shift-----	-	10	10	-	15	25
All shifts						
Hour of shift:						
1st-----	-	14	14	13.5	23	37
2nd-----	-	21	21	20.2	26	47
3rd-----	-	13	13	12.5	33	46
4th-----	-	17	17	16.3	29	46
5th-----	-	5	5	4.8	9	14
6th-----	-	9	9	8.7	26	35
7th-----	-	14	14	13.5	27	41
8th-----	-	6	6	5.8	16	22
9th-----	-	1	1	1.0	4	5
10th and over-----	-	4	4	3.8	8	12
Total all shifts-----	-	104	104	-	201	305

See footnotes at end of table.

TABLE 16. - Hour of shift of injury occurrence at bituminous coal operations,
by general work location, 1976 - Continued

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
Mechanical cleaning plants:						
First shift ^{1/}						
Hour of shift:						
1st-----	-	31	31	7.8	37	68
2nd-----	1	44	45	11.2	70	115
3rd-----	3	59	62	15.5	57	119
4th-----	-	63	63	15.8	61	124
5th-----	1	34	35	8.8	31	66
6th-----	-	39	39	9.8	41	80
7th-----	-	55	55	13.8	58	113
8th-----	1	35	36	9.0	42	78
9th-----	-	20	20	5.0	9	29
10th and over-----	-	14	14	3.5	15	29
Total first shift-----	6	394	400	-	421	821
Second shift ^{2/}						
Hour of shift:						
1st-----	-	23	23	14.6	19	42
2nd-----	-	21	21	13.4	31	52
3rd-----	-	23	23	14.6	25	48
4th-----	-	22	22	14.0	17	39
5th-----	-	17	17	10.8	20	37
6th-----	1	19	20	12.7	14	34
7th-----	-	17	17	10.8	25	42
8th-----	-	8	8	5.1	13	21
9th-----	-	3	3	1.9	1	4
10th and over-----	-	3	3	1.9	5	8
Total second shift-----	1	156	157	-	170	327
Third shift ^{3/}						
Hour of shift:						
1st-----	-	16	16	13.9	16	32
2nd-----	-	24	24	20.9	22	46
3rd-----	-	27	27	23.5	18	45
4th-----	-	15	15	13.0	20	35
5th-----	-	11	11	9.6	22	33
6th-----	-	8	8	7.0	12	20
7th-----	-	11	11	9.6	8	19
8th-----	-	2	2	1.7	5	7
9th-----	-	-	-	-	-	-
10th and over-----	-	1	1	.9	-	1
Total third shift-----	-	115	115	-	123	238
All shifts						
Hour of shift:						
1st-----	-	70	70	10.4	72	142
2nd-----	1	89	90	13.4	123	213
3rd-----	3	109	112	16.7	100	212
4th-----	-	100	100	14.9	98	198
5th-----	1	62	63	9.4	73	136
6th-----	1	66	67	10.0	67	134
7th-----	-	83	83	12.4	91	174
8th-----	1	45	46	6.8	60	106
9th-----	-	23	23	3.4	10	33
10th and over-----	-	18	18	2.7	20	38
Total all shifts-----	7	665	672	-	714	1,386

See footnotes at end of table.

TABLE 16. - Hour of shift of injury occurrence at bituminous coal operations,
by general work location, 1976 - Continued

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
All work locations:						
First shift ^{1/}						
Hour of shift:						
1st-----	1	466	467	7.0	393	860
2nd-----	8	894	902	13.4	837	1,739
3rd-----	5	1,043	1,048	15.6	971	2,019
4th-----	8	1,002	1,010	15.0	970	1,980
5th-----	16	602	618	9.2	534	1,152
6th-----	21	681	702	10.5	671	1,373
7th-----	11	884	895	13.3	876	1,771
8th-----	8	630	638	9.5	616	1,254
9th-----	3	226	229	3.4	169	398
10th and over-----	5	199	204	3.0	169	373
Total first shift-----	86	6,627	6,713	-	6,206	12,919
Second shift ^{2/}						
Hour of shift:						
1st-----	1	344	345	7.6	306	651
2nd-----	5	640	645	14.1	512	1,157
3rd-----	5	739	744	16.3	591	1,335
4th-----	7	684	691	15.1	504	1,195
5th-----	3	515	518	11.3	449	967
6th-----	5	563	568	12.4	441	1,009
7th-----	1	588	589	12.9	444	1,033
8th-----	10	340	350	7.7	216	566
9th-----	1	51	52	1.1	43	95
10th and over-----	-	62	62	1.4	60	122
Total second shift-----	38	4,526	4,564	-	3,566	8,130
Third shift ^{3/}						
Hour of shift:						
1st-----	1	296	297	10.0	267	564
2nd-----	2	491	493	16.7	419	912
3rd-----	2	527	529	17.9	465	994
4th-----	1	439	440	14.9	391	831
5th-----	1	322	323	10.9	325	648
6th-----	3	345	348	11.8	297	645
7th-----	2	287	289	9.8	229	518
8th-----	4	179	183	6.2	129	312
9th-----	-	21	21	.7	14	35
10th and over-----	-	36	36	1.2	25	61
Total third shift-----	16	2,943	2,959	-	2,561	5,520
All shifts						
Hour of shift:						
1st-----	3	1,106	1,109	7.8	966	2,075
2nd-----	15	2,025	2,040	14.3	1,768	3,808
3rd-----	12	2,309	2,321	16.3	2,027	4,348
4th-----	16	2,125	2,141	15.0	1,865	4,006
5th-----	20	1,439	1,459	10.2	1,308	2,767
6th-----	29	1,589	1,618	11.4	1,409	3,027
7th-----	14	1,759	1,773	12.5	1,549	3,322
8th-----	22	1,149	1,171	8.2	961	2,132
9th-----	4	298	302	2.1	226	528
10th and over-----	5	297	302	2.1	254	556
Total all shifts-----	140	14,096	14,236	-	12,333	26,569

^{1/} Work shift starting any time between 4:00 A.M. and 11:59 A.M.

^{2/} Work shift starting any time between 12:00 noon and 7:59 P.M.

^{3/} Work shift starting any time between 8:00 P.M. and 3:59 A.M.

TABLE 17. - Hour of shift of injury occurrence at Pennsylvania anthracite operations,
by general work location, 1976

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	11 injuries
	Fatal	Nonfatal	All disabling			
Underground:						
First shift ^{1/}						
Hour of shift:						
1st-----	-	3	3	9.7	-	3
2nd-----	-	2	2	6.5	-	2
3rd-----	-	1	1	3.2	1	2
4th-----	-	6	6	19.4	1	7
5th-----	-	10	10	32.3	2	12
6th-----	-	1	1	3.2	-	1
7th-----	-	5	5	16.1	1	6
8th-----	-	2	2	6.5	-	2
9th-----	-	-	-	-	-	-
10th and over-----	-	1	1	3.2	-	1
Total first shift-----	-	31	31	-	5	36
Second shift ^{2/}						
Hour of shift:						
1st-----	-	-	-	-	-	-
2nd-----	-	-	-	-	-	-
3rd-----	-	2	2	40.0	-	2
4th-----	-	-	-	-	1	1
5th-----	-	1	1	20.0	-	1
6th-----	-	-	-	-	-	-
7th-----	-	-	-	-	3	3
8th-----	-	2	2	40.0	-	2
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total second shift-----	-	5	5	-	4	9
Third shift ^{3/}						
Hour of shift:						
1st-----	-	-	-	-	-	-
2nd-----	-	-	-	-	-	-
3rd-----	-	-	-	-	-	-
4th-----	-	-	-	-	-	-
5th-----	-	-	-	-	-	-
6th-----	-	1	1	100.0	-	1
7th-----	-	-	-	-	-	-
8th-----	-	-	-	-	-	-
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total third shift-----	-	1	1	-	-	1
All shifts						
Hour of shift:						
1st-----	-	3	3	8.1	-	3
2nd-----	-	2	2	5.4	-	2
3rd-----	-	3	3	8.1	1	4
4th-----	-	6	6	16.2	2	8
5th-----	-	11	11	29.7	2	13
6th-----	-	2	2	5.4	-	2
7th-----	-	5	5	13.5	4	9
8th-----	-	4	4	10.8	-	4
9th-----	-	-	-	-	-	-
10th and over-----	-	1	1	2.7	-	1
Total all shifts-----	-	37	37	-	9	46

See footnotes at end of table.

TABLE 17. - Hour of shift of injury occurrence at Pennsylvania anthracite operations,
by general work location, 1976 - Continued

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
Surface at underground:						
First shift ^{1/}						
Hour of shift:						
1st-----	-	-	-	-	-	-
2nd-----	-	1	1	50.0	1	2
3rd-----	-	-	-	-	-	-
4th-----	-	1	1	50.0	-	1
5th-----	-	-	-	-	-	-
6th-----	-	-	-	-	-	-
7th-----	-	-	-	-	-	-
8th-----	-	-	-	-	-	-
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total first shift----	-	2	2	-	1	3
Second shift ^{2/}						
Hour of shift:						
1st-----	-	-	-	-	-	-
2nd-----	-	-	-	-	-	-
3rd-----	-	-	-	-	-	-
4th-----	-	-	-	-	-	-
5th-----	-	-	-	-	-	-
6th-----	-	-	-	-	-	-
7th-----	-	-	-	-	-	-
8th-----	-	-	-	-	-	-
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total second shift----	-	-	-	-	-	-
Third shift ^{3/}						
Hour of shift:						
1st-----	-	-	-	-	-	-
2nd-----	-	-	-	-	-	-
3rd-----	-	-	-	-	-	-
4th-----	-	-	-	-	-	-
5th-----	-	-	-	-	-	-
6th-----	-	-	-	-	-	-
7th-----	-	-	-	-	-	-
8th-----	-	-	-	-	-	-
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total third shift----	-	-	-	-	-	-
All shifts						
Hour of shift:						
1st-----	-	-	-	-	-	-
2nd-----	-	1	1	50.0	1	2
3rd-----	-	-	-	-	-	-
4th-----	-	1	1	50.0	-	1
5th-----	-	-	-	-	-	-
6th-----	-	-	-	-	-	-
7th-----	-	-	-	-	-	-
8th-----	-	-	-	-	-	-
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total all shifts----	-	2	2	-	1	3

See footnotes at end of table.

TABLE 17. - Hour of shift of injury occurrence at Pennsylvania anthracite operations,
by general work location, 1976 - Continued

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
Strip:						
First shift ^{1/}						
Hour of shift:						
1st-----	-	3	3	3.9	12	15
2nd-----	-	12	12	15.8	14	26
3rd-----	-	9	9	11.8	25	34
4th-----	-	16	16	21.1	33	49
5th-----	-	14	14	18.4	19	33
6th-----	-	7	7	9.2	8	15
7th-----	-	9	9	11.8	14	23
8th-----	-	4	4	5.3	10	14
9th-----	-	1	1	1.3	4	5
10th and over-----	-	1	1	1.3	4	5
Total first shift-----	-	76	76	-	143	219
Second shift ^{2/}						
Hour of shift:						
1st-----	-	2	2	5.4	5	7
2nd-----	-	6	6	16.2	7	13
3rd-----	-	4	4	10.8	5	9
4th-----	-	8	8	21.6	4	12
5th-----	-	3	3	8.1	3	6
6th-----	-	8	8	21.6	5	13
7th-----	-	4	4	10.8	5	9
8th-----	-	-	-	-	1	1
9th-----	-	1	1	2.7	2	3
10th and over-----	-	1	1	2.7	1	2
Total second shift-----	-	37	37	-	38	75
Third shift ^{3/}						
Hour of shift:						
1st-----	-	2	2	15.4	6	8
2nd-----	-	2	2	15.4	3	5
3rd-----	-	2	2	15.4	1	3
4th-----	-	1	1	7.7	4	5
5th-----	-	2	2	15.4	2	4
6th-----	-	2	2	15.4	1	3
7th-----	-	2	2	15.4	1	3
8th-----	-	-	-	-	1	1
9th-----	-	-	-	-	1	1
10th and over-----	-	-	-	-	1	1
Total third shift-----	-	13	13	-	21	34
All shifts						
Hour of shift:						
1st-----	-	7	7	5.6	23	30
2nd-----	-	20	20	15.9	24	44
3rd-----	-	15	15	11.9	31	46
4th-----	-	25	25	19.8	41	66
5th-----	-	19	19	15.1	24	43
6th-----	-	17	17	13.5	14	31
7th-----	-	15	15	11.9	20	35
8th-----	-	4	4	3.2	12	16
9th-----	-	2	2	1.6	7	9
10th and over-----	-	2	2	1.6	6	8
Total all shifts-----	-	126	126	-	202	328

See footnotes at end of table.

TABLE 17. - Hour of shift of injury occurrence at Pennsylvania anthracite operations,
by general work location, 1976 - Continued

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
Culm banks:						
First shift ^{1/}						
Hour of shift:						
1st-----	-	1	1	20.0	2	3
2nd-----	-	1	1	20.0	2	3
3rd-----	-	-	-	-	-	-
4th-----	-	1	1	20.0	-	1
5th-----	-	-	-	-	1	1
6th-----	-	-	-	-	1	1
7th-----	-	1	1	20.0	1	2
8th-----	-	1	1	20.0	1	2
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total first shift-----	-	5	5	-	8	13
Second shift ^{2/}						
Hour of shift:						
1st-----	-	-	-	-	-	-
2nd-----	-	-	-	-	1	1
3rd-----	-	1	1	100.0	-	1
4th-----	-	-	-	-	-	-
5th-----	-	-	-	-	1	1
6th-----	-	-	-	-	1	1
7th-----	-	-	-	-	1	1
8th-----	-	-	-	-	-	-
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total second shift-----	-	1	1	-	4	5
Third shift ^{3/}						
Hour of shift:						
1st-----	-	-	-	-	-	-
2nd-----	-	-	-	-	-	-
3rd-----	-	-	-	-	-	-
4th-----	-	-	-	-	1	1
5th-----	-	-	-	-	-	-
6th-----	-	-	-	-	-	-
7th-----	-	-	-	-	-	-
8th-----	-	-	-	-	-	-
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total third shift-----	-	-	-	-	1	1
All shifts						
Hour of shift:						
1st-----	-	1	1	16.7	2	3
2nd-----	-	1	1	16.7	3	4
3rd-----	-	1	1	16.7	-	1
4th-----	-	1	1	16.7	1	2
5th-----	-	-	-	-	2	2
6th-----	-	-	-	-	2	2
7th-----	-	1	1	16.7	2	3
8th-----	-	1	1	16.7	1	2
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total all shifts-----	-	6	6	-	13	19

See footnotes at end of table.

TABLE 17. - Hour of shift of injury occurrence at Pennsylvania anthracite operations,
by general work location, 1976 - Continued

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
Independent shops and yards:						
First shift ^{1/}						
Hour of shift:						
1st-----	-	-	-	-	-	-
2nd-----	-	-	-	-	9	9
3rd-----	-	2	2	22.2	5	7
4th-----	-	1	1	11.1	4	5
5th-----	-	3	3	33.3	6	9
6th-----	-	1	1	11.1	-	1
7th-----	-	-	-	-	4	4
8th-----	-	1	1	11.1	1	2
9th-----	-	1	1	11.1	2	3
10th and over-----	-	-	-	-	1	1
Total first shift-----	-	9	9	-	32	41
Second shift ^{2/}						
Hour of shift:						
1st-----	-	1	1	100.0	-	1
2nd-----	-	-	-	-	-	-
3rd-----	-	-	-	-	-	-
4th-----	-	-	-	-	-	-
5th-----	-	-	-	-	1	1
6th-----	-	-	-	-	-	-
7th-----	-	-	-	-	-	-
8th-----	-	-	-	-	-	-
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total second shift-----	-	1	1	-	1	2
Third shift ^{3/}						
Hour of shift:						
1st-----	-	-	-	-	-	-
2nd-----	-	-	-	-	-	-
3rd-----	-	-	-	-	-	-
4th-----	-	-	-	-	-	-
5th-----	-	-	-	-	-	-
6th-----	-	-	-	-	-	-
7th-----	-	-	-	-	-	-
8th-----	-	-	-	-	-	-
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total third shift-----	-	-	-	-	-	-
All shifts						
Hour of shift:						
1st-----	-	1	1	10.0	-	1
2nd-----	-	-	-	-	9	9
3rd-----	-	2	2	20.0	5	7
4th-----	-	1	1	10.0	4	5
5th-----	-	3	3	30.0	6	9
6th-----	-	1	1	10.0	1	2
7th-----	-	-	-	-	4	4
8th-----	-	1	1	10.0	1	2
9th-----	-	1	1	10.0	2	3
10th and over-----	-	-	-	-	1	1
Total all shifts-----	-	10	10	-	33	43

See footnotes at end of table.

TABLE 17. - Hour of shift of injury occurrence at Pennsylvania anthracite operations,
by general work location, 1976 - Continued

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
Mechanical cleaning plants:						
First shift ^{1/}						
Hour of shift:						
1st-----	-	6	6	8.1	8	14
2nd-----	-	10	10	13.5	14	24
3rd-----	1	12	13	17.6	8	21
4th-----	-	10	10	13.5	16	26
5th-----	-	11	11	14.9	31	42
6th-----	-	4	4	5.4	12	16
7th-----	-	10	10	13.5	21	31
8th-----	-	8	8	10.8	7	15
9th-----	-	1	1	1.4	3	4
10th and over-----	-	1	1	1.4	1	2
Total first shift-----	1	73	74	-	121	195
Second shift ^{2/}						
Hour of shift:						
1st-----	-	1	1	3.3	2	3
2nd-----	-	6	6	20.0	7	13
3rd-----	-	4	4	13.3	10	14
4th-----	-	3	3	10.0	7	10
5th-----	-	1	1	3.3	7	8
6th-----	-	8	8	26.7	7	15
7th-----	-	7	7	23.3	2	9
8th-----	-	-	-	-	2	2
9th-----	-	-	-	-	1	1
10th and over-----	-	-	-	-	1	1
Total second shift-----	-	30	30	-	46	76
Third shift ^{3/}						
Hour of shift:						
1st-----	-	2	2	22.2	3	5
2nd-----	-	3	3	33.3	1	4
3rd-----	-	1	1	11.1	3	4
4th-----	-	-	-	-	-	-
5th-----	-	2	2	22.2	1	3
6th-----	-	-	-	-	-	-
7th-----	-	-	-	-	2	2
8th-----	-	1	1	11.1	-	1
9th-----	-	-	-	-	-	-
10th and over-----	-	-	-	-	-	-
Total third shift-----	-	9	9	-	10	19
All shifts						
Hour of shift:						
1st-----	-	9	9	8.0	13	22
2nd-----	-	19	19	16.8	22	41
3rd-----	1	17	18	15.9	21	39
4th-----	-	13	13	11.5	23	36
5th-----	-	14	14	12.4	39	53
6th-----	-	12	12	10.6	19	31
7th-----	-	17	17	15.0	25	42
8th-----	-	9	9	8.0	9	18
9th-----	-	1	1	.9	4	5
10th and over-----	-	1	1	.9	2	3
Total all shifts-----	1	112	113	-	177	290

See footnotes at end of table.

TABLE 17. - Hour of shift of injury occurrence at Pennsylvania anthracite operations,
by general work location, 1976 - Continued

Work location, shift designation, and hour of shift	Disabling injuries			Distribution of all disabling injuries, percent	Nondisabling injuries	All injuries
	Fatal	Nonfatal	All disabling			
All work locations:						
First shift ^{1/}						
Hour of shift:						
1st-----	-	13	13	6.6	22	35
2nd-----	-	26	26	13.2	40	66
3rd-----	1	24	25	12.7	39	64
4th-----	-	35	35	17.8	54	89
5th-----	-	38	38	19.3	59	97
6th-----	-	13	13	6.6	21	34
7th-----	-	25	25	12.7	41	66
8th-----	-	16	16	8.1	19	35
9th-----	-	3	3	1.5	9	12
10th and over-----	-	3	3	1.5	6	9
Total first shift-----	1	196	197	-	310	507
Second shift ^{2/}						
Hour of shift:						
1st-----	-	4	4	5.4	7	11
2nd-----	-	12	12	16.2	15	27
3rd-----	-	11	11	14.9	15	26
4th-----	-	11	11	14.9	12	23
5th-----	-	5	5	6.8	11	16
6th-----	-	16	16	21.6	14	30
7th-----	-	11	11	14.9	11	22
8th-----	-	2	2	2.7	3	5
9th-----	-	1	1	1.4	3	4
10th and over-----	-	1	1	1.4	2	3
Total second shift-----	-	74	74	-	93	167
Third shift ^{3/}						
Hour of shift:						
1st-----	-	4	4	17.4	9	13
2nd-----	-	5	5	21.7	4	9
3rd-----	-	3	3	13.0	4	7
4th-----	-	1	1	4.3	5	6
5th-----	-	4	4	17.4	3	7
6th-----	-	3	3	13.0	1	4
7th-----	-	2	2	8.7	3	5
8th-----	-	1	1	4.3	1	2
9th-----	-	-	-	-	1	1
10th and over-----	-	-	-	-	1	1
Total third shift-----	-	23	23	-	32	55
All shifts						
Hour of shift:						
1st-----	-	21	21	7.1	38	59
2nd-----	-	43	43	14.6	59	102
3rd-----	1	38	39	13.3	58	97
4th-----	-	47	47	16.0	71	118
5th-----	-	47	47	16.0	73	120
6th-----	-	32	32	10.9	36	68
7th-----	-	38	38	12.9	55	93
8th-----	-	19	19	6.5	23	42
9th-----	-	4	4	1.4	13	17
10th and over-----	-	4	4	1.4	9	13
Total all shifts-----	1	293	294	-	435	729

^{1/} Work shift starting any time between 4:00 A.M. and 11:59 A.M.^{2/} Work shift starting any time between 12:00 noon and 7:59 P.M.^{3/} Work shift starting any time between 8:00 P.M. and 3:59 A.M.

TABLE 18. - Number of injuries, injury rates, and average severity at bituminous coal mines in the United States, by general work location and part of body injured, 1976

General work location and part of body injured	Number of injuries							Distribution of all disabling injuries, percent	Frequency rates per million man-hours				Severity rates per million man-hours			Average severity						
	Fatal	Nonfatal disabling			All disabling injuries	Non-disabling injuries	All injuries		Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Permanent partial	Temporary total	All disabling				
		Permanent		Temporary total															All non-fatal disabling	Fatal	Non-fatal disabling	All disabling
		Total	Partial																			
Underground mines:																						
Underground:																						
Head, face, neck (excl. eye)-----	18	2	1	826	829	847	1,023	1,870	7.9	0.08	3.82	3.90	4.71	497	170	668	600	30	171			
Eye-----	-	-	1	409	410	410	712	1,122	3.8	-	1.89	1.89	3.28	-	37	37	1,800	15	20			
Trunk-----	8	2	7	3,304	3,313	3,321	1,682	5,003	31.0	.04	15.25	15.29	7.74	221	706	927	50	43	61			
Arm (above wrist)-----	-	-	1	460	461	461	432	893	4.3	-	2.12	2.12	1.99	-	88	88	300	41	41			
Wrist, hand, fingers-----	-	-	70	2,049	2,119	2,119	2,467	4,586	19.8	-	9.75	9.75	11.36	-	378	378	223	32	39			
Leg (above ankle)-----	-	-	4	1,333	1,337	1,337	783	2,120	12.5	-	6.15	6.15	3.60	-	351	351	3,000	48	57			
Ankle, foot, toes-----	-	-	12	1,317	1,329	1,329	826	2,155	12.4	-	6.12	6.12	3.80	-	255	255	746	35	42			
Multiple-----	72	4	4	725	733	805	368	1,173	7.5	.33	3.37	3.71	1.69	1,988	302	2,291	1,412	50	618			
Unclassified (no data)-----	6	-	1	89	90	96	83	179	.9	.03	.41	.44	.38	166	15	181	50	36	409			
Total or average-----	104	8	101	10,512	10,621	10,725	8,376	19,101	-	.48	48.89	49.37	38.55	2,872	2,302	5,174	449	39	105			
Surface:																						
Head, face, neck (excl. eye)-----	2	-	-	39	39	41	87	128	5.6	.08	1.64	1.72	3.65	504	52	556	-	32	323			
Eye-----	-	-	-	35	35	35	85	120	4.8	-	1.47	1.47	3.57	-	13	13	-	9	9			
Trunk-----	1	-	2	257	259	260	142	402	35.4	.04	10.88	10.92	5.96	252	426	678	50	39	62			
Arm (above wrist)-----	-	-	-	31	31	31	46	77	4.2	-	1.30	1.30	1.93	-	53	53	-	41	41			
Wrist, hand, fingers-----	-	-	7	119	126	126	232	358	17.1	-	5.29	5.29	9.74	-	329	329	549	34	62			
Leg (above ankle)-----	-	-	-	74	74	74	86	160	10.1	-	3.11	3.11	3.61	-	143	143	-	46	46			
Ankle, foot, toes-----	-	-	-	118	118	118	79	197	16.1	-	4.95	4.95	3.32	-	160	160	-	32	32			
Multiple-----	2	-	-	43	43	45	22	67	6.1	.08	1.81	1.89	.92	504	92	596	-	51	315			
Unclassified (no data)-----	-	-	-	5	5	5	7	12	.7	-	.21	.21	.29	-	5	5	-	22	22			
Total or average-----	5	-	9	721	730	735	786	1,521	-	.21	30.65	30.86	33.00	1,260	1,272	2,532	438	37	82			
Total or average, underground mines-----	109	8	110	11,233	11,351	11,460	9,162	20,622	-	.45	47.09	47.54	38.01	2,713	2,200	4,913	448	39	103			
Strip mines:																						
Head, face, neck (excl. eye)-----	6	-	-	124	124	130	248	378	6.6	.06	1.23	1.28	2.45	356	28	383	-	23	299			
Eye-----	-	-	2	127	129	129	400	529	6.6	-	1.27	1.27	3.95	-	49	49	1,800	10	38			
Trunk-----	3	-	1	584	585	588	380	968	29.9	.03	5.78	5.81	3.75	178	203	381	50	35	66			
Arm (above wrist)-----	-	-	1	92	93	93	155	248	4.7	-	.92	.92	1.53	-	56	56	3,600	22	61			
Wrist, hand, fingers-----	-	-	28	279	307	307	580	887	15.6	-	3.03	3.03	5.73	-	175	175	331	30	58			
Leg (above ankle)-----	-	-	-	250	250	250	212	462	12.7	-	2.47	2.47	2.09	-	104	104	-	42	42			
Ankle, foot, toes-----	-	-	2	250	252	252	125	377	12.8	-	2.49	2.49	1.24	-	71	71	450	25	28			
Multiple-----	11	-	1	183	184	195	96	291	9.9	.11	1.82	1.93	.95	652	112	764	3,000	46	397			
Unclassified (no data)-----	3	-	-	21	21	24	36	60	1.2	.03	.21	.24	.36	178	6	184	-	31	777			
Total or average-----	23	-	35	1,910	1,945	1,968	2,232	4,200	-	.23	19.22	19.45	22.05	1,364	804	2,167	583	32	111			

TABLE 18. - Number of injuries, injury rates, and average severity at bituminous coal mines in the United States, by general work location and part of body injured, 1976 - Continued

General work location and part of body injured	Number of injuries							Distribution of all disabling injuries, percent	Frequency rates per million man-hours				Severity rates per million man-hours			Average severity							
	Fatal	Nonfatal disabling				All disabling injuries	Non-disabling injuries		All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Permanent partial	Temporary total	All disabling				
		Permanent		Temporary total	All non-fatal disabling															Frequency rates per million man-hours		Severity rates per million man-hours	
		Total	Partial																	Fatal	Non-fatal disabling	All disabling	Non-disabling
Auger mines:																							
Head, face, neck (excl. eye)-----	-	-	-	3	3	3	5	8	9.4	-	2.61	2.61	4.36	-	146	146	-	56	56				
Eye-----	-	-	-	3	3	3	3	6	9.4	-	2.61	2.61	2.61	-	8	8	-	3	3				
Trunk-----	-	-	-	6	6	6	2	8	18.8	-	5.23	5.23	1.74	-	175	175	-	34	34				
Arm (above wrist)-----	-	-	-	1	1	1	2	3	3.1	-	.87	.87	1.74	-	1	1	-	1	1				
Wrist, hand, fingers-----	-	-	-	5	5	5	7	12	15.6	-	4.36	4.36	6.10	-	174	174	-	40	40				
Leg (above ankle)-----	-	-	-	3	3	3	3	6	9.4	-	2.61	2.61	2.61	-	104	104	-	40	40				
Ankle, foot, toes-----	-	-	-	7	7	7	-	7	21.9	-	6.10	6.10	-	-	333	333	-	55	55				
Multiple-----	1	-	-	2	2	3	1	4	9.4	0.87	1.74	2.61	.87	5,229	51	5,280	-	29	2,019				
Unclassified (no data)-----	-	-	-	1	1	1	1	2	3.1	-	.87	.87	.87	-	22	22	-	25	25				
Total or average-----	1	-	-	31	31	32	24	56	-	.87	27.02	27.89	20.92	5,229	1,013	6,242	-	37	224				
Other surface mining:																							
Head, face, neck (excl. eye)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Eye-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Trunk-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Arm (above wrist)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Wrist, hand, finger-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Leg (above ankle)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Ankle, foot, toes-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Multiple-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Unclassified (no data)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Total or average-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Total or average, surface-----	24	-	35	1,941	1,976	2,000	2,256	4,256	-	.23	19.27	19.80	22.00	1,404	804	2,209	583	32	113				
Total or average, mining-----	133	8	145	13,174	13,327	13,460	11,418	24,878	-	.39	38.78	39.17	33.23	2,322	1,784	4,106	480	38	105				
Independent shops and yards:																							
Head, face, neck (excl. eye)-----	-	-	-	6	6	6	14	20	5.8	-	.89	.89	2.09	-	40	40	-	44	44				
Eye-----	-	-	-	5	5	5	23	28	4.8	-	.74	.74	3.43	-	9	9	-	12	12				
Trunk-----	-	-	-	27	27	27	22	49	26.0	-	4.02	4.02	3.28	-	172	172	-	43	43				
Arm (above wrist)-----	-	-	-	7	7	7	12	19	6.7	-	1.04	1.04	1.79	-	60	60	-	57	57				
Wrist, hand, fingers-----	-	-	-	17	17	17	77	94	16.3	-	2.53	2.53	11.47	-	47	47	-	18	18				
Leg (above ankle)-----	-	-	-	12	12	12	24	36	11.5	-	1.79	1.79	3.58	-	168	168	-	94	94				
Ankle, foot, toes-----	-	-	-	1	21	22	14	36	21.2	-	3.28	3.28	2.09	-	147	147	70	44	45				
Multiple-----	-	-	-	4	5	5	12	17	4.8	-	.74	.74	1.79	-	454	454	3,000	12	610				
Unclassified (no data)-----	-	-	-	3	3	3	3	6	2.9	-	.45	.45	.45	-	17	17	-	37	37				
Total or average-----	-	-	2	102	104	104	201	305	-	-	15.50	15.50	29.95	-	1,113	1,113	1,535	43	72				

TABLE 18. - Number of injuries, injury rates, and average severity at bituminous coal mines in the United States, by general work location and part of body injured, 1976 - Continued

General work location and part of body injured	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates million man-hours				Severity rates per million man-hours			Average severity		
	Fatal	Nonfatal disabling		Temporary total	All non-fatal disabling	All disabling injuries	Non disabling injuries	All injuries		Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Permanent partial	Temporary total	All disabling
		Permanent																	
		Total	Partial																
Mechanical cleaning plants:																			
Head, face, neck (excl. eye)-----	2	-	-	32	32	34	83	117	5.1	0.07	1.16	1.23	3.00	434	27	461	-	24	375
Eye-----	-	-	-	36	36	36	103	139	5.4	-	1.30	1.30	3.73	-	15	15	-	12	12
Trunk-----	-	-	1	212	213	213	136	349	31.7	-	7.70	7.70	4.92	-	416	416	50	54	54
Arm (above wrist)-----	-	-	1	44	45	45	42	87	6.7	-	1.63	1.63	1.52	-	106	106	600	53	65
Wrist, hand, fingers-----	-	-	6	104	110	110	188	298	16.4	-	3.98	3.98	6.80	-	142	142	150	29	36
Leg (above ankle)-----	-	-	2	85	87	87	69	156	12.9	-	3.15	3.15	2.50	-	413	413	3,750	46	131
Ankle, foot, toes-----	-	-	-	81	81	81	53	134	12.1	-	2.93	2.93	1.92	-	97	97	-	33	33
Multiple-----	4	-	-	54	54	58	31	89	8.6	.14	1.95	2.10	1.12	868	129	997	-	66	475
Unclassified (no data)-----	1	-	-	7	7	8	9	17	1.2	.04	.25	.29	.33	217	5	222	-	20	767
Total or average-----	7	-	10	655	665	672	714	1,386	-	.25	24.05	24.30	25.82	1,519	1,350	2,869	905	43	118
Grand total or average-----	140	8	157	13,931	14,096	14,236	12,333	26,569	-	.37	37.29	37.66	32.63	2,222	1,740	3,962	521	38	105

TABLE 19. - Number of injuries, injury rates, and average severity at Pennsylvania anthracite mines,
by general work location and part of body injured, 1976

General work location and part of body injured	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates per million man-hours				Severity rates per million man-hours			Average severity			
	Fatal	Nonfatal disabling			All non-fatal disabling	All disabling injuries	Non-disabling injuries	All injuries		Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Permanent partial	Temporary total	All disabling	
		Permanent		Temporary total																All non-fatal disabling
		Total	Partial																	
Underground mines:																				
Underground:																				
Head, face, neck (excl. eye)-----	-	-	-	-	-	-	2	2	-	-	-	2.90	-	-	-	-	-	-		
Eye-----	-	-	-	3	3	3	2	5	8.1	-	4.35	4.35	2.90	-	17	17	-	4	4	
Trunk-----	-	-	-	15	15	15	-	15	40.5	-	21.76	21.76	-	-	2,712	2,712	-	125	125	
Arm (above wrist)-----	-	-	-	-	-	-	1	1	-	-	-	1.45	-	-	-	-	-	-	-	
Wrist, hand, fingers-----	-	-	-	4	4	4	3	7	10.8	-	5.80	5.80	4.35	-	152	152	-	26	26	
Leg (above ankle)-----	-	-	-	4	4	4	1	5	10.8	-	5.80	5.80	1.45	-	138	138	-	24	24	
Ankle, foot, toes-----	-	-	-	10	10	10	-	10	27.0	-	14.50	14.50	-	-	740	740	-	51	51	
Multiple-----	-	-	-	1	1	1	-	1	2.7	-	1.45	1.45	-	-	58	58	-	40	40	
Unclassified (no data)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average-----	-	-	-	37	37	37	9	46	-	-	53.67	53.67	13.05	-	3,817	3,817	-	71	71	
Surface:																				
Head, face, neck (excl. eye)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Eye-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trunk-----	-	-	-	1	1	1	-	1	50.0	-	8.47	8.47	-	-	8	8	-	1	1	
Arm (above wrist)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wrist, hand, fingers-----	-	-	-	-	-	-	1	1	-	-	-	8.47	-	-	-	-	-	-	-	
Leg (above ankle)-----	-	-	-	1	1	1	-	1	50.0	-	8.47	8.47	-	-	3,498	3,498	-	413	413	
Ankle, foot, toes-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Multiple-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Unclassified (no data)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average-----	-	-	-	2	2	2	1	3	-	-	16.94	16.94	8.47	-	3,506	3,506	-	207	207	
Total or average, underground mines-----	-	-	-	39	39	39	10	49	-	-	48.30	48.30	12.38	-	3,772	3,772	-	78	78	
Strip mines:																				
Head, face, neck (excl. eye)-----	-	-	-	8	8	8	26	34	6.3	-	3.77	3.77	12.26	-	48	48	-	13	13	
Eye-----	-	-	-	4	4	4	32	36	3.2	-	1.89	1.89	15.09	-	6	6	-	3	3	
Trunk-----	-	-	-	48	48	48	44	92	38.1	-	22.63	22.63	20.74	-	758	758	-	33	33	
Arm (above wrist)-----	-	-	-	5	5	5	12	17	4.0	-	2.36	2.36	5.66	-	90	90	-	38	38	
Wrist, hand, fingers-----	-	-	-	18	18	18	45	63	14.3	-	8.49	8.49	21.21	-	190	190	-	22	22	
Leg (above ankle)-----	-	-	-	18	18	18	23	41	14.3	-	8.49	8.49	10.84	-	214	214	-	25	25	
Ankle, foot, toes-----	-	-	-	17	17	17	14	31	13.5	-	8.01	8.01	6.60	-	267	267	-	33	33	
Multiple-----	-	-	-	7	7	7	6	13	5.6	-	3.30	3.30	2.83	-	208	208	-	63	63	
Unclassified (no data)-----	-	-	-	1	1	1	-	1	0.8	-	.47	.47	-	-	9	9	-	20	20	
Total or average-----	-	-	-	126	126	126	202	328	-	-	59.40	59.40	95.22	-	1,791	1,791	-	30	30	

TABLE 19. - Number of injuries, injury rates, and average severity at Pennsylvania anthracite mines, by general work location and part of body injured, 1976 - Continued

General work location and part of body injured	Number of injuries							Distribution of all disabling injuries, percent	Frequency rates per million man-hours				Severity rates per million man-hours			Average severity			
	Fatal	Nonfatal disabling			All disabling injuries	Non-fatal disabling injuries	All injuries		Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Permanent partial	Temporary total	All disabling	
		Permanent		Temporary total															All non-fatal disabling
		Total	Partial																
Culm banks:																			
Head, face, neck (excl. eye)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Eye-----	-	-	1	1	1	2	3	16.7	-	3.29	3.29	6.59	-	850	850	-	258	258	
Trunk-----	-	-	1	1	1	5	6	16.7	-	3.29	3.29	16.47	-	40	40	-	12	12	
Arm (above wrist)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wrist, hand, fingers-----	-	-	3	3	3	2	5	50.0	-	9.88	9.88	6.59	-	619	619	-	63	63	
Leg (above ankle)-----	-	-	1	1	1	2	3	16.7	-	3.29	3.29	6.59	-	99	99	-	30	30	
Ankle, foot, toes-----	-	-	-	-	-	2	2	-	-	-	-	6.59	-	-	-	-	-	-	
Multiple-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Unclassified (no data)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average-----	-	-	-	6	6	6	13	19	-	-	19.76	19.76	42.81	-	1,607	1,607	-	81	81
Dredges:																			
Head, face, neck (excl. eye)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Eye-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trunk-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arm (above wrist)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wrist, hand, fingers-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Leg (above ankle)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ankle, foot, toes-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Multiple-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Unclassified (no data)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average-----	-	-	-	132	132	132	215	347	-	-	54.16	54.16	88.22	-	1,760	1,760	-	32	32
Independent shops and yards:																			
Head, face, neck (excl. eye)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Eye-----	-	-	-	-	-	-	2	2	-	-	-	12.98	-	-	-	-	-	-	
Trunk-----	-	-	-	8	8	8	10	18	80.0	-	51.92	51.92	64.90	-	2,083	2,083	-	40	40
Arm (above wrist)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wrist, hand, fingers-----	-	-	-	1	1	1	10	11	10.0	-	6.49	6.49	64.90	-	19	19	-	3	3
Leg (above ankle)-----	-	-	-	1	1	1	2	3	10.0	-	6.49	6.49	12.98	-	156	156	-	24	24
Ankle, foot, toes-----	-	-	-	-	-	-	1	1	-	-	-	6.49	-	-	-	-	-	-	
Multiple-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Unclassified (no data)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average-----	-	-	-	10	10	10	33	43	-	-	64.90	64.90	214.17	-	2,259	2,259	-	35	35
Mechanical cleaning plants:																			
Head, face, neck (excl. eye)-----	-	-	-	1	1	1	34	35	.9	-	.56	.56	19.16	-	10	10	-	17	17
Eye-----	-	-	-	6	6	6	13	19	5.3	-	3.38	3.38	7.33	-	22	22	-	6	6
Trunk-----	-	-	1	46	47	47	38	85	41.6	-	26.49	26.49	21.42	-	1,405	1,405	50	53	53
Arm (above wrist)-----	-	-	-	4	4	4	8	12	3.5	-	2.25	2.25	4.51	-	85	85	-	38	38
Wrist, hand, fingers-----	-	-	-	28	28	28	58	86	24.8	-	15.78	15.78	32.69	-	604	604	-	38	38
Leg (above ankle)-----	-	-	-	13	13	13	11	24	11.5	-	7.33	7.33	6.20	-	379	379	-	52	52
Ankle, foot, toes-----	-	-	-	5	5	5	8	13	4.4	-	2.82	2.82	4.51	-	54	54	-	19	19
Multiple-----	1	-	-	8	8	9	4	13	8.0	0.56	4.51	5.07	2.25	3,382	291	3,673	-	65	724
Unclassified (no data)-----	-	-	-	-	-	-	3	3	-	-	-	-	1.69	-	-	-	-	-	-
Total or average-----	1	-	1	111	112	113	177	290	-	.56	63.13	63.69	99.77	3,382	2,850	6,232	50	45	98
Grand total or average-----	1	-	1	292	293	294	435	729	-	.19	56.64	56.84	84.10	1,160	2,463	3,623	50	43	64

TABLE 20. - Number of injuries and average severity by degree at bituminous coal mines in the United States, by part of body and principal cause of injury, 1976

Part of body and principal cause of injury	Number of injuries								Average severity		
	Fatal	Nonfatal disabling			All nonfatal disabling	All disabling injuries	Non-disabling injuries	All injuries	Perma- nent partial	Tempo- rary total	All dis- abling injuries
		Permanent		Tempo- rary total							
		Total	Partial								
Head, face, neck (excl. eye):											
Falls of roof or back-----	6	1	-	105	106	112	112	224	-	36	409
Falls of face or rib-----	3	-	-	22	22	25	14	39	-	23	740
Pressure bumps or bursts-----	-	-	-	1	1	1	-	1	-	6	6
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	53	53	53	88	141	-	33	33
Slips or falls of persons-----	2	-	-	71	71	73	70	143	-	20	184
Handling material-----	-	-	-	112	112	112	229	341	-	25	25
Handtools-----	-	-	-	98	98	98	255	353	-	17	17
Stepping or kneeling on sharp or loose objects-----	-	-	-	2	2	2	2	4	-	7	7
Striking or bumping against objects-----	-	-	-	83	83	83	120	203	-	32	32
Haulage-----	9	1	-	274	275	284	263	547	-	33	243
Explosions of gas or dust-----	-	-	-	-	-	-	1	1	-	-	-
Explosives-----	-	-	-	7	7	7	9	16	-	59	59
Electricity-----	-	-	-	20	20	20	25	45	-	12	12
Machinery-----	8	-	1	146	147	155	187	342	600	34	345
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	5	5	5	5	10	-	10	10
Miscellaneous causes-----	-	-	-	31	31	31	80	111	-	14	14
Total or average-----	28	2	1	1,030	1,033	1,061	1,460	2,521	600	29	198
Eye:											
Falls of roof or back-----	-	-	-	7	7	7	20	27	-	4	4
Falls of face or rib-----	-	-	-	1	1	1	3	4	-	6	6
Pressure bumps or bursts-----	-	-	-	2	2	2	7	9	-	3	3
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	28	28	28	29	57	-	15	15
Slips or falls of persons-----	-	-	-	3	3	3	5	8	-	18	18
Handling material-----	-	-	2	110	112	112	249	361	1,800	8	40
Handtools-----	-	-	1	110	111	111	184	295	1,800	28	44
Stepping or kneeling on sharp or loose objects-----	-	-	-	1	1	1	-	1	-	21	21
Striking or bumping against objects-----	-	-	-	6	6	6	11	17	-	22	22
Haulage-----	-	-	-	26	26	26	66	92	-	8	8
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	4	4	4	2	6	-	80	80
Electricity-----	-	-	-	47	47	47	107	154	-	7	7
Machinery-----	-	-	-	100	100	100	225	325	-	15	15
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	2	2	2	2	4	-	4	4
Miscellaneous causes-----	-	-	-	168	168	168	416	584	-	8	8
Total or average-----	-	-	3	615	618	618	1,326	1,944	1,800	14	22
Trunk:											
Falls of roof or back-----	-	1	-	234	235	235	111	346	-	54	79
Falls of face or rib-----	1	-	-	87	87	88	38	126	-	47	115
Pressure bumps or bursts-----	-	-	-	1	1	1	1	2	-	15	15
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	64	64	64	47	111	-	46	46
Slips or falls of persons-----	1	-	1	628	629	630	379	1,009	50	41	51
Handling material-----	-	-	8	2,060	2,068	2,068	1,012	3,080	50	39	39
Handtools-----	-	-	-	201	201	201	140	341	-	38	38
Stepping or kneeling on sharp or loose objects-----	-	-	-	27	27	27	14	41	-	41	41
Striking or bumping against objects-----	-	-	-	32	32	32	28	60	-	46	46
Haulage-----	3	1	1	641	643	646	326	972	50	50	87
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	8	8	8	6	14	-	39	39
Electricity-----	-	-	-	7	7	7	4	11	-	31	31
Machinery-----	7	-	1	295	296	303	184	487	50	42	180
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	5	5	5	24	29	-	15	15
Miscellaneous causes-----	-	-	-	100	100	100	50	150	-	33	33
Total or average-----	12	2	11	4,390	4,403	4,415	2,364	6,779	50	42	61

TABLE 20. - Number of injuries and average severity by degree at bituminous coal mines in the United States, by part of body and principal cause of injury, 1976 - Continued

Part of body and principal cause of injury	Number of injuries								Average severity		
	Fatal	Nonfatal disabling				All disabling injuries	Non-disabling injuries	All injuries	Perma- nent partial	Tempo- rary total	All dis- abling injuries
		Permanent		Tempo- rary total	All nonfatal disabling						
		Total	Partial								
Arm (above wrist):	-	-	-	-	-	-	-	-	-	-	
Falls of roof or back-----	-	-	-	58	58	58	56	114	-	44	44
Falls of face or rib-----	-	-	-	11	11	11	12	23	-	27	27
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	-
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	28	28	28	23	51	-	21	21
Slips or falls of persons-----	-	-	-	92	92	92	92	184	-	30	30
Handling material-----	-	-	-	85	85	85	150	235	-	34	34
Handtools-----	-	-	-	46	46	46	100	146	-	22	22
Stepping or kneeling on sharp or loose objects-----	-	-	-	-	-	-	3	3	-	-	-
Striking or bumping against objects-----	-	-	-	10	10	10	15	25	-	23	23
Haulage-----	-	-	1	114	115	115	90	205	600	44	49
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	5	5	5	5	10	-	68	68
Electricity-----	-	-	-	14	14	14	14	28	-	22	22
Machinery-----	-	-	2	151	153	153	92	245	1,950	56	81
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	1	1	1	1	2	-	25	25
Miscellaneous causes-----	-	-	-	20	20	20	36	56	-	12	12
Total or average-----	-	-	3	635	638	638	689	1,327	1,500	39	46
Wrist, hand, and fingers:	-	-	-	-	-	-	-	-	-	-	-
Falls of roof or back-----	-	-	7	148	155	155	157	312	272	42	52
Falls of face or rib-----	-	-	-	23	23	23	27	50	-	34	34
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	-
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	86	86	86	98	184	-	42	42
Slips or falls of persons-----	-	-	3	141	144	144	143	287	193	40	44
Handling material-----	-	-	30	812	842	842	1,319	2,161	164	27	32
Handtools-----	-	-	7	342	349	349	829	1,178	207	20	24
Stepping or kneeling on sharp or loose objects-----	-	-	-	4	4	4	2	6	-	33	33
Striking or bumping against objects-----	-	-	-	12	12	12	35	47	-	22	22
Haulage-----	-	-	19	293	312	312	294	606	168	44	51
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	3	3	6	6	1	7	1,633	103	868
Electricity-----	-	-	-	104	104	104	83	187	-	20	20
Machinery-----	-	-	42	549	591	591	475	1,066	301	37	56
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	3	3	3	2	5	-	11	11
Miscellaneous causes-----	-	-	-	53	53	53	86	139	-	18	18
Total or average-----	-	-	111	2,573	2,684	2,684	3,551	6,235	267	32	42
Leg (above ankle):	-	-	-	-	-	-	-	-	-	-	-
Falls of roof or back-----	-	-	1	109	110	110	49	159	3,000	66	93
Falls of face or rib-----	-	-	-	69	69	69	28	97	-	53	53
Pressure bumps or bursts-----	-	-	-	4	4	4	-	4	-	88	88
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	60	60	60	30	90	-	46	46
Slips or falls of persons-----	-	-	-	407	407	407	273	680	-	42	42
Handling material-----	-	-	-	220	220	220	187	407	-	42	42
Handtools-----	-	-	-	93	93	93	163	256	-	30	30
Stepping or kneeling on sharp or loose objects-----	-	-	-	144	144	144	58	202	-	43	43
Striking or bumping against objects-----	-	-	-	45	45	45	49	94	-	21	21
Haulage-----	-	-	3	310	313	313	180	493	3,000	59	88
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	5	5	5	1	6	-	47	47
Electricity-----	-	-	-	5	5	5	6	11	-	60	60
Machinery-----	-	-	2	232	234	234	101	335	3,750	49	81
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	-	-	-	1	1	-	-	-
Miscellaneous causes-----	-	-	-	54	54	54	51	105	-	48	48
Total or average-----	-	-	6	1,757	1,763	1,763	1,177	2,940	3,250	47	58

TABLE 20. - Number of injuries and average severity by degree at bituminous coal mines in the United States, by part of body and principal cause of injury, 1976 - Continued

Part of body and principal cause of injury	Number of injuries								Average severity		
	Fatal	Nonfatal disabling				All disabling injuries	Non-disabling injuries	All injuries	Perma- nent partial	Tempo- rary total	All dis- abling injuries
		Permanent		Tempo- rary total	All nonfatal disabling						
		Total	Partial								
Ankle, foot, and toes:											
Falls of roof or back-----	-	-	2	117	119	119	67	186	93	48	49
Falls of face or rib-----	-	-	1	60	61	61	25	86	450	38	45
Pressure bumps or bursts-----	-	-	-	1	1	1	-	1	-	72	72
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	88	88	88	45	133	-	37	37
Slips or falls of persons-----	-	-	-	338	338	338	174	512	-	30	30
Handling material-----	-	-	-	377	377	377	239	616	-	29	29
Handtools-----	-	-	-	47	47	47	43	90	-	25	25
Stepping or kneeling on sharp or loose objects-----	-	-	-	199	199	199	245	444	-	15	15
Striking or bumping against objects-----	-	-	-	12	12	12	5	17	-	22	22
Haulage-----	-	-	3	256	259	259	95	354	400	46	50
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	1	1	1	-	1	-	7	7
Electricity-----	-	-	1	-	1	1	1	2	600	-	600
Machinery-----	-	-	8	278	286	286	124	410	936	42	67
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous causes-----	-	-	-	20	20	20	34	54	-	16	16
Total or average-----	-	-	15	1,794	1,809	1,809	1,097	2,906	662	34	39
Multiple:											
Falls of roof or back-----	27	2	1	163	166	193	70	263	2,000	59	962
Falls of face or rib-----	2	-	-	67	67	69	25	94	-	33	206
Pressure bumps or bursts-----	-	-	-	2	2	2	2	4	-	26	26
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	1	-	1	28	29	30	15	45	3,000	50	347
Slips or falls of persons-----	4	-	-	138	138	142	93	235	-	45	212
Handling material-----	-	-	-	95	95	95	69	164	-	49	49
Handtools-----	-	-	-	17	17	17	9	26	-	38	38
Stepping or kneeling on sharp or loose objects-----	-	-	-	10	10	10	3	13	-	51	51
Striking or bumping against objects-----	-	-	-	13	13	13	9	22	-	43	43
Haulage-----	21	2	3	227	232	253	111	364	1,217	56	610
Explosions of gas or dust-----	23	-	-	3	3	26	-	26	-	10	5,309
Explosives-----	-	-	-	16	16	16	3	19	-	58	58
Electricity-----	-	-	-	59	59	59	39	98	-	54	54
Machinery-----	11	-	1	124	125	136	47	183	3,000	49	552
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	12	12	12	8	20	-	38	38
Miscellaneous causes-----	1	-	-	37	37	38	27	65	-	25	183
Total or average-----	90	4	6	1,011	1,021	1,111	530	1,641	1,942	50	563
Unclassified (no data):											
Falls of roof or back-----	1	-	-	6	6	7	4	11	-	42	893
Falls of face or rib-----	1	-	-	3	3	4	-	4	-	16	1,512
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	-
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	1	1	1	2	3	-	28	28
Slips or falls of persons-----	1	-	-	21	21	22	16	38	-	40	311
Handling material-----	-	-	-	25	25	25	24	49	-	25	25
Handtools-----	-	-	-	3	3	3	7	10	-	13	13
Stepping or kneeling on sharp or loose objects-----	-	-	-	1	1	1	-	1	-	6	6
Striking or bumping against objects-----	-	-	-	-	-	-	1	1	-	-	-
Haulage-----	-	-	-	15	15	15	16	31	-	43	43
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	2	2	2	-	2	-	12	12
Electricity-----	6	-	-	19	19	25	26	51	-	44	1,473
Machinery-----	-	-	1	14	15	15	7	22	50	31	32
Suffocation (no flame or smoldering)-----	-	-	-	1	1	1	1	2	-	27	27
Fires or suffocation from fires-----	-	-	-	2	2	2	12	14	-	7	7
Miscellaneous causes-----	1	-	-	13	13	14	23	37	-	30	456
Total or average-----	10	-	1	126	127	137	139	276	50	33	469
Grand total or average-----	140	8	157	13,931	14,096	14,236	12,333	26,569	521	38	105

TABLE 21. - Number of injuries and average severity by degree at Pennsylvania anthracite mines, by part of body and principal cause of injury, 1976

Part of body and principal cause of injury	Number of injuries								Average severity		
	Fatal	Nonfatal disabling			All disabling injuries	Non-disabling injuries	All injuries	Perma- nent partial	Tem- porary total	All dis- abling injuries	
		Permanent		Tem- porary total							
		Total	Partial								
Head, face, neck (excl. eye):											
Falls of roof or back-----	-	-	-	-	-	-	-	-	-	-	
Falls of face or rib-----	-	-	-	-	-	-	-	-	-	-	
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	
Sliding or falling material or objects-----	-	-	1	1	1	4	5	-	65	65	
Slips or falls of persons-----	-	-	1	1	1	6	7	-	3	3	
Handling material-----	-	-	3	3	3	13	16	-	6	6	
Handtools-----	-	-	1	1	1	16	17	-	3	3	
Stepping or kneeling on sharp or loose objects-----	-	-	-	-	-	-	-	-	-	-	
Striking or bumping against objects-----	-	-	-	-	-	4	4	-	-	-	
Haulage-----	-	-	1	1	1	3	4	-	12	12	
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	
Explosives-----	-	-	-	-	-	-	-	-	-	-	
Electricity-----	-	-	-	-	-	-	-	-	-	-	
Machinery-----	-	-	-	-	-	4	4	-	-	-	
Suffocation (no flame or smoldering) Fires or suffocation from fires-----	-	-	-	-	-	-	-	-	-	-	
Miscellaneous causes-----	-	-	2	2	2	13	15	-	9	9	
Total or average-----	-	-	-	9	9	9	64	73	-	13	13
Eye:											
Falls of roof or back-----	-	-	-	-	-	-	-	-	-	-	
Falls of face or rib-----	-	-	-	-	-	-	-	-	-	-	
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	
Sliding or falling material or objects-----	-	-	-	-	-	3	3	-	-	-	
Slips or falls of persons-----	-	-	-	-	-	1	1	-	-	-	
Handling material-----	-	-	2	2	2	16	18	-	9	9	
Handtools-----	-	-	3	3	3	5	8	-	5	5	
Stepping or kneeling on sharp or loose objects-----	-	-	-	-	-	-	-	-	-	-	
Striking or bumping against objects-----	-	-	-	-	-	1	1	-	-	-	
Haulage-----	-	-	-	-	-	-	-	-	-	-	
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	
Explosives-----	-	-	-	-	-	-	-	-	-	-	
Electricity-----	-	-	-	-	-	1	1	-	-	-	
Machinery-----	-	-	2	2	2	6	8	-	134	134	
Suffocation (no flame or smoldering) Fires or suffocation from fires-----	-	-	-	-	-	-	-	-	-	-	
Miscellaneous causes-----	-	-	7	7	7	24	31	-	3	3	
Total or average-----	-	-	-	14	14	14	57	71	-	23	23
Trunk:											
Falls of roof or back-----	-	-	-	1	1	1	-	1	-	73	73
Falls of face or rib-----	-	-	-	1	1	1	-	1	-	79	79
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	
Sliding or falling material or objects-----	-	-	-	2	2	2	-	2	-	16	16
Slips or falls of persons-----	-	-	-	26	26	26	33	59	-	31	31
Handling material-----	-	-	1	55	56	56	43	99	50	55	55
Handtools-----	-	-	-	5	5	5	7	12	-	38	38
Stepping or kneeling on sharp or loose objects-----	-	-	-	-	-	-	1	1	-	-	-
Striking or bumping against objects-----	-	-	-	1	1	1	-	1	-	68	68
Haulage-----	-	-	-	19	19	19	6	25	-	62	62
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	
Explosives-----	-	-	-	-	-	-	-	-	-	-	
Electricity-----	-	-	-	-	-	-	-	-	-	-	
Machinery-----	-	-	-	4	4	4	4	8	-	98	98
Suffocation (no flame or smoldering) Fires or suffocation from fires-----	-	-	-	-	-	-	-	-	-	-	
Miscellaneous causes-----	-	-	-	5	5	5	3	8	-	87	87
Total or average-----	-	-	1	119	120	120	97	217	50	53	53

TABLE 21. - Number of injuries and average severity by degree at Pennsylvania anthracite mines, by part of body and principal cause of injury, 1976 - Continued

Part of body and principal cause of injury	Number of injuries								Average severity		
	Fatal	Nonfatal disabling			All disabling injuries	Non disabling injuries	All injuries	Perma- nent partial	Tem- porary total	All dis- abling injuries	
		Permanent		Tem- porary total							
		Total	Partial								
Arm (above wrist):											
Falls of roof or back-----	-	-	-	-	-	-	-	-	-	-	
Falls of face or rib-----	-	-	-	-	-	1	1	-	-	-	
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	
Sliding or falling material or objects-----	-	-	-	-	-	-	-	-	-	-	
Slips or falls of persons-----	-	-	5	5	5	4	9	-	55	55	
Handling material-----	-	-	2	2	2	5	7	-	24	24	
Handtools-----	-	-	-	-	-	1	1	-	-	-	
Stepping or kneeling on sharp or loose objects-----	-	-	-	-	-	-	-	-	-	-	
Striking or bumping against objects-----	-	-	1	1	1	2	3	-	17	17	
Haulage-----	-	-	-	-	-	1	1	-	-	-	
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	
Explosives-----	-	-	-	-	-	-	-	-	-	-	
Electricity-----	-	-	-	-	-	-	-	-	-	-	
Machinery-----	-	-	1	1	1	5	6	-	2	2	
Suffocation (no flame or smoldering)	-	-	-	-	-	-	-	-	-	-	
Fires or suffocation from fires-----	-	-	-	-	-	-	-	-	-	-	
Miscellaneous causes-----	-	-	-	-	-	2	2	-	-	-	
Total or average-----	-	-	-	9	9	9	21	30	-	38	38
Wrist, hand, fingers:											
Falls of roof or back-----	-	-	-	-	-	-	-	-	-	-	
Falls of face or rib-----	-	-	-	-	-	-	-	-	-	-	
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	
Sliding or falling material or objects-----	-	-	-	-	-	1	1	-	-	-	
Slips or falls of persons-----	-	-	6	6	6	6	12	-	69	69	
Handling material-----	-	-	24	24	24	63	87	-	24	24	
Handtools-----	-	-	10	10	10	21	31	-	59	59	
Stepping or kneeling on sharp or loose objects-----	-	-	-	-	-	-	-	-	-	-	
Striking or bumping against objects-----	-	-	-	-	-	1	1	-	-	-	
Haulage-----	-	-	1	1	1	4	5	-	6	6	
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	
Explosives-----	-	-	-	-	-	-	-	-	-	-	
Electricity-----	-	-	1	1	1	1	2	-	1	1	
Machinery-----	-	-	4	4	4	10	14	-	15	15	
Suffocation (no flame or smoldering)	-	-	-	-	-	-	-	-	-	-	
Fires or suffocation from fires-----	-	-	-	-	-	-	-	-	-	-	
Miscellaneous causes-----	-	-	8	8	8	12	20	-	16	16	
Total or average-----	-	-	-	54	54	54	119	173	-	33	33
Leg (above ankle):											
Falls of roof or back-----	-	-	-	-	-	-	-	-	-	-	
Falls of face or rib-----	-	-	-	-	-	-	-	-	-	-	
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	
Sliding or falling material or objects-----	-	-	4	4	4	2	6	-	79	79	
Slips or falls of persons-----	-	-	20	20	20	15	35	-	29	29	
Handling material-----	-	-	7	7	7	10	17	-	78	78	
Handtools-----	-	-	2	2	2	3	5	-	15	15	
Stepping or kneeling on sharp or loose objects-----	-	-	1	1	1	-	1	-	30	30	
Striking or bumping against objects-----	-	-	-	-	-	2	2	-	-	-	
Haulage-----	-	-	-	-	-	1	1	-	-	-	
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	
Explosives-----	-	-	-	-	-	-	-	-	-	-	
Electricity-----	-	-	-	-	-	-	-	-	-	-	
Machinery-----	-	-	3	3	3	5	8	-	55	55	
Suffocation (no flame or smoldering)	-	-	-	-	-	-	-	-	-	-	
Fires or suffocation from fires-----	-	-	-	-	-	-	-	-	-	-	
Miscellaneous causes-----	-	-	1	1	1	1	2	-	20	20	
Total or average-----	-	-	-	38	38	38	39	77	-	44	44

TABLE 21. - Number of injuries and average severity by degree at Pennsylvania anthracite mines, by part of body and principal cause of injury, 1976 - Continued

Part of body and principal cause of injury	Number of injuries							Average severity			
	Fatal	Nonfatal disabling			All disabling injuries	Non-disabling injuries	All injuries	Perma- nent partial	Tem- porary total	All dis- abling injuries	
		Permanent		Tem- porary total							
		Total	Partial								
Ankle, foot, toes:											
Falls of roof or back-----	-	-	-	1	1	1	-	1	-	3	3
Falls of face or rib-----	-	-	-	-	-	-	-	-	-	-	-
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	-
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	4	4	4	1	5	-	26	26
Slips or falls of persons-----	-	-	-	8	8	8	9	17	-	44	44
Handling material-----	-	-	-	10	10	10	5	15	-	38	38
Handtools-----	-	-	-	1	1	1	2	3	-	9	9
Stepping or kneeling on sharp or loose objects-----	-	-	-	2	2	2	5	7	-	9	9
Striking or bumping against objects-----	-	-	-	-	-	-	-	-	-	-	-
Haulage-----	-	-	-	3	3	3	2	5	-	51	51
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	-	-	-	-	-	-	-	-
Electricity-----	-	-	-	-	-	-	-	-	-	-	-
Machinery-----	-	-	-	2	2	2	-	2	-	75	75
Suffocation (no flame or smoldering)- Fires or suffocation from fires-----	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous causes-----	-	-	-	1	1	1	1	2	-	3	3
Total or average-----	-	-	-	32	32	32	25	57	-	37	37
Multiple:											
Falls of roof or back-----	-	-	-	-	-	-	-	-	-	-	-
Falls of face or rib-----	-	-	-	-	-	-	-	-	-	-	-
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	-
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	2	2	2	1	3	-	40	40
Slips or falls of persons-----	-	-	-	7	7	7	2	9	-	83	83
Handling material-----	-	-	-	-	-	-	-	-	-	-	-
Handtools-----	-	-	-	-	-	-	1	1	-	-	-
Stepping or kneeling on sharp or loose objects-----	-	-	-	-	-	-	-	-	-	-	-
Striking or bumping against objects-----	-	-	-	-	-	-	-	-	-	-	-
Haulage-----	-	-	-	3	3	3	3	6	-	99	99
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	-	-	-	-	-	-	-	-
Electricity-----	-	-	-	-	-	-	-	-	-	-	-
Machinery-----	-	-	-	1	1	1	-	1	-	18	18
Suffocation (no flame or smoldering)- Fires or suffocation from fires-----	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous causes-----	1	-	-	3	3	4	3	7	-	9	1,507
Total or average-----	1	-	-	16	16	17	10	27	-	62	412
Unclassified (no data):											
Falls of roof or back-----	-	-	-	-	-	-	-	-	-	-	-
Falls of face or rib-----	-	-	-	-	-	-	-	-	-	-	-
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	-
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	-	-	-	-	-	-	-	-
Slips or falls of persons-----	-	-	-	-	-	-	-	-	-	-	-
Handling material-----	-	-	-	-	-	-	2	2	-	-	-
Handtools-----	-	-	-	-	-	-	-	-	-	-	-
Stepping or kneeling on sharp or loose objects-----	-	-	-	-	-	-	-	-	-	-	-
Striking or bumping against objects-----	-	-	-	-	-	-	-	-	-	-	-
Haulage-----	-	-	-	-	-	-	-	-	-	-	-
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	-	-	-	-	-	-	-	-
Electricity-----	-	-	-	-	-	-	-	-	-	-	-
Machinery-----	-	-	-	-	-	-	-	-	-	-	-
Suffocation (no flame or smoldering)- Fires or suffocation from fires-----	-	-	-	1	1	1	1	1	-	20	20
Miscellaneous causes-----	-	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	-	-	1	1	1	3	4	-	20	20
Grand total or average-----	1	-	1	292	293	294	435	729	50	43	64

TABLE 22. - Number of injuries and average severity by degree at all coal mines in the United States, by part of body and principal cause of injury, 1976

Part of body and principal cause of injury	Number of injuries							Average severity			
	Fatal	Nonfatal disabling			All nonfatal disabling	All disabling injuries	Non-disabling injuries	All injuries	Perma- nent partial	Tempo- rary total	All dis- abling injuries
		Total	Partial	Tempo- rary total							
Head, face, neck (excl. eye):											
Falls of roof or back-----	6	1	-	105	106	112	112	224	-	36	409
Falls of face or rib-----	3	-	-	22	22	25	14	39	-	23	740
Pressure bumps or bursts-----	-	-	-	1	1	1	-	1	-	6	6
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	54	54	54	92	146	-	33	33
Slips or falls of persons-----	2	-	-	72	72	74	76	150	-	20	181
Handling material-----	-	-	-	115	115	115	242	357	-	25	25
Handtools-----	-	-	-	99	99	99	271	370	-	17	17
Stepping or kneeling on sharp or loose objects-----	-	-	-	2	2	2	2	4	-	7	7
Striking or bumping against objects-----	-	-	-	83	83	83	124	207	-	32	32
Haulage-----	9	1	-	275	276	285	266	551	-	33	242
Explosions of gas or dust-----	-	-	-	-	-	-	1	1	-	-	-
Explosives-----	-	-	-	7	7	7	9	16	-	59	59
Electricity-----	-	-	-	20	20	20	25	45	-	12	12
Machinery-----	8	-	1	146	147	155	191	346	600	34	345
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	5	5	5	6	11	-	10	10
Miscellaneous causes-----	-	-	-	33	33	33	93	126	-	13	13
Total or average-----	28	2	1	1,039	1,042	1,070	1,524	2,594	600	29	197
Eye:											
Falls of roof or back-----	-	-	-	7	7	7	20	27	-	4	4
Falls of face or rib-----	-	-	-	1	1	1	3	4	-	6	6
Pressure bumps or bursts-----	-	-	-	2	2	2	7	9	-	3	3
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	28	28	28	32	60	-	15	15
Slips or falls of persons-----	-	-	-	3	3	3	6	9	-	18	18
Handling material-----	-	-	2	112	114	114	265	379	1,800	8	40
Handtools-----	-	-	1	113	114	114	189	303	1,800	27	43
Stepping or kneeling on sharp or loose objects-----	-	-	-	1	1	1	-	1	-	21	21
Striking or bumping against objects-----	-	-	-	6	6	6	12	18	-	22	22
Haulage-----	-	-	-	26	26	26	66	92	-	8	8
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	4	4	4	2	6	-	80	80
Electricity-----	-	-	-	47	47	47	108	155	-	7	7
Machinery-----	-	-	-	102	102	102	231	333	-	17	17
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	2	2	2	2	4	-	4	4
Miscellaneous causes-----	-	-	-	175	175	175	440	615	-	8	8
Total or average-----	-	-	3	629	632	632	1,383	2,015	1,800	14	22
Trunk:											
Falls of roof or back-----	-	1	-	235	236	236	111	347	-	54	79
Falls of face or rib-----	1	-	-	88	88	89	38	127	-	47	114
Pressure bumps or bursts-----	-	-	-	1	1	1	1	2	-	15	15
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	66	66	66	47	113	-	45	45
Slips or falls of persons-----	1	-	1	654	655	656	412	1,068	50	41	50
Handling material-----	-	-	9	2,115	2,124	2,124	1,055	3,179	50	39	39
Handtools-----	-	-	-	206	206	206	147	353	-	38	38
Stepping or kneeling on sharp or loose objects-----	-	-	-	27	27	27	15	42	-	41	41
Striking or bumping against objects-----	-	-	-	33	33	33	28	61	-	47	47
Haulage-----	3	1	1	660	662	665	332	997	50	50	86
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	8	8	8	6	14	-	39	39
Electricity-----	-	-	-	7	7	7	4	11	-	31	31
Machinery-----	7	-	1	299	300	307	188	495	50	43	179
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	5	5	5	24	29	-	15	15
Miscellaneous causes-----	-	-	-	105	105	105	53	158	-	36	36
Total or average-----	12	2	12	4,509	4,523	4,535	2,461	6,996	50	42	61

TABLE 22. - Number of injuries and average severity by degree at all coal mines in the United States, by part of body and principal cause of injury, 1976 - Continued

Part of body and principal cause of injury	Number of injuries							Average severity			
	Fatal	Nonfatal disabling				All disabling injuries	Non-disabling injuries	All injuries	Perma- nent partial	Tem- porary total	All dis- abling injuries
		Permanent		Tem- porary total	All nonfatal disabling						
		Total	Partial								
Arm (above wrist):											
Falls of roof or back-----	-	-	-	58	58	58	56	114	-	44	44
Falls of face or rib-----	-	-	-	11	11	11	13	24	-	27	27
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	-
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	28	28	28	23	51	-	21	21
Slips or falls of persons-----	-	-	-	97	97	97	96	193	-	31	31
Handling material-----	-	-	-	87	87	87	155	242	-	34	34
Handtools-----	-	-	-	46	46	46	101	147	-	22	22
Stepping or kneeling on sharp or loose objects-----	-	-	-	-	-	-	3	3	-	-	-
Striking or bumping against objects-----	-	-	-	11	11	11	17	28	-	22	22
Haulage-----	-	-	1	114	115	115	91	206	600	44	49
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	5	5	5	5	10	-	68	68
Electricity-----	-	-	-	14	14	14	14	28	-	22	22
Machinery-----	-	-	2	152	154	154	97	251	1,950	56	81
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	1	1	1	1	2	-	25	25
Miscellaneous causes-----	-	-	-	20	20	20	38	58	-	12	12
Total or average-----	-	-	3	644	647	647	710	1,357	1,500	39	46
Wrist, hand and fingers:											
Falls of roof or back-----	-	-	7	148	155	155	157	312	272	42	52
Falls of face or rib-----	-	-	-	23	23	23	27	50	-	34	34
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	-
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	86	86	86	99	185	-	42	42
Slips or falls of persons-----	-	-	3	147	150	150	149	299	193	42	45
Handling materials-----	-	-	30	836	866	866	1,382	2,248	164	27	32
Handtools-----	-	-	7	352	359	359	850	1,209	207	22	25
Stepping or kneeling on sharp or loose objects-----	-	-	-	4	4	4	2	6	-	33	33
Striking or bumping against objects-----	-	-	-	12	12	12	36	48	-	22	22
Haulage-----	-	-	19	294	313	313	298	611	168	44	51
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	3	6	6	6	1	7	1,633	103	868
Electricity-----	-	-	-	105	105	105	84	189	-	20	20
Machinery-----	-	-	42	553	595	595	485	1,080	301	37	55
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	3	3	3	2	5	-	11	11
Miscellaneous-----	-	-	-	61	61	61	98	159	-	18	18
Total or average-----	-	-	111	2,627	2,738	2,738	3,670	6,408	267	32	42
Leg (above ankle):											
Falls of roof or back-----	-	-	1	109	110	110	49	159	3,000	66	93
Falls of face or rib-----	-	-	-	69	69	69	28	97	-	53	53
Pressure bumps or bursts-----	-	-	-	4	4	4	-	4	-	88	88
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	64	64	64	32	96	-	48	48
Slips or falls of persons-----	-	-	-	427	427	427	288	715	-	42	42
Handling materials-----	-	-	-	227	227	227	197	424	-	43	43
Handtools-----	-	-	-	95	95	95	166	261	-	30	30
Stepping or kneeling on sharp or loose objects-----	-	-	-	145	145	145	58	203	-	43	43
Striking or bumping against objects-----	-	-	-	45	45	45	51	96	-	21	21
Haulage-----	-	-	3	310	313	313	181	494	3,000	59	88
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	5	5	5	1	6	-	47	47
Electricity-----	-	-	-	5	5	5	6	11	-	60	60
Machinery-----	-	-	2	235	237	237	106	343	3,750	49	81
Suffocation (no flame or smoldering)-----	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	-	-	-	1	1	-	-	-
Miscellaneous causes-----	-	-	-	55	55	55	52	107	-	47	47
Total or average-----	-	-	6	1,795	1,801	1,801	1,216	3,017	3,250	47	58

TABLE 22. - Number of injuries and average severity by degree at all coal mines in the United States, by part of body and principal cause of injury, 1976 - Continued

Part of body and principal cause of injury	Number of injuries								Average severity		
	Fatal	Nonfatal disabling			All nonfatal disabling	All disabling injuries	Non-disabling injuries	All injuries	Perma- nent partial	Tempo- rary total	All dis- abling injuries
		Permanent		Tempo- rary total							
		Total	Partial								
Ankle, foot, and toes:											
Falls of roof or back-----	-	-	2	118	120	120	67	187	93	48	48
Falls of face or rib-----	-	-	1	60	61	61	25	86	450	38	45
Pressure bumps or bursts-----	-	-	-	1	1	-	-	1	-	72	72
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	92	92	92	46	138	-	37	37
Slips or falls of persons-----	-	-	-	346	346	346	183	529	-	31	31
Handling material-----	-	-	-	387	387	387	244	631	-	29	29
Handtools-----	-	-	-	48	48	48	45	93	-	24	24
Stepping or kneeling on sharp or loose objects-----	-	-	-	201	201	201	250	451	-	15	15
Striking or bumping against objects-	-	-	-	12	12	12	5	17	-	22	22
Haulage-----	-	-	3	259	262	262	97	359	400	46	50
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	1	1	1	-	1	-	7	7
Electricity-----	-	-	1	-	1	1	1	2	600	-	600
Machinery-----	-	-	8	280	288	288	124	412	936	42	67
Suffocation (no flame or smoldering)	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous causes-----	-	-	-	21	21	21	35	56	-	15	15
Total or average-----	-	-	15	1,826	1,841	1,841	1,122	2,963	662	34	39
Multiple:											
Falls of roof or back-----	27	2	1	163	166	193	70	263	2,000	59	962
Falls of face or rib-----	2	-	-	67	67	69	25	94	-	33	206
Pressure bumps or bursts-----	-	-	-	2	2	2	2	4	-	26	26
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material-----	1	-	1	30	31	32	16	48	3,000	50	328
Slips or falls of persons-----	4	-	-	145	145	149	95	244	-	46	206
Handling material-----	-	-	-	95	95	95	69	164	-	49	49
Handtools-----	-	-	-	17	17	17	10	27	-	38	38
Stepping or kneeling on sharp or loose objects-----	-	-	-	10	10	10	3	13	-	51	51
Striking or bumping against objects-	-	-	-	13	13	13	9	22	-	43	43
Haulage-----	21	2	3	230	235	256	114	370	1,217	57	604
Explosions of gas or dust-----	23	-	-	3	3	26	-	26	-	10	5,309
Explosives-----	-	-	-	16	16	16	3	19	-	58	58
Electricity-----	-	-	-	59	59	59	39	98	-	54	54
Machinery-----	11	-	1	125	126	137	47	184	3,000	49	548
Suffocation (no flame or smoldering)	-	-	-	-	-	-	-	-	-	-	-
Fires or suffocation from fires-----	-	-	-	12	12	12	8	20	-	38	38
Miscellaneous causes-----	2	-	-	40	40	42	30	72	-	24	309
Total or average-----	91	4	6	1,027	1,037	1,128	540	1,668	1,942	50	561
Unclassified (no data):											
Falls of roof or back-----	1	-	-	6	6	7	4	11	-	42	893
Falls of face or rib-----	1	-	-	3	3	4	-	4	-	16	1,512
Pressure bumps or bursts-----	-	-	-	-	-	-	-	-	-	-	-
Inrush of water-----	-	-	-	-	-	-	-	-	-	-	-
Sliding or falling material or objects-----	-	-	-	1	1	1	2	3	-	28	28
Slips or falls of persons-----	1	-	-	21	21	22	16	38	-	40	311
Handling material-----	-	-	-	25	25	25	26	51	-	25	25
Handtools-----	-	-	-	3	3	3	7	10	-	13	13
Stepping or kneeling on sharp or loose objects-----	-	-	-	1	1	1	-	1	-	6	6
Striking or bumping against objects-	-	-	-	-	-	-	1	1	-	-	-
Haulage-----	-	-	-	15	15	15	16	31	-	43	43
Explosions of gas or dust-----	-	-	-	-	-	-	-	-	-	-	-
Explosives-----	-	-	-	2	2	2	-	2	-	12	12
Electricity-----	6	-	-	19	19	25	26	51	-	44	1,473
Machinery-----	-	-	1	14	15	15	7	22	50	31	32
Suffocation (no flame or smoldering)	-	-	-	1	1	1	2	3	-	27	27
Fires or suffocations from fires-----	-	-	-	3	3	3	12	15	-	11	11
Miscellaneous causes-----	1	-	-	13	13	14	23	37	-	30	456
Total or average-----	10	-	1	127	128	138	142	280	50	33	466
Grand total or average-----	141	8	158	14,223	14,389	14,530	12,768	27,298	518	38	104

TABLE 23. - Number of injuries, injury rates, and average severity at bituminous coal mines, by general work location and nature of injury, 1976

General work location and nature of injury	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates per million man-hours				Severity rates per million man-hours			Average severity		
	Fatal	Nonfatal disabling			All disabling injuries	Non-disabling injuries	All injuries	Fatal		Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Permanent partial	Temporary total	All disabling	
		Permanent		Temporary total															All non-fatal disabling
		Total	Partial																
Underground mines:																			
Underground:																			
Amputation, enucleation----	2	-	81	36	117	119	3	122	1.1	0.01	0.54	0.55	0.01	55	199	254	477	130	465
Asphyxiation-----	1	-	-	17	10	11	38	49	.1	(1/)	.05	.05	.17	28	1	28	-	12	556
Burn, scald (except chemical)-----	1	-	-	62	62	63	89	152	.6	(1/)	.29	.29	.41	28	4	32	-	15	110
Burn, chemical-----	-	-	-	31	31	31	45	76	.3	-	.14	.14	.21	-	4	4	-	28	28
Concussion-----	1	-	-	28	28	29	6	35	.3	(1/)	.13	.13	.03	28	3	31	-	26	232
Crushing, contusion-----	12	1	2	2,936	2,939	2,951	2,697	5,648	27.5	706	13.53	13.58	12.41	331	401	732	252	27	54
Cut, laceration-----	-	-	4	1,081	1,085	1,085	1,723	2,808	10.1	-	4.99	4.99	7.93	-	119	119	496	22	24
Dermatitis-----	-	-	-	2	2	2	5	7	(2/)	-	.01	.01	.02	-	(3/)	(3/)	-	10	10
Dislocation-----	-	-	-	60	60	60	32	92	.6	-	.28	.28	.15	-	17	17	-	61	61
Electric shock-----	3	-	-	27	27	30	28	58	.6	.01	.12	.14	.13	83	6	89	-	50	645
Fracture-----	7	2	2	1,418	1,422	1,429	572	2,001	13.3	.03	6.55	6.58	2.63	193	550	743	500	75	113
Freezing-----	-	-	-	3	3	3	1	4	(2/)	-	.01	.01	(1/)	-	(3/)	(3/)	-	30	30
Hearing loss-----	-	-	-	2	2	2	7	9	(2/)	-	.01	.01	.03	-	(3/)	(3/)	-	13	13
Heat exhaustion-----	-	-	-	1	1	1	1	2	(2/)	-	(1/)	(1/)	(1/)	-	(3/)	(3/)	-	61	61
Hernia-----	-	-	5	51	56	56	14	70	.5	-	.26	.26	.06	-	14	14	50	56	55
Inflammation-----	-	-	-	19	19	19	4	23	.2	-	.09	.09	.02	-	4	4	-	47	47
Poisoning-----	-	-	-	1	1	1	9	10	(2/)	-	(1/)	(1/)	.04	-	(3/)	(3/)	-	9	9
Pneumoconiosis-----	-	-	-	-	-	-	1	1	(2/)	-	-	-	(1/)	-	(3/)	(3/)	-	-	-
Radiation-----	-	-	-	1	1	1	-	1	(2/)	-	(1/)	(1/)	-	-	(3/)	(3/)	-	20	20
Scratches-----	-	-	-	78	78	78	124	202	.7	-	.36	.36	.57	-	7	7	-	19	19
Strain, sprain-----	-	-	2	3,067	3,069	3,069	1,666	4,735	28.6	-	14.13	14.13	7.67	-	547	547	50	39	39
Multiple injuries-----	75	3	4	436	443	518	245	763	4.8	.35	2.04	2.38	1.13	2,071	199	2,271	700	52	952
Other, not elsewhere classified-----	-	-	-	482	482	482	695	1,177	4.5	-	2.22	2.22	3.20	-	35	35	-	16	16
Unclassified (no data)-----	2	2	1	680	683	685	371	1,056	6.4	.01	3.14	3.15	1.71	55	190	246	50	43	78
Total or average-----	104	8	101	10,512	10,621	10,725	8,376	19,101	-	.48	48.89	49.37	38.55	2,872	2,302	5,174	449	39	105

See footnotes at end of table.

TABLE 23. - Number of injuries, injury rates, and average severity at bituminous coal mines, by general work location and nature of injury, 1976 - Continued

General work location and nature of injury	Number of injuries							Distribution of all disabling injuries, percent	Frequency rates per million man-hours				Severity rates per million man-hours			Average severity			
	Fatal	Nonfatal disabling			All disabling injuries	Non-disabling injuries	All injuries		Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Permanent partial	Temporary total	All disabling	
		Permanent		Temporary total															All non-fatal disabling
		Total	Partial																
Surface:																			
Amputation, enucleation-----	-	-	7	3	10	10	-	10	1.4	-	0.42	0.42	-	-	173	173	549	94	413
Burn, scald (except chemical)-----	-	-	-	17	17	17	20	37	2.3	-	.71	.71	0.84	-	29	29	-	41	41
Burn, chemical-----	-	-	-	5	5	5	4	9	.7	-	.21	.21	.17	-	4	4	-	19	19
Concussion-----	1	-	-	1	1	2	1	3	.3	0.04	.04	.08	.04	252	(3/)	252	-	5	3,002
Crushing, contusion-----	-	-	1	160	161	161	188	349	21.9	-	6.76	6.76	7.89	-	224	224	50	33	33
Cut, laceration-----	-	-	-	73	73	73	211	284	9.9	-	3.07	3.07	8.86	-	63	63	-	20	20
Dermatitis-----	-	-	-	1	1	1	1	2	.1	-	.04	.04	.04	-	(3/)	(3/)	-	10	10
Dislocation-----	-	-	-	6	6	6	-	6	.8	-	.25	.25	-	-	14	14	-	54	54
Electric shock-----	-	-	-	3	3	3	1	4	.4	-	.13	.13	.04	-	3	3	-	25	25
Fracture-----	-	-	-	108	108	108	50	158	14.7	-	4.53	4.53	2.10	-	302	302	-	67	67
Hearing loss-----	-	-	-	-	-	-	2	2	-	-	-	-	.08	-	-	-	-	-	-
Hernia-----	-	-	1	7	8	8	1	9	1.1	-	.34	.34	.04	-	17	17	50	52	52
Poisoning-----	-	-	-	1	1	1	2	3	.1	-	.04	.04	.08	-	(3/)	(3/)	-	1	1
Scratches-----	-	-	-	6	6	6	14	20	.8	-	.25	.25	.59	-	3	3	-	12	12
Strain, sprain-----	-	-	-	230	230	230	151	381	31.3	-	9.66	9.66	6.34	-	299	299	-	31	31
Multiple injuries-----	4	-	-	24	24	28	19	47	3.8	.17	1.01	1.18	.80	1,008	36	1,044	-	36	888
Other, not elsewhere classified-----	-	-	-	33	33	33	85	118	4.5	-	1.39	1.39	3.57	-	15	15	-	11	11
Unclassified (no data)-----	-	-	-	43	43	43	36	79	5.9	-	1.81	1.81	1.51	-	88	88	-	49	49
Total or average-----	5	-	9	721	730	735	786	1,521	-	.21	30.65	30.86	33.00	1,260	1,272	2,532	438	37	82
Total or average, underground mines-----	109	8	110	11,233	11,351	11,460	9,162	20,622	-	.45	47.09	47.54	38.01	2,713	2,200	4,913	448	39	103

See footnotes at end of table.

TABLE 23. - Number of injuries, injury rates, and average severity at bituminous coal mines, by general work location and nature of injury, 1976 - Continued

General work location and nature of injury	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates per million man-hours				Severity rates per million man-hours			Average severity				
	Fatal	Nonfatal disabling				All disabling injuries	Non-disabling injuries	All injuries		Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Permanent partial	Temporary total	All disabling		
		Permanent		Temporary total	All non-fatal disabling															Severity rates per million man-hours	
		Total	Partial																	Fatal	Non-fatal disabling
Strip mines:																					
Amputation, enucleation-----	1	-	29	7	36	37	-	37	1.9	0.01	0.36	0.37	-	59	153	213	508	114	582		
Asphyxiation-----	1	-	-	1	1	2	1	3	.1	.01	.01	.02	0.01	59	(3/)	59	-	6	3,003		
Burn, scald (except chemical)-----	-	-	1	64	65	65	96	161	3.3	-	.64	.64	.95	-	16	16	600	16	25		
Burn, chemical-----	-	-	-	15	15	15	21	36	.8	-	.15	.15	.21	-	1	1	-	7	7		
Concussion-----	-	-	-	6	6	6	1	7	.3	-	.06	.06	.01	-	1	1	-	24	24		
Crushing, contusion-----	1	-	-	303	303	304	452	756	15.4	.01	2.99	3.00	4.47	59	61	121	-	20	40		
Cut, laceration-----	2	-	2	176	178	180	502	682	9.1	.02	1.76	1.78	4.96	119	34	153	119	13	86		
Dermatitis-----	-	-	-	2	2	2	7	9	.1	-	.02	.02	.07	-	(3/)	(3/)	-	6	6		
Dislocation-----	-	-	-	16	16	16	10	26	.8	-	.16	.16	.10	-	4	4	-	24	24		
Electric shock-----	2	-	-	1	1	3	-	3	.2	.02	.01	.03	-	119	(3/)	119	-	25	4,008		
Fracture-----	2	-	-	281	281	283	111	394	14.4	.02	2.78	2.80	1.10	119	182	300	-	65	107		
Freezing-----	-	-	-	2	2	2	-	2	.1	-	.02	.02	-	-	1	1	-	66	66		
Hearing loss-----	-	-	-	-	-	-	1	1	-	-	-	-	.01	-	-	-	-	-	-		
Heat exhaustion-----	-	-	-	-	-	-	2	2	-	-	-	-	.02	-	-	-	-	-	-		
Hernia-----	-	-	-	21	21	21	10	31	1.1	-	.21	.21	.10	-	13	13	-	63	63		
Inflammation-----	-	-	-	2	2	2	1	3	.1	-	.02	.02	.01	-	(3/)	(3/)	-	16	16		
Poisoning-----	-	-	-	4	4	4	22	26	.2	-	.04	.04	.22	-	(3/)	(3/)	-	12	12		
Scratches-----	-	-	-	13	13	13	38	51	.7	-	.13	.13	.38	-	1	1	-	7	7		
Strain, sprain-----	-	-	1	598	599	599	378	977	30.4	-	5.92	5.92	3.74	-	165	165	50	28	28		
Multiple injuries-----	14	-	1	102	103	117	70	187	5.9	.14	1.02	1.16	.69	830	72	902	3,000	42	780		
Other, not elsewhere classified-----	-	-	1	119	120	120	354	474	6.1	-	1.19	1.19	3.50	-	32	32	1,800	12	27		
Unclassified (no data)-----	-	-	-	177	177	177	155	332	9.0	-	1.75	1.75	1.53	-	65	65	-	37	37		
Total or average-----	23	-	35	1,910	1,945	1,968	2,232	4,200	-	.23	19.22	19.45	22.05	1,364	804	2,167	583	32	111		
Auger mines:																					
Amputation, enucleation-----	-	-	-	1	1	1	-	1	3.1	-	.87	.87	-	-	64	64	-	73	73		
Burn, scald (except chemical)-----	-	-	-	1	1	1	3	4	3.1	-	.87	.87	2.61	-	46	46	-	53	53		
Concussion-----	-	-	-	1	1	1	-	1	3.1	-	.87	.87	-	-	24	24	-	28	28		
Crushing, contusion-----	-	-	-	6	6	6	3	9	18.8	-	5.23	5.23	2.61	-	106	106	-	20	20		
Cut, laceration-----	-	-	-	3	3	3	10	13	9.4	-	2.61	2.61	8.72	-	124	124	-	47	47		
Fracture-----	-	-	-	4	4	4	1	5	12.5	-	3.49	3.49	.87	-	304	304	-	87	87		
Strain, sprain-----	-	-	-	8	8	8	3	11	25.0	-	6.97	6.97	2.61	-	204	204	-	29	29		
Multiple injuries-----	1	-	-	-	-	1	-	1	3.1	.87	-	.87	-	5,229	-	5,229	-	-	6,000		
Other, not elsewhere classified-----	-	-	-	3	3	3	3	6	9.4	-	2.61	2.61	2.61	-	8	8	-	3	3		
Unclassified (no data)-----	-	-	-	4	4	4	1	5	12.5	-	3.49	3.49	.87	-	132	132	-	38	38		
Total or average-----	1	-	-	31	31	32	24	56	-	.87	27.02	27.89	20.92	5,229	1,013	6,242	-	37	224		
Total or average, surface-----	24	-	35	1,941	1,976	2,000	2,256	4,256	-	.23	19.27	19.50	22.00	1,404	804	2,209	583	32	113		
Total or average, mining-----	133	8	145	13,174	13,327	13,460	11,418	24,878	-	.39	38.78	39.17	33.23	2,322	1,784	4,106	480	38	105		

See footnotes at end of table.

TABLE 23. - Number of injuries, injury rates, and average severity at bituminous coal mines, by general work location and nature of injury, 1976 - Continued

General work location and nature of injury	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates per million man-hours				Severity rates per million man-hours			Average severity						
	Fatal	Nonfatal disabling				All disabling injuries	Non-disabling injuries	All injuries		Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Permanent partial	Temporary total	All disabling				
		Permanent		Temporary total	All non-fatal disabling															Fatal		Non-fatal disabling	
		Total	Partial																	Total	Partial	Total	Partial
Independent shops and yards:																							
Amputation, enucleation-----	-	-	2	-	2	2	-	2	1.9	-	0.30	0.30	-	-	457	457	1,535	-	1,535				
Burn, scald (except chemical)-----	-	-	-	6	6	6	10	16	5.8	-	.89	.89	1.49	-	9	9	-	10	10				
Concussion-----	-	-	-	1	1	1	-	1	1.0	-	.15	.15	-	-	(3/)	(3/)	-	3	3				
Crushing, contusion-----	-	-	-	19	19	19	34	53	18.3	-	2.83	2.83	5.07	-	114	114	-	40	40				
Cut, laceration-----	-	-	-	9	9	9	63	72	8.7	-	1.34	1.34	9.39	-	18	18	-	13	13				
Dermatitis-----	-	-	-	-	-	-	3	3	-	-	-	-	.45	-	-	-	-	-	-				
Dislocation-----	-	-	-	1	1	1	2	3	1.0	-	.15	.15	.30	-	7	7	-	47	47				
Electric shock-----	-	-	-	1	1	1	-	1	1.0	-	.15	.15	-	-	(3/)	(3/)	-	3	3				
Fracture-----	-	-	-	16	16	16	17	33	15.4	-	2.38	2.38	2.53	-	174	174	-	73	73				
Poisoning-----	-	-	-	-	-	-	1	1	-	-	-	-	.15	-	-	-	-	-	-				
Scratches-----	-	-	-	-	-	-	2	2	-	-	-	-	.30	-	-	-	-	-	-				
Strain, sprain-----	-	-	-	31	31	31	26	57	29.8	-	4.62	4.62	3.87	-	212	212	-	46	46				
Multiple injuries-----	-	-	-	5	5	5	7	7	4.8	-	.74	.74	1.04	-	74	74	-	100	100				
Other, not elsewhere classified-----	-	-	-	4	4	4	18	22	3.8	-	.60	.60	2.68	-	9	9	-	15	15				
Unclassified (no data)-----	-	-	-	9	9	9	18	27	8.7	-	1.34	1.34	2.68	-	38	38	-	28	28				
Total or average-----	-	-	2	102	104	104	201	305	-	-	15.50	15.50	29.95	-	1,113	1,113	1,535	43	72				
Mechanical cleaning plants:																							
Amputation, enucleation-----	-	-	9	1	10	10	-	10	1.5	-	.36	.36	-	-	329	329	1,000	100	910				
Burn, scald (except chemical)-----	-	-	-	24	24	24	26	50	3.6	-	.87	.87	.94	-	20	20	-	23	23				
Burn, chemical-----	-	-	-	8	8	8	10	18	1.2	-	.29	.29	.36	-	6	6	-	20	20				
Concussion-----	-	-	-	2	2	2	1	3	.3	-	.07	.07	.04	-	1	1	-	12	12				
Crushing, contusion-----	2	-	-	122	122	124	170	294	18.5	0.07	4.41	4.48	6.15	434	113	547	-	26	122				
Cut, laceration-----	-	-	-	52	52	52	159	211	7.7	-	1.88	1.88	5.75	-	41	41	-	22	22				
Dislocation-----	-	-	-	6	6	6	1	7	.9	-	.22	.22	.04	-	10	10	-	44	44				
Electric shock-----	1	-	-	3	3	4	1	5	.6	.04	.11	.14	.04	217	4	221	-	34	1,526				
Fracture-----	-	-	-	96	96	96	44	140	14.3	-	3.47	3.47	1.59	-	201	201	-	58	58				
Freezing-----	-	-	-	-	-	-	1	1	-	-	-	-	.04	-	-	-	-	-	-				
Hearing loss-----	-	-	-	-	-	-	4	4	-	-	-	-	.14	-	-	-	-	-	-				
Hernia-----	-	-	1	9	10	10	-	10	1.5	-	.36	.36	-	-	20	20	50	55	55				
Poisoning-----	-	-	-	2	2	2	2	4	.3	-	.07	.07	.07	-	(3/)	(3/)	-	2	2				
Scratches-----	-	-	-	10	10	10	12	22	1.5	-	.36	.36	.43	-	4	4	-	12	12				
Strain, sprain-----	-	-	-	227	227	227	137	364	33.8	-	8.21	8.21	4.95	-	429	429	-	52	52				
Multiple injuries-----	4	-	-	32	32	36	22	58	5.4	.14	1.16	1.30	.80	868	84	952	-	73	732				
Other, not elsewhere classified-----	-	-	-	36	36	36	90	126	5.4	-	1.30	1.30	3.25	-	43	43	-	33	33				
Unclassified (no data)-----	-	-	-	25	25	25	34	59	3.7	-	.90	.90	1.23	-	46	46	-	51	51				
Total or average-----	7	-	10	655	665	672	714	1,386	-	.25	24.05	24.30	25.82	1,519	1,350	2,869	905	43	118				
Grand total or average-----	140	8	157	13,931	14,096	14,236	12,333	26,569	-	.37	37.29	37.66	32.63	2,222	1,740	3,962	521	38	105				

1/ Less than 0.005.

2/ Less than 0.05.

3/ Less than 0.5.

TABLE 24. - Number of injuries, injury rates, and average severity at Pennsylvania anthracite mines, by general work location and nature of injury, 1976

General work location and nature of injury	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates per million man-hours				Severity rates per million man-hours			Average severity		
	Fatal	Nonfatal disabling				All disabling injuries	Non-disabling injuries	All injuries		Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Permanent partial	Temporary total	All disabling
		Permanent		Temporary total	All non-fatal disabling														
		Total	Partial																
Underground mines:																			
Underground:																			
Crushing, contusion-----	-	-	-	10	10	10	1	11	27.0	-	14.50	14.50	1.45	-	609	609	-	42	42
Cut, laceration-----	-	-	-	6	6	6	3	9	16.2	-	8.70	8.70	4.35	-	113	113	-	13	13
Fracture-----	-	-	-	6	6	6	1	7	16.2	-	8.70	8.70	1.45	-	611	611	-	70	70
Hernia-----	-	-	-	3	3	3	-	3	8.1	-	4.35	4.35	-	-	277	277	-	64	64
Scratches-----	-	-	-	-	-	-	1	1	-	-	-	-	1.45	-	-	-	-	-	-
Strain, sprain-----	-	-	-	6	6	6	-	6	16.2	-	8.70	8.70	-	-	1,168	1,168	-	134	134
Other, not elsewhere classified-----	-	-	-	3	3	3	1	4	8.1	-	4.35	4.35	1.45	-	67	67	-	15	15
Unclassified (no data)-----	-	-	-	3	3	3	2	5	8.1	-	4.35	4.35	2.90	-	973	973	-	224	224
Total or average-----	-	-	-	37	37	37	9	46	-	-	53.67	53.67	13.05	-	3,817	3,817	-	71	71
Surface:																			
Crushing, contusion-----	-	-	-	1	1	1	-	1	50.0	-	8.47	8.47	-	-	3,498	3,498	-	413	413
Cut, laceration-----	-	-	-	-	-	-	1	1	-	-	-	-	8.47	-	-	-	-	-	-
Fracture-----	-	-	-	1	1	1	-	1	50.0	-	8.47	8.47	-	-	8	8	-	1	1
Total or average-----	-	-	-	2	2	2	1	3	-	-	16.94	16.94	8.47	-	3,506	3,506	-	207	207
Total or average, underground mines-----	-	-	-	39	39	39	10	49	-	-	48.30	48.30	12.38	-	3,772	3,772	-	78	78
Strip:																			
Burn, scald (except chemical)-----	-	-	-	10	10	10	10	20	7.9	-	4.71	4.71	4.71	-	74	74	-	16	16
Burn, chemical-----	-	-	-	-	-	-	2	2	-	-	-	-	.94	-	-	-	-	-	-
Concussion-----	-	-	-	1	1	1	-	1	.8	-	.47	.47	-	-	6	6	-	12	12
Crushing, contusion-----	-	-	-	26	26	26	49	75	20.6	-	12.26	12.26	23.10	-	194	194	-	16	16
Cut, laceration-----	-	-	-	11	11	11	35	46	8.7	-	5.19	5.19	16.50	-	182	182	-	35	35
Dermatitis-----	-	-	-	1	1	1	-	1	.8	-	.47	.47	-	-	3	3	-	7	7
Dislocation-----	-	-	-	1	1	1	-	1	.8	-	.47	.47	-	-	8	8	-	16	16
Fracture-----	-	-	-	12	12	12	11	23	9.5	-	5.66	5.66	5.19	-	294	294	-	52	52
Freezing-----	-	-	-	-	-	-	1	1	-	-	-	-	.47	-	-	-	-	-	-
Hernia-----	-	-	-	-	-	-	3	3	-	-	-	-	1.41	-	-	-	-	-	-
Inflammation-----	-	-	-	1	1	1	-	1	.8	-	.47	.47	-	-	21	21	-	45	45
Poisoning-----	-	-	-	-	-	-	1	1	-	-	-	-	.47	-	-	-	-	-	-
Scratches-----	-	-	-	2	2	2	1	3	1.6	-	.94	.94	.47	-	9	9	-	10	10
Strain, sprain-----	-	-	-	41	41	41	46	87	32.5	-	19.33	19.33	21.68	-	618	618	-	32	32
Multiple injuries-----	-	-	-	4	4	4	3	7	3.2	-	1.89	1.89	1.41	-	109	109	-	58	58
Other, not elsewhere classified-----	-	-	-	5	5	5	28	33	4.0	-	2.36	2.36	13.20	-	115	115	-	49	49
Unclassified (no data)-----	-	-	-	11	11	11	12	23	8.7	-	5.19	5.19	5.66	-	159	159	-	31	31
Total or average-----	-	-	-	126	126	126	202	328	-	-	59.40	59.40	95.22	-	1,791	1,791	-	30	30

TABLE 24. - Number of injuries, injury rates, and average severity at Pennsylvania anthracite mines, by general work location and nature of injury, 1976 - Continued

General work location and nature of injury	Number of injuries							Distribution of all disabling injuries, percent	Frequency rates per million man-hours				Severity rates per million man-hours			Average severity			
	Fatal	Nonfatal disabling			All disabling in injuries	Non-disabling injuries	All injuries		Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Perma-nent partial	Temp-orary total	All dis-abling	
		Permanent		Temp-orary total															All non-fatal dis-abling
		Total	Par-tial																
Culm bank:																			
Burn, scald (except chemical)-----	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-		
Crushing, contusion-----	-	-	2	2	2	1	3	33.3	-	6.59	6.59	3.29	-	119	119	-	18	18	
Cut, laceration-----	-	-	1	1	1	1	2	16.7	-	3.29	3.29	3.29	-	850	850	-	258	258	
Dislocation-----	-	-	-	-	-	1	1	-	-	-	-	3.29	-	-	-	-	-	-	
Fracture-----	-	-	1	1	1	-	1	16.7	-	3.29	3.29	-	-	59	59	-	18	18	
Inflammation-----	-	-	-	-	-	1	1	-	-	-	-	3.29	-	-	-	-	-	-	
Strain, sprain-----	-	-	1	1	1	6	7	16.7	-	3.29	3.29	19.76	-	40	40	-	12	12	
Other, not elsewhere classified-----	-	-	-	-	-	2	2	-	-	-	-	6.59	-	-	-	-	-	-	
Unclassified (no data)-----	-	-	1	1	1	-	1	16.7	-	3.29	3.29	-	-	540	540	-	164	164	
Total or average-----	-	-	-	6	6	6	13	19	-	-	19.76	19.76	42.81	-	1,607	1,607	-	81	81
Total or average, surface-----	-	-	-	132	132	132	215	347	-	-	54.16	54.16	88.22	-	1,760	1,760	-	32	32
Total or average, mining-----	-	-	-	171	171	171	225	396	-	-	52.70	52.70	69.35	-	2,260	2,260	-	43	43
Independent shops and yards:																			
Burn, scald (except chemical)-----	-	-	1	1	1	1	2	10.0	-	6.49	6.49	6.49	-	19	19	-	3	3	
Crushing, contusion-----	-	-	3	3	3	2	5	30.0	-	19.47	19.47	12.98	-	441	441	-	23	23	
Cut, laceration-----	-	-	-	-	-	8	8	-	-	-	-	51.92	-	-	-	-	-	-	
Scratches-----	-	-	-	-	-	1	1	-	-	-	-	6.49	-	-	-	-	-	-	
Strain, sprain-----	-	-	5	5	5	13	18	50.0	-	32.45	32.45	84.37	-	1,765	1,765	-	54	54	
Other, not elsewhere classified-----	-	-	-	-	-	8	8	-	-	-	-	51.92	-	-	-	-	-	-	
Unclassified (no data)-----	-	-	1	1	1	-	1	10.0	-	6.49	6.49	-	-	32	32	-	5	5	
Total or average-----	-	-	-	10	10	10	33	43	-	-	64.90	64.90	214.17	-	2,259	2,259	-	35	35
Mechanical cleaning plants:																			
Asphyxiation-----	-	-	-	-	-	1	1	-	-	-	-	.56	-	-	-	-	-	-	
Burn, scald (except chemical)-----	1	-	4	4	5	13	18	4.4	0.56	2.25	2.82	7.33	3,382	26	3,408	-	12	1,209	
Burn, chemical-----	-	-	-	-	-	3	3	-	-	-	-	1.69	-	-	-	-	-	-	
Crushing, contusion-----	-	-	26	26	26	42	68	23.0	-	14.66	14.66	23.67	-	388	388	-	26	26	
Cut, laceration-----	-	-	19	19	19	46	65	16.8	-	10.71	10.71	25.93	-	280	280	-	26	26	
Dislocation-----	-	-	-	-	-	1	1	-	-	-	-	.56	-	-	-	-	-	-	
Fracture-----	-	-	17	17	17	6	23	15.0	-	9.58	9.58	3.38	-	911	911	-	95	95	
Hernia-----	-	-	1	1	2	-	2	1.8	-	1.13	1.13	-	-	98	98	50	123	86	
Inflammation-----	-	-	-	-	-	1	1	-	-	-	-	.56	-	-	-	-	-	-	
Poisoning-----	-	-	-	-	-	1	1	-	-	-	-	.56	-	-	-	-	-	-	
Scratches-----	-	-	-	-	-	4	4	-	-	-	-	2.25	-	-	-	-	-	-	
Strain, sprain-----	-	-	30	30	30	31	61	26.5	-	16.91	16.91	17.47	-	736	736	-	44	44	
Multiple injuries-----	-	-	1	1	1	-	1	.9	-	.56	.56	-	-	169	169	-	300	300	
Other, not elsewhere classified-----	-	-	5	5	5	14	19	4.4	-	2.82	2.82	7.89	-	23	23	-	8	8	
Unclassified (no data)-----	-	-	8	8	8	14	22	7.1	-	4.51	4.51	7.89	-	221	221	-	49	49	
Total or average-----	1	-	1	111	112	113	177	290	-	.56	63.13	63.69	99.77	3,382	2,850	6,232	50	45	98
Grand total or average-----	1	-	1	292	293	294	435	729	-	.19	56.64	56.84	84.10	1,160	2,463	3,623	50	43	64

TABLE 25. - Number of injuries at bituminous coal mines in the United States, by part of body injured and nature of injury, 1976

Nature of injury	Total			Part of body											
				Head, face, neck (excluding eye)			Eye			Trunk			Arm (above wrist)		
	Fatal	Nonfatal disabling	Non- disabling	Fatal	Nonfatal disabling	Non- disabling	Fatal	Nonfatal disabling	Non- disabling	Fatal	Nonfatal disabling	Non- disabling	Fatal	Nonfatal disabling	Non- disabling
Amputation, enucleation-----	3	176	3	2	-	-	-	1	-	-	-	-	-	2	-
Asphyxiation-----	2	11	39	-	1	-	-	-	-	-	5	19	-	-	-
Burn, scald (except chemical)-----	1	175	244	-	19	51	-	20	34	-	5	2	-	15	26
Burn, chemical-----	-	59	80	-	3	9	-	31	35	-	9	2	-	-	1
Concussion-----	2	39	9	2	39	8	-	-	-	-	-	-	-	-	-
Crushing, contusion-----	15	3,550	3,544	5	158	233	-	17	52	7	762	582	-	210	323
Cut, laceration-----	2	1,400	2,668	2	270	637	-	88	95	-	28	34	-	62	141
Dermatitis-----	-	5	16	-	1	-	-	-	3	-	-	-	-	1	5
Dislocation-----	-	89	45	-	2	1	-	-	-	-	45	19	-	4	2
Electric shock-----	6	35	30	-	2	-	-	-	-	-	-	-	-	2	1
Fracture-----	9	1,927	795	8	97	147	-	-	-	-	271	66	-	169	21
Freezing-----	-	5	2	-	1	1	-	-	-	-	-	-	-	-	1
Hearing loss-----	-	2	14	-	2	14	-	-	-	-	-	-	-	-	-
Heat exhaustion-----	-	1	3	-	-	1	-	-	-	-	1	-	-	-	-
Hernia-----	-	95	25	-	-	1	-	-	-	-	91	22	-	-	-
Inflammation-----	-	21	5	-	-	-	-	-	-	-	1	-	-	-	2
Poisoning-----	-	8	36	-	1	6	-	-	-	-	1	9	-	1	5
Pneumoconiosis-----	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-
Radiation-----	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Scratches-----	-	107	190	-	12	21	-	24	59	-	10	13	-	4	11
Strain, sprain-----	-	4,164	2,361	-	239	130	-	-	-	-	2,707	1,396	-	79	73
Multiple injuries-----	98	607	363	9	46	58	-	2	7	5	61	23	-	27	19
Other, not elsewhere classified-----	-	678	1,245	-	40	54	-	408	987	-	35	25	-	17	21
Unclassified (no data)-----	2	941	615	-	100	88	-	27	54	-	371	151	-	45	37
Total-----	140	14,096	12,333	28	1,033	1,460	-	618	1,326	12	4,403	2,364	-	638	689

TABLE 25. - Number of injuries at bituminous coal mines in the United States, by part of body injured and nature of injury, 1976 - Continued

Nature of injury	Part of body														
	Wrist, hand, fingers			Leg (above ankle)			Ankle, foot, toes			Multiple parts			Unclassified (no data)		
	Fatal	Nonfatal disabling	Non-disabling	Fatal	Nonfatal disabling	Non-disabling	Fatal	Nonfatal disabling	Non-disabling	Fatal	Nonfatal disabling	Non-disabling	Fatal	Nonfatal disabling	Non-disabling
Amputation, enucleation-----	-	149	2	-	6	-	-	15	1	1	3	-	-	-	-
Asphyxiation-----	-	-	-	-	-	-	-	-	-	-	-	3	2	5	17
Burn, scald (except chemical)-----	-	53	85	-	10	11	-	10	14	1	43	20	-	-	1
Burn, chemical-----	-	3	8	-	7	14	-	4	4	-	2	5	-	-	2
Concussion-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crushing, contusion-----	-	743	1,103	-	715	560	-	610	478	3	315	197	-	20	16
Cut, laceration-----	-	668	1,374	-	138	188	-	109	165	-	33	27	-	4	7
Dermatitis-----	-	1	2	-	-	-	-	-	-	-	2	6	-	-	-
Dislocation-----	-	19	19	-	13	4	-	5	-	-	1	-	-	-	-
Electric shock-----	-	4	4	-	1	-	-	-	1	-	6	6	6	20	18
Fracture-----	-	615	466	-	219	11	-	496	79	1	52	3	-	7	2
Freezing-----	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Hearing loss-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heat exhaustion-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Hernia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2
Inflammation-----	-	1	1	-	19	2	-	-	-	-	-	-	-	-	-
Poisoning-----	-	1	3	-	1	4	-	-	-	-	1	3	-	2	6
Pneumoconiosis-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radiation-----	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Scratches-----	-	19	44	-	24	24	-	2	4	-	12	13	-	-	1
Strain, sprain-----	-	105	157	-	423	227	-	455	300	-	137	67	-	19	11
Multiple injuries-----	-	107	108	-	51	42	-	30	12	83	282	93	1	1	1
Other, not elsewhere classified-----	-	101	84	-	25	25	-	3	5	-	49	36	-	2	9
Unclassified (no data)-----	-	91	91	-	110	65	-	70	34	1	83	51	1	44	44
Total-----	-	2,684	3,551	-	1,763	1,177	-	1,809	1,097	90	1,021	530	10	127	139

TABLE 26. - Number of injuries at Pennsylvania anthracite mines in the United States, by part of body injured and nature of injury, 1976

Nature of injury	Total			Part of body											
				Head, face, neck (excluding eye)			Eye			Trunk			Arm (above wrist)		
	Fatal	Nonfatal disabling	Non- disabling	Fatal	Nonfatal disabling	Non- disabling	Fatal	Nonfatal disabling	Non- disabling	Fatal	Nonfatal disabling	Non- disabling	Fatal	Nonfatal disabling	Non- disabling
Asphyxiation-----	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Burn, scald (except chemical)-	1	15	25	-	2	9	-	-	-	-	-	2	-	-	2
Burn, chemical-----	-	-	5	-	-	2	-	-	2	-	-	-	-	-	-
Concussion-----	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-
Crushing, contusion-----	-	68	95	-	2	7	-	-	3	-	19	16	-	5	12
Cut, laceration-----	-	37	94	-	2	26	-	5	4	-	1	-	-	-	2
Dermatitis-----	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Dislocation-----	-	1	2	-	-	-	-	-	-	-	1	1	-	-	-
Fracture-----	-	37	18	-	1	10	-	-	-	-	8	1	-	3	-
Freezing-----	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Hernia-----	-	5	3	-	-	-	-	-	-	-	5	3	-	-	-
Inflammation-----	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-
Poisoning-----	-	-	2	-	-	-	-	-	1	-	-	-	-	-	-
Scratches-----	-	2	7	-	-	2	-	1	-	-	1	-	-	-	1
Strain, sprain-----	-	83	96	-	1	3	-	-	-	-	64	65	-	1	1
Multiple injuries-----	-	5	3	-	-	-	-	-	-	-	1	-	-	-	-
Other, not elsewhere classified-----	-	13	53	-	-	1	-	8	47	-	2	-	-	-	2
Unclassified (no data)-----	-	24	28	-	-	4	-	-	-	-	18	9	-	-	1
Total or average-----	1	293	435	-	9	64	-	14	57	-	120	97	-	9	21

TABLE 26. - Number of injuries at Pennsylvania anthracite mines in the United States, by part of body injured and nature of injury, 1976 - Continued

Nature of injury	Part of body														
	Wrist, hand, fingers			Leg (above ankle)			Ankle, foot, toes			Multiple parts			Unclassified (no data)		
	Fatal	Nonfatal disabling	Non-disabling	Fatal	Nonfatal disabling	Non-disabling	Fatal	Nonfatal disabling	Non-disabling	Fatal	Nonfatal disabling	Non-disabling	Fatal	Nonfatal disabling	Non-disabling
Asphyxiation-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Burn, scald (except chemical)-----	-	8	11	-	1	-	-	-	-	1	3	1	-	1	-
Burn, chemical-----	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Concussion-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crushing, contusion-----	-	9	25	-	15	22	-	13	6	-	5	4	-	-	-
Cut, laceration-----	-	18	52	-	7	5	-	2	5	-	2	-	-	-	-
Dermatitis-----	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Dislocation-----	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Fracture-----	-	14	6	-	4	-	-	6	1	-	1	-	-	-	-
Freezing-----	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Hernia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inflammation-----	-	-	-	-	-	1	-	1	1	-	-	-	-	-	-
Poisoning-----	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Scratches-----	-	-	3	-	-	-	-	-	1	-	-	-	-	-	-
Strain, Sprain-----	-	2	11	-	5	4	-	8	10	-	2	2	-	-	-
Multiple injuries-----	-	1	1	-	1	1	-	-	-	-	2	1	-	-	-
Other, not elsewhere classified-----	-	-	3	-	2	-	-	1	-	-	-	-	-	-	-
Unclassified (no data)-----	-	1	5	-	3	6	-	1	1	-	1	-	-	-	2
Total or average-----	-	54	119	-	38	39	-	32	25	1	16	10	-	1	3

TABLE 27. - Closed cases ^{1/} of temporary total injuries, for which companies reported days of disability, at coal mines, by days of disability per injury and kind of coal, 1976

Days of disability per injury	Number of closed temporary total injuries			Percent of total
	Bituminous coal	Pennsylvania anthracite	Total	
1-----	834	24	858	6.6
2-----	538	16	554	4.3
3-----	762	14	776	6.0
4-----	722	8	730	5.6
5-----	744	13	757	5.8
6-----	624	15	639	4.9
7-----	369	6	375	2.9
8-----	252	4	256	2.0
9-----	329	3	332	2.6
10-----	315	5	320	2.5
11-----	345	8	353	2.7
12-----	317	3	320	2.5
13-----	307	4	311	2.4
14-----	199	4	203	1.6
15-----	155	2	157	1.2
16-----	192	4	196	1.5
17-----	188	6	194	1.5
18-----	196	5	201	1.5
19-----	216	3	219	1.7
20-----	193	2	195	1.5
21-----	104	0	104	.8
22-----	82	1	83	.6
23-----	115	1	116	.9
24-----	130	1	131	1.0
25-----	124	4	128	1.0
26-----	106	3	109	.8
27-----	151	2	153	1.2
28-----	75	3	78	.6
29-----	63	0	63	.5
30-----	91	1	92	.7
31-----	94	1	95	.7
32-----	100	1	101	.8
33-----	98	2	100	.8
34-----	101	3	104	.8
35-----	63	1	64	.5
36-----	40	1	41	.3
37-----	59	3	62	.5
38-----	70	0	70	.5
39-----	72	3	75	.6
40-----	72	6	78	.6
41-----	75	0	75	.6
42-----	36	1	37	.3
43-----	31	0	31	.2
44-----	53	3	56	.4
45-----	63	2	65	.5
46-60-----	698	18	716	5.5
61-90-----	817	25	842	6.5
91-120-----	423	9	432	3.3
121-150-----	240	5	245	1.9
151 or more-----	662	17	679	5.2
Total-----	12,705	266	12,971	-

^{1/} In addition to the closed temporary total injuries, there were 1,226 temporary total injuries for which days of disability were not reported at bituminous coal mines and 26 at Pennsylvania anthracite mines. To obtain total severity data for the industry, these "open cases" were closed by assigning average days of disability by detailed cause classification.

TABLE 28. - Number of injuries, frequency rates per million man-hours, employment, worktime, and production data at bituminous coal mines in the United States, by general work location and employment size group, 1976

General work location and employment size group	Number of injuries					Frequency rates per million man-hours					Average men working daily	Man-hours worked	Production, short tons	Tons per man-hour	Number of operations	
	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries						
Underground mines (includes surface works):																
1 to 4-----	2	7	9	5	14	8.08	28.29	36.37	20.20	56.57	396	247,474	195,471	0.79	116	
5 to 9-----	5	139	144	77	221	2.04	56.74	58.78	31.43	90.21	3,240	2,449,732	3,880,555	1.58	386	
10 to 19-----	7	376	383	262	645	.85	45.52	46.37	31.72	78.09	7,445	8,259,464	13,237,330	1.60	470	
20 to 34-----	5	641	646	445	1,091	.48	61.23	61.71	42.51	104.21	7,444	10,469,112	16,329,230	1.56	251	
35 to 49-----	4	573	577	361	938	.39	55.96	56.35	35.26	91.61	6,068	10,239,235	11,724,046	1.15	147	
50 to 99-----	11	1,278	1,289	1,165	2,454	.52	59.91	60.42	54.61	115.03	11,867	21,332,910	22,343,927	1.05	167	
100 to 149-----	6	1,463	1,469	844	2,313	.26	64.56	64.82	37.24	102.07	12,401	22,661,596	24,533,839	1.08	101	
150 to 249-----	35	1,449	1,484	1,158	2,642	.93	38.40	39.33	30.69	70.02	20,664	37,733,843	41,370,893	1.10	108	
250 or more-----	34	5,425	5,459	4,845	10,304	.27	42.49	42.76	37.95	80.71	67,257	127,673,798	146,900,647	1.15	162	
Total or average---	109	11,351	11,460	9,162	20,622	.45	47.09	47.54	38.01	85.54	136,782	241,067,164	280,515,938	1.16	1,908	
Strip mines:																
1 to 4-----	-	19	19	15	34	-	8.99	8.99	7.10	16.09	1,625	2,112,494	6,639,532	3.14	582	
5 to 9-----	3	91	94	45	139	.55	16.64	17.19	8.23	25.42	3,701	5,467,142	15,397,445	2.82	530	
10 to 19-----	3	198	201	169	370	.23	15.44	15.67	13.18	28.85	8,066	12,823,323	31,979,112	2.49	569	
20 to 34-----	6	298	304	349	653	.41	20.35	20.76	23.83	44.59	8,371	14,645,963	38,234,155	2.61	320	
35 to 49-----	1	208	209	179	388	.10	20.34	20.44	17.51	37.95	5,479	10,224,309	25,744,233	2.52	135	
50 to 99-----	6	396	402	358	760	.40	26.72	27.12	24.15	51.27	7,357	14,822,383	51,852,717	3.50	110	
100 to 149-----	1	251	252	394	646	.08	20.32	20.40	31.90	52.30	6,108	12,352,547	49,294,508	3.99	50	
150 to 249-----	2	203	205	259	464	.16	16.22	16.38	20.70	37.08	5,660	12,512,245	61,940,771	4.95	31	
250 or more-----	1	281	282	464	746	.06	17.30	17.36	28.57	45.93	7,147	16,242,723	74,637,071	4.60	22	
Total or average---	23	1,945	1,968	2,232	4,200	.23	19.22	19.45	22.05	41.50	53,514	101,203,129	355,719,544	3.51	2,349	
Auger mines:																
1 to 4-----	1	15	16	10	26	2.34	35.03	37.37	23.35	60.72	504	428,196	2,126,078	4.97	174	
5 to 9-----	-	10	10	10	20	-	25.27	25.27	25.27	50.54	344	395,721	1,806,931	4.57	56	
10 to 19-----	-	2	2	-	2	-	15.06	15.06	-	15.06	168	132,764	439,244	3.31	13	
20 to 34-----	-	-	-	-	-	-	-	-	-	-	63	40,447	57,888	1.43	3	
35 to 49-----	-	4	4	4	8	-	26.62	26.62	26.62	53.24	119	150,261	186,456	1.24	3	
50 to 99-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
100 to 149-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
150 to 249-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
250 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average---	1	31	32	24	56	.87	27.02	27.89	20.92	48.81	1,198	1,147,389	4,616,597	4.02	249	

TABLE 28. - Number of injuries, frequency rates per million man-hours, employment, worktime, and production data at bituminous coal mines in the United States, by general work location and employment size group, 1976 - Continued

General work location and employment size group	Number of injuries					Frequency rates per million man-hours					Average men working daily	Man-hours worked	Production, short tons	Tons per man-hour	Number of operations	
	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries						
Other surface mining:																
1 to 4-----	-	-	-	-	-	-	-	-	-	-	12	10,272	80,720	7.86	5	
5 to 9-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 to 19-----	-	-	-	-	-	-	-	-	-	-	30	46,661	181,640	3.89	2	
20 to 34-----	-	-	-	-	-	-	-	-	-	-	21	42,278	79,691	1.88	1	
35 to 49-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
50 to 99-----	-	-	-	-	-	-	-	-	-	-	58	105,838	497,916	4.70	1	
100 to 149-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
150 to 249-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
250 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average-	-	-	-	-	-	-	-	-	-	-	121	205,049	839,967	4.10	9	
Total or average, surface-----	24	1,976	2,000	2,256	4,256	0.23	19.27	19.50	22.00	41.50	54,833	102,555,567	361,176,108	3.52	2,607	
Total or average, mining-----	133	13,327	13,460	11,418	24,878	.39	38.78	39.17	33.23	72.40	191,615	343,622,731	641,692,046	1.87	4,515	
Independent shops and yards:																
1 to 4-----	-	5	5	9	14	-	40.05	40.05	72.10	112.15	74	124,835	-	-	26	
5 to 9-----	-	1	1	4	5	-	5.75	5.75	23.01	28.76	100	173,874	-	-	13	
10 to 19-----	-	3	3	9	12	-	11.15	11.15	33.46	44.61	206	268,983	-	-	14	
20 to 34-----	-	16	16	48	64	-	16.25	16.25	48.74	64.99	570	984,798	-	-	21	
35 to 49-----	-	17	17	28	45	-	23.69	23.69	39.02	62.71	404	717,618	-	-	10	
50 to 99-----	-	38	38	75	113	-	15.13	15.13	29.87	45.01	1,272	2,510,806	-	-	19	
100 to 149-----	-	23	23	22	45	-	14.83	14.83	14.18	29.01	835	1,550,973	-	-	7	
150 to 249-----	-	1	1	6	7	-	2.63	2.63	15.79	18.43	203	379,910	-	-	1	
250 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average-	-	104	104	201	305	-	15.50	15.50	29.95	45.44	3,664	6,711,797	-	-	111	

TABLE 28. - Number of injuries, frequency rates per million man-hours, employment, worktime, and production data at bituminous coal mines in the United States, by general work location and employment size group, 1976 - Continued

General work location and employment size group	Number of injuries					Frequency rates per million man-hours					Average men working daily	Man-hours worked	Production, short tons	Tons per man-hour	Number of operations	
	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries						
Mechanical cleaning plants:																
1 to 4-----	-	30	30	29	59	-	29.94	29.94	26.04	52.98	828	1,113,574	-	-	281	
5 to 9-----	1	46	47	47	94	0.45	20.61	21.06	21.06	42.12	1,508	2,231,923	-	-	202	
10 to 19-----	-	99	99	79	178	-	25.54	25.54	20.38	45.93	2,433	3,875,588	-	-	157	
20 to 34-----	3	150	153	152	305	.43	21.71	22.15	22.00	44.15	3,929	6,908,342	-	-	134	
35 to 49-----	2	108	110	157	267	.38	20.43	20.81	29.70	50.51	2,802	5,286,587	-	-	68	
50 to 99-----	-	154	154	164	318	-	27.06	27.06	28.82	55.88	3,104	5,690,514	-	-	47	
100 to 149-----	1	30	31	26	57	.85	25.43	26.28	22.04	48.33	734	1,179,480	-	-	6	
150 to 249-----	-	48	48	60	108	-	35.18	35.18	43.97	79.14	854	1,364,588	-	-	5	
250 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average---	7	665	672	714	1,386	.25	24.05	24.30	25.82	50.13	16,192	27,650,596	-	-	900	
Grand total or average-----	140	14,096	14,236	12,333	26,569	.37	37.29	37.66	32.63	70.29	211,471	377,985,124	641,692,046	1.70	5,526	

TABLE 29. - Number of injuries, frequency rates per million man-hours, employment, worktime, and production data at Pennsylvania anthracite mines in the United States, by general work location and employment size group, 1976

General work location and employment size group	Number of injuries					Frequency rates per million man-hours					Average men working daily	Man-hours worked	Production, short tons	Tons per man-hour	Number of operations	
	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries						
Underground mines (includes surface works):																
1 to 4-----	-	2	2	-	2	-	12.40	12.40	-	12.40	179	161,324	84,853	0.53	60	
5 to 9-----	-	7	7	2	9	-	58.96	58.96	16.85	75.81	87	118,722	71,694	.60	15	
10 to 19-----	-	10	10	1	11	-	66.01	66.01	6.60	72.61	83	151,486	114,322	.75	7	
20 to 34-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35 to 49-----	-	1	1	-	1	-	14.99	14.99	-	14.99	40	66,728	45,929	.69	1	
50 to 99-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
100 to 149-----	-	19	19	7	26	-	61.43	61.43	22.63	84.07	145	309,271	198,752	.64	1	
150 to 249-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
250 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average--	-	39	39	10	49	-	48.30	48.30	12.38	60.68	534	807,531	515,550	.64	84	
Strip mines:																
1 to 4-----	-	2	2	11	13	-	15.77	15.77	86.75	102.52	118	126,805	168,404	1.33	50	
5 to 9-----	-	5	5	6	11	-	67.12	67.12	80.55	147.67	73	74,491	110,526	1.48	11	
10 to 19-----	-	23	23	42	65	-	47.04	47.04	85.89	132.93	234	488,980	667,967	1.37	17	
20 to 34-----	-	19	19	34	53	-	65.67	65.67	117.52	183.19	175	289,324	353,755	1.22	7	
35 to 49-----	-	9	9	23	32	-	33.00	33.00	84.32	117.32	147	272,757	255,414	.94	4	
50 to 99-----	-	39	39	52	91	-	107.94	107.94	143.92	251.86	253	361,316	602,169	1.67	4	
100 to 149-----	-	7	7	17	24	-	40.46	40.46	98.25	138.71	109	173,022	299,914	1.73	1	
150 to 249-----	-	22	22	17	39	-	65.75	65.75	50.81	116.56	172	334,597	291,765	.87	1	
250 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average--	-	126	126	202	328	-	59.40	59.40	95.22	154.62	1,281	2,121,292	2,749,914	1.30	95	
Culm banks:																
1 to 4-----	-	1	1	1	2	-	8.80	8.80	8.80	17.60	115	113,659	1,493,626	13.14	49	
5 to 9-----	-	-	-	6	6	-	-	-	88.82	88.82	58	67,552	451,137	6.68	9	
10 to 19-----	-	4	4	6	10	-	46.25	46.25	69.37	115.62	63	86,488	136,099	1.57	4	
20 to 34-----	-	1	1	-	1	-	27.83	27.83	-	27.83	23	35,938	41,044	1.14	1	
35 to 49-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
50 to 99-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
100 to 149-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
150 to 249-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
250 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average--	-	6	6	13	19	-	19.76	19.76	42.81	62.57	259	303,637	2,121,906	6.99	63	

TABLE 29. - Number of injuries, frequency rates per million man-hours, employment, worktime, and production data at Pennsylvania anthracite mines in the United States, by general work location and employment size group, 1976 - Continued

General work location and employment size group	Number of injuries					Frequency rates per million man-hours					Average men working daily	Man-hours worked	Production, short tons	Tons per man-hour	Number of operations	
	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries						
Dredges:																
1 to 4-----	-	-	-	-	-	-	-	-	-	-	6	12,085	7,500	0.62	2	
5 to 9-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10 to 19-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20 to 34-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35 to 49-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
50 to 99-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
100 to 149-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
150 to 249-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
250 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average----	-	-	-	-	-	-	-	-	-	-	6	12,085	7,500	.62	2	
Total or average, surface-----	-	132	132	215	347	-	54.16	54.16	88.22	142.39	1,546	2,437,014	4,879,320	2.00	160	
Total or average, mining-----	-	171	171	225	396	-	52.70	52.70	69.35	122.05	2,080	3,244,545	5,394,870	1.66	244	
Independent shops and yards:																
1 to 4-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5 to 9-----	-	-	-	-	-	-	-	-	-	-	7	14,749	-	-	1	
10 to 19-----	-	8	8	29	37	-	95.23	95.23	345.20	440.42	39	84,010	-	-	3	
20 to 34-----	-	2	2	4	6	-	36.15	36.15	72.30	108.46	32	55,322	-	-	1	
35 to 49-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
50 to 99-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
100 to 149-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
150 to 249-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
250 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average----	-	10	10	33	43	-	64.90	64.90	214.17	279.07	78	154,081	-	-	5	

TABLE 29. - Number of injuries, frequency rates per million man-hours, employment, worktime, and production data at Pennsylvania anthracite mines in the United States, by general work location and employment size group, 1976 - Continued

General work location and employment size group	Number of injuries					Frequency rates per million man-hours					Average men working daily	Man-hours worked	Production, short tons	Tons per man-hour	Number of operations	
	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries						
Mechanical cleaning plants:																
1 to 4-----	1	4	5	3	8	10.28	41.11	51.39	30.83	82.22	82	97,302	-	-	28	
5 to 9-----	-	3	3	1	4	-	12.20	12.20	4.07	16.26	138	245,939	-	-	21	
10 to 19-----	-	13	13	19	32	-	49.44	49.44	72.26	121.70	158	262,951	-	-	12	
20 to 34-----	-	59	59	81	140	-	117.58	117.58	161.43	279.01	260	501,769	-	-	9	
35 to 49-----	-	5	5	24	29	-	36.55	36.55	175.46	212.01	83	136,785	-	-	2	
50 to 99-----	-	28	28	49	77	-	52.90	52.90	92.57	145.46	282	529,344	-	-	4	
100 to 149-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
150 to 249-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
250 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average---	1	112	113	177	290	.56	63.13	63.69	99.77	163.46	1,003	1,774,090	-	-	76	
Grand total or average-----	1	293	294	435	729	.19	56.64	56.84	84.10	140.93	3,161	5,172,716	5,394,870	1.04	325	

TABLE 30. - Number of injuries and frequency rates per million tons at bituminous coal mines in the United States,
by general work location and employment size group, 1976

General work location and employment size group	Number of injuries					Frequency rates per million tons				
	Fatal	Nonfatal disabling	All disabling	Nondisabling	All injuries	Fatal	Nonfatal disabling	All disabling	Nondisabling	All injuries
Underground mines (includes surface works):										
1 to 4-----	2	7	9	5	14	10.23	35.81	46.04	25.58	71.62
5 to 9-----	5	139	144	77	221	1.29	35.82	37.11	19.84	56.95
10 to 19-----	7	376	383	262	645	.53	28.40	28.93	19.79	48.73
20 to 34-----	5	641	646	445	1,091	.31	39.25	39.56	27.25	66.81
35 to 49-----	4	573	577	361	938	.34	48.87	49.22	30.79	80.01
50 to 99-----	11	1,278	1,289	1,165	2,454	.49	57.20	57.69	52.14	109.83
100 to 149-----	6	1,463	1,469	844	2,313	.24	59.63	59.88	34.40	94.28
150 to 249-----	35	1,449	1,484	1,158	2,642	.85	35.02	35.87	27.99	63.86
250 or more-----	34	5,425	5,459	4,845	10,304	.23	36.93	37.16	32.98	70.14
Total or average-----	109	11,351	11,460	9,162	20,622	.39	40.46	40.85	32.66	73.51
Strip mines:										
1 to 4-----	-	19	19	15	34	-	2.86	2.86	2.26	5.12
5 to 9-----	3	91	94	45	139	.19	5.91	6.10	2.92	9.03
10 to 19-----	3	198	201	169	370	.09	6.19	6.29	5.28	11.57
20 to 34-----	6	298	304	349	653	.16	7.79	7.95	9.13	17.08
35 to 49-----	1	208	209	179	388	.04	8.08	8.12	6.95	15.07
50 to 99-----	6	396	402	358	760	.12	7.64	7.75	6.90	14.66
100 to 149-----	1	251	252	394	646	.02	5.09	5.11	7.99	13.10
150 to 249-----	2	203	205	259	464	.03	3.28	3.31	4.18	7.49
250 or more-----	1	281	282	464	746	.01	3.76	3.78	6.22	10.00
Total or average-----	23	1,945	1,968	2,232	4,200	.06	5.47	5.53	6.27	11.81
Auger mines:										
1 to 4-----	1	15	16	10	26	.47	7.06	7.53	4.70	12.23
5 to 9-----	-	10	10	10	20	-	5.53	5.53	5.53	11.07
10 to 19-----	-	2	2	-	2	-	4.55	4.55	-	4.55
20 to 34-----	-	-	-	-	-	-	-	-	-	-
35 to 49-----	-	4	4	4	8	-	21.45	21.45	21.45	42.91
50 to 99-----	-	-	-	-	-	-	-	-	-	-
100 to 149-----	-	-	-	-	-	-	-	-	-	-
150 to 249-----	-	-	-	-	-	-	-	-	-	-
250 or more-----	-	-	-	-	-	-	-	-	-	-
Total or average-----	1	31	32	24	56	.22	6.71	6.93	5.20	12.13

TABLE 30. - Number of injuries and frequency rates per million tons at bituminous coal mines in the United States,
by general work location and employment size group, 1976 - Continued

General work location and employment size group	Number of injuries					Frequency rates per million tons				
	Fatal	Nonfatal disabling	All disabling	Nondisabling	All injuries	Fatal	Nonfatal disabling	All disabling	Nondisabling	All injuries
Other surface mining:										
1 to 4-----	-	-	-	-	-	-	-	-	-	-
5 to 9-----	-	-	-	-	-	-	-	-	-	-
10 to 19-----	-	-	-	-	-	-	-	-	-	-
20 to 34-----	-	-	-	-	-	-	-	-	-	-
35 to 49-----	-	-	-	-	-	-	-	-	-	-
50 to 99-----	-	-	-	-	-	-	-	-	-	-
100 to 149-----	-	-	-	-	-	-	-	-	-	-
150 to 249-----	-	-	-	-	-	-	-	-	-	-
250 or more-----	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	-	-	-	-	-	-	-	-	-
Total or average, surface-----	24	1,976	2,000	2,256	4,256	0.07	5.47	5.54	6.25	11.78
Total or average, mining-----	133	13,327	13,460	11,418	24,878	.21	20.77	20.98	17.79	38.77
Independent shops and yards:										
1 to 4-----	-	5	5	9	14	-	-	-	-	-
5 to 9-----	-	1	1	4	5	-	-	-	-	-
10 to 19-----	-	3	3	9	12	-	-	-	-	-
20 to 34-----	-	16	16	48	64	-	-	-	-	-
35 to 49-----	-	17	17	28	45	-	-	-	-	-
50 to 99-----	-	38	38	75	113	-	-	-	-	-
100 to 149-----	-	23	23	22	45	-	-	-	-	-
150 to 249-----	-	1	1	6	7	-	-	-	-	-
250 or more-----	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	104	104	201	305	-	-	-	-	-
Mechanical cleaning plants:										
1 to 4-----	-	30	30	29	59	-	-	-	-	-
5 to 9-----	1	46	47	47	94	-	-	-	-	-
10 to 19-----	-	99	99	79	178	-	-	-	-	-
20 to 34-----	3	150	153	152	305	-	-	-	-	-
35 to 49-----	2	108	110	157	267	-	-	-	-	-
50 to 99-----	-	154	154	164	318	-	-	-	-	-
100 to 149-----	1	30	31	26	57	-	-	-	-	-
150 to 249-----	-	48	48	60	108	-	-	-	-	-
250 or more-----	-	-	-	-	-	-	-	-	-	-
Total or average-----	7	665	672	714	1,386	-	-	-	-	-
Grand total or average-----	140	14,096	14,236	12,333	26,569	.22	21.97	22.19	19.22	41.40

TABLE 31. - Number of injuries and frequency rates per million tons at Pennsylvania anthracite mines in the United States,
by general work location and employment size group, 1976

General work location and employment size group	Number of injuries					Frequency rates per million tons				
	Fatal	Nonfatal disabling	All disabling	Nondisabling	All injuries	Fatal	Nonfatal disabling	All disabling	Nondisabling	All injuries
Underground mines (includes surface works):										
1 to 4-----	-	2	2	-	2	-	23.57	23.57	-	23.57
5 to 9-----	-	7	7	2	9	-	97.64	97.64	27.90	125.53
10 to 19-----	-	10	10	1	11	-	87.47	87.47	8.75	96.22
20 to 34-----	-	-	-	-	-	-	-	-	-	-
35 to 49-----	-	1	1	-	1	-	21.77	21.77	-	21.77
50 to 99-----	-	-	-	-	-	-	-	-	-	-
100 to 149-----	-	19	19	7	26	-	95.60	95.60	35.22	130.82
150 to 249-----	-	-	-	-	-	-	-	-	-	-
250 or more-----	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	39	39	10	49	-	75.65	75.65	19.40	95.04
Strip mines:										
1 to 4-----	-	2	2	11	13	-	11.88	11.88	65.32	77.20
5 to 9-----	-	5	5	6	11	-	45.24	45.24	54.29	99.52
10 to 19-----	-	23	23	42	65	-	34.43	34.43	62.88	97.31
20 to 34-----	-	19	19	34	53	-	53.71	53.71	96.11	149.82
35 to 49-----	-	9	9	23	32	-	35.24	35.24	90.05	125.29
50 to 99-----	-	39	39	52	91	-	64.77	64.77	86.35	151.12
100 to 149-----	-	7	7	17	24	-	23.34	23.34	56.68	80.02
150 to 249-----	-	22	22	17	39	-	75.40	75.40	58.27	133.67
250 or more-----	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	126	126	202	328	-	45.82	45.82	73.46	119.28
Culm banks:										
1 to 4-----	-	1	1	1	2	-	.67	.67	.67	1.34
5 to 9-----	-	-	-	6	6	-	-	-	13.30	13.30
10 to 19-----	-	4	4	6	10	-	29.39	29.39	44.09	73.48
20 to 34-----	-	1	1	-	1	-	24.36	24.36	-	24.36
35 to 49-----	-	-	-	-	-	-	-	-	-	-
50 to 99-----	-	-	-	-	-	-	-	-	-	-
100 to 149-----	-	-	-	-	-	-	-	-	-	-
150 to 249-----	-	-	-	-	-	-	-	-	-	-
250 or more-----	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	6	6	13	19	-	2.83	2.83	6.13	8.95

TABLE 31. - Number of injuries and frequency rates per million tons at Pennsylvania anthracite mines in the United States,
by general work location and employment size group, 1976 - Continued

General work location and employment size group	Number of injuries					Frequency rates per million tons				
	Fatal	Nonfatal-disabling	All-disabling	Nondisabling	All-injuries	Fatal	Nonfatal-disabling	All-disabling	Nondisabling	All-injuries
Dredges:										
1 to 4-----	-	-	-	-	-	-	-	-	-	-
5 to 9-----	-	-	-	-	-	-	-	-	-	-
10 to 19-----	-	-	-	-	-	-	-	-	-	-
20 to 34-----	-	-	-	-	-	-	-	-	-	-
35 to 49-----	-	-	-	-	-	-	-	-	-	-
50 to 99-----	-	-	-	-	-	-	-	-	-	-
100 to 149-----	-	-	-	-	-	-	-	-	-	-
150 to 249-----	-	-	-	-	-	-	-	-	-	-
250 or more-----	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	-	-	-	-	-	-	-	-	-
Total or average, surface-----	-	132	132	215	347	-	27.05	27.05	44.06	71.12
Total or average, mining-----	-	171	171	225	396	-	31.70	31.70	41.71	73.40
Independent shops and yards:										
1 to 4-----	-	-	-	-	-	-	-	-	-	-
5 to 9-----	-	-	-	-	-	-	-	-	-	-
10 to 19-----	-	8	8	29	37	-	-	-	-	-
20 to 34-----	-	2	2	4	6	-	-	-	-	-
35 to 49-----	-	-	-	-	-	-	-	-	-	-
50 to 99-----	-	-	-	-	-	-	-	-	-	-
100 to 149-----	-	-	-	-	-	-	-	-	-	-
150 to 249-----	-	-	-	-	-	-	-	-	-	-
250 or more-----	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	10	10	33	43	-	-	-	-	-
Mechanical cleaning plants:										
1 to 4-----	1	4	5	3	8	-	-	-	-	-
5 to 9-----	-	3	3	1	4	-	-	-	-	-
10 to 19-----	-	13	13	19	32	-	-	-	-	-
20 to 34-----	-	59	59	81	140	-	-	-	-	-
35 to 49-----	-	5	5	24	29	-	-	-	-	-
50 to 99-----	-	28	28	49	77	-	-	-	-	-
100 to 149-----	-	-	-	-	-	-	-	-	-	-
150 to 249-----	-	-	-	-	-	-	-	-	-	-
250 or more-----	-	-	-	-	-	-	-	-	-	-
Total or average-----	1	112	113	177	290	-	-	-	-	-
Grand total or average-----	1	293	294	435	729	0.19	54.31	54.50	80.63	135.13

TABLE 32. Injury experience, worktime, and production data at bituminous coal mines in the United States, by general work location and production size group, 1976

General work location and production size group	Number of injuries					Frequency rates										Average men working daily	Man-hours worked	Production, short tons	Tons per man-hour	Number of mines
						Per million man-hours					Per million tons									
	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries					
Underground mines (includes surface works):																				
Less than 25,000-----	18	1,308	1,326	1,322	2,648	0.56	40.72	41.28	41.15	82.43	2.62	190.59	193.21	192.63	385.84	24,265	32,124,540	6,862,873	0.21	839
25,000 to 49,999-----	1	427	428	303	731	.14	61.15	61.30	43.39	104.69	.11	45.49	45.59	32.28	77.87	4,618	6,982,468	9,387,223	1.34	257
50,000 to 99,999-----	30	936	966	597	1,563	2.02	62.99	65.01	40.18	105.19	1.59	49.65	51.24	31.67	82.91	8,813	14,859,073	18,851,969	1.27	264
100,000 to 149,999-----	7	633	640	412	1,052	.66	59.43	60.08	38.68	98.76	.51	46.25	46.76	30.10	76.86	5,791	10,651,890	13,687,254	1.28	111
150,000 to 249,999-----	9	1,772	1,781	934	2,715	.33	64.76	65.09	34.13	99.22	.31	60.88	61.19	32.09	93.28	14,496	27,363,982	29,107,210	1.06	151
250,000 to 499,999-----	17	2,206	2,223	1,390	3,613	.40	51.30	51.70	32.32	84.02	.37	47.45	47.81	29.90	77.71	23,636	43,001,959	46,491,791	1.08	130
500,000 to 749,999-----	11	1,219	1,230	1,217	2,447	.32	35.67	36.00	35.62	71.61	.27	29.45	29.72	29.40	59.12	18,149	34,170,640	41,388,312	1.21	66
750,000 to 999,999-----	6	1,112	1,118	1,440	2,558	.24	44.84	45.08	58.07	103.15	.19	35.54	35.73	46.02	81.75	12,947	24,798,433	31,290,658	1.26	37
1,000,000 or more-----	10	1,738	1,748	1,547	3,295	.21	36.89	37.10	32.84	69.94	.12	20.83	20.95	18.54	39.49	24,067	47,114,179	83,448,648	1.77	53
Total or average-----	109	11,351	11,460	9,162	20,622	.45	47.09	47.54	38.01	85.54	.39	40.46	40.85	32.66	73.51	136,782	241,067,164	280,515,938	1.16	1,908
Strip mines:																				
Less than 25,000-----	7	193	200	333	533	.69	19.07	19.76	32.91	52.67	.77	21.22	21.99	36.62	58.61	9,787	10,119,189	9,094,455	.90	1,040
25,000 to 49,999-----	1	122	123	68	191	.16	19.12	19.28	10.66	29.94	.07	8.96	9.03	4.99	14.03	3,958	6,379,642	13,614,438	2.13	376
50,000 to 99,999-----	1	150	151	131	282	.09	13.84	13.94	12.09	26.03	.04	5.91	5.95	5.16	11.10	5,793	10,835,617	25,396,206	2.34	360
100,000 to 149,999-----	2	166	168	132	300	.23	19.05	19.28	15.15	34.42	.09	7.30	7.39	5.81	13.20	4,344	8,715,072	22,731,985	2.61	186
150,000 to 249,999-----	4	230	234	195	429	.34	19.32	19.65	16.38	36.03	.13	7.31	7.44	6.20	13.63	5,692	11,905,514	31,463,839	2.64	166
250,000 to 499,999-----	3	269	272	240	512	.27	24.18	24.44	21.57	46.01	.09	8.13	8.22	7.25	15.47	5,422	11,127,058	33,097,280	2.97	97
500,000 to 749,999-----	1	186	187	230	417	.13	24.35	24.48	30.11	54.60	.04	8.11	8.16	10.03	18.19	3,407	7,638,054	22,927,388	3.00	38
750,000 to 999,999-----	1	79	80	130	210	.20	15.48	15.68	25.47	41.15	.06	4.46	4.51	7.33	11.85	2,214	5,103,106	17,723,395	3.47	20
1,000,000 or more-----	3	550	553	773	1,326	.10	18.72	18.82	26.31	45.13	.02	3.06	3.08	4.30	7.38	12,897	29,379,877	179,670,558	6.12	66
Total or average-----	23	1,945	1,968	2,232	4,200	.23	19.22	19.45	22.05	41.50	.06	5.47	5.53	6.27	11.81	53,514	101,203,129	355,719,544	3.51	2,349
Auger mines:																				
Less than 25,000-----	1	19	20	13	33	2.15	40.93	43.08	28.00	71.08	.67	12.80	13.47	8.76	22.23	825	464,259	1,484,723	3.20	194
25,000 to 49,999-----	-	1	1	3	4	-	4.38	4.38	13.14	17.52	-	.99	.99	2.98	3.97	139	228,264	1,006,896	4.41	29
50,000 to 99,999-----	-	9	9	7	16	-	34.24	34.24	26.63	60.86	-	8.11	8.11	6.30	14.41	132	262,886	1,110,286	4.22	17
100,000 to 149,999-----	-	2	2	1	3	-	10.42	10.42	5.21	15.63	-	1.97	1.97	.99	2.96	102	191,980	1,014,692	5.29	9
150,000 to 249,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
250,000 to 499,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
500,000 to 749,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
750,000 to 999,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,000,000 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total or average-----	1	31	32	24	56	.87	27.02	27.89	20.92	48.81	.22	6.71	6.93	5.20	12.13	1,198	1,147,389	4,616,597	4.02	249

TABLE 32. Injury experience, worktime, and production data at bituminous coal mines in the United States, by general work location and production size group, 1976 - Continued

General work location and production size group	Number of injuries					Frequency rates										Average men working daily	Man-hours worked	Production, short tons	Tons per man-hour	Number of mines
						Per million man-hours					Per million tons									
	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries					
Other surface mining:																				
Less than 25,000-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	8,054	40,007	4.97	4
25,000 to 49,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	12,479	73,555	5.89	2
50,000 to 99,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	42,278	79,691	1.88	1
100,000 to 149,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	36,400	148,798	4.09	1
150,000 to 249,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
250,000 to 499,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58	105,838	497,916	4.70	1
500,000 to 749,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
750,000 to 999,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,000,000 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	121	205,049	839,967	4.10	9
Total or average, surface-----	24	1,976	2,000	2,256	4,256	0.23	19.27	19.50	22.00	41.50	0.07	5.47	5.54	6.25	11.78	54,833	102,555,567	361,176,108	3.52	2,607
Total or average, mining-----	133	13,327	13,460	11,418	24,878	.39	38.78	39.17	33.23	72.40	.21	20.77	20.98	17.79	38.77	191,615	343,622,731	641,692,046	1.87	4,515
Independent shops and yards:	-	104	104	201	305	-	15.50	15.50	29.95	45.44	-	-	-	-	-	3,664	6,711,797	-	-	111
Mechanical cleaning plants:	7	665	672	714	1,386	.25	24.05	24.30	25.82	50.13	-	-	-	-	-	16,192	27,650,596	-	-	900
Grand total or average---	140	14,096	14,236	12,333	26,569	.37	37.29	37.66	32.63	70.29	.22	21.97	22.19	19.22	41.40	211,471	377,985,124	641,692,046	1.70	5,526

TABLE 33. - Injury experience, worktime, and production data at Pennsylvania anthracite mines in the United States, by general work location and production size group, 1976

General work location and production size group	Number of injuries					Frequency rates										Average men working daily	Man-hours worked	Production, short tons	Tons per man-hour	Number of mines
						Per million man-hours					Per million tons									
	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries					
Underground mines (includes surface works):																				
Less than 25,000-----	-	12	12	3	15	-	27.27	27.27	6.82	34.09	-	56.87	56.87	14.22	71.08	350	439,989	211,015	0.48	80
25,000 to 49,999-----	-	8	8	-	8	-	76.84	76.84	-	76.84	-	75.63	75.63	-	75.63	58	104,118	105,783	1.02	3
50,000 to 99,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100,000 to 149,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
150,000 to 249,999-----	-	19	19	7	26	-	72.13	72.13	26.57	98.70	-	95.60	95.60	35.22	130.82	126	263,424	198,752	.75	1
250,000 to 499,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
500,000 to 749,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
750,000 to 999,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,000,000 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	39	39	10	49	-	48.30	48.30	12.38	60.68	-	75.65	75.65	19.40	95.04	534	807,531	515,550	.64	84
Strip mines:																				
Less than 25,000-----	-	22	22	52	74	-	49.71	49.71	117.49	167.20	-	57.52	57.52	135.96	193.49	382	442,585	382,456	.86	64
25,000 to 49,999-----	-	28	28	45	73	-	56.04	56.04	90.06	146.10	-	54.59	54.59	87.73	142.32	259	499,662	512,944	1.03	19
50,000 to 99,999-----	-	2	2	-	2	-	15.59	15.59	-	15.59	-	9.55	9.55	-	9.55	53	128,255	209,436	1.63	3
100,000 to 149,999-----	-	18	18	32	50	-	51.36	51.36	91.30	142.66	-	31.98	31.98	56.84	88.82	188	350,477	562,937	1.61	5
150,000 to 249,999-----	-	15	15	15	30	-	165.76	165.76	165.76	331.52	-	64.58	64.58	64.58	129.16	50	90,493	232,272	2.57	1
250,000 to 499,999-----	-	41	41	58	99	-	67.23	67.23	95.11	162.34	-	48.24	48.24	68.25	116.49	349	609,820	849,869	1.39	3
500,000 to 749,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
750,000 to 999,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,000,000 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	126	126	202	328	-	59.40	59.40	95.22	154.62	-	45.82	45.82	73.46	119.28	1,281	2,121,292	2,749,914	1.30	95
Culm banks:																				
Less than 25,000-----	-	1	1	1	2	-	13.14	13.14	13.14	26.27	-	3.20	3.20	3.20	6.40	122	76,131	312,463	4.10	40
25,000 to 49,999-----	-	5	5	6	11	-	30.08	30.08	36.10	66.18	-	12.92	12.92	15.50	28.42	103	166,219	387,000	2.33	11
50,000 to 99,999-----	-	-	-	3	3	-	-	-	116.78	116.78	-	-	-	7.36	7.36	13	25,689	407,709	15.87	6
100,000 to 149,999-----	-	-	-	3	3	-	-	-	260.67	260.67	-	-	-	12.15	12.15	7	11,509	246,830	21.45	2
150,000 to 249,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	20,729	517,028	24.94	3
250,000 to 499,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3,360	250,876	74.67	1
500,000 to 749,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
750,000 to 999,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,000,000 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	6	6	13	19	-	19.76	19.76	42.81	62.57	-	2.83	2.83	6.13	8.95	259	303,637	2,121,906	6.99	63

TABLE 33. - Injury experience, worktime, and production data at Pennsylvania anthracite mines in the United States, by general work location and production size group, 1976 - Continued

General work location and production size group	Number of injuries					Frequency rates										Average men working daily	Man-hours worked	Production short tons	Tons per man-hour	Number of mines
						Per million man-hours					Per million tons									
	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries	Fatal	Non-fatal disabling	All disabling	Non-disabling	All injuries					
Dredges:																				
Less than 25,000-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	12,085	7,500	0.62	2
25,000 to 49,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50,000 to 99,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100,000 to 149,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
150,000 to 249,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
250,000 to 499,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
500,000 to 749,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
750,000 to 999,999-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,000,000 or more-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total or average-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	12,085	7,500	.62	2
Total or average, surface-----	-	132	132	215	347	-	54.16	54.16	88.22	142.39	-	27.05	27.05	44.06	71.12	1,546	2,437,014	4,879,320	2.00	160
Total or average, mining-----	-	171	171	225	396	-	52.70	52.70	69.35	122.05	-	31.70	31.70	41.71	73.40	2,080	3,244,545	5,394,870	1.66	244
Independent shops and yards:	-	10	10	33	43	-	64.90	64.90	214.17	279.07	-	-	-	-	-	78	154,081	-	-	5
Mechanical cleaning plants:	1	112	113	177	290	0.56	63.13	63.69	99.77	163.46	-	-	-	-	-	1,003	1,774,090	-	-	76
Grand total or average----	1	293	294	435	729	.19	56.64	56.84	84.10	140.93	0.19	54.31	54.50	80.63	135.13	3,161	5,172,716	5,394,870	1.04	325

TABLE 34. - Relative standing of States according to fatal, nonfatal, all disabling, and nondisabling injury frequency rates per million man-hours of exposure, 1976

State	Fatality rate	State	Nonfatal disabling injury rate	State	All disabling injury rate	State	Non-disabling injury rate
Alaska-----	-	Georgia-----	-	Georgia-----	-	Georgia-----	-
Arkansas-----	-	Texas-----	6.76	Texas-----	7.38	Washington-----	-
Georgia-----	-	Maryland-----	9.90	Maryland-----	9.90	New Mexico-----	2.61
Iowa-----	-	Missouri-----	12.25	Missouri-----	12.25	Maryland-----	2.70
Kansas-----	-	Indiana-----	13.72	Indiana-----	13.84	Iowa-----	3.84
Maryland-----	-	New Mexico-----	15.15	New Mexico-----	15.15	Montana-----	9.62
Missouri-----	-	Iowa-----	15.36	Iowa-----	15.36	Arkansas-----	11.01
Montana-----	-	Montana-----	16.04	Montana-----	16.04	Tennessee-----	11.19
New Mexico-----	-	Wyoming-----	18.11	Wyoming-----	18.46	Alaska-----	12.10
Oklahoma-----	-	Arkansas-----	22.01	Arkansas-----	22.01	Ohio-----	14.48
Washington-----	-	Oklahoma-----	23.17	Oklahoma-----	23.17	Oklahoma-----	15.82
Illinois-----	0.10	Alabama-----	23.33	Alabama-----	23.64	Illinois-----	19.21
Indiana-----	.12	Kansas-----	24.25	Kansas-----	24.25	Kansas-----	19.84
Pennsylvania (anthracite)--	.19	Ohio-----	24.41	Ohio-----	24.65	North Dakota-----	20.39
Ohio-----	.24	Tennessee-----	26.39	Tennessee-----	27.23	Indiana-----	20.81
Pennsylvania (bituminous)--	.29	North Dakota-----	28.78	North Dakota-----	29.98	Alabama-----	21.50
Alabama-----	.31	Kentucky-----	33.09	Illinois-----	33.41	Virginia-----	23.17
West Virginia-----	.32	Illinois-----	33.31	Kentucky-----	33.75	Texas-----	25.82
Wyoming-----	.35	Virginia-----	34.75	Virginia-----	35.33	Missouri-----	28.58
U. S. Average (bituminous)-	.37	U. S. Average (bituminous)-	37.29	U. S. Average (bituminous)-	37.66	Kentucky-----	31.95
U. S. Average (all coal)---	.37	U. S. Average (all coal)---	37.55	U. S. Average (all coal)---	37.92	Arizona-----	32.96
Utah-----	.39	Pennsylvania (bituminous)--	39.42	Pennsylvania (bituminous)--	39.71	U. S. Average (bituminous)-	32.63
Virginia-----	.58	Arizona-----	39.70	Arizona-----	40.45	U. S. Average (all coal)---	33.32
Texas-----	.61	Utah-----	41.98	Utah-----	42.36	Utah-----	33.85
Kentucky-----	.66	Alaska-----	48.39	Alaska-----	48.39	Wyoming-----	36.22
Colorado-----	.73	West Virginia-----	51.06	West Virginia-----	51.38	Pennsylvania (bituminous)--	41.31
Arizona-----	.75	Colorado-----	54.05	Colorado-----	54.78	West Virginia-----	44.27
Tennessee-----	.84	Washington-----	56.00	Washington-----	56.00	Colorado-----	47.44
North Dakota-----	1.20	Pennsylvania (anthracite)--	56.64	Pennsylvania (anthracite)--	56.84	Pennsylvania (anthracite)--	84.10

TABLE 35. - Worktime and production data at coal mines in the United States, by general work location and State, 1976

General work location and State	Number of operations								Average men working daily									
	Under-ground	Strip	Other surface mining ^{1/}	Total surface	Total mining	Independent shops and yards	Mechanical cleaning plants	Grand total	Underground mines			Strip mines	Other surface mining ^{1/}	Total surface	Total mining	Independent shops and yards	Mechanical cleaning plants	Grand total
									Under-ground	Surface	Total							
Alabama-----	18	154	-	154	172	-	26	198	4,517	760	5,277	3,838	-	3,838	9,115	-	543	9,658
Alaska-----	-	1	-	1	1	-	1	2	-	-	-	64	-	64	64	-	5	69
Arizona-----	-	2	-	2	2	-	1	3	-	-	-	632	-	632	632	-	32	664
Arkansas-----	1	15	-	15	16	-	2	18	25	4	29	237	-	237	266	-	13	279
Colorado-----	25	14	-	14	39	-	12	51	1,280	553	1,833	573	-	573	2,406	-	74	2,480
Georgia-----	-	4	-	4	4	-	1	5	-	-	-	98	-	98	98	-	2	100
Illinois-----	24	41	4	45	69	13	35	117	8,711	1,364	10,075	3,605	18	3,623	13,698	383	1,250	15,331
Indiana-----	2	45	-	45	47	2	14	63	114	11	125	3,234	-	3,234	3,359	232	238	3,829
Iowa-----	2	10	-	10	12	-	3	15	41	12	53	69	-	69	122	-	8	130
Kansas-----	-	6	-	6	6	-	2	8	-	-	-	172	-	172	172	-	40	212
Kentucky-----	463	466	92	558	1,021	9	224	1,254	19,258	2,210	21,468	10,670	549	11,219	32,687	234	3,103	36,024
Maryland-----	2	39	4	43	45	-	3	48	52	-	52	477	18	495	547	-	11	558
Missouri-----	-	13	-	13	13	1	4	18	-	-	-	855	-	855	855	56	40	951
Montana-----	-	7	1	8	8	-	-	8	-	-	-	751	15	766	766	-	-	766
New Mexico-----	3	5	1	6	9	-	3	12	291	82	373	585	41	626	999	-	62	1,061
North Dakota---	-	9	-	9	9	-	1	10	-	-	-	418	-	418	418	-	3	421
Ohio-----	31	257	24	281	312	11	52	375	8,288	652	8,940	4,983	91	5,074	14,014	470	1,011	15,495
Oklahoma-----	1	39	-	39	40	-	15	55	13	2	15	977	-	977	992	-	34	1,026
Pennsylvania																		
(bituminous)--	142	610	44	654	796	9	128	933	20,139	2,486	22,625	7,464	229	7,693	30,318	315	2,766	33,399
Tennessee-----	59	75	4	79	138	-	26	164	1,537	119	1,656	1,125	13	1,138	2,794	-	125	2,919
Texas-----	-	7	-	7	7	-	-	7	-	-	-	769	-	769	769	-	-	769
Utah-----	27	-	-	-	27	-	13	40	2,156	436	2,592	-	-	-	2,592	-	141	2,733
Virginia-----	350	206	31	237	587	26	64	677	11,687	782	12,469	2,501	133	2,634	15,103	480	1,001	16,584
Washington-----	-	3	-	3	3	-	2	5	-	-	-	408	-	408	408	-	34	442
West Virginia---	754	300	53	353	1,107	40	264	1,411	43,981	4,663	48,644	6,159	212	6,371	55,015	1,494	5,585	62,094
Wyoming-----	4	21	-	21	25	-	4	29	363	193	556	2,850	-	2,850	3,406	-	71	3,477
Total or average, bituminous--	1,908	2,349	258	2,607	4,515	111	900	5,526	122,453	14,329	136,782	53,514	1,319	54,833	191,615	3,664	16,192	211,471
Pennsylvania (anthracite)--	84	95	65	160	244	5	76	325	459	75	534	1,281	265	1,546	2,080	78	1,003	3,161
Grand total or average--	1,992	2,444	323	2,767	4,759	116	976	5,851	122,912	14,404	137,316	54,795	1,584	56,379	193,695	3,742	17,195	214,632

See footnote at end of table.

TABLE 35. - Worktime and production data at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Man-hours of work									
	Underground mines			Strip mines	Other surface mining ^{1/}	Total surface	Total mining	Independent shops and yards	Mechanical cleaning plants	Grand total
	Underground	Surface	Total							
Alabama-----	7,724,369	1,356,636	9,081,005	5,993,651	-	5,993,651	15,074,656	-	828,663	15,903,319
Alaska-----	-	-	-	150,202	-	150,202	150,202	-	15,132	165,334
Arizona-----	-	-	-	1,273,417	-	1,273,417	1,273,417	-	61,493	1,334,910
Arkansas-----	51,595	866	52,461	467,609	-	467,609	520,070	-	23,017	545,087
Colorado-----	2,439,471	513,327	2,952,798	1,037,324	-	1,037,324	3,990,122	-	98,839	4,088,961
Georgia-----	-	-	-	237,353	-	237,353	237,353	-	451	237,804
Illinois-----	16,948,957	2,748,490	19,697,447	7,781,359	14,301	7,795,660	27,493,107	780,815	2,229,651	30,503,573
Indiana-----	210,200	24,943	235,143	7,363,251	-	7,363,251	7,598,394	474,902	526,825	8,600,121
Iowa-----	95,613	29,098	124,711	126,654	-	126,654	251,365	-	9,040	260,405
Kansas-----	-	-	-	360,684	-	360,684	360,684	-	93,008	453,692
Kentucky-----	33,916,906	3,934,817	37,851,723	19,363,260	566,203	19,929,463	57,781,186	422,446	4,988,134	63,191,766
Maryland-----	102,186	-	102,186	958,856	32,639	991,495	1,093,681	-	17,090	1,110,771
Missouri-----	-	-	-	1,989,888	-	1,989,888	1,989,888	119,806	94,953	2,204,647
Montana-----	-	-	-	1,553,676	4,930	1,558,606	1,558,606	-	-	1,558,606
New Mexico-----	430,782	134,793	565,575	1,218,416	9,095	1,227,511	1,793,086	-	120,783	1,913,869
North Dakota-----	-	-	-	826,631	-	826,631	826,631	-	7,235	833,866
Ohio-----	14,770,336	1,030,089	15,800,425	10,134,769	86,856	10,221,625	26,022,050	897,250	1,676,505	28,595,805
Oklahoma-----	11,996	3,751	15,747	1,703,725	-	1,703,725	1,719,472	-	50,174	1,769,646
Pennsylvania (bituminous)-----	38,765,134	4,658,389	43,423,523	15,744,415	256,770	16,001,185	59,424,708	583,997	5,209,879	65,218,584
Tennessee-----	2,621,471	179,181	2,800,652	1,686,913	12,762	1,699,675	4,300,327	-	236,825	4,737,152
Texas-----	-	-	-	1,626,864	-	1,626,864	1,626,864	-	-	1,626,864
Utah-----	4,089,434	822,302	4,911,736	-	-	-	4,911,736	-	257,713	5,169,449
Virginia-----	19,276,842	1,252,825	20,529,667	4,020,087	119,534	4,139,621	24,669,288	937,722	1,845,434	27,452,444
Washington-----	-	-	-	846,640	-	846,640	846,640	-	64,138	910,778
West Virginia-----	75,195,459	6,954,690	82,150,149	9,857,480	249,348	10,106,838	92,256,987	2,494,859	9,103,085	103,854,931
Wyoming-----	600,946	171,270	772,216	4,879,995	-	4,879,995	5,652,211	-	90,529	5,742,740
Total or average, bituminous-----	217,251,697	23,815,467	241,067,164	101,203,129	1,352,438	102,555,567	343,622,731	6,711,797	27,650,596	377,985,124
Pennsylvania (anthracite)-----	689,461	118,070	807,531	2,121,292	315,722	2,437,014	3,244,565	154,081	1,774,090	5,172,716
Grand total or average-----	217,941,158	23,933,537	241,874,695	103,324,421	1,668,160	104,992,581	346,867,276	6,865,878	29,424,686	383,157,840

See footnote at end of table.

TABLE 35. - Worktime and production data at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Production short tons					Tons per man-hour				
	Underground mines	Strip mines	Other surface mining ^{1/}	Total surface	Grand total	Underground mines	Strip mines	Other surface mining ^{1/}	Total surface	Grand total
Alabama-----	7,366,486	13,417,753	-	13,417,753	20,784,239	0.81	2.24	-	2.24	1.31
Alaska-----	-	642,306	-	642,306	642,306	-	4.28	-	4.28	3.88
Arizona-----	-	10,282,663	-	10,282,663	10,282,663	-	8.07	-	8.07	7.70
Arkansas-----	24,174	530,926	-	530,926	555,100	.46	1.14	-	1.14	1.02
Colorado-----	3,320,937	6,078,139	-	6,078,139	9,399,076	1.12	5.86	-	5.86	2.30
Georgia-----	-	193,876	-	193,876	193,876	-	.82	-	.82	1.82
Illinois-----	30,866,758	26,817,163	76,410	26,893,573	57,760,331	1.57	3.45	5.34	3.45	1.89
Indiana-----	431,658	24,897,983	-	24,897,983	25,329,641	1.84	3.38	-	3.38	2.95
Iowa-----	308,939	296,395	-	296,395	605,334	2.48	2.34	-	2.34	2.32
Kansas-----	-	869,923	-	869,923	869,923	-	2.41	-	2.41	1.92
Kentucky-----	56,530,015	60,622,198	2,407,944	63,030,142	119,560,157	1.49	3.13	4.25	3.16	1.89
Maryland-----	171,143	2,141,234	73,545	2,214,779	2,385,922	1.67	2.23	2.25	2.23	2.15
Missouri-----	-	5,837,838	-	5,837,838	5,837,838	-	2.93	-	2.93	2.65
Montana-----	-	25,222,156	-	25,222,156	25,222,156	-	16.23	-	16.18	16.18
New Mexico-----	835,865	8,956,252	-	8,956,252	9,792,117	1.48	7.35	-	7.30	5.12
North Dakota-----	-	11,045,549	-	11,045,549	11,045,549	-	13.36	-	13.36	13.25
Ohio-----	16,605,678	30,201,979	529,207	30,731,186	47,336,864	1.05	2.98	6.09	3.01	1.66
Oklahoma-----	-	3,672,859	-	3,672,859	3,672,859	-	2.16	-	2.16	2.08
Pennsylvania (bituminous)-----	44,052,078	40,872,342	1,024,297	41,896,639	85,948,717	1.01	2.60	3.99	2.62	1.32
Tennessee-----	3,555,350	3,475,506	53,743	3,529,249	7,084,599	1.27	2.06	4.21	2.08	1.50
Texas-----	-	14,215,292	-	14,215,292	14,215,292	-	8.74	-	8.74	8.74
Utah-----	7,963,349	-	-	-	7,963,349	1.62	-	-	-	1.54
Virginia-----	21,294,323	10,808,676	465,437	11,274,113	32,568,436	1.04	2.69	3.89	2.72	1.19
Washington-----	-	4,102,264	-	4,102,264	4,102,264	-	4.85	-	4.85	4.50
West Virginia-----	86,695,211	20,726,765	825,981	21,552,746	108,247,957	1.06	2.10	3.31	2.13	1.04
Wyoming-----	493,974	29,791,507	-	29,791,507	30,285,481	.64	6.10	-	6.10	5.27
Total or average, bituminous-----	280,515,938	355,719,544	5,456,564	361,176,108	641,692,046	1.16	3.51	4.03	3.52	1.70
Pennsylvania (anthracite)-----	515,550	2,749,914	2,129,406	4,879,320	5,394,870	.64	1.30	6.74	2.00	1.04
Grand total or average-----	281,031,488	358,469,458	7,585,970	366,055,428	647,086,916	1.16	3.47	4.55	3.49	1.69

^{1/} Includes bituminous coal auger mines and anthracite culm banks and dredges.

TABLE 36. - Number of fatal injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976

State	Underground											Strip mines							Other surface mining 1/		Mechanical cleaning plants						Grand total					
	Underground										Total, underground mines	Strip mines							Total, other surface	Total, surface mines	Mechanical cleaning plants											
	Falls of roof or back	Falls of face or rib	Slips or falls of persons	Haulage	Explosions of gas or dust	Electricity	Machinery	Miscellaneous causes	Total, underground	Falls of face or rib		Slips or falls of persons	Haulage	Total, surface	Falls of face or side	Sliding or falling material or objects	Slips or falls of persons	Haulage			Electricity	Machinery	Miscellaneous causes	Total, strip mines	Machinery	Total, other surface		Total, mining	Slips or falls of persons	Haulage	Electricity	Machinery
Alabama-----		1					1	3					3								2			2	5							5
Alaska-----																																1
Arizona-----																																1
Arkansas-----																																3
Colorado-----	1	1		1				3					3								1				3						3	
Georgia-----																																3
Illinois-----		1																														1
Indiana-----																																1
Iowa-----																																1
Kansas-----																																1
Kentucky-----	6		1	2	23		1	33		1		1	34	1			5				6		6	40		1			1	2	42	
Maryland-----																																1
Missouri-----																																1
Montana-----																																1
New Mexico-----																																1
North Dakota-----																																1
Ohio-----	2						2	4			1	1	5								1										7	
Oklahoma-----																																1
Pennsylvania (bituminous)-----	6		1	5			4	16					16			1					1		1	17	1	1			2	19		
Tennessee-----	2			2				4					4																		4	
Texas-----																																1
Utah-----	1							2					2																		2	
Virginia-----	9		1	1			2	13					13	1				2					3	16							16	
Washington-----																																1
West Virginia-----	6	1		7			7	22	1	1	1	3	25			2		2			4	1	1	5	30	1		1	3	33		
Wyoming-----	1							1					1			1					1		1	2							2	
Total bituminous-----	34	4	3	19	23	3	17	104	1	2	2	5	109	2	1	1	10	2	6	1	23	1	1	24	133	2	2	1	2	7	140	
Pennsylvania (anthracite)-----																																1
All coal-----	34	4	3	19	23	3	17	104	1	2	2	5	109	2	1	1	10	2	6	1	23	1	1	24	133	2	2	1	2	8	141	

1/ Includes bituminous coal auger mines and anthracite culm banks and dredges.

TABLE 37. - Number of nonfatal disabling injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976

State	Underground																	
	Falls of roof or back	Falls of face or rib	Pressure bumps or bursts	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Stepping or kneeling on sharp or loose objects	Striking or bumping against objects	Haulage	Explosions of gas or dust	Explosives	Electricity	Machinery	Suffocation (no flame or smoldering)	Fires or suffocation from fires	Miscellaneous causes	Total, underground
Alabama-----	19	12	-	6	25	44	12	1	3	42	-	2	4	26	-	-	6	202
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arizona-----	-	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	3	-
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colorado-----	19	12	-	3	35	38	14	6	2	16	-	-	1	25	1	-	3	175
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	79	35	-	14	68	182	43	14	8	131	-	7	21	109	-	-	16	728
Indiana-----	-	-	-	-	2	1	1	-	-	-	-	1	-	5	-	1	1	11
Iowa-----	1	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	3
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	153	33	4	38	100	371	93	23	21	242	2	17	32	263	-	-	39	1,431
Maryland-----	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	3	4	-	1	1	2	-	-	-	1	-	-	-	-	-	4	-	16
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	46	12	-	10	67	117	19	18	11	121	-	2	18	65	-	3	8	517
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)-----	170	48	-	79	243	677	133	50	48	317	-	1	29	258	-	3	30	2,086
Tennessee-----	13	3	-	1	5	24	7	1	2	18	-	1	1	16	-	-	-	92
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah-----	13	22	2	3	29	39	11	5	3	35	1	1	4	28	-	3	3	199
Virginia-----	80	22	4	28	53	209	48	21	6	136	1	1	15	128	-	-	24	777
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia-----	366	114	1	139	347	1,298	333	146	70	726	-	6	112	603	-	6	99	4,366
Wyoming-----	-	1	-	-	3	3	1	-	-	-	-	-	-	6	-	-	-	14
Total or average, bituminous-----	962	320	11	323	978	3,005	716	285	176	1,785	3	39	238	1,537	1	13	229	10,621
Pennsylvania (anthracite)-----	2	1	-	2	6	16	3	-	-	3	-	-	-	2	-	-	2	37
All coal-----	964	321	11	325	984	3,021	719	285	176	1,788	3	39	238	1,539	1	13	231	10,658

TABLE 37. - Number of nonfatal disabling injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976 - Continued

State	Surface at underground												Total, surface at underground	Total, underground mines
	Falls of face or rib	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Stepping or kneeling on sharp or loose objects	Striking or bumping against objects	Haulage	Electricity	Machinery	Fires or suffocation from fires	Miscellaneous causes		
Alabama-----	-	-	-	7	-	1	-	3	-	-	-	1	12	214
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Colorado-----	-	1	-	-	2	-	-	-	-	1	-	-	4	179
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	1	3	20	22	4	2	1	6	1	7	-	4	71	799
Indiana-----	-	-	1	-	-	-	-	1	-	-	-	-	2	13
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	-	2	30	42	5	1	-	9	5	4	-	7	105	1,536
Maryland-----	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	-	1	-	-	-	-	-	-	-	-	1	17
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	-	-	11	7	1	1	1	1	-	5	-	-	27	544
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)-----	-	3	36	33	4	3	1	18	5	5	1	9	118	2,204
Tennessee-----	-	-	2	1	-	-	-	-	-	1	-	-	4	96
Texas-----	-	-	5	5	-	-	-	-	-	-	-	-	-	-
Utah-----	-	2	-	10	1	2	1	1	-	-	-	-	13	212
Virginia-----	-	11	-	3	3	-	-	11	-	1	-	2	42	819
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia-----	1	15	57	124	18	15	4	44	5	27	-	16	326	4,692
Wyoming-----	-	1	2	-	-	1	-	1	-	-	-	-	5	19
Total bituminous-----	2	27	175	252	38	26	8	95	16	51	1	39	730	11,351
Pennsylvania (anthra- cite)-----	-	-	1	1	-	-	-	-	-	-	-	-	2	39
All coal-----	2	27	176	253	38	26	8	95	16	51	1	39	732	11,390

TABLE 37. - Number of nonfatal disabling injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976 - Continued

State	Strip													Total, strip
	Falls of face or side	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Stepping or kneeling on sharp or loose objects	Striking or bumping against objects	Haulage	Explosives	Electricity	Machinery	Fires or suffocation from fires	Miscellaneous causes	
Alabama-----	1	7	36	30	14	6	1	7	1	-	29	1	8	141
Alaska-----	-	-	1	2	2	-	-	-	-	-	1	-	1	7
Arizona-----	-	1	9	16	3	-	-	10	-	-	11	-	3	53
Arkansas-----	-	-	1	5	-	-	-	1	-	-	2	-	-	9
Colorado-----	-	2	9	10	1	-	-	3	-	2	4	1	4	36
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	4	40	50	25	6	3	14	1	-	13	-	13	169
Indiana-----	-	3	29	18	6	5	1	7	1	-	15	2	6	93
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kansas-----	-	-	2	5	1	-	1	1	-	-	-	-	1	11
Kentucky-----	1	5	96	107	30	10	5	60	5	3	61	1	33	417
Maryland-----	-	-	2	2	-	-	-	1	-	-	2	-	1	8
Missouri-----	-	1	5	5	3	1	-	3	-	-	2	-	7	27
Montana-----	-	-	7	7	-	1	-	1	1	-	5	1	2	25
New Mexico-----	-	1	1	5	1	1	-	1	-	-	1	-	1	11
North Dakota-----	-	-	8	9	1	1	-	1	-	-	3	-	1	24
Ohio-----	-	6	38	27	7	3	-	11	-	1	19	1	12	128
Oklahoma-----	1	-	9	11	3	-	-	4	-	-	11	-	2	41
Pennsylvania (bituminous)-----	2	13	80	47	19	6	-	21	4	2	23	4	22	243
Tennessee-----	2	1	6	4	-	1	-	5	-	-	7	-	1	27
Texas-----	1	-	1	3	1	-	-	1	-	-	2	-	2	11
Utah-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Virginia-----	5	5	19	17	5	1	1	11	1	-	-	-	9	85
Washington-----	-	2	9	14	4	1	1	5	-	1	11	-	3	51
West Virginia-----	4	10	56	52	18	12	-	35	1	1	29	1	24	243
Wyoming-----	1	1	30	16	3	3	-	8	-	4	13	-	6	85
Total bituminous-----	18	62	494	462	147	58	16	210	15	14	275	12	162	1,945
Pennsylvania (anthra- cite)-----	-	8	29	40	8	2	2	11	-	-	10	1	15	126
All coal-----	18	70	523	502	155	60	18	221	15	14	285	13	177	2,071

TABLE 37. - Number of nonfatal disabling injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976 - Continued

State	Other surface mining ^{1/}									Total, surface	Total, mining	
	Falls of face or rib	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Stepping or kneeling on sharp or loose objects	Haulage	Machinery	Miscellaneous causes			Total, other surface mining
Alabama-----	-	-	-	-	-	-	-	-	-	-	141	355
Alaska-----	-	-	-	-	-	-	-	-	-	-	7	7
Arizona-----	-	-	-	-	-	-	-	-	-	-	53	53
Arkansas-----	-	-	-	-	-	-	-	-	-	-	9	12
Colorado-----	-	-	-	-	-	-	-	-	-	-	36	215
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	-	-	-	-	-	-	-	-	-	169	968
Indiana-----	-	-	-	-	-	-	-	-	-	-	93	106
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	3
Kansas-----	-	-	-	-	-	-	-	-	-	-	11	11
Kentucky-----	1	-	1	3	2	-	-	3	-	10	427	1,963
Maryland-----	1	-	-	-	-	-	-	-	-	1	9	10
Missouri-----	-	-	-	-	-	-	-	-	-	-	27	27
Montana-----	-	-	-	-	-	-	-	-	-	-	25	25
New Mexico-----	-	-	-	-	-	-	-	-	-	-	11	28
North Dakota-----	-	-	-	-	-	-	-	-	-	-	24	24
Ohio-----	-	-	1	1	-	-	-	-	-	2	130	674
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	41	41
Pennsylvania (bituminous)-----	-	-	-	-	-	-	-	-	-	-	243	2,447
Tennessee-----	-	-	-	-	-	-	-	-	-	-	27	123
Texas-----	-	-	-	-	-	-	-	-	-	-	11	11
Utah-----	-	-	-	-	-	-	-	-	-	-	-	212
Virginia-----	1	-	1	2	-	-	-	1	-	5	90	909
Washington-----	-	-	-	-	-	-	-	-	-	-	51	51
West Virginia-----	1	1	4	1	1	1	1	1	2	13	256	4,948
Wyoming-----	-	-	-	-	-	-	-	-	-	-	85	104
Total bituminous-----	4	1	7	7	3	1	1	5	2	31	1,976	13,327
Pennsylvania (anthra- cite)-----	-	1	1	1	-	-	1	2	-	6	132	171
All coal-----	4	2	8	8	3	1	2	7	2	37	2,108	13,498

See footnote at end of table.

TABLE 37. - Number of nonfatal disabling injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976 - Continued

State	Independent shops and yards										
	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Stepping or kneeling on sharp or loose objects	Striking or bumping against objects	Haulage	Electricity	Machinery	Miscellaneous causes	Total, independent shops and yards
Alabama-----	-	-	-	-	-	-	-	-	-	-	-
Alaska-----	-	-	-	-	-	-	-	-	-	-	-
Arizona-----	-	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-
Colorado-----	-	-	-	-	-	-	-	-	-	-	-
Georgia-----	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	1	1	2	-	-	-	2	-	1	2	9
Indiana-----	1	1	2	-	-	1	1	1	2	2	11
Iowa-----	-	-	-	-	-	-	-	-	-	-	-
Kansas-----	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	-	-	3	-	-	-	-	-	-	-	3
Maryland-----	-	-	-	-	-	-	-	-	-	-	-
Missouri-----	-	-	-	-	-	-	-	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	-	-	-	-	-	-	-	-	-
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	-	1	2	-	-	-	-	-	-	-	3
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)-----	-	1	3	2	-	-	-	-	-	-	6
Tennessee-----	-	-	-	-	-	-	-	-	-	-	-
Texas-----	-	-	-	-	-	-	-	-	-	-	-
Utah-----	-	-	-	-	-	-	-	-	-	-	-
Virginia-----	-	3	3	-	-	-	1	-	1	-	8
Washington-----	4	-	-	-	-	-	-	-	-	-	4
West Virginia-----	4	9	14	8	1	1	13	-	7	7	64
Wyoming-----	-	-	-	-	-	-	-	-	-	-	-
Total bituminous-----	6	16	29	10	1	2	17	1	11	11	104
Pennsylvania (anthra- cite)-----	-	4	4	-	-	-	1	-	-	1	10
All coal-----	6	20	33	10	1	2	18	1	11	12	114

TABLE 37. - Number of nonfatal disabling injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976 - Continued

State	Mechanical cleaning plants											Grand total	
	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Stepping or kneeling on sharp or loose objects	Striking or bumping against objects	Haulage	Electricity	Machinery	Fires or suffocation from fires	Miscellaneous causes		Total, mechanical cleaning plants
Alabama-----	-	7	3	1	1	-	-	-	1	-	3	16	371
Alaska-----	-	-	-	1	-	-	-	-	-	-	-	1	8
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	53
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	12
Colorado-----	-	1	4	-	-	-	-	-	-	-	1	6	221
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	1	12	13	3	-	1	-	-	2	-	7	39	1,016
Indiana-----	-	1	-	-	-	-	-	-	-	-	-	1	118
Iowa-----	-	-	-	-	-	-	1	-	-	-	-	1	4
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	11
Kentucky-----	3	26	29	10	1	2	19	2	21	2	10	125	2,091
Maryland-----	-	-	1	-	-	-	-	-	-	-	-	1	11
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	27
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	25
New Mexico-----	-	-	1	-	-	-	-	-	-	-	-	1	29
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	24
Ohio-----	-	10	3	-	1	2	2	-	1	-	2	21	698
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	41
Pennsylvania (bituminous)-----	3	33	38	10	3	3	9	1	8	-	10	118	2,571
Tennessee-----	-	1	-	-	-	-	-	-	1	-	-	2	125
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	11
Utah-----	-	2	2	-	-	-	-	-	1	-	-	5	217
Virginia-----	-	8	10	3	1	-	5	-	7	1	2	37	954
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	51
West Virginia-----	11	72	77	23	10	3	46	4	26	1	18	291	5,303
Wyoming-----	-	-	-	-	-	-	-	-	-	-	-	-	104
Total bituminous-----	18	173	181	51	17	11	82	7	68	4	53	665	14,096
Pennsylvania (anthracite)-----	2	32	42	11	1	-	11	1	3	-	9	112	293
All coal-----	20	205	223	62	18	11	93	8	71	4	62	777	14,389

1/ Includes bituminous coal auger mines and anthracite culm banks and dredges.

TABLE 38. - Number of nondisabling injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976

State	Underground																	
	Falls of roof or back	Falls of face or rib	Pressure bumps or bursts	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Stepping or kneeling on sharp or loose objects	Striking or bumping against objects	Haulage	Explosions of gas or dust	Explosives	Electricity	Machinery	Suffocation (no flame or smoldering)	Fires or suffocation from fires	Miscellaneous causes	Total, underground
Alabama-----	15	3	-	12	13	49	20	1	5	23	-	2	3	28	-	1	3	178
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colorado-----	5	1	-	5	3	25	11	5	3	3	-	-	-	17	-	4	82	
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	24	6	-	11	11	52	33	4	3	20	-	1	17	22	-	7	211	
Indiana-----	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	5
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	102	19	3	26	88	285	180	32	43	165	-	8	28	162	-	3	52	1,196
Maryland-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	20	1	-	4	11	43	42	-	11	18	-	2	5	23	-	-	3	183
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)-----	148	37	-	57	223	641	259	100	48	322	-	-	59	217	-	5	70	2,186
Tennessee-----	3	1	-	1	1	7	3	-	1	1	-	-	-	2	-	-	1	20
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah-----	7	12	1	8	12	43	18	9	3	20	1	-	6	13	-	-	4	157
Virginia-----	55	9	2	20	25	154	67	13	12	55	-	1	12	70	1	3	15	514
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia-----	265	65	4	121	261	993	501	88	77	515	-	5	132	451	-	28	125	3,631
Wyoming-----	1	-	-	-	2	6	-	-	-	2	-	-	1	-	-	-	-	12
Total bituminous-----	646	154	10	264	650	2,298	1,135	252	207	1,146	1	19	264	1,005	1	40	284	8,376
Pennsylvania (anthracite)-----	-	1	-	3	-	4	-	-	1	-	-	-	-	-	-	-	-	9
All coal-----	646	155	10	267	650	2,302	1,135	252	208	1,146	1	19	264	1,005	1	40	284	8,385

TABLE 38. - Number of nondisabling injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976 - Continued

State	Surface at underground											Total, underground mines	
	Falls of face or rib	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Stepping or kneeling on sharp or loose objects	Striking or bumping against objects	Haulage	Electricity	Machinery	Miscellaneous causes		Total, surface
Alabama-----	-	-	1	7	3	-	-	3	1	4	8	27	205
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	1
Colorado-----	-	-	1	3	-	-	-	-	-	-	-	5	87
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	-	6	3	5	1	1	2	-	3	-	21	232
Indiana-----	-	-	1	-	-	-	-	-	-	-	-	1	6
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	-	-
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	-	3	10	45	17	6	2	15	3	7	11	119	1,315
Maryland-----	-	-	-	-	-	-	-	-	-	-	-	-	-
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	-	-	-	-	-	-	2	-	-	2	2
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	-	3	3	4	3	-	-	2	-	2	1	18	201
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)-----	1	5	30	55	22	9	2	20	4	14	12	174	2,360
Tennessee-----	-	-	-	2	1	-	-	-	-	-	-	3	23
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah-----	-	-	3	8	4	-	-	1	-	1	1	18	175
Virginia-----	-	1	2	17	5	-	1	4	-	1	-	31	545
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia-----	3	11	60	109	49	5	5	38	10	32	34	356	3,987
Wyoming-----	-	-	-	4	1	-	-	-	-	2	4	11	23
Total bituminous-----	4	24	117	257	110	21	11	85	20	66	71	786	9,162
Pennsylvania (anthra- cite)-----	-	-	-	1	-	-	-	-	-	-	-	1	10
All coal-----	4	24	117	258	110	21	11	85	20	66	71	787	9,172

TABLE 38. - Number of nondisabling injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976 - Continued

State	Strip													Total, strip
	Falls of face or side	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Stepping or kneeling on sharp or loose objects	Striking or bumping against objects	Haulage	Explosives	Electricity	Machinery	Fires or suffocation from fires	Miscellaneous causes	
Alabama-----	1	3	15	38	26	1	1	5	-	1	14	1	11	117
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Arizona-----	-	1	5	7	3	1	1	4	1	1	10	1	9	44
Arkansas-----	-	-	-	3	1	-	-	-	-	-	-	-	-	5
Colorado-----	-	2	12	27	6	-	-	3	-	1	21	-	18	90
Georgia-----	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Illinois-----	1	3	43	73	41	4	7	17	2	1	41	-	55	288
Indiana-----	1	3	18	56	21	6	3	4	1	-	23	1	26	163
Iowa-----	-	-	-	4	1	-	-	-	-	-	-	-	-	1
Kansas-----	-	-	-	1	-	-	-	1	-	-	1	-	3	9
Kentucky-----	2	19	73	165	78	9	9	51	2	2	47	2	96	557
Maryland-----	-	-	-	1	1	-	1	-	-	-	-	-	-	3
Missouri-----	-	1	7	15	12	-	-	1	-	-	8	-	7	51
Montana-----	-	-	2	3	1	1	-	2	-	-	3	-	3	15
New Mexico-----	-	1	1	1	-	-	-	-	-	-	-	-	1	3
North Dakota-----	-	-	3	5	4	-	-	4	-	-	-	-	-	17
Ohio-----	1	1	23	45	29	2	3	7	-	1	34	-	24	172
Oklahoma-----	-	2	5	6	6	-	1	1	-	1	4	-	2	28
Pennsylvania (bituminous)-----	1	7	41	44	33	2	2	9	-	-	13	2	25	179
Tennessee-----	-	-	3	5	6	-	1	1	1	1	8	-	3	29
Texas-----	1	1	5	8	7	1	-	-	-	-	4	-	15	42
Utah-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Virginia-----	1	-	7	10	9	1	2	3	1	-	5	1	3	43
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia-----	2	6	36	47	31	2	1	21	-	1	25	2	16	190
Wyoming-----	2	10	27	60	18	8	4	11	-	-	24	1	20	185
Total bituminous-----	13	60	330	623	334	38	36	145	8	10	286	11	338	2,232
Pennsylvania (anthracite)-----	-	4	43	66	27	3	3	7	-	1	18	1	29	202
All coal-----	13	64	373	689	361	41	39	152	8	11	304	12	367	2,434

TABLE 38. - Number of nondisabling injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976 - Continued

State	Other surface mining 1/											Total, surface	Total, mining	
	Falls of face or side	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Stepping or kneeling on sharp or loose objects	Striking or bumping against objects	Haulage	Machinery	Fires or suffocation from fires	Miscellaneous causes			Total, other surface mining
Alabama-----	-	-	-	-	-	-	-	-	-	-	-	-	117	322
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	44	44
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	5	6
Colorado-----	-	-	-	-	-	-	-	-	-	-	-	-	90	177
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	-	-	-	-	-	-	-	-	-	-	-	288	520
Indiana-----	-	-	-	-	-	-	-	-	-	-	-	-	163	169
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	9	9
Kentucky-----	-	-	2	1	3	-	-	-	-	-	-	12	569	1,884
Maryland-----	-	-	-	-	-	-	-	-	-	-	-	-	3	3
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	51	51
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	15	15
New Mexico-----	-	-	-	-	-	-	-	-	-	-	-	-	3	5
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	17	17
Ohio-----	-	-	1	-	1	-	-	-	-	-	-	2	174	375
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	28	28
Pennsylvania (bituminous)-----	-	-	-	-	-	-	-	-	-	-	-	-	179	2,539
Tennessee-----	-	-	-	-	-	-	-	-	-	-	-	-	29	52
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	42	42
Utah-----	-	-	-	-	-	-	-	-	-	-	-	-	-	175
Virginia-----	-	-	1	-	-	-	-	-	1	-	-	2	45	590
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia-----	1	1	-	3	-	-	-	-	1	-	-	8	198	4,185
Wyoming-----	-	-	-	-	-	-	-	-	-	-	-	-	185	208
Total bituminous-----	1	1	4	4	4	-	-	-	5	3	2	24	2,256	11,418
Pennsylvania (anthracite)-----	-	-	4	2	2	1	1	1	-	-	2	13	215	225
All coal-----	1	1	8	6	6	1	1	1	5	3	4	37	2,471	11,643

1/ See footnote at end of table.

TABLE 38. - Number of nondisabling injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976 - Continued

State	Independent shops and yards									
	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Striking or bumping against objects	Haulage	Electricity	Machinery	Miscellaneous causes	Total, independent shops and yards
Alabama-----	-	-	-	-	-	-	-	-	-	-
Alaska-----	-	-	-	-	-	-	-	-	-	-
Arizona-----	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	-	-	-	-	-	-	-	-
Colorado-----	-	-	-	-	-	-	-	-	-	-
Georgia-----	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	3	7	-	-	3	-	1	6	20
Indiana-----	-	-	2	-	-	-	-	-	-	2
Iowa-----	-	-	-	-	-	-	-	-	-	-
Kansas-----	-	-	-	-	-	-	-	-	-	-
Kentucky-----	1	1	4	1	-	-	-	2	2	11
Maryland-----	-	-	-	-	-	-	-	-	-	-
Missouri-----	-	1	5	1	-	-	-	1	3	11
Montana-----	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	-	-	-	-	-	-	-	-
North Dakota-----	-	-	-	-	-	-	-	-	-	-
Ohio-----	1	3	5	6	3	1	-	4	-	23
Oklahoma-----	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)-----	-	2	4	4	-	-	1	2	1	14
Tennessee-----	-	-	-	-	-	-	-	-	-	-
Texas-----	-	-	-	-	-	-	-	-	-	-
Utah-----	-	-	-	-	-	-	-	-	-	-
Virginia-----	1	2	7	3	-	2	-	5	-	20
Washington-----	-	-	-	-	-	-	-	-	-	-
West Virginia-----	2	7	40	21	1	8	-	10	11	100
Wyoming-----	-	-	-	-	-	-	-	-	-	-
Total bituminous-----	5	19	74	36	4	14	1	25	23	201
Pennsylvania (anthra- cite)-----	-	4	12	5	1	1	1	4	5	33
All coal-----	5	23	86	41	5	15	2	29	28	234

TABLE 38. - Number of nondisabling injuries at coal mines in the United States, by State, general work location, and principal cause of injury, 1976 - Continued

State	Mechanical cleaning plants												Grand total	
	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Stepping or kneeling on sharp or loose objects	Striking or bumping against objects	Haulage	Electricity	Machinery	Suffocation (no flames or smoldering)	Fires or suffocation from fires	Miscellaneous causes		Total, mechanical cleaning plants
Alabama-----	-	8	3	4	-	-	-	-	1	-	-	4	20	342
Alaska-----	-	-	-	-	-	-	-	-	1	-	-	-	1	2
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	44
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Colorado-----	-	3	5	2	-	-	1	-	-	-	-	6	17	194
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	3	5	15	7	1	-	4	-	3	-	-	8	46	586
Indiana-----	-	1	5	-	-	-	-	-	1	-	-	1	8	179
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Kentucky-----	3	17	36	24	5	-	8	2	15	-	-	14	124	2,019
Maryland-----	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Missouri-----	-	-	-	1	-	-	-	-	-	-	-	-	1	63
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	15
New Mexico-----	-	-	-	-	-	-	-	-	-	-	-	-	-	5
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Ohio-----	-	2	6	3	-	-	-	-	-	-	-	-	-	17
Oklaoma-----	-	-	-	-	-	-	1	-	2	-	-	1	16	414
Pennsylvania (bituminous)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	28
Pennsylvania (anthracite)-----	3	31	50	19	-	6	10	3	6	-	-	13	141	2,694
Tennessee-----	-	-	1	-	-	-	-	-	-	-	-	-	1	53
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	42
Utah-----	-	-	-	-	-	-	-	-	-	-	-	-	-	175
Virginia-----	1	3	4	10	-	1	1	-	-	-	-	6	26	636
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia-----	13	55	97	41	10	7	26	5	26	-	1	32	313	4,598
Wyoming-----	-	-	-	-	-	-	-	-	-	-	-	-	-	208
Total bituminous-----	23	125	222	111	16	15	51	10	55	-	1	85	714	12,333
Pennsylvania (anthracite)-----	5	25	72	22	2	4	11	-	12	1	-	23	177	435
All coal-----	28	150	294	133	18	19	62	10	67	1	1	108	891	12,768

1/ Includes bituminous coal auger mines and anthracite culm banks and dredges.

TABLE 39. - Number of injuries by degree, percentage distribution, and injury-frequency rates at coal mines in the United States, by general work location and State, 1976

General work location and State	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates								
	Fatal	Nonfatal				All disabling injuries	Non-disabling injuries	All injuries		Per million man-hours				Per million tons				
		Permanent		Temporary total	Total non-fatal disabling					Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Non-disabling	
		Total	Partial															
Underground mines:																		
Underground:																		
Alabama-----	3	-	2	200	202	205	178	383	1.9	0.39	26.15	26.54	23.04	0.41	27.42	27.83	24.16	
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arkansas-----	-	-	-	3	3	3	1	4	(1/)	-	58.15	58.15	19.38	-	124.10	124.10	41.37	
Colorado-----	3	-	1	174	175	178	82	260	1.7	1.23	71.74	72.97	33.61	.90	52.70	53.60	24.69	
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Illinois-----	3	1	3	724	728	731	211	942	6.8	.18	42.95	43.13	12.45	.10	23.59	23.68	6.84	
Indiana-----	-	-	1	10	11	11	5	16	.1	-	52.33	52.33	23.79	-	25.48	25.48	11.58	
Iowa-----	-	-	-	3	3	3	-	3	(1/)	-	31.38	31.38	-	-	9.71	9.71	-	
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kentucky-----	33	1	21	1,409	1,431	1,464	1,196	2,660	13.7	.97	42.19	43.16	35.26	.58	25.31	25.90	21.16	
Maryland-----	-	-	-	1	1	1	-	1	(1/)	-	9.79	9.79	-	-	5.84	5.84	-	
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
New Mexico-----	-	-	1	15	16	16	-	16	.1	-	37.14	37.14	-	-	19.14	19.14	-	
North Dakota--	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ohio-----	4	-	8	509	517	521	183	704	4.9	.27	35.00	35.27	12.39	.24	31.13	31.37	11.02	
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pennsylvania (bituminous)--	16	1	21	2,064	2,086	2,102	2,186	4,288	19.6	.41	53.81	54.22	56.39	.36	47.35	47.72	49.62	
Tennessee-----	4	-	-	92	92	96	20	116	.9	1.53	35.09	36.62	7.63	1.13	25.88	27.00	5.63	
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Utah-----	2	-	4	195	199	201	157	358	1.9	.49	48.66	49.15	38.39	.25	24.99	25.24	19.72	
Virginia-----	13	-	11	766	777	790	514	1,304	7.4	.67	40.31	40.98	26.66	.61	36.49	37.10	24.14	
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
West Virginia--	22	5	28	4,333	4,366	4,388	3,631	8,019	40.9	.29	58.06	58.35	48.29	.25	50.36	50.61	41.88	
Wyoming-----	1	-	-	14	14	15	12	27	.1	1.66	23.30	24.96	19.97	2.02	28.34	30.37	24.29	
Total or average, bituminous--	104	8	101	10,512	10,621	10,725	8,376	19,101	-	.48	48.89	49.37	38.55	.37	37.86	38.23	29.86	
Pennsylvania (anthracite)--	-	-	-	37	37	37	9	46	-	-	53.67	53.67	13.05	-	71.77	71.77	17.46	
Total or average, underground-	104	8	101	10,549	10,658	10,762	8,385	19,147	-	.48	48.90	49.38	38.47	.37	37.92	38.29	29.84	

See footnotes at end of table.

TABLE 39. - Number of injuries by degree, percentage distribution, and injury-frequency rates at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries							Distribution of all disabling injuries, percent	Frequency rates								
	Fatal	Nonfatal			All disabling injuries	Non-disabling injuries	All injuries		Per million man-hours				Per million tons				
		Permanent		Temporary total					Total non-fatal disabling	Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Non-disabling
		Total	Partial														
Underground mines:																	
Surface:																	
Alabama-----	-	-	1	11	12	12	27	39	1.6	-	8.85	8.85	19.90	-	-	-	-
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colorado-----	-	-	-	4	4	4	5	9	.5	-	7.79	7.79	9.74	-	-	-	-
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	-	1	70	71	71	21	92	9.7	-	25.83	25.83	7.64	-	-	-	-
Indiana-----	-	-	-	2	2	2	1	3	.3	-	80.18	80.18	40.09	-	-	-	-
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	1	-	1	104	105	106	119	225	14.4	0.25	26.68	26.94	30.24	-	-	-	-
Maryland-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	-	1	1	1	2	3	.1	-	7.42	7.42	14.84	-	-	-	-
North Dakota---	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	1	-	-	27	27	28	18	46	3.8	.97	26.21	27.18	17.47	-	-	-	-
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)--	-	-	2	116	118	118	174	292	16.1	-	25.33	25.33	37.35	-	-	-	-
Tennessee-----	-	-	-	4	4	4	3	7	.5	-	22.32	22.32	16.74	-	-	-	-
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah-----	-	-	-	13	13	13	18	31	1.8	-	15.81	15.81	21.89	-	-	-	-
Virginia-----	-	-	-	42	42	42	31	73	5.7	-	33.52	33.52	24.74	-	-	-	-
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia---	3	-	4	322	326	329	356	685	44.8	.43	46.87	47.31	51.19	-	-	-	-
Wyoming-----	-	-	-	5	5	5	11	16	.7	-	29.19	29.19	64.23	-	-	-	-
Total or average, bituminous--	5	-	9	721	730	735	786	1,521	-	.21	30.65	30.86	33.00	-	-	-	-
Pennsylvania (anthracite)--	-	-	-	2	2	2	1	3	-	-	16.94	16.94	8.47	-	-	-	-
Total or average, surface-----	5	-	9	723	732	737	787	1,524	-	.21	30.58	30.79	32.88	-	-	-	-

TABLE 39. - Number of injuries by degree, percentage distribution, and injury-frequency rates at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates								
	Fatal	Nonfatal				All disabling injuries	Non-disabling injuries	All injuries		Per million man-hours				Per million tons				
		Permanent		Temporary total	Total non-fatal disabling					Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Non-disabling	
		Total	Partial															
Underground mines:																		
Deep mines:																		
Alabama-----	3	-	3	211	214	217	205	422	1.9	0.33	23.57	23.90	22.57	0.41	29.05	29.46	27.83	
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arkansas-----	-	-	-	3	3	3	1	4	(1/)	-	57.19	57.19	19.06	-	124.10	124.10	41.37	
Colorado-----	3	-	1	178	179	182	87	269	1.6	1.02	60.62	61.64	29.46	.90	53.90	54.80	26.20	
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Illinois-----	3	1	4	794	799	802	232	1,034	7.0	.15	40.56	40.72	11.78	.10	25.89	25.98	7.52	
Indiana-----	-	-	1	12	13	13	6	19	.1	-	55.29	55.29	25.52	-	30.12	30.12	13.90	
Iowa-----	-	-	-	3	3	3	-	3	(1/)	-	24.06	24.06	-	-	9.71	9.71	-	
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kentucky-----	34	1	22	1,513	1,536	1,570	1,315	2,885	13.7	.90	40.58	41.48	34.74	.60	27.17	27.77	23.26	
Maryland-----	-	-	-	1	1	1	-	1	(1/)	-	9.79	9.79	-	-	5.84	5.84	-	
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
New Mexico-----	-	-	1	16	17	17	2	19	.1	-	30.06	30.06	3.54	-	20.34	20.34	2.39	
North Dakota---	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ohio-----	5	-	8	536	544	549	201	750	4.8	.32	34.43	34.75	12.72	.30	32.76	33.06	12.10	
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pennsylvania (bituminous)--	16	1	23	2,180	2,204	2,220	2,360	4,580	19.4	.37	50.76	51.12	54.35	.36	50.03	50.39	53.57	
Tennessee-----	4	-	-	96	96	100	23	123	.9	1.43	34.28	35.71	8.21	1.13	27.00	28.13	6.47	
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Utah-----	2	-	4	208	212	214	175	389	1.9	.41	43.16	43.57	35.63	.25	26.62	26.87	21.98	
Virginia-----	13	-	11	808	819	832	545	1,377	7.3	.63	39.89	40.53	26.55	.61	38.46	39.07	25.59	
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
West Virginia---	25	5	32	4,655	4,692	4,717	3,987	8,704	41.2	.30	57.11	57.42	48.53	.29	54.12	54.41	45.99	
Wyoming-----	1	-	-	19	19	20	23	43	.2	1.29	24.60	25.90	29.78	2.02	38.46	40.49	46.56	
Total or average, bituminous--	109	8	110	11,233	11,351	11,460	9,162	20,622	-	.45	47.09	47.54	38.01	.39	40.46	40.85	32.66	
Pennsylvania (anthracite)--	-	-	-	39	39	39	10	49	-	-	48.30	48.30	12.38	-	75.65	75.65	19.40	
Total or average, deep mines--	109	8	110	11,272	11,390	11,499	9,172	20,671	-	.45	47.09	47.54	37.92	.39	40.53	40.92	32.64	

See footnotes at end of table.

TABLE 39. - Number of injuries by degree, percentage distribution, and injury-frequency rates at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates									
	Fatal	Nonfatal				All disabling injuries	Non-disabling injuries	All injuries		Per million man-hours				Per million tons					
		Permanent		Temporary total	Total non-fatal disabling					Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Non-disabling		
		Total	Partial																
Strip mines:																			
Alabama-----	2	-	6	135	141	143	117	260	7.3	0.33	23.52	23.86	19.52	0.15	10.51	10.66	8.72		
Alaska-----	-	-	-	7	7	7	1	8	.4	-	46.60	46.60	6.66	-	10.90	10.90	1.56		
Arizona-----	1	-	1	52	53	54	44	98	2.7	.79	41.62	42.41	34.55	.10	5.15	5.25	4.28		
Arkansas-----	-	-	-	9	9	9	5	14	.5	-	19.25	19.25	10.69	-	16.95	16.95	9.42		
Colorado-----	-	-	-	36	36	36	90	126	1.8	-	34.70	34.70	86.76	-	5.92	5.92	14.81		
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Illinois-----	-	-	1	168	169	169	288	457	8.6	-	21.72	21.72	37.01	-	6.30	6.30	10.74		
Indiana-----	1	-	2	91	93	94	163	257	4.8	.14	12.63	12.77	22.14	.04	3.74	3.78	6.55		
Iowa-----	-	-	-	-	-	-	1	1	-	-	-	-	-	-	7.90	-	3.37		
Kansas-----	-	-	-	11	11	11	9	20	.6	-	30.50	30.50	24.95	-	12.64	12.64	10.35		
Kentucky-----	6	-	10	407	417	423	557	980	21.5	.31	21.54	21.85	28.77	.10	6.88	6.98	9.19		
Maryland-----	-	-	-	8	8	8	3	11	.4	-	8.34	8.34	3.13	-	3.74	3.74	1.40		
Missouri-----	-	-	-	27	27	27	51	78	1.4	-	13.57	13.57	25.63	-	4.62	4.62	8.74		
Montana-----	-	-	1	24	25	25	15	40	1.3	-	16.09	16.09	9.65	-	.99	.99	.59		
New Mexico-----	-	-	-	11	11	11	3	14	.6	-	9.03	9.03	2.46	-	1.23	1.23	.33		
North Dakota-----	1	-	-	24	24	25	17	42	1.3	1.21	29.03	30.24	20.57	.09	2.17	2.26	1.54		
Ohio-----	2	-	1	127	128	130	172	302	6.6	.20	12.63	12.83	16.97	.07	4.24	4.30	5.69		
Oklahoma-----	-	-	1	40	41	41	28	69	2.1	-	24.06	24.06	16.43	-	11.16	11.16	7.62		
Pennsylvania (bituminous)-----	1	-	3	240	243	244	179	423	12.4	.06	15.43	15.50	11.37	.02	5.95	5.97	4.38		
Tennessee-----	-	-	-	27	27	27	29	56	1.4	-	16.01	16.01	17.19	-	7.77	7.77	8.34		
Texas-----	1	-	-	11	11	12	42	54	.6	.61	6.76	7.38	25.82	.07	.77	.84	2.95		
Utah-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Virginia-----	3	-	2	83	85	88	43	131	4.5	.75	21.14	21.89	10.70	.28	7.86	8.14	3.98		
Washington-----	-	-	-	51	51	51	-	51	2.6	-	60.24	60.24	-	-	12.43	12.43	-		
West Virginia-----	4	-	3	240	243	247	190	437	12.6	.41	24.65	25.06	19.27	.19	11.72	11.92	9.17		
Wyoming-----	1	-	4	81	85	86	185	271	4.4	.20	17.42	17.62	37.91	.03	2.85	2.89	6.21		
Total or average, bituminous--	23	-	35	1,910	1,945	1,968	2,232	4,200	-	.23	19.22	19.45	22.05	.06	5.47	5.53	6.27		
Pennsylvania (anthracite)----	-	-	-	126	126	126	202	328	-	-	59.40	59.40	95.22	-	45.82	45.82	73.46		
Total or average, strip mines-	23	-	35	2,036	2,071	2,094	2,434	4,528	-	.22	20.04	20.27	23.56	.06	5.78	5.84	6.79		

TABLE 39. - Number of injuries by degree, percentage distribution, and injury-frequency rates at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates							
	Fatal	Nonfatal			All disabling injuries	Non-disabling injuries	All injuries	Per million man-hours				Per million tons					
		Permanent		Temporary total				Total non-fatal disabling		Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Non-disabling
		Total	Partial														
Other surface mining: 2/																	
Alabama-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colorado-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indiana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	-	-	-	10	10	10	12	22	31.2	-	17.66	17.66	21.19	-	4.15	4.15	4.98
Maryland-----	-	-	-	1	1	1	-	1	3.1	-	30.64	30.64	-	-	13.60	13.60	-
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	-	-	-	2	2	2	2	4	6.2	-	23.03	23.03	23.03	-	3.78	3.78	3.78
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tennessee-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Virginia-----	-	-	-	5	5	5	2	7	15.6	-	41.83	41.83	16.73	-	10.74	10.74	4.30
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia----	1	-	-	13	13	14	8	22	43.8	4.01	52.14	56.15	32.08	1.21	15.74	16.95	9.69
Wyoming-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total or average, bituminous--	1	-	-	31	31	32	24	56	-	.74	22.92	23.66	17.75	.18	5.68	5.86	4.40
Pennsylvania (anthracite)----	-	-	-	6	6	6	13	19	-	-	19.00	19.00	41.18	-	2.82	2.82	6.10
Total or average, other surface mining-	1	-	-	37	37	38	37	75	-	.60	22.18	22.78	22.18	.13	4.88	5.01	4.88

See footnotes at end of table.

TABLE 39. - Number of injuries by degree, percentage distribution, and injury-frequency rates at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates							
	Fatal	Nonfatal				All disabling injuries	Non-disabling injuries	All injuries		Per million man-hours				Per million tons			
		Permanent		Temporary total	Total non-fatal disabling					Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Non-disabling
		Total	Partial														
Total surface mining:	2	-	6	135	141	143	117	260	7.2	0.33	23.52	23.86	19.52	0.15	10.51	10.66	8.72
Alabama-----	-	-	-	7	7	7	1	8	.4	-	46.60	46.60	6.66	-	10.90	10.90	1.56
Alaska-----	1	-	1	52	53	54	44	98	2.7	.79	41.62	42.41	34.55	.10	5.15	5.25	4.28
Arizona-----	-	-	-	9	9	9	5	14	.4	-	19.25	19.25	10.69	-	16.95	16.95	9.42
Arkansas-----	-	-	-	36	36	36	90	126	1.8	-	34.70	34.70	86.76	-	5.92	5.92	14.81
Colorado-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia-----	-	-	1	168	169	169	288	457	8.4	-	21.68	21.68	36.94	-	6.28	6.28	10.71
Illinois-----	1	-	2	91	93	94	163	257	4.7	.14	12.63	12.77	22.14	.04	3.74	3.78	6.55
Indiana-----	-	-	-	-	-	-	1	1	-	-	-	-	7.90	-	-	-	3.37
Iowa-----	-	-	-	11	11	11	9	20	.6	-	30.50	30.50	24.95	-	12.64	12.64	10.35
Kansas-----	6	-	10	417	427	433	569	1,002	21.6	.30	21.43	21.73	28.55	.10	6.77	6.87	9.03
Kentucky-----	-	-	-	9	9	9	3	12	.4	-	9.08	9.08	3.03	-	4.06	4.06	1.35
Maryland-----	-	-	-	27	27	27	51	78	1.4	-	13.57	13.57	25.63	-	4.62	4.62	8.74
Missouri-----	-	-	1	24	25	25	15	40	1.2	-	16.04	16.04	9.62	-	.99	.99	.59
Montana-----	-	-	-	11	11	11	3	14	.6	-	8.96	8.96	2.44	-	1.23	1.23	.33
New Mexico-----	1	-	-	24	24	25	17	42	1.2	1.21	29.03	30.24	20.57	.09	2.17	2.26	1.54
North Dakota-----	2	-	1	129	130	132	174	306	6.6	.20	12.72	12.91	17.02	.07	4.23	4.30	5.66
Ohio-----	-	-	1	40	41	41	28	69	2.0	-	24.06	24.06	16.43	-	11.16	11.16	7.62
Oklahoma-----																	
Pennsylvania (bituminous)----	1	-	3	240	243	244	179	423	12.2	.06	15.19	15.25	11.19	.02	5.80	5.82	4.27
Tennessee-----	-	-	-	27	27	27	29	56	1.4	-	15.89	15.89	17.06	-	7.65	7.65	8.22
Texas-----	1	-	-	11	11	12	42	54	.6	.61	6.76	7.38	25.82	.07	.77	.84	2.95
Utah-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Virginia-----	3	-	2	88	90	93	45	138	4.6	.72	21.74	22.47	10.87	.27	7.98	8.25	3.99
Washington-----	-	-	-	51	51	51	-	51	2.6	-	60.24	60.24	-	-	12.43	12.43	-
West Virginia-----	5	-	3	253	256	261	198	459	13.0	.49	25.33	25.82	19.59	.23	11.88	12.11	9.19
Wyoming-----	1	-	4	81	85	86	185	271	4.3	.20	17.42	17.62	37.91	.03	2.85	2.89	6.21
Total or average, bituminous--	24	-	35	1,941	1,976	2,000	2,256	4,256	-	.23	19.27	19.50	22.00	.07	5.47	5.54	6.25
Pennsylvania (anthracite)---	-	-	-	132	132	132	215	347	-	-	54.16	54.16	88.22	-	27.05	27.05	44.06
Total or average, surface mining-----	24	-	35	2,073	2,108	2,132	2,471	4,603	-	.23	20.08	20.31	23.53	.07	5.76	5.82	6.75

TABLE 39. - Number of injuries by degree, percentage distribution, and injury-frequency rates at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates							
	Fatal	Nonfatal			All disabling injuries	Non-disabling injuries	All injuries	Per million man-hours				Per million tons					
		Permanent		Temporary total				Total non-fatal disabling		Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Non-disabling
		Total	Partial														
Total mining:																	
Alabama-----	5	-	9	346	355	360	322	682	2.7	0.33	23.55	23.88	21.36	0.24	17.08	17.32	15.49
Alaska-----	-	-	-	7	7	7	1	8	.1	-	46.60	46.60	6.66	-	10.90	10.90	1.56
Arizona-----	1	-	1	52	53	54	44	98	.4	.79	41.62	42.41	34.55	.10	5.15	5.25	4.28
Arkansas-----	-	-	-	12	12	12	6	18	.1	-	23.07	23.07	11.54	-	21.62	21.62	10.81
Colorado-----	3	-	1	214	215	218	177	395	1.6	.75	53.88	54.63	44.36	.32	22.87	23.19	18.83
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	3	1	5	962	968	971	520	1,491	7.2	.11	35.21	35.32	18.91	.05	16.76	16.81	9.00
Indiana-----	1	-	3	103	106	107	169	276	.8	.13	13.95	14.08	22.24	.04	4.18	4.22	6.67
Iowa-----	-	-	-	3	3	3	1	4	(1/)	-	11.93	11.93	3.98	-	4.96	4.96	1.65
Kansas-----	-	-	-	11	11	11	9	20	.1	-	30.50	30.50	24.95	-	12.64	12.64	10.35
Kentucky-----	40	1	32	1,930	1,963	2,003	1,884	3,887	14.9	.69	33.97	34.67	32.61	.33	16.42	16.75	15.76
Maryland-----	-	-	-	10	10	10	3	13	.1	-	9.14	9.14	2.74	-	4.19	4.19	1.26
Missouri-----	-	-	-	27	27	27	51	78	.2	-	13.57	13.57	25.63	-	4.62	4.62	8.74
Montana-----	-	-	1	24	25	25	15	40	.2	-	16.04	16.04	9.62	-	.99	.99	.59
New Mexico-----	-	-	1	27	28	28	5	33	.2	-	15.62	15.62	2.79	-	2.86	2.86	.51
North Dakota-----	1	-	-	24	24	25	17	42	.2	1.21	29.03	30.24	20.57	.09	2.17	2.26	1.54
Ohio-----	7	-	9	665	674	681	375	1,056	5.1	.27	25.90	26.17	14.41	.15	14.24	14.39	7.92
Oklahoma-----	-	-	1	40	41	41	28	69	.3	-	23.84	23.84	16.28	-	11.16	11.16	7.62
Pennsylvania (bituminous)----	17	1	26	2,420	2,447	2,464	2,539	5,003	18.3	.29	41.18	41.46	42.73	.20	28.47	28.67	29.54
Tennessee-----	4	-	-	123	123	127	52	179	.9	.89	27.33	28.22	11.55	.56	17.36	17.93	7.34
Texas-----	1	-	-	11	11	12	42	54	.1	.61	6.76	7.38	25.82	.07	.77	.84	2.95
Utah-----	2	-	4	208	212	214	175	389	1.6	.41	43.16	43.57	35.63	.25	26.62	26.87	21.98
Virginia-----	16	-	13	896	909	925	590	1,515	6.9	.65	36.85	37.50	23.92	.49	27.91	28.40	18.12
Washington-----	-	-	-	51	51	51	-	51	.4	-	60.24	60.24	-	-	12.43	12.43	-
West Virginia----	30	5	35	4,908	4,948	4,978	4,185	9,163	37.0	.33	53.63	53.96	45.36	.28	45.71	45.99	38.66
Wyoming-----	2	-	4	100	104	106	208	314	.8	.35	18.40	18.75	36.80	.07	3.43	3.50	6.87
Total or average, bituminous--	133	8	145	13,174	13,327	13,460	11,418	24,878	-	.39	38.78	39.17	33.23	.21	20.77	20.98	17.79
Pennsylvania (anthracite)----	-	-	-	171	171	171	225	396	-	-	52.70	52.70	69.35	-	31.70	31.70	41.71
Total or average, mining-----	133	8	145	13,345	13,498	13,631	11,643	25,274	-	.38	38.91	39.30	33.57	.21	20.86	21.07	17.99

See footnotes at end of table.

TABLE 39. - Number of injuries by degree, percentage distribution, and injury-frequency rates at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries							Distribution of all disabling injuries, percent	Frequency rates								
	Fatal	Nonfatal			All disabling injuries	Non-disabling injuries	All injuries		Per million man-hours				Per million tons				
		Permanent		Temporary total					Total non-fatal disabling	Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Non-disabling
		Total	Partial														
Independent shops and yards:																	
Alabama-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colorado-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	-	9	9	9	20	29	8.7	-	11.53	11.53	25.61	-	-	-	-	-
Indiana-----	-	-	11	11	11	2	13	10.6	-	23.16	23.16	4.21	-	-	-	-	-
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	-	-	3	3	3	11	14	2.9	-	7.10	7.10	26.04	-	-	-	-	-
Maryland-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Missouri-----	-	-	-	-	-	11	11	-	-	-	-	91.82	-	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	-	-	3	3	3	23	26	2.9	-	3.34	3.34	25.63	-	-	-	-	-
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)----	-	-	6	6	6	14	20	5.8	-	10.27	10.27	23.97	-	-	-	-	-
Tennessee-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Virginia-----	-	-	8	8	8	20	28	7.7	-	8.53	8.53	21.33	-	-	-	-	-
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia-----	-	2	62	64	64	100	164	61.5	-	25.65	25.65	40.08	-	-	-	-	-
Wyoming-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total or average, bituminous--	-	2	102	104	104	201	305	-	-	15.50	15.50	29.95	-	-	-	-	-
Pennsylvania (anthracite)----	-	-	10	10	10	33	43	-	-	64.90	64.90	214.17	-	-	-	-	-
Total or average, independent shops and yards-----	-	2	112	114	114	234	348	-	-	16.60	16.60	34.08	-	-	-	-	-

TABLE 39. - Number of injuries by degree, percentage distribution, and injury-frequency rates at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates							
	Fatal	Nonfatal				All disabling injuries	Non-disabling injuries	All injuries		Per million man-hours				Per million tons			
		Permanent		Temporary total	Total non-fatal disabling					Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Non-disabling
		Total	Partial														
Mechanical cleaning plants:																	
Alabama-----	-	-	-	16	16	16	20	36	2.4	-	19.31	19.31	24.14	-	-	-	-
Alaska-----	-	-	-	1	1	1	1	2	.1	-	66.09	66.09	66.09	-	-	-	-
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colorado-----	-	-	-	6	6	6	17	23	.9	-	60.70	60.70	172.00	-	-	-	-
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	-	-	39	39	39	46	85	5.8	-	17.49	17.49	20.63	-	-	-	-
Indiana-----	-	-	-	1	1	1	8	9	.1	-	1.90	1.90	15.18	-	-	-	-
Iowa-----	-	-	-	1	1	1	-	1	.1	-	110.62	110.62	-	-	-	-	-
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	2	-	4	121	125	127	124	251	18.9	0.40	25.06	25.46	24.86	-	-	-	-
Maryland-----	-	-	-	1	1	1	-	1	.1	-	58.51	58.51	-	-	-	-	-
Missouri-----	-	-	-	-	-	-	1	1	-	-	-	-	10.53	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	-	1	1	1	-	1	.1	-	8.28	8.28	-	-	-	-	-
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	-	-	1	20	21	21	16	37	3.1	-	12.53	12.53	9.54	-	-	-	-
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)----	2	-	1	117	118	120	141	261	17.9	.38	22.65	23.03	27.06	-	-	-	-
Tennessee-----	-	-	-	2	2	2	1	3	.3	-	8.45	8.45	4.22	-	-	-	-
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah-----	-	-	-	5	5	5	-	5	.7	-	19.40	19.40	-	-	-	-	-
Virginia-----	-	-	-	37	37	37	26	63	5.5	-	20.05	20.05	14.09	-	-	-	-
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia----	3	-	4	287	291	294	313	607	43.8	.33	31.97	32.30	34.38	-	-	-	-
Wyoming-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total or average, bituminous--	7	-	10	655	665	672	714	1,386	-	.25	24.05	24.30	25.82	-	-	-	-
Pennsylvania (anthracite)----	1	-	1	111	112	113	177	290	-	.56	63.13	63.69	99.77	-	-	-	-
Total or average, mechanical cleaning plants-----	8	-	11	766	777	785	891	1,676	-	.27	26.41	26.68	30.28	-	-	-	-

TABLE 39. - Number of injuries by degree, percentage distribution, and injury-frequency rates at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates							
	Fatal	Nonfatal			All disabling injuries	Non-disabling injuries	All injuries	Per million man-hours				Per million tons					
		Permanent		Temporary total				Total non-fatal disabling		Fatal	Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Non-disabling
		Total	Partial														
Grand total:	5	-	9	362	371	376	342	718	2.6	0.31	23.33	23.64	21.50	0.24	17.85	18.09	16.45
Alabama-----	-	-	-	8	8	8	2	10	.1	-	48.39	48.39	12.10	-	12.46	12.46	3.11
Arizona-----	1	-	1	52	53	54	44	98	.4	.75	39.70	40.45	32.96	.10	5.15	5.25	4.28
Arkansas-----	-	-	-	12	12	12	6	18	.1	-	22.01	22.01	11.01	-	21.62	21.62	10.81
Colorado-----	3	-	1	220	221	224	194	418	1.6	.73	54.05	54.78	47.44	.32	23.51	23.83	20.64
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	3	1	5	1,010	1,016	1,019	586	1,605	7.2	.10	33.31	33.41	19.21	.05	17.59	17.64	10.15
Indiana-----	1	-	3	115	118	119	179	298	.8	.12	13.72	13.84	20.81	.04	4.66	4.70	7.07
Iowa-----	-	-	-	4	4	4	1	5	(1/)	-	15.36	15.36	3.84	-	6.61	6.61	1.65
Kansas-----	-	-	-	11	11	11	9	20	.1	-	24.25	24.25	19.84	-	12.64	12.64	10.35
Kentucky-----	42	1	36	2,054	2,091	2,133	2,019	4,152	15.0	.66	33.09	33.75	31.95	.35	17.49	17.84	16.89
Maryland-----	-	-	-	11	11	11	3	14	.1	-	9.90	9.90	2.70	-	4.61	4.61	1.26
Missouri-----	-	-	-	27	27	27	63	90	.2	-	12.25	12.25	28.58	-	4.62	4.62	10.79
Montana-----	-	-	1	24	25	25	15	40	.2	-	16.04	16.04	9.62	-	.99	.99	.59
New Mexico-----	-	-	1	28	29	29	5	34	.2	-	15.15	15.15	2.61	-	2.96	2.96	.51
North Dakota-----	1	-	-	24	24	25	17	42	.2	1.20	28.78	29.98	20.39	.09	2.17	2.26	1.54
Ohio-----	7	-	10	688	698	705	414	1,119	5.0	.24	24.41	24.65	14.48	.15	14.75	14.89	8.75
Oklahoma-----	-	-	1	40	41	41	28	69	.3	-	23.17	23.17	15.82	-	11.16	11.16	7.62
Pennsylvania (bituminous)-----	19	1	27	2,543	2,571	2,590	2,694	5,284	18.2	.29	39.42	39.71	41.31	.22	29.91	30.13	31.34
Tennessee-----	4	-	-	125	125	129	53	182	.9	.84	26.39	27.23	11.19	.56	17.64	18.21	7.48
Texas-----	1	-	-	11	11	12	42	54	.1	.61	6.76	7.38	25.82	.07	.77	.84	2.95
Utah-----	2	-	4	213	217	219	175	394	1.5	.39	41.98	42.36	33.85	.25	27.25	27.50	21.98
Virginia-----	16	-	13	941	954	970	636	1,606	6.8	.58	34.75	35.33	23.17	.49	29.29	29.78	19.53
Washington-----	-	-	-	51	51	51	-	51	.4	-	56.00	56.00	-	-	12.43	12.43	-
West Virginia-----	33	5	41	5,257	5,303	5,336	4,598	9,934	37.5	.32	51.06	51.38	44.27	.30	48.99	49.29	42.48
Wyoming-----	2	-	4	100	104	106	208	314	.7	.35	18.11	18.46	36.22	.07	3.43	3.50	6.87
Total or average, bituminous-----	140	8	157	13,931	14,096	14,236	12,333	26,569	-	.37	37.29	37.66	32.63	.22	21.97	22.19	19.22
Pennsylvania (anthracite)-----	1	-	1	292	293	294	435	729	-	.19	56.64	56.84	84.10	.19	54.31	54.50	80.63
Total or average-----	141	8	158	14,223	14,389	14,530	12,768	27,298	-	.37	37.55	37.92	33.32	.22	22.24	22.45	19.73

1/ Less than 0.05.

2/ Includes bituminous coal auger mines and anthracite culm banks and dredges.

TABLE 40. - Number of injuries by degree, injury-severity rates, and average severity at coal mines in the United States, by general work location and State, 1976

General work location and State	Number of injuries								Severity rates						Average severity		
	Fatal	Nonfatal			All disabling injuries	Non-disabling injuries	All injuries	Per million man-hours			Per million tons			Permanent partial	Temporary total	All disabling	
		Permanent		Temporary total				Fatal	Non-fatal disabling	All disabling	Fatal	Non-fatal disabling	All disabling				
		Total	Partial														
Underground mines:																	
Underground:																	
Alabama-----	3	-	2	200	202	205	178	383	2,330	957	3,287	2,443	1,003	3,447	238	35	124
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	3	3	3	3	1	4	-	136	136	-	290	290	-	2	2
Colorado-----	3	-	1	174	175	178	82	260	7,379	2,134	9,513	5,420	1,568	6,988	220	29	130
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	3	1	3	724	728	731	211	942	1,062	2,180	3,242	583	1,197	1,780	317	41	75
Indiana-----	-	-	1	10	11	11	5	16	-	10,347	10,347	-	5,039	5,039	1,800	38	198
Iowa-----	-	-	3	3	3	3	-	3	-	1,558	1,558	-	482	482	-	50	50
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	33	1	21	1,409	1,431	1,464	1,196	2,660	5,838	1,872	7,710	3,503	1,123	4,626	458	34	179
Maryland-----	-	-	-	1	1	1	-	1	-	10	10	-	6	6	-	1	1
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	1	15	16	16	-	16	-	1,871	1,871	-	964	964	400	27	50
North Dakota---	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	4	-	8	509	517	521	183	704	1,625	1,288	2,912	1,445	1,145	2,591	123	35	83
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)--	16	1	21	2,064	2,086	2,102	2,186	4,288	2,476	2,939	5,415	2,179	2,586	4,765	239	50	100
Tennessee-----	4	-	-	92	92	96	20	116	9,155	1,961	11,117	6,750	1,446	8,197	-	56	304
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah-----	2	-	4	195	199	201	157	358	2,934	2,089	5,023	1,507	1,073	2,580	688	30	102
Virginia-----	13	-	11	766	777	790	514	1,304	4,046	1,832	5,878	3,663	1,658	5,321	703	36	143
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia--	22	5	28	4,333	4,366	4,388	3,631	8,019	1,755	2,678	4,434	1,523	2,323	3,845	549	36	76
Wyoming-----	1	-	-	14	14	15	12	27	9,984	1,058	11,043	12,146	1,288	13,434	-	45	442
Total or average, bituminous--	104	8	101	10,512	10,621	10,725	8,376	19,101	2,872	2,302	5,174	2,224	1,783	4,007	449	39	105
Pennsylvania (anthracite)--	-	-	-	37	37	37	9	46	-	3,817	3,817	-	5,105	5,105	-	71	71
Total or average, underground-	104	8	101	10,549	10,658	10,762	8,385	19,147	2,863	2,307	5,170	2,220	1,789	4,009	449	39	105

TABLE 40. - Number of injuries by degree, injury-severity rates, and average severity at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries							Severity rates						Average severity			
	Fatal	Nonfatal			All disabling injuries	Non-disabling injuries	All injuries	Per million man-hours			Per million tons			Permanent partial	Temporary total	All disabling	
		Permanent		Temporary total				Fatal	Non-fatal disabling	All disabling	Fatal	Non-fatal disabling	All disabling				
		Total	Partial														
Underground mines:																	
Surface:																	
Alabama-----	-	-	1	11	12	12	27	39	-	190	190	-	-	-	135	11	22
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colorado-----	-	-	-	4	4	4	5	9	-	191	191	-	-	-	-	24	24
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	-	1	70	71	71	21	92	-	938	938	-	-	-	75	36	36
Indiana-----	-	-	-	2	2	2	1	3	-	6,455	6,455	-	-	-	-	80	80
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	1	-	1	104	105	106	119	225	1,525	757	2,282	-	-	-	50	28	85
Maryland-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	-	1	1	1	2	3	-	22	22	-	-	-	-	3	3
North Dakota---	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	1	-	-	27	27	28	18	46	5,825	890	6,715	-	-	-	-	34	247
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania																	
(bituminous)--	-	-	2	116	118	118	174	292	-	1,312	1,312	-	-	-	250	48	52
Tennessee-----	-	-	-	4	4	4	3	7	-	513	513	-	-	-	-	23	23
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah-----	-	-	-	13	13	13	18	31	-	688	688	-	-	-	-	44	44
Virginia-----	-	-	-	42	42	42	31	73	-	1,344	1,344	-	-	-	-	40	40
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia---	3	-	4	322	326	329	356	685	2,588	2,105	4,693	-	-	-	796	36	99
Wyoming-----	-	-	-	5	5	5	11	16	-	1,209	1,209	-	-	-	-	41	41
Total or average, bituminous--	5	-	9	721	730	735	786	1,521	1,260	1,272	2,532	-	-	-	438	37	82
Pennsylvania (anthracite)--	-	-	-	2	2	2	1	3	-	3,506	3,506	-	-	-	-	207	207
Total or average, surface-----	5	-	9	723	732	737	787	1,524	1,253	1,283	2,536	-	-	-	438	37	82

TABLE 40. - Number of injuries by degree, injury-severity rates, and average severity at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries							Severity rates						Average severity			
	Fatal	Nonfatal			All disabling injuries	Non-disabling injuries	All injuries	Per million man-hours			Per million tons			Permanent partial	Temporary total	All disabling	
		Permanent		Temporary total				Total non-fatal disabling	Fatal	Non-fatal disabling	All disabling	Fatal	Non-fatal disabling				All disabling
		Total	Partial														
Underground mines:																	
Deep mines:																	
Alabama-----	3	-	3	211	214	217	205	422	1,982	842	2,824	2,443	1,038	3,482	203	33	118
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	-	3	3	3	1	4	-	133	133	-	290	290	-	2	2
Colorado-----	3	-	1	178	179	182	87	269	6,096	1,797	7,893	5,420	1,597	7,018	220	29	128
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	3	1	4	794	799	802	232	1,034	914	2,006	2,920	583	1,280	1,864	256	41	72
Indiana-----	-	-	1	12	13	13	6	19	-	9,934	9,934	-	5,412	5,412	1,800	45	180
Iowa-----	-	-	-	3	3	3	-	3	-	1,195	1,195	-	482	482	-	50	50
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	34	1	22	1,513	1,536	1,570	1,315	2,885	5,389	1,756	7,146	3,609	1,176	4,785	440	34	172
Maryland-----	-	-	-	1	1	1	-	1	-	10	10	-	6	6	-	1	1
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	1	16	17	17	2	19	-	1,430	1,430	-	968	968	400	26	48
North Dakota---	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	5	-	8	536	544	549	201	750	1,899	1,262	3,160	1,807	1,200	3,007	123	35	91
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)--	16	1	23	2,180	2,204	2,220	2,360	4,580	2,211	2,764	4,975	2,179	2,725	4,904	240	50	97
Tennessee-----	4	-	-	96	96	100	23	123	8,569	1,869	10,438	6,750	1,472	8,223	-	55	292
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah-----	2	-	4	208	212	214	175	389	2,443	1,854	4,297	1,507	1,144	2,651	688	31	99
Virginia-----	13	-	11	808	819	832	545	1,377	3,799	1,802	5,602	3,663	1,738	5,400	703	36	138
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia--	25	5	32	4,655	4,692	4,717	3,987	8,704	1,826	2,630	4,456	1,730	2,492	4,222	580	36	78
Wyoming-----	1	-	-	19	19	20	23	43	7,770	1,092	8,862	12,146	1,707	13,853	-	44	342
Total or average, bituminous--	109	8	110	11,233	11,351	11,460	9,162	20,622	2,713	2,200	4,913	2,331	1,891	4,222	448	39	103
Pennsylvania (anthracite)--	-	-	-	39	39	39	10	49	-	3,772	3,772	-	5,908	5,908	-	78	78
Total or average, deep mines--	109	8	110	11,272	11,390	11,499	9,172	20,671	2,704	2,206	4,910	2,327	1,898	4,225	448	39	103

TABLE 40. - Number of injuries by degree, injury-severity rates, and average severity at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries								Severity rates						Average severity		
	Fatal	Nonfatal				All dis-abling inju-ries	Non-dis-abling inju-ries	All inju-ries	Per million man-hours			Per million tons			Perma-nent par-tial	Tempo-rary total	All dis-abling
		Permanent		Tempo-rary total	Total non-fatal dis-abling				Fatal	Non-fatal dis-abling	All dis-abling	Fatal	Non-fatal dis-abling	All dis-abling			
		Total	Par-tial														
Strip mines:																	
Alabama-----	2	-	6	135	141	143	117	260	2,002	1,574	3,576	894	703	1,597	930	29	150
Alaska-----	-	-	-	7	7	7	1	8	-	1,125	1,125	-	263	263	-	24	24
Arizona-----	1	-	1	52	53	54	44	98	4,712	1,160	5,872	584	144	727	100	26	138
Arkansas-----	-	-	-	9	9	9	5	14	-	169	169	-	149	149	-	9	9
Colorado-----	-	-	-	36	36	36	90	126	-	257	257	-	44	44	-	7	7
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	-	1	168	169	169	288	457	-	810	810	-	235	235	50	37	37
Indiana-----	1	-	2	91	93	94	163	257	815	519	1,334	241	154	395	518	31	104
Iowa-----	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Kansas-----	-	-	-	11	11	11	9	20	-	1,603	1,603	-	664	664	-	53	53
Kentucky-----	6	-	10	407	417	423	557	980	1,859	963	2,823	594	308	902	602	31	129
Maryland-----	-	-	-	8	8	8	3	11	-	227	227	-	102	102	-	27	27
Missouri-----	-	-	-	27	27	27	51	78	-	185	185	-	63	63	-	14	14
Montana-----	-	-	1	24	25	25	15	40	-	414	414	-	25	25	100	23	26
New Mexico-----	-	-	-	11	11	11	3	14	-	538	538	-	73	73	-	60	60
North Dakota-----	1	-	-	24	24	25	17	42	7,258	461	7,719	543	34	578	-	16	255
Ohio-----	2	-	1	127	128	130	172	302	1,184	550	1,734	397	185	582	300	42	135
Oklahoma-----	-	-	1	40	41	41	28	69	-	819	819	-	380	380	200	30	34
Pennsylvania (bituminous)----	1	-	3	240	243	244	179	423	381	762	1,143	147	293	440	1,217	35	74
Tennessee-----	-	-	-	27	27	27	29	56	-	289	289	-	140	140	-	18	18
Texas-----	1	-	-	11	11	12	42	54	3,688	269	3,957	422	31	453	-	40	536
Utah-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Virginia-----	3	-	2	83	85	88	43	131	4,478	1,216	5,694	1,665	452	2,118	1,050	34	260
Washington-----	-	-	-	51	51	51	-	51	-	1,700	1,700	-	351	351	-	28	28
West Virginia----	4	-	3	240	243	247	190	437	2,435	926	3,361	1,158	440	1,598	167	36	134
Wyoming-----	1	-	4	81	85	86	185	271	1,230	604	1,834	201	99	300	193	27	104
Total or average, bituminous--	23	-	35	1,910	1,945	1,968	2,232	4,200	1,364	804	2,167	388	229	617	583	32	111
Pennsylvania (anthracite)----	-	-	-	126	126	126	202	328	-	1,791	1,791	-	1,382	1,382	-	30	30
Total or average, strip mines-	23	-	35	2,036	2,071	2,094	2,434	4,528	1,336	824	2,160	385	238	622	583	32	107

TABLE 40. - Number of injuries by degree, injury-severity rates, and average severity at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries							Severity rates						Average severity			
	Fatal	Nonfatal			All disabling injuries	Non-disabling injuries	All injuries	Per million man-hours			Per million tons			Perma- nent par- tial	Tempo- rary total	All dis- abling	
		Permanent		Tempo- rary total				Total non- fatal dis- abling	Fatal	Non- fatal dis- abling	All dis- abling	Fatal	Non- fatal dis- abling				All dis- abling
		Total	Par- tial														
Other surface mining: 1/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Alabama-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Colorado-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Illinois-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Indiana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kentucky-----	-	-	10	10	10	12	22	-	623	623	-	147	147	-	35	35	
Maryland-----	-	-	1	1	1	-	1	-	3,217	3,217	-	1,428	1,428	-	105	105	
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
New Mexico-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ohio-----	-	-	2	2	2	2	4	-	276	276	-	45	45	-	12	12	
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pennsylvania (bituminous)----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tennessee-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Utah-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Virginia-----	-	-	5	5	5	2	7	-	477	477	-	122	122	-	11	11	
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
West Virginia-----	1	-	13	13	14	8	22	24,063	2,499	26,561	7,264	754	8,018	-	48	473	
Wyoming-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average, bituminous--	1	-	31	31	32	24	56	4,436	859	5,296	1,100	213	1,313	-	37	224	
Pennsylvania (anthracite)----	-	-	6	6	6	13	19	-	1,546	1,546	-	229	229	-	81	81	
Total or average, other sur- face mining-	1	-	37	37	38	37	75	3,597	989	4,586	791	218	1,008	-	45	201	

See footnote at end of table.

TABLE 40. - Number of injuries by degree, injury-severity rates, and average severity at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries								Severity rates						Average severity		
	Fatal	Nonfatal				All disabling injuries	Non-disabling injuries	All injuries	Per million man-hours			Per million tons			Permanent partial	Temporary total	All disabling
		Permanent		Temporary total	Total non-fatal disabling				Fatal	Non-fatal disabling	All disabling	Fatal	Non-fatal disabling	All disabling			
		Total	Partial														
Total surface mining:																	
Alabama-----	2	-	6	135	141	143	117	260	2,002	1,574	3,576	894	703	1,597	930	29	150
Alaska-----	-	-	-	7	7	7	1	8	-	1,125	1,125	-	263	263	-	24	24
Arizona-----	1	-	1	52	53	54	44	98	4,712	1,160	5,872	584	144	727	100	26	138
Arkansas-----	-	-	-	9	9	9	5	14	-	169	169	-	149	149	-	9	9
Colorado-----	-	-	-	36	36	36	90	126	-	257	257	-	44	44	-	7	7
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	-	1	168	169	169	288	457	-	808	808	-	234	234	50	37	37
Indiana-----	1	-	2	91	93	94	163	257	815	519	1,334	241	154	395	518	31	104
Iowa-----	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Kansas-----	-	-	-	11	11	11	9	20	-	1,603	1,603	-	664	664	-	53	53
Kentucky-----	6	-	10	417	427	433	569	1,002	1,806	954	2,760	571	302	873	602	31	127
Maryland-----	-	-	-	9	9	9	3	12	-	326	326	-	146	146	-	36	36
Missouri-----	-	-	-	27	27	27	51	78	-	185	185	-	63	63	-	14	14
Montana-----	-	-	1	24	25	25	15	40	-	413	413	-	25	25	100	23	26
New Mexico-----	-	-	-	11	11	11	3	14	-	534	534	-	73	73	-	60	60
North Dakota-----	1	-	-	24	24	25	17	42	7,258	461	7,719	543	34	578	-	16	255
Ohio-----	2	-	1	129	130	132	174	306	1,174	548	1,722	390	182	573	300	41	133
Oklahoma-----	-	-	1	40	41	41	28	69	-	819	819	-	380	380	200	30	34
Pennsylvania (bituminous)----	1	-	3	240	243	244	179	423	375	749	1,124	143	286	429	1,217	35	74
Tennessee-----	-	-	-	27	27	27	29	56	-	287	287	-	138	138	-	18	18
Texas-----	1	-	-	11	11	12	42	54	3,688	269	3,957	422	31	453	-	40	536
Utah-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Virginia-----	3	-	2	88	90	93	45	138	4,348	1,195	5,543	1,597	439	2,035	1,050	32	247
Washington-----	-	-	-	51	51	51	-	51	-	1,700	1,700	-	351	351	-	28	28
West Virginia----	5	-	3	253	256	261	198	459	2,968	965	3,933	1,392	452	1,844	167	37	152
Wyoming-----	1	-	4	81	85	86	185	271	1,230	604	1,834	201	99	300	193	27	104
Total or average, bituminous--	24	-	35	1,941	1,976	2,000	2,256	4,256	1,404	804	2,209	399	228	627	583	32	113
Pennsylvania (anthracite)----	-	-	-	132	132	132	215	347	-	1,760	1,760	-	879	879	-	32	32
Total or average, surface mining-----	24	-	35	2,073	2,108	2,132	2,471	4,603	1,372	827	2,198	393	237	630	583	32	108

TABLE 40. - Number of injuries by degree, injury-severity rates, and average severity at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries								Severity rates						Average severity		
	Fatal	Nonfatal			Total non-fatal disabling	All disabling injuries	Non-disabling injuries	All injuries	Per million man-hours			Per million tons			Permanent partial	Temporary total	All disabling
		Permanent		Temporary total					Fatal	Non-fatal disabling	All disabling	Fatal	Non-fatal disabling	All disabling			
		Total	Partial														
Total mining:																	
Alabama-----	5	-	9	346	355	360	322	682	1,990	1,133	3,123	1,443	822	2,265	688	31	131
Alaska-----	-	-	-	7	7	7	1	8	-	1,125	1,125	-	263	263	-	24	24
Arizona-----	1	-	1	52	53	54	44	98	4,712	1,160	5,872	584	144	727	100	26	138
Arkansas-----	-	-	-	12	12	12	6	18	-	165	165	-	155	155	-	7	7
Colorado-----	3	-	1	214	215	218	177	395	4,511	1,396	5,908	1,915	593	2,508	220	25	108
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	3	1	5	962	968	971	520	1,491	655	1,667	2,321	312	793	1,105	215	40	66
Indiana-----	1	-	3	103	106	107	169	276	790	811	1,600	237	243	480	945	32	114
Iowa-----	-	-	-	3	3	3	1	4	-	593	593	-	246	246	-	50	50
Kansas-----	-	-	-	11	11	11	9	20	-	1,603	1,603	-	664	664	-	53	53
Kentucky-----	40	1	32	1,930	1,963	2,003	1,884	3,887	4,154	1,480	5,633	2,007	715	2,722	490	33	163
Maryland-----	-	-	-	10	10	10	3	13	-	296	296	-	136	136	-	32	32
Missouri-----	-	-	-	27	27	27	51	78	-	185	185	-	63	63	-	14	14
Montana-----	-	-	1	24	25	25	15	40	-	413	413	-	25	25	100	23	26
New Mexico-----	-	-	1	27	28	28	5	33	-	816	816	-	150	150	400	39	52
North Dakota----	1	-	-	24	24	25	17	42	7,258	461	7,719	543	34	578	-	16	255
Ohio-----	7	-	9	665	674	681	375	1,056	1,614	981	2,595	887	539	1,427	143	36	99
Oklahoma-----	-	-	1	40	41	41	28	69	-	811	811	-	380	380	200	30	34
Pennsylvania (bituminous)---	17	1	26	2,420	2,447	2,464	2,539	5,003	1,716	2,222	3,938	1,187	1,536	2,723	352	48	95
Tennessee-----	4	-	-	123	123	127	52	179	5,333	1,271	6,604	3,388	808	4,195	-	47	234
Texas-----	1	-	-	11	11	12	42	54	3,688	269	3,957	422	31	453	-	40	536
Utah-----	2	-	4	208	212	214	175	389	2,443	1,854	4,297	1,507	1,144	2,651	688	31	99
Virginia-----	16	-	13	896	909	925	590	1,515	3,891	1,700	5,592	2,948	1,288	4,236	756	36	149
Washington-----	-	-	-	51	51	51	-	51	-	1,700	1,700	-	351	351	-	28	28
West Virginia----	30	5	35	4,908	4,948	4,978	4,185	9,163	1,951	2,447	4,398	1,663	2,086	3,749	544	36	82
Wyoming-----	2	-	4	100	104	106	208	314	2,123	671	2,794	396	125	521	193	30	149
Total or average, bituminous-	133	8	145	13,174	13,327	13,460	11,418	24,878	2,322	1,784	4,106	1,244	955	2,199	480	38	105
Pennsylvania (anthracite)---	-	-	-	171	171	171	225	396	-	2,260	2,260	-	1,359	1,359	-	43	43
Total or average, mining-----	133	8	145	13,345	13,498	13,631	11,643	25,274	2,301	1,788	4,089	1,233	959	2,192	480	38	104

TABLE 40. - Number of injuries by degree, injury-severity rates, and average severity at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries							Severity rates						Average severity			
	Fatal	Nonfatal			All disabling injuries	Non-disabling injuries	All injuries	Per million man-hours			Per million tons			Permanent partial	Temporary total	All disabling	
		Permanent		Temporary total				Total non-fatal disabling	Fatal	Non-fatal disabling	All disabling	Fatal	Non-fatal disabling				All disabling
		Total	Partial														
Independent shops and yards:																	
Alabama-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Colorado-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Illinois-----	-	-	9	9	9	20	29	-	356	356	-	-	-	-	31	31	
Indiana-----	-	-	11	11	11	2	13	-	432	432	-	-	-	-	19	19	
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Kentucky-----	-	-	3	3	3	11	14	-	890	890	-	-	-	-	125	125	
Maryland-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Missouri-----	-	-	-	-	-	11	11	-	-	-	-	-	-	-	-	-	
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
New Mexico-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ohio-----	-	-	3	3	3	23	26	-	150	150	-	-	-	-	45	45	
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pennsylvania (bituminous)----	-	-	6	6	6	14	20	-	616	616	-	-	-	-	60	60	
Tennessee-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Utah-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Virginia-----	-	-	8	8	8	20	28	-	215	215	-	-	-	-	25	25	
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
West Virginia-----	-	2	62	64	64	100	164	-	2,370	2,370	-	-	-	1,535	46	92	
Wyoming-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total or average, bituminous--	-	-	2	102	104	201	305	-	1,113	1,113	-	-	-	1,535	43	72	
Pennsylvania (anthracite)----	-	-	-	10	10	10	33	43	-	2,259	2,259	-	-	-	35	35	
Total or average, independent shops and yards-----	-	-	2	112	114	234	348	-	1,139	1,139	-	-	-	1,535	42	69	

TABLE 40. - Number of injuries by degree, injury-severity rates, and average severity at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries							Severity rates						Average severity			
	Fatal	Nonfatal			All disabling injuries	Non-disabling injuries	All injuries	Per million man-hours			Per million tons			Permanent partial	Temporary total	All disabling	
		Permanent		Temporary total				Fatal	Non-fatal disabling	All disabling	Fatal	Non-fatal disabling	All disabling				
		Total	Partial														
Mechanical cleaning plants:																	
Alabama-----	-	-	-	16	16	16	20	36	-	632	632	-	-	-	-	33	33
Alaska-----	-	-	-	1	1	1	1	2	-	66	66	-	-	-	-	1	1
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colorado-----	-	-	-	6	6	6	17	23	-	1,447	1,447	-	-	-	-	24	24
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Illinois-----	-	-	-	39	39	39	46	85	-	611	611	-	-	-	-	35	35
Indiana-----	-	-	-	1	1	1	8	9	-	158	158	-	-	-	-	83	83
Iowa-----	-	-	-	1	1	1	-	1	-	1,217	1,217	-	-	-	-	11	11
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky-----	2	-	4	121	125	127	124	251	2,406	2,187	4,592	-	-	-	1,915	27	180
Maryland-----	-	-	-	1	1	1	-	1	-	644	644	-	-	-	-	11	11
Missouri-----	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
Montana-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico-----	-	-	-	1	1	1	-	1	-	8	8	-	-	-	-	1	1
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ohio-----	-	-	1	20	21	21	16	37	-	522	522	-	-	-	50	41	42
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania (bituminous)----	2	-	1	117	118	120	141	261	2,303	970	3,273	-	-	-	300	41	142
Tennessee-----	-	-	-	2	2	2	1	3	-	152	152	-	-	-	-	18	18
Texas-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Utah-----	-	-	-	5	5	5	-	5	-	1,009	1,009	-	-	-	-	52	52
Virginia-----	-	-	-	37	37	37	26	63	-	1,304	1,304	-	-	-	-	65	65
Washington-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia----	3	-	4	287	291	294	313	607	1,977	1,721	3,698	-	-	-	260	51	115
Wyoming-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total or average, bituminous--	7	-	10	655	665	672	714	1,386	1,519	1,350	2,869	-	-	-	905	43	118
Pennsylvania (anthracite)----	1	-	1	111	112	113	177	290	3,382	2,850	6,232	-	-	-	50	45	98
Total or average, mechanical cleaning plants-----	8	-	11	766	777	785	891	1,676	1,631	1,441	3,072	-	-	-	827	43	115

TABLE 40. - Number of injuries by degree, injury-severity rates, and average severity at coal mines in the United States, by general work location and State, 1976 - Continued

General work location and State	Number of injuries								Severity rates						Average severity		
	Fatal	Nonfatal			All disabling injuries	Non-disabling injuries	All injuries	Per million man-hours			Per million tons			Permanent partial	Temporary total	All disabling	
		Permanent		Temporary total				Fatal	Non-fatal disabling	All disabling	Fatal	Non-fatal disabling	All disabling				
		Total	Partial														
Grand total:	5	-	9	362	371	376	342	718	1,886	1,107	2,993	1,443	847	2,290	688	32	127
Alabama-----	-	-	-	8	8	8	2	10	-	1,028	1,028	-	265	265	-	21	21
Alaska-----	1	-	1	52	53	54	44	98	4,495	1,106	5,601	584	144	727	100	26	138
Arizona-----	-	-	-	12	12	12	6	18	-	158	158	-	155	155	-	7	7
Arkansas-----	3	-	1	220	221	224	194	418	4,402	1,398	5,800	1,915	608	2,523	220	25	106
Colorado-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia-----	3	1	5	1,010	1,016	1,019	586	1,605	590	1,556	2,146	312	822	1,133	215	40	64
Illinois-----	1	-	3	115	118	119	179	298	698	750	1,447	237	255	491	945	31	105
Indiana-----	-	-	-	4	4	4	1	5	-	614	614	-	264	264	-	40	40
Iowa-----	-	-	-	11	11	11	9	20	-	1,274	1,274	-	664	664	-	53	53
Kansas-----	42	1	36	2,054	2,091	2,133	2,019	4,152	3,988	1,531	5,519	2,108	809	2,917	649	33	164
Kentucky-----	-	-	-	11	11	11	3	14	-	302	302	-	140	140	-	30	30
Maryland-----	-	-	-	27	27	27	63	90	-	167	167	-	63	63	-	14	14
Missouri-----	-	-	1	24	25	25	15	40	-	413	413	-	25	25	100	23	26
Montana-----	-	-	1	28	29	29	5	34	-	765	765	-	150	150	400	38	51
New Mexico-----	1	-	-	24	24	25	17	42	7,195	457	7,652	543	34	578	-	16	255
North Dakota-----	7	-	10	688	698	705	414	1,119	1,469	928	2,397	887	561	1,448	134	37	97
Ohio-----	-	-	1	40	41	41	28	69	-	788	788	-	380	380	200	30	34
Oklahoma-----																	
Pennsylvania (bituminous)-----	19	1	27	2,543	2,571	2,590	2,694	5,284	1,748	2,107	3,855	1,326	1,599	2,925	350	48	97
Tennessee-----	4	-	-	125	125	129	53	182	5,066	1,215	6,282	3,388	813	4,200	-	46	231
Texas-----	1	-	-	11	11	12	42	54	3,688	269	3,957	422	31	453	-	40	536
Utah-----	2	-	4	213	217	219	175	394	2,321	1,812	4,134	1,507	1,176	2,683	688	31	98
Virginia-----	16	-	13	941	954	970	636	1,606	3,497	1,623	5,120	2,948	1,368	4,316	756	37	145
Washington-----	-	-	-	51	51	51	-	51	-	1,580	1,580	-	351	351	-	28	28
West Virginia-----	33	5	41	5,257	5,303	5,336	4,598	9,934	1,907	2,382	4,288	1,829	2,285	4,114	565	37	83
Wyoming-----	2	-	4	100	104	106	208	314	2,090	660	2,750	396	125	521	193	30	149
Total or average, bituminous-----	140	8	157	13,931	14,096	14,236	12,333	26,569	2,222	1,740	3,962	1,309	1,025	2,334	521	38	105
Pennsylvania (anthracite)-----	1	-	1	292	293	294	435	729	1,160	2,463	3,623	1,112	2,361	3,473	50	43	64
Total or average-----	141	8	158	14,223	14,389	14,530	12,768	27,298	2,208	1,750	3,958	1,307	1,036	2,344	518	38	104

1/ Includes bituminous coal auger mines and anthracite culm banks and dredges.

TABLE 41. - Single accidents in which five or more fatalities occurred
at coal mines in the United States, 1967-76

Date	Mine	Location of mine	Cause	Number killed
1967: No occurrence	-----	-----	-----	-
1968: Aug. 7-----	River Queen No. 1--	Greenville, Ky.-----	Explosion-----	9
Nov. 20-----	Consol. No. 9-----	Farmington, W. Va.-----	Explosion-----	78
1969: No occurrence	-----	-----	-----	-
1970: Dec. 30-----	Nos. 15 and 16-----	Hyden, Ky.-----	Explosion-----	38
1971: No occurrence	-----	-----	-----	-
1972: July 22-----	Blacksville No. 1--	Blacksville, W. Va.-----	Mine Fire-----	9
Dec. 16-----	Itmann No. 3-----	Itmann, W. Va.-----	Explosion-----	5
1973: No occurrence	-----	-----	-----	-
1974: No occurrence	-----	-----	-----	-
1975: No occurrence	-----	-----	-----	-
1976: March 9-----	Scotia Mine-----	Oven Fork, Ky.-----	Explosion-----	15
March 11-----	Scotia Mine-----	Oven Fork, Ky.-----	Explosion-----	8

TABLE 42. - Injury experience and worktime data on officeworkers at coal mines in the United States, by State, 1976

State	Injuries				Frequency rates per million man-hours				Severity rates per million man-hours			Average men working daily	Man-hours worked
	Fatal	Nonfatal disabling	All disabling	Non-disabling	Fatal	Nonfatal disabling	All disabling	Non-disabling	Fatal	Nonfatal disabling	All disabling		
Alabama-----	-	-	-	1	-	-	-	1.71	-	-	-	402	585,291
Alaska-----	-	-	-	-	-	-	-	-	-	-	-	9	12,201
Arizona-----	-	-	-	-	-	-	-	-	-	-	-	10	23,055
Arkansas-----	-	-	-	-	-	-	-	-	-	-	-	16	15,004
Colorado-----	-	1	1	2	-	3.25	3.25	6.51	-	20	20	146	307,419
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	2	730
Illinois-----	-	2	2	3	-	2.00	2.00	3.00	-	10	10	469	999,986
Indiana-----	-	-	-	-	-	-	-	-	-	-	-	101	206,263
Iowa-----	-	-	-	-	-	-	-	-	-	-	-	8	13,703
Kansas-----	-	-	-	-	-	-	-	-	-	-	-	5	7,948
Kentucky-----	-	4	4	3	-	1.88	1.88	1.41	-	57	57	1,209	2,129,925
Maryland-----	-	-	-	-	-	-	-	-	-	-	-	19	24,491
Missouri-----	-	-	-	-	-	-	-	-	-	-	-	24	68,190
Montana-----	-	-	-	-	-	-	-	-	-	-	-	81	207,350
New Mexico-----	-	-	-	-	-	-	-	-	-	-	-	126	250,732
North Dakota-----	-	-	-	-	-	-	-	-	-	-	-	94	205,490
Ohio-----	-	1	1	-	-	.80	.80	-	-	85	85	637	1,251,105
Oklahoma-----	-	-	-	-	-	-	-	-	-	-	-	32	49,947
Pennsylvania (bituminous)-----	-	1	1	11	-	.70	.70	7.74	-	1	1	709	1,420,821
Tennessee-----	-	-	-	-	-	-	-	-	-	-	-	79	128,358
Texas-----	-	-	-	-	-	-	-	-	-	-	-	46	105,285
Utah-----	-	1	1	1	-	3.00	3.00	3.00	-	15	15	188	333,325
Virginia-----	-	-	-	1	-	-	-	2.70	-	-	-	233	370,686
Washington-----	-	-	-	-	-	-	-	-	-	-	-	87	158,971
West Virginia-----	-	6	6	5	-	2.07	2.07	1.73	-	32	32	1,476	2,892,455
Wyoming-----	-	1	1	-	-	1.98	1.98	-	-	153	153	318	504,910
Total or average, bituminous-----	-	17	17	27	-	1.39	1.39	2.20	-	34	34	6,526	12,273,641
Pennsylvania (anthracite)-----	-	-	-	2	-	-	-	12.34	-	-	-	97	162,078
Total or average, all mines-----	-	17	17	29	-	1.37	1.37	2.33	-	34	34	6,623	12,435,719

TABLE 43. - Injuries, distribution, average severity by degree, and injury rates for officeworkers at bituminous coal mines in the United States, by part of body injured and nature of injury, 1976

Part of body injured	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates per million man-hours				Severity rates per million man-hours			Average severity		
	Fatal	Nonfatal disabling			All disabling injuries	Non-disabling injuries	All injuries	Fatal		Non-fatal disabling	All disabling	Non-disabling	Fatal	Non fatal disabling	All disabling	Perma- nent partial	Tem- porary total	All dis- abling	
		Permanent		Tem- porary total															All non- fatal dis- abling
		Total	Par- tial																
Head, face, neck (excl. eye)---	-	-	-	1	1	1	2	3	5.9	-	0.08	0.08	0.16	-	(1/)	(1/)	-	5	5
Eye-----	-	-	-	-	-	-	4	4	-	-	-	-	.33	-	-	-	-	-	-
Trunk-----	-	-	-	5	5	5	8	13	29.4	-	.41	.41	.65	-	14	14	-	34	34
Arm (above wrist)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wrist, hand, fingers-----	-	-	-	5	5	5	4	9	29.4	-	.41	.41	.33	-	7	7	-	17	17
Leg (above ankle)-----	-	-	-	1	1	1	1	2	5.9	-	.08	.08	.08	-	5	5	-	67	67
Ankle, foot, toes-----	-	-	-	4	4	4	6	10	23.5	-	.33	.33	.49	-	8	8	-	24	24
Multiple-----	-	-	-	1	1	1	1	2	5.9	-	.08	.08	.08	-	(1/)	(1/)	-	3	3
Unclassified (no data)-----	-	-	-	-	-	-	1	1	-	-	-	-	.08	-	-	-	-	-	-
Total or average-----	-	-	-	17	17	17	27	44	-	-	1.39	1.39	2.20	-	34	34	-	25	25
Nature of injury																			
Burn, scald (except chemical)--	-	-	-	1	1	1	-	1	5.9	-	.08	.08	-	-	(1/)	(1/)	-	6	6
Crushing, contusion-----	-	-	-	3	3	3	6	9	17.6	-	.24	.24	.49	-	1	1	-	5	5
Cut, laceration-----	-	-	-	2	2	2	6	8	11.8	-	.16	.16	.49	-	5	5	-	33	33
Dermatitis-----	-	-	-	-	-	-	2	2	-	-	-	-	.16	-	-	-	-	-	-
Fracture-----	-	-	-	2	2	2	1	3	11.8	-	.16	.16	.08	-	12	12	-	72	72
Poisoning-----	-	-	-	-	-	-	1	1	-	-	-	-	.08	-	-	-	-	-	-
Strain, sprain-----	-	-	-	5	5	5	7	12	29.4	-	.41	.41	.57	-	6	6	-	14	14
Heart attack-----	-	-	-	1	1	1	-	1	5.9	-	.08	.08	-	-	9	9	-	106	106
Multiple injuries-----	-	-	-	2	2	2	1	3	11.8	-	.16	.16	.08	-	1	1	-	6	6
Other injury (not elsewhere classified)-----	-	-	-	1	1	1	3	4	5.9	-	.08	.08	.24	-	1	1	-	7	7
Total or average, office--	-	-	-	17	17	17	27	44	-	-	1.39	1.39	2.20	-	34	34	-	25	25

1/ Less than 0.5.

TABLE 44. - Injuries, distribution, average severity by degree, and injury rates for officeworkers at Pennsylvania anthracite coal mines in the United States, by part of body injured and nature of injury, 1976

Part of body injured	Number of injuries								Distribution of all disabling injuries, percent	Frequency rates per million man-hours				Severity rates per million man-hours			Average severity								
	Fatal	Nonfatal disabling			All disabling injuries	Non-disabling injuries	All injuries	Fatal		Non-fatal disabling	All disabling	Non-disabling	Fatal	Non-fatal disabling	All disabling	Permanent partial	Temporary total	All disabling							
		Permanent		Temporary total															All non-fatal disabling	Fatal	Non-fatal disabling	All disabling	Permanent partial	Temporary total	All disabling
		Total	Partial																						
Head, face, neck (excl. eye)----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Eye-----	-	-	-	-	-	1	1	-	-	-	-	6.17	-	-	-	-	-								
Trunk-----	-	-	-	-	-	1	1	-	-	-	-	6.17	-	-	-	-	-								
Arm (above wrist)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Wrist, hand, fingers-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Leg (above ankle)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Ankle, foot, toes-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Multiple-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Unclassified (no data)-----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Total or average, office---	-	-	-	-	-	2	2	-	-	-	-	12.34	-	-	-	-	-								
Nature of injury																									
Strain, sprain-----	-	-	-	-	-	-	1	1	-	-	-	-	6.17	-	-	-	-	-							
Other injury (not elsewhere classified)-----	-	-	-	-	-	-	1	1	-	-	-	-	6.17	-	-	-	-	-							
Total or average, office---	-	-	-	-	-	-	2	2	-	-	-	-	12.34	-	-	-	-	-							

TABLE 45. - Injuries by principal cause for officeworkers at coal mines in the United States, by State, 1976

State	Nonfatal disabling							Nondisabling										
	Slips or falls of persons	Handling material	Handtools	Electricity	Machinery	Miscellaneous causes	Total	Sliding or falling material or objects	Slips or falls of persons	Handling material	Handtools	Stepping or kneeling on sharp or loose objects	Striking or bumping against objects	Haulage	Machinery	Miscellaneous causes	Total	Grand total
Alabama-----	1	1					1						1				1	1
Colorado-----		1					1										1	1
Illinois-----	1			1			2										2	3
Kentucky-----	2	2					4										4	7
Ohio-----						1	1										1	1
Pennsylvania (bituminous)-----	1						1		3	4		1	1			2	11	12
Utah-----	1						1										1	2
Virginia-----	1						1		1								1	1
West Virginia-----	1	2	1		1	1	6		3		1					1	5	11
Wyoming-----	1						1		3								3	4
Total bituminous----	7	5	1	1	1	2	17	1	7	5	1	2	5	1	2	3	27	44
Pennsylvania (anthracite)	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	2	2
Total-----	7	5	1	1	1	2	17	1	8	5	1	2	5	1	2	4	29	46

TABLE 46. - Number and average severity of injuries by degree for officeworkers at bituminous coal mines in the United States, by principal cause of injury, 1976

Officeworkers only, principal cause of injury	Injuries							Average severity			
	Fatal	Nonfatal disabling			All nonfatal disabling	All disabling	Non-disabling	All injuries	Permanent partial	Temporary total	All disabling
		Permanent		Temporary total							
		Total	Partial								
Sliding or falling material or objects-----	-	-	-	-	-	1	1	-	-	-	
Slips or falls of persons-----	-	-	-	7	7	7	14	-	30	30	
Handling materials-----	-	-	-	5	5	5	10	-	10	10	
Handtools-----	-	-	-	1	1	1	2	-	33	33	
Stepping or kneeling on sharp or loose objects-----	-	-	-	-	-	2	2	-	-	-	
Striking or bumping against objects-----	-	-	-	-	-	5	5	-	-	-	
Haulage-----	-	-	-	-	-	1	1	-	-	-	
Electricity-----	-	-	-	1	1	1	1	-	7	7	
Machinery-----	-	-	-	1	1	1	3	-	8	8	
Miscellaneous causes-----	-	-	-	2	2	3	5	-	56	56	
Total or average-----	-	-	-	17	17	17	27	-	25	25	

TABLE 47. - Number and average severity of injuries by degree for officeworkers at Pennsylvania anthracite mines in the United States, by principal cause of injury, 1976

Officeworkers only, principal cause of injury	Injuries								Average severity		
	Fatal	Nonfatal disabling			All nonfatal disabling	All disabling	Non- disabling	All injuries	Permanent partial	Temporary total	All disabling
		Permanent		Temporary total							
		Total	Partial								
Sliding or falling material or objects-----	-	-	-	-	-	-	-	-	-	-	
Slips or falls of persons-----	-	-	-	-	-	1	1	-	-	-	
Handling material-----	-	-	-	-	-	-	-	-	-	-	
Handtools-----	-	-	-	-	-	-	-	-	-	-	
Stepping or kneeling on sharp or loose objects-----	-	-	-	-	-	-	-	-	-	-	
Haulage-----	-	-	-	-	-	-	-	-	-	-	
Electricity-----	-	-	-	-	-	-	-	-	-	-	
Machinery-----	-	-	-	-	-	-	-	-	-	-	
Miscellaneous causes-----	-	-	-	-	-	1	1	-	-	-	
Total or average-----	-	-	-	-	-	2	2	-	-	-	

TABLE 48. - Injury experience and worktime data for all work locations combined (includes officeworkers) at coal mines in the United States, by State, 1976

State	Injuries				Frequency rates per million man-hours				Severity rates per million man-hours			Average men working daily	Man-hours worked
	Fatal	Nonfatal disabling	All disabling	Non-disabling	Fatal	Nonfatal disabling	All disabling	Non-disabling	Fatal	Nonfatal disabling	All disabling		
Alabama-----	5	371	376	343	0.30	22.50	22.80	20.80	1,819	1,068	2,887	10,060	16,488,610
Alaska-----	-	8	8	2	-	45.06	45.06	11.27	-	958	958	78	177,535
Arizona-----	1	53	54	44	.74	39.03	39.77	32.40	4,418	1,088	5,506	674	1,357,965
Arkansas-----	-	12	12	6	-	21.43	21.43	10.71	-	154	154	295	560,091
Colorado-----	3	222	225	196	.68	50.50	51.18	44.58	4,094	1,301	5,396	2,626	4,396,380
Georgia-----	-	-	-	-	-	-	-	-	-	-	-	102	238,534
Illinois-----	3	1,018	1,021	589	.10	32.31	32.41	18.70	571	1,507	2,078	15,800	31,503,559
Indiana-----	1	118	119	179	.11	13.40	13.51	20.33	681	732	1,413	3,930	8,806,384
Iowa-----	-	4	4	1	-	14.59	14.59	3.65	-	584	584	138	274,108
Kansas-----	-	11	11	9	-	23.83	23.83	19.50	-	1,252	1,252	217	461,640
Kentucky-----	42	2,095	2,137	2,022	.64	32.07	32.72	30.95	3,858	1,483	5,341	37,233	65,321,691
Maryland-----	-	11	11	3	-	9.69	9.69	2.64	-	295	295	577	1,135,262
Missouri-----	-	27	27	63	-	11.88	11.88	27.72	-	162	162	975	2,272,837
Montana-----	-	25	25	15	-	14.16	14.16	8.49	-	364	364	847	1,765,956
New Mexico-----	-	29	29	5	-	13.40	13.40	2.31	-	677	677	1,187	2,164,601
North Dakota-----	1	24	25	17	.96	23.09	24.05	16.36	5,773	367	6,139	515	1,039,356
Ohio-----	7	699	706	414	.23	23.42	23.65	13.87	1,407	893	2,300	16,132	29,846,910
Oklahoma-----	-	41	41	28	-	22.53	22.53	15.39	-	767	767	1,058	1,819,593
Pennsylvania (bituminous)-----	19	2,572	2,591	2,705	.29	38.60	38.88	40.59	1,711	2,063	3,773	34,108	66,639,405
Tennessee-----	4	125	129	53	.82	25.69	26.51	10.89	4,933	1,183	6,116	2,998	4,865,510
Texas-----	1	11	12	42	.58	6.35	6.93	24.25	3,464	253	3,717	815	1,732,149
Utah-----	2	218	220	176	.36	39.62	39.98	31.98	2,181	1,703	3,884	2,921	5,502,774
Virginia-----	16	954	970	637	.58	34.29	34.86	22.89	3,450	1,601	5,052	16,817	27,823,130
Washington-----	-	51	51	-	-	47.67	47.67	-	-	1,345	1,345	529	1,069,749
West Virginia-----	33	5,309	5,342	4,603	.31	49.73	50.04	43.12	1,855	2,318	4,173	63,570	106,747,386
Wyoming-----	2	105	107	208	.32	16.81	17.13	33.29	1,921	619	2,540	3,795	6,247,650
Total or average, bituminous-----	140	14,113	14,253	12,360	.36	36.16	36.52	31.67	2,152	1,687	3,839	217,997	390,258,765
Pennsylvania (anthracite)-----	1	293	294	437	.19	54.92	55.11	81.92	1,125	2,388	3,513	3,258	5,334,794
Grand total-----	141	14,406	14,547	12,797	.36	36.42	36.77	32.35	2,139	1,696	3,835	221,255	395,593,559

TABLE 49. - Injury, worktime, production, and productivity data at bituminous coal mines in the United States, 1930-76

Year	Number of injuries			Frequency rates						Severity rates per million man-hours		Average severity, all disabling injuries	Average men working daily	Average days active	Man-days worked (thousands)	Man-hours worked (thousands) 1/	Production, short tons (thousands)
				Per million man-hours			Per million tons										
	Fatal	Non-fatal disabling	Non-disabling	Fatal	Non-fatal disabling	Non-disabling	Fatal	Non-fatal disabling	Non-disabling	Fatal	Non-fatal disabling						
1930-----	1,619	71,217	NA	1.90	83.75	NA	3.46	152.33	NA	NA	NA	493,202	187	92,326	850,359	467,526	
1931-----	1,080	53,975	NA	1.60	79.98	NA	2.83	141.26	NA	NA	NA	450,274	163	73,349	674,871	382,105	
1932-----	958	39,352	NA	1.77	72.58	NA	3.09	127.06	NA	NA	NA	406,380	146	59,260	542,181	309,710	
1933-----	833	43,946	NA	1.31	68.87	NA	2.50	131.72	NA	NA	NA	418,752	167	69,882	638,124	333,631	
1934-----	958	46,982	NA	1.41	69.39	NA	2.67	130.74	NA	NA	NA	458,044	178	81,648	677,115	359,368	
1935-----	968	47,529	NA	1.46	71.47	NA	2.60	127.64	NA	NA	NA	462,354	178	82,292	665,047	372,369	
1936-----	1,098	50,514	NA	1.43	65.62	NA	2.52	115.73	NA	NA	NA	482,500	197	95,262	769,819	436,468	
1937-----	1,198	52,847	NA	1.54	68.05	NA	2.68	118.21	NA	NA	NA	490,771	196	96,130	776,581	447,047	
1938-----	880	36,794	NA	1.52	63.47	NA	2.52	105.26	NA	NA	NA	445,246	161	71,747	579,747	349,548	
1939-----	867	38,544	NA	1.36	60.52	NA	2.19	97.18	NA	NA	NA	445,044	177	78,966	636,828	396,631	
1940-----	1,204	43,994	NA	1.68	61.28	NA	2.61	95.37	NA	NA	NA	440,847	201	88,771	717,969	461,319	
1941-----	1,072	46,637	NA	1.35	58.93	NA	2.08	90.42	NA	NA	NA	457,744	214	98,000	791,429	515,769	
1942-----	1,245	53,193	NA	1.41	60.21	NA	2.14	91.44	NA	NA	NA	448,797	244	109,491	883,518	581,705	
1943-----	1,225	51,067	NA	1.39	57.79	NA	2.06	86.05	NA	NA	NA	407,135	263	106,912	883,709	593,709	
1944-----	1,124	51,253	NA	1.23	56.02	NA	1.81	82.49	NA	7,371	2,198	376,203	278	104,695	914,925	621,358	
1945-----	925	46,194	NA	1.13	56.52	NA	1.60	80.12	NA	6,791	2,497	364,997	257	93,854	817,316	576,525	
1946-----	795	42,817	NA	1.09	58.81	NA	1.49	80.25	NA	6,552	2,552	385,142	215	82,850	727,995	533,520	
1947-----	985	46,025	NA	1.23	57.32	NA	1.57	73.28	NA	7,360	2,689	411,845	236	97,105	803,016	628,034	
1948-----	862	42,078	NA	1.15	56.28	NA	1.45	70.97	NA	6,917	2,687	429,378	220	94,575	747,686	592,923	
1949-----	494	27,548	NA	.93	51.67	NA	1.13	63.22	NA	5,559	3,231	409,431	165	67,552	635,166	435,719	
1950-----	550	28,390	NA	.92	47.73	NA	1.06	54.82	NA	5,548	2,876	408,623	185	75,510	594,836	517,879	
1951-----	684	28,081	NA	1.16	47.56	NA	1.28	52.67	NA	6,951	3,097	372,138	201	74,898	590,406	533,132	
1952-----	449	23,719	NA	.90	47.64	NA	.96	50.53	NA	5,411	2,998	338,719	186	63,028	497,914	469,373	
1953-----	397	20,112	NA	.89	45.26	NA	.87	44.12	NA	5,361	2,681	295,425	191	56,294	444,319	455,885	
1954-----	334	14,746	NA	.99	43.66	NA	.85	37.62	NA	5,934	2,566	241,919	177	42,765	337,727	391,952	
1955-----	360	15,966	NA	.96	42.76	NA	.78	34.52	NA	5,785	2,398	225,539	187	47,306	373,384	462,519	
1956-----	392	16,486	NA	1.02	42.99	NA	.79	33.22	NA	6,134	2,196	227,778	212	48,392	383,442	496,231	
1957-----	427	15,915	NA	1.17	43.74	NA	.87	32.53	NA	7,040	2,197	223,900	206	46,020	363,896	489,175	
1958-----	326	12,036	NA	1.14	41.97	NA	.79	29.29	NA	6,821	2,825	198,350	183	36,260	286,758	410,936	
1959-----	246	10,440	NA	.92	39.15	NA	.60	25.33	NA	5,535	2,446	180,303	187	33,738	266,660	412,078	
1960-----	290	10,501	NA	1.13	40.85	NA	.70	25.24	NA	6,768	2,502	170,628	190	32,417	257,075	416,098	
1961-----	275	9,902	NA	1.18	42.52	NA	.68	24.56	NA	7,085	2,692	151,776	194	29,453	232,871	403,222	
1962-----	263	9,783	NA	1.15	42.86	NA	.62	23.14	NA	6,913	2,799	147,276	196	28,863	228,267	422,838	
1963-----	252	9,838	NA	1.09	42.38	NA	.55	21.37	NA	6,513	2,321	143,628	204	29,289	232,136	460,285	
1964-----	218	9,728	NA	.94	41.92	NA	.45	19.93	NA	5,637	2,675	137,617	194	29,200	232,037	488,086	
1965-----	251	10,071	NA	1.08	43.30	NA	.49	19.63	NA	6,474	2,769	137,602	212	29,242	232,613	513,083	
1966-----	227	9,617	NA	.99	41.80	NA	.43	18.06	NA	5,919	1,981	135,952	213	28,928	230,087	532,559	
1967-----	213	9,506	NA	.93	41.44	NA	.39	17.33	NA	5,571	2,247	131,562	220	28,910	229,415	548,503	
1968-----	307	9,135	NA	1.37	40.89	NA	.57	16.86	NA	8,245	2,580	127,535	221	28,144	223,406	541,849	
1969-----	190	9,425	NA	.84	41.44	NA	.34	16.86	NA	5,013	2,269	127,375	225	28,677	227,411	558,931	
1970-----	255	11,049	NA	1.02	44.21	NA	.43	18.42	NA	6,121	2,339	138,542	227	31,423	249,945	599,918	
1971-----	176	11,363	NA	.72	46.41	NA	.32	20.51	NA	4,313	1,157	137,080	225	30,839	244,820	553,993	
1972-----	153	12,012	15,700	.59	45.96	60.08	.29	22.75	29.73	3,513	1,892	157,285	NA	NA	261,338	528,093	
1973-----	131	10,880	13,999	.48	40.06	51.55	.24	19.73	25.38	2,894	1,966	143,886	120	NA	271,575	551,482	
1974-----	131	8,298	6,895	.45	28.45	23.64	.23	14.80	12.29	2,695	1,946	173,588	161	NA	291,672	560,840	
1975-----	153	10,856	9,185	.42	29.89	25.29	.25	17.91	15.16	2,527	1,778	215,004	142	NA	363,250	606,007	
1976-----	140	14,096	12,333	.37	37.29	32.63	.22	21.97	19.22	2,222	1,740	211,471	NA	NA	377,985	641,692	

1/ Man-hours of exposure were reported by coal producers for the first time in 1930; from 1930 through 1944, these hours represented worktime or face-time only for underground employees. Since portal-to-portal hours were reported from 1945 on, the face-time hours reported from 1930 through 1944 were converted to portal-to-portal hours. See Bulletin 509, "Injury Experience in Coal Mining, 1948," page 5, for method used. NA Not available.

TABLE 50. - Injury, worktime, production, and productivity data at Pennsylvania anthracite mines, 1930-76

Year	Number of injuries			Frequency rates						Severity rates		Average severity, all disabling injuries	Average men working daily	Average days active	Man-days worked (thousands)	Man-hours worked (thousands)	Production, short tons (thousands)
				Per million man-hours			Per million tons			per million man-hours							
	Fatal	Non-fatal disabling	Non-disabling	Fatal	Non-fatal disabling	Non-disabling	Fatal	Non-fatal disabling	Non-disabling	Fatal	Non-fatal disabling						
1930-----	444	28,764	NA	1.76	113.90	NA	6.40	414.56	NA	NA	NA	NA	150,804	209	31,568	252,543	69,385
1931-----	383	23,983	NA	1.84	115.07	NA	6.42	402.09	NA	NA	NA	NA	139,431	186	25,915	208,415	59,646
1932-----	249	16,931	NA	1.59	107.88	NA	4.99	339.60	NA	NA	NA	NA	121,243	161	19,486	156,944	49,855
1933-----	231	15,183	NA	1.49	98.13	NA	4.66	306.47	NA	NA	NA	NA	104,430	185	19,344	154,723	49,541
1934-----	268	18,577	NA	1.50	104.15	NA	4.69	324.95	NA	NA	NA	NA	108,382	206	22,292	178,372	57,168
1935-----	274	15,897	NA	1.78	103.16	NA	5.24	304.17	NA	NA	NA	NA	102,848	187	19,280	154,096	52,263
1936-----	244	17,026	NA	1.56	108.80	NA	4.46	311.43	NA	NA	NA	NA	102,082	192	19,630	156,486	54,670
1937-----	215	13,412	NA	1.58	98.72	NA	4.15	259.19	NA	NA	NA	NA	99,085	189	18,741	135,854	51,745
1938-----	225	12,842	NA	1.94	110.85	NA	4.88	278.27	NA	NA	NA	NA	96,282	172	16,528	115,852	46,149
1939-----	211	13,229	NA	1.71	107.37	NA	4.11	257.65	NA	NA	NA	NA	94,331	186	17,524	123,211	51,346
1940-----	184	13,782	NA	1.50	112.55	NA	3.57	267.67	NA	NA	NA	NA	92,420	189	17,468	122,447	51,489
1941-----	194	14,420	NA	1.49	110.83	NA	3.58	266.47	NA	NA	NA	NA	88,948	207	18,444	130,107	54,115
1942-----	226	13,581	NA	1.64	98.73	NA	3.88	232.89	NA	NA	NA	NA	82,064	239	19,644	137,560	58,316
1943-----	226	13,527	NA	1.50	89.68	NA	3.80	227.32	NA	NA	NA	NA	79,381	269	21,385	150,832	59,506
1944-----	174	12,438	NA	1.06	76.05	NA	2.74	195.59	NA	6,383	1,776	106	77,734	293	22,805	163,549	63,592
1945-----	143	10,923	NA	1.01	77.32	NA	2.60	198.60	NA	6,073	1,990	103	72,924	268	19,569	141,275	54,999
1946-----	173	12,533	NA	1.14	82.65	NA	2.86	207.31	NA	6,845	2,171	108	77,937	269	20,997	151,633	60,456
1947-----	173	11,635	NA	1.18	79.41	NA	3.03	203.67	NA	7,084	2,132	114	78,511	257	20,207	146,523	57,128
1948-----	137	11,394	NA	.91	75.69	NA	2.40	199.62	NA	5,460	2,685	106	77,955	263	20,508	150,545	57,080
1949-----	91	7,857	NA	.83	71.88	NA	2.11	181.87	NA	4,995	2,388	102	75,875	196	14,885	109,310	43,201
1950-----	93	8,874	NA	.80	76.14	NA	2.09	199.75	NA	4,787	2,495	95	74,616	211	15,721	116,554	44,426
1951-----	101	7,472	NA	.95	69.94	NA	2.41	178.63	NA	5,672	2,787	119	69,767	207	14,467	106,841	41,828
1952-----	99	6,355	NA	1.03	66.35	NA	2.44	156.55	NA	6,201	2,369	127	62,610	207	12,975	95,784	40,595
1953-----	64	4,146	NA	.92	59.85	NA	2.10	135.85	NA	5,543	2,064	125	55,701	169	9,394	69,275	30,518
1954-----	62	2,972	NA	1.23	59.18	NA	2.14	102.72	NA	7,407	2,664	167	41,786	164	6,832	50,223	28,933
1955-----	60	2,919	NA	1.30	63.46	NA	2.07	100.84	NA	7,827	2,423	158	34,550	182	6,285	45,995	28,948
1956-----	56	3,330	NA	1.12	66.31	NA	1.74	103.36	NA	6,691	2,818	141	32,507	212	6,893	50,220	32,216
1957-----	51	2,877	NA	1.15	64.93	NA	2.00	112.69	NA	6,906	2,420	141	30,825	196	6,057	44,311	25,530
1958-----	32	1,124	NA	.90	59.88	NA	1.51	99.90	NA	5,413	2,303	127	26,540	183	4,861	35,471	21,260
1959-----	47	1,723	NA	1.60	58.66	NA	2.29	84.07	NA	9,601	2,081	194	23,294	173	4,036	29,371	20,496
1960-----	35	1,401	NA	1.43	57.30	NA	1.85	73.98	NA	8,588	1,897	179	19,051	176	3,360	24,452	18,938
1961-----	19	1,295	NA	.85	57.75	NA	1.09	73.97	NA	5,084	2,618	131	15,792	196	3,098	22,424	17,507
1962-----	26	1,161	NA	1.26	56.14	NA	1.52	67.76	NA	7,544	1,877	164	14,010	204	2,853	20,680	17,133
1963-----	32	1,295	NA	1.52	61.53	NA	1.74	70.60	NA	9,122	3,245	196	13,498	216	2,912	21,048	18,344
1964-----	24	1,342	NA	1.18	65.89	NA	1.37	76.74	NA	7,070	2,580	144	13,144	214	2,812	20,368	17,487
1965-----	8	1,067	NA	.49	65.16	NA	.54	71.57	NA	2,931	2,004	75	11,132	204	2,271	16,375	14,909
1966-----	6	829	NA	.44	60.64	NA	.46	64.24	NA	2,633	1,844	73	9,292	203	1,883	13,672	12,905
1967-----	9	609	NA	.73	49.27	NA	.73	49.67	NA	4,369	1,142	110	7,750	219	1,701	12,359	12,262
1968-----	4	504	NA	.36	45.77	NA	.35	43.86	NA	2,180	2,002	91	6,932	217	1,508	11,011	11,492
1969-----	13	492	NA	1.29	48.85	NA	1.27	47.99	NA	7,744	1,347	181	5,927	232	1,377	10,073	10,251
1970-----	5	503	NA	.49	49.20	NA	.51	50.88	NA	2,934	1,663	93	5,938	234	1,392	10,224	9,885
1971-----	5	553	NA	.54	59.37	NA	.57	63.36	NA	3,221	691	65	5,028	250	1,259	9,315	8,727
1972-----	3	317	390	.48	51.03	62.79	.46	48.82	60.06	2,898	2,709	109	4,922	NA	NA	6,212	6,493
1973-----	1	340	492	.17	56.24	81.38	.15	52.57	76.08	992	1,698	48	3,357	NA	NA	6,046	6,467
1974-----	2	247	372	.39	48.40	72.89	.41	50.06	75.40	2,351	1,568	80	3,409	NA	NA	5,103	4,934
1975-----	2	251	456	.40	50.74	92.18	.39	48.99	89.00	2,426	1,782	82	3,158	NA	NA	4,947	5,123
1976-----	1	293	435	.19	56.64	84.10	.19	54.31	80.63	1,160	2,463	64	3,151	NA	NA	5,173	5,395

NA Not available.

TABLE 51. - Injury, worktime, production, and productivity data at all coal mines in the United States, 1930-76

Year	Number of injuries			Frequency rates						Severity rates per million man-hours		Average severity, all disabling injuries	Average men working daily	Average days active	Man-days worked (thousands)	Man-hours worked (thousands) 1/	Production, short tons (thousands)
				Per million man-hours			Per million tons										
	Fatal	Non-fatal disabling	Non-disabling	Fatal	Non-fatal disabling	Non-disabling	Fatal	Non-fatal disabling	Non-disabling	Fatal	Non-fatal disabling						
1930----	2,063	99,981	NA	1.87	90.65	NA	3.84	186.22	NA	NA	NA	NA	644,006	192	123,894	1,102,902	536,911
1931----	1,463	77,958	NA	1.66	88.26	NA	3.31	176.47	NA	NA	NA	NA	589,705	168	99,264	883,286	441,751
1932----	1,207	56,283	NA	1.73	80.50	NA	3.36	156.53	NA	NA	NA	NA	527,623	149	78,745	699,125	359,565
1933----	1,064	59,129	NA	1.34	74.58	NA	2.78	154.31	NA	NA	NA	NA	523,182	171	89,226	792,847	383,172
1934----	1,226	65,559	NA	1.43	76.63	NA	2.94	157.39	NA	NA	NA	NA	566,426	184	103,940	855,487	416,536
1935----	1,242	63,426	NA	1.52	77.43	NA	2.92	149.37	NA	NA	NA	NA	565,202	180	101,572	819,143	424,632
1936----	1,342	67,540	NA	1.45	72.91	NA	2.73	137.52	NA	NA	NA	NA	584,582	197	114,891	926,305	491,139
1937----	1,413	66,259	NA	1.55	72.62	NA	2.83	132.84	NA	NA	NA	NA	589,856	195	114,871	912,435	498,793
1938----	1,105	49,636	NA	1.59	71.36	NA	2.79	125.44	NA	NA	NA	NA	541,528	163	88,276	695,599	395,697
1939----	1,078	51,773	NA	1.42	68.12	NA	2.41	115.57	NA	NA	NA	NA	539,375	179	96,490	760,039	447,977
1940----	1,388	57,776	NA	1.65	68.75	NA	2.71	112.67	NA	NA	NA	NA	533,267	199	106,239	840,416	512,808
1941----	1,266	61,057	NA	1.37	66.26	NA	2.22	107.14	NA	NA	NA	NA	546,692	213	116,444	921,536	569,884
1942----	1,471	66,774	NA	1.44	65.40	NA	2.30	104.33	NA	NA	NA	NA	530,861	243	129,136	1,021,078	640,021
1943----	1,451	64,594	NA	1.40	62.44	NA	2.22	98.92	NA	NA	NA	NA	486,516	264	128,297	1,034,541	652,977
1944----	1,298	63,691	NA	1.20	59.06	NA	1.90	92.99	NA	7,221	2,134	155	453,937	281	127,500	1,078,474	684,950
1945----	1,068	57,117	NA	1.11	59.58	NA	1.69	90.44	NA	6,685	2,422	150	437,921	259	113,424	958,591	631,523
1946----	968	55,350	NA	1.10	62.92	NA	1.63	93.19	NA	6,603	2,486	142	463,079	224	103,847	879,628	593,976
1947----	1,158	57,660	NA	1.22	60.72	NA	1.69	84.16	NA	7,317	2,603	160	490,356	239	117,312	949,539	685,162
1948----	999	53,472	NA	1.11	59.53	NA	1.54	82.26	NA	6,673	2,686	154	507,333	227	115,083	898,231	650,003
1949----	585	35,405	NA	.91	55.11	NA	1.22	73.93	NA	5,463	3,087	153	485,306	170	82,437	642,476	478,920
1950----	643	37,264	NA	.90	52.38	NA	1.14	66.27	NA	5,423	2,814	155	483,239	189	91,231	711,390	562,305
1951----	785	35,553	NA	1.13	50.99	NA	1.37	61.84	NA	6,755	3,049	188	441,905	202	89,365	697,247	574,960
1952----	548	30,074	NA	.92	50.66	NA	1.07	58.97	NA	5,538	2,896	164	401,329	189	76,003	593,698	509,967
1953----	461	24,258	NA	.90	47.23	NA	.95	49.87	NA	5,386	2,598	166	351,126	187	65,688	513,594	486,404
1954----	396	17,718	NA	1.02	45.67	NA	.94	42.10	NA	6,124	2,578	186	283,705	175	49,598	387,950	420,885
1955----	420	18,885	NA	1.00	45.03	NA	.85	38.43	NA	6,009	2,401	183	260,089	206	53,591	419,379	491,468
1956----	448	19,816	NA	1.03	45.69	NA	.85	37.50	NA	6,198	2,268	181	260,285	212	55,286	433,662	528,447
1957----	478	18,792	NA	1.17	46.04	NA	.93	36.51	NA	7,026	2,221	196	254,725	204	52,077	408,207	514,706
1958----	358	14,160	NA	1.11	43.94	NA	.83	32.76	NA	6,666	2,768	209	224,890	183	41,121	322,229	432,196
1959----	293	12,163	NA	.99	41.09	NA	.68	28.12	NA	5,939	2,409	198	203,597	186	37,773	296,031	432,574
1960----	325	11,902	NA	1.15	42.28	NA	.75	27.36	NA	6,926	2,449	216	189,679	189	35,778	281,528	435,036
1961----	294	11,197	NA	1.15	43.86	NA	.70	26.61	NA	6,910	2,686	213	167,568	194	32,551	255,296	420,729
1962----	289	10,944	NA	1.16	43.96	NA	.66	24.87	NA	6,965	2,722	215	161,286	197	31,716	248,946	439,972
1963----	284	11,133	NA	1.12	43.97	NA	.59	23.26	NA	6,730	2,398	202	157,126	205	32,200	253,183	478,629
1964----	242	11,070	NA	.96	43.86	NA	.48	21.90	NA	5,753	2,668	188	150,761	212	32,012	252,405	505,573
1965----	259	11,138	NA	1.04	44.73	NA	.49	21.09	NA	6,241	2,718	196	148,734	212	31,513	248,988	527,993
1966----	233	10,446	NA	.96	42.85	NA	.43	19.15	NA	5,735	1,973	176	145,244	212	30,811	243,759	545,464
1967----	222	10,115	NA	.92	41.84	NA	.40	18.04	NA	5,509	2,190	180	139,312	220	30,611	241,774	560,764
1968----	311	9,639	NA	1.33	41.12	NA	.56	17.42	NA	7,960	2,553	248	134,467	221	29,651	234,417	553,340
1969----	203	9,917	NA	.85	41.76	NA	.36	17.42	NA	5,129	2,230	173	133,302	225	30,053	237,484	569,182
1970----	260	11,552	NA	1.00	44.40	NA	.43	18.94	NA	5,996	2,312	183	144,480	227	32,814	260,169	609,803
1971----	181	11,916	NA	.71	46.89	NA	.32	21.18	NA	4,273	1,140	114	142,108	226	32,099	254,135	562,720
1972----	156	12,329	16,090	.58	46.08	60.14	.29	23.06	30.10	3,498	1,911	116	162,207	NA	NA	267,550	534,586
1973----	132	11,220	14,491	.48	40.41	52.20	.24	20.11	25.97	2,853	1,960	118	147,243	NA	NA	277,622	557,949
1974----	133	8,545	7,267	.45	28.79	24.49	.24	15.10	12.84	2,689	1,940	158	176,997	NA	NA	296,775	565,774
1975----	155	11,107	9,641	.42	30.17	26.18	.25	18.17	15.78	2,526	1,778	141	218,162	NA	NA	368,197	611,130
1976----	141	14,389	12,768	.37	37.55	33.32	.22	22.24	19.73	2,208	1,750	104	214,632	NA	NA	383,158	647,087

 1/ All man-hours are shown on a portal-to-portal basis.
 NA Not available.

TABLE 52. - Coal mine fatality rates for the United States, 1870-1976 ^{1/}
(Includes underground and surface injuries)

Year	Bituminous coal mines			Anthracite mines			Total		
	Per thousand employed	Per thousand 300-day workers	Per million tons mined	Per thousand employed	Per thousand 300-day workers	Per million tons mined	Per thousand employed	Per thousand 300-day workers	Per million tons mined
1870	-	-	-	5.93	-	13.47	5.93	-	13.47
1871	-	-	-	5.60	-	10.86	5.60	-	10.86
1872	-	-	-	4.98	-	9.20	4.98	-	9.20
1873	-	-	-	5.46	-	10.06	5.46	-	10.06
1874	2.11	-	8.88	4.33	-	9.31	3.87	-	9.26
1875	1.60	-	4.93	3.37	-	10.50	3.06	-	9.51
Average	-	-	-	4.58	-	9.94	4.30	-	9.72
1876	1.00	-	4.29	3.22	-	9.96	2.83	-	9.20
1877	2.17	-	5.90	2.90	-	7.56	2.77	-	7.28
1878	1.86	-	3.17	2.92	-	8.62	2.62	-	6.38
1879	2.02	-	3.39	3.81	-	8.67	3.30	-	6.82
1880	1.43	-	2.95	2.75	-	7.05	2.21	-	5.16
Average	1.66	-	3.42	3.12	-	8.31	2.72	-	6.68
1881	1.67	-	2.75	3.59	4.87	8.55	2.93	-	6.04
1882	1.95	-	3.63	3.54	4.87	8.29	2.75	-	5.72
1883	3.09	-	4.99	3.53	4.56	8.40	3.34	-	6.58
1884	2.26	-	4.11	3.28	5.12	8.94	2.80	-	6.17
1885	1.68	-	3.48	3.58	5.26	9.36	2.58	-	5.91
Average	2.12	-	3.88	3.50	4.94	8.72	2.85	-	6.09
1886	1.85	-	3.89	2.70	4.13	7.12	2.25	-	5.23
1887	1.55	-	3.08	2.95	4.25	7.46	2.20	-	4.86
1888	2.23	-	4.38	2.98	4.10	7.81	2.55	-	5.61
1889	1.77	-	3.44	3.11	4.81	8.45	2.36	-	5.22
1890	2.15	2.85	3.56	3.00	4.50	8.13	2.52	3.50	5.01
Average	1.94	-	3.68	2.96	4.36	7.82	2.39	-	5.19
1891	2.86	3.85	4.94	3.39	5.01	8.45	3.08	4.30	6.06
1892	3.05	4.17	5.06	3.24	4.91	7.97	3.12	4.42	5.98
1893	2.26	3.32	4.07	3.42	5.21	8.43	2.70	4.03	5.39
1894	2.26	3.96	4.65	3.38	5.34	8.57	2.67	4.50	5.91
1895	3.09	4.78	5.46	2.95	4.51	7.26	3.04	4.68	6.00
Average	2.69	4.02	4.84	3.27	4.99	8.12	2.91	4.38	5.87
1896	2.51	3.92	4.45	3.36	5.79	9.22	2.85	4.62	5.85
1897	2.38	3.64	3.99	2.82	5.64	8.04	2.55	4.27	5.08
1898	2.64	3.75	4.06	2.82	5.57	7.70	2.71	4.28	4.97
1899	3.05	3.91	4.25	3.30	5.72	7.63	3.14	4.40	5.08
1900	3.74	4.79	5.32	2.85	5.15	7.16	3.44	4.87	5.72
Average	2.90	4.06	4.46	3.03	5.58	7.94	2.95	4.50	5.34
1901	3.16	4.21	4.74	3.53	5.40	7.60	3.27	4.54	5.40
1902	3.93	5.13	5.58	2.03	5.25	7.25	3.38	5.15	5.81
1903	3.47	4.63	5.07	3.44	5.01	6.94	3.46	4.72	5.47
1904	3.35	4.98	5.26	3.82	5.73	8.13	3.48	5.17	5.88
1905	3.53	5.02	5.14	3.89	5.43	8.29	3.63	5.14	5.78
Average	3.49	4.81	5.17	3.36	5.38	7.69	3.45	4.95	5.67
1906	3.38	4.76	4.72	3.43	5.28	7.81	3.39	4.87	5.27
1907	4.99	6.40	6.46	4.23	5.77	8.27	4.81	6.25	6.78
1908	3.50	5.44	5.42	3.89	5.84	8.14	3.60	5.54	5.97
1909	4.15	5.58	5.46	3.40	4.79	6.99	3.96	5.35	5.73
1910	4.00	5.53	5.32	3.55	4.65	7.11	3.89	5.30	5.62
Average	4.01	5.57	5.50	3.70	5.25	7.67	3.94	5.48	5.89
1911	3.53	5.02	4.82	4.02	4.90	7.73	3.65	4.97	5.35
1912	3.31	4.46	4.04	3.45	4.48	7.12	3.35	4.46	4.53
1913	3.79	4.90	4.53	3.52	4.10	6.75	3.73	4.70	4.89
1914	3.19	4.90	4.40	3.31	4.05	6.55	3.22	4.66	4.78
1915	3.02	4.47	3.80	3.32	4.33	6.58	3.09	4.44	4.27
Average	3.27	4.75	4.31	3.52	4.37	6.95	3.40	4.65	4.76
1916	2.98	3.88	3.33	3.47	4.11	6.34	3.09	3.93	3.77
1917	3.50	4.33	3.83	3.77	3.98	5.84	3.56	4.25	4.14
1918	3.30	3.97	3.50	3.75	3.83	5.58	3.38	3.94	3.80
1919	2.71	4.16	3.62	4.11	4.64	7.21	2.99	4.28	4.19
1920	2.78	3.79	3.13	3.38	3.74	5.48	2.90	3.78	3.45
Average	3.05	4.03	3.48	3.70	4.06	6.07	3.18	4.03	3.86
1921	2.18	4.38	3.48	3.43	3.80	6.05	2.42	4.20	3.94
1922	2.45	5.16	3.99	1.91	3.81	5.49	2.35	4.90	4.16
1923	2.77	4.65	3.46	3.23	3.62	5.45	2.85	4.39	3.74
1924	3.08	5.39	3.94	3.10	3.39	5.64	3.08	4.80	4.20
1925	3.12	4.79	3.53	2.50	4.12	6.47	2.98	4.65	3.84
Average	2.70	4.87	3.67	2.83	3.71	5.80	2.73	4.58	3.96

See footnote at end of table.

TABLE 52. - Coal mine fatality rates for the United States, 1870-1976 ^{1/} - Continued
(Includes underground and surface injuries)

Year	Bituminous coal mines			Anthracite mines			Total		
	Per thousand employed	Per thousand 300-day workers	Per million tons mined	Per thousand employed	Per thousand 300-day workers	Per million tons mined	Per thousand employed	Per thousand 300-day workers	Per million tons mined
1926-----	3.48	4.86	3.60	2.74	3.37	5.36	3.32	4.50	3.83
1927-----	2.93	4.60	3.36	2.96	3.94	6.11	2.94	4.43	3.73
1928-----	3.31	4.90	3.45	2.78	3.85	5.93	3.19	4.64	3.78
1929-----	3.39	4.63	3.19	3.18	4.24	6.53	3.34	4.54	3.59
1930-----	3.28	5.26	3.46	2.94	4.22	6.40	3.20	5.00	3.84
Average-----	3.27	4.84	3.42	2.92	3.90	6.04	3.19	4.61	3.75
1931-----	2.40	4.42	2.83	2.75	4.43	6.42	2.48	4.42	3.31
1932-----	2.36	4.85	3.09	2.05	3.83	4.99	2.29	4.60	3.36
1933-----	1.99	3.58	2.50	2.21	3.58	4.66	2.03	3.58	2.78
1934-----	2.09	3.52	2.67	2.47	3.61	4.69	2.16	3.54	2.94
1935-----	2.09	3.53	2.60	2.66	4.26	5.24	2.20	3.67	2.92
Average-----	2.18	3.93	2.73	2.44	3.96	5.23	2.24	3.93	3.06
1936-----	2.28	3.46	2.52	2.39	3.73	4.46	2.30	3.50	2.73
1937-----	2.44	3.74	2.68	2.17	3.44	4.15	2.40	3.69	2.83
1938-----	1.98	3.68	2.52	2.34	4.08	4.88	2.04	3.76	2.79
1939-----	1.95	3.29	2.19	2.24	3.61	4.11	2.00	3.35	2.41
1940-----	2.73	4.07	2.61	1.99	3.16	3.57	2.60	3.92	2.71
Average-----	2.28	3.65	2.51	2.23	3.60	4.23	2.27	3.64	2.70
1941-----	2.34	3.28	2.08	2.18	3.16	3.58	2.32	3.26	2.22
1942-----	2.77	3.41	2.14	2.75	3.45	3.88	2.77	3.42	2.30
1943-----	3.01	3.44	2.06	2.85	3.17	3.80	2.98	3.39	2.22
1944-----	2.99	3.22	1.81	2.24	2.29	2.74	2.86	3.05	1.90
1945-----	2.53	2.96	1.60	1.96	2.19	2.60	2.44	2.82	1.69
Average-----	2.72	3.27	1.94	2.41	2.84	3.32	2.67	3.20	2.06
1946-----	2.06	2.88	1.49	2.22	2.47	2.86	2.09	2.80	1.63
1947-----	2.39	3.02	1.57	2.20	2.57	3.02	2.36	2.96	1.69
1948-----	2.01	2.73	1.45	1.76	2.00	2.40	1.97	2.60	1.54
1949-----	1.21	2.19	1.13	1.20	1.83	2.11	1.21	1.13	1.22
1950-----	1.35	2.19	1.06	1.25	1.77	2.09	1.33	2.11	1.14
Average-----	1.80	2.65	1.36	1.73	2.16	2.54	1.79	2.56	1.47
1951-----	1.84	2.74	1.28	1.45	2.09	2.41	1.78	2.64	1.37
1952-----	1.33	2.14	.96	1.58	2.29	2.44	1.37	2.16	1.07
1953-----	1.34	2.12	.87	1.15	2.04	2.10	1.31	2.11	.95
1954-----	1.38	2.34	.85	1.48	2.72	2.14	1.40	2.40	.94
1955-----	1.60	2.28	.78	1.74	2.86	2.07	1.61	2.35	.85
Average-----	1.51	2.35	.96	1.46	2.32	2.26	1.50	2.34	1.05
1956-----	1.72	2.43	.79	1.72	2.44	1.74	1.72	2.43	.85
1957-----	1.91	2.78	.87	1.65	2.53	2.00	1.88	2.75	.93
1958-----	1.64	2.70	.79	1.21	1.97	1.51	1.59	2.61	.83
1959-----	1.36	2.19	.60	2.02	3.49	2.29	1.44	2.33	.68
1960-----	1.70	2.68	.70	1.84	3.12	1.85	1.71	2.73	.75
Average-----	1.68	2.56	.76	1.67	2.63	1.87	1.68	2.57	.81
1961-----	1.81	2.80	.68	1.20	1.84	1.09	1.75	2.71	.70
1962-----	1.79	2.73	.62	1.86	2.73	1.52	1.79	2.73	.66
1963-----	1.75	2.58	.55	2.37	3.30	1.74	1.81	2.65	.59
1964-----	1.58	2.24	.45	1.83	2.56	1.37	1.61	2.27	.48
1965-----	1.82	2.58	.49	.72	1.06	.54	1.74	2.47	.49
Average-----	1.75	2.59	.55	1.61	2.34	1.28	1.74	2.57	.58
1966-----	1.67	2.35	.43	.65	.96	.46	1.60	2.27	.43
1967-----	1.62	2.21	.39	1.16	1.59	.73	1.59	2.18	.40
1968-----	2.41	3.27	.57	.58	.80	.35	2.31	3.15	.56
1969-----	1.49	1.99	.34	2.19	2.83	1.27	1.52	2.03	.36
1970-----	1.84	2.43	.43	.84	1.08	.51	1.80	2.38	.43
Average-----	1.80	2.45	.43	1.03	1.41	.65	1.76	2.40	.43
1971-----	1.28	1.71	.32	.99	1.19	.57	1.27	1.69	.32
1972-----	.97	NA	.29	.61	NA	.46	.96	NA	.29
1973-----	.91	NA	.24	.30	NA	.15	.90	NA	.24
1974-----	.75	NA	.23	.59	NA	.41	.75	NA	.24
1975-----	.71	NA	.25	.63	NA	.39	.71	NA	.25
Average-----	.92	.34	.27	.62	.24	.40	.92	.34	.27
1976-----	.66	NA	.22	.32	NA	.19	.66	NA	.22

NA Not available.

^{1/} Before 1910 certain States did not maintain records of injuries. The above rates are based exclusively on tonnage and men employed in States for which injury records are available.

TABLE 53. - Bituminous coal mines: Fatalities, by principal cause of injury, 1906-76 ^{1/}

Year	Underground workings									Surface ^{2/}	Grand total
	Falls of roof and face	Haulage	Gas or dust explosions	Explosives	Electricity	All other underground	Total underground	Shaft and slope	Total		
1906-----	826	192	219	115	52	27	1,431	73	1,504	77	1,581
1907-----	911	260	911	134	49	99	2,364	59	2,423	111	2,534
1908-----	829	229	320	109	53	97	1,637	53	1,690	77	1,767
1909-----	975	240	264	122	52	312	1,965	37	2,002	73	2,075
1910-----	1,061	295	477	113	76	46	2,068	60	2,128	92	2,220
Average-----	921	243	438	119	56	116	1,893	56	1,949	86	2,035
1911-----	1,007	294	331	72	92	44	1,840	31	1,871	86	1,957
1912-----	943	296	255	70	75	44	1,683	39	1,722	96	1,818
1913-----	1,007	344	464	63	79	82	2,039	32	2,071	96	2,167
1914-----	903	309	305	56	86	55	1,714	41	1,755	104	1,859
1915-----	818	269	270	76	85	35	1,553	30	1,583	100	1,683
Average-----	936	303	325	67	83	52	1,766	35	1,801	96	1,897
1916-----	850	330	183	60	81	49	1,553	34	1,587	84	1,671
1917-----	965	433	319	55	76	60	1,908	44	1,952	162	2,114
1918-----	1,052	446	103	85	77	76	1,839	41	1,880	149	2,029
1919-----	878	310	149	57	64	79	1,537	39	1,576	112	1,688
1920-----	937	342	124	82	70	72	1,627	34	1,661	120	1,781
Average-----	936	372	176	68	74	67	1,693	38	1,731	126	1,857
1921-----	782	275	62	74	76	71	1,340	25	1,365	83	1,448
1922-----	780	286	298	55	71	56	1,546	36	1,582	102	1,684
1923-----	948	347	330	66	70	64	1,825	31	1,856	97	1,953
1924-----	846	299	486	46	72	56	1,805	17	1,822	84	1,906
1925-----	910	310	302	49	80	76	1,727	30	1,757	77	1,834
Average-----	853	303	296	58	74	65	1,649	27	1,676	89	1,765
1926-----	994	384	373	46	94	62	1,953	27	1,980	85	2,065
1927-----	924	309	187	48	94	70	1,632	22	1,654	88	1,742
1928-----	825	313	347	41	82	54	1,662	13	1,675	54	1,729
1929-----	922	349	168	45	75	56	1,615	17	1,632	73	1,705
1930-----	856	285	234	31	63	68	1,537	9	1,546	73	1,619
Average-----	904	328	262	42	82	62	1,680	17	1,697	75	1,772
1931-----	624	194	68	15	62	44	1,007	19	1,026	54	1,080
1932-----	466	146	162	21	42	45	882	13	895	63	958
1933-----	458	162	27	24	46	45	762	10	772	61	833
1934-----	539	168	40	21	53	64	885	9	894	64	958
1935-----	524	198	26	31	43	70	892	13	905	63	968
Average-----	522	174	65	22	49	54	886	12	898	61	959
1936-----	624	202	41	31	44	81	1,023	11	1,034	64	1,098
1937-----	606	244	116	31	52	64	1,113	15	1,128	70	1,198
1938-----	474	142	84	23	38	53	814	9	823	57	880
1939-----	500	155	43	15	49	56	818	5	823	44	867
1940-----	520	192	292	28	30	62	1,124	12	1,136	68	1,204
Average-----	545	187	115	26	42	63	978	11	989	60	1,049

NOTE: Beginning with 1941, the cause classification in this historical series is changed as follows: (1) Fatalities in shafts and slopes have been included in "Underground workings" and are distributed according to the specified causes; prior to 1941 these deaths were grouped and shown as "Shaft and slope." (2) Fatalities from underground machinery accidents are grouped and shown separately; prior to 1941 such deaths were included in "All other underground." (3) Fatalities from roof or face falls caused by haulage equipment or machinery knocking out roof support have been included in the respective haulage or machinery classifications; prior to 1941 such deaths were included in "Falls of roof and face." (4) Fatalities from pressure bumps and bursts and from inrush of water or material are included in "All other underground;" prior to 1941 such deaths were included in "Falls of roof and face."

Year	Underground workings								Surface ^{2/}	Grand total
	Falls of roof and face	Haulage	Gas or dust explosions	Explosives	Electricity	Machinery	All other underground	Total		
1941-----	552	206	89	24	42	39	42	994	78	1,072
1942-----	579	253	148	16	51	49	47	1,143	102	1,245
1943-----	561	253	166	27	33	31	59	1,130	95	1,225
1944-----	551	239	32	21	27	49	96	1,015	109	1,124
1945-----	429	216	72	23	20	40	31	831	94	925
Average-----	534	233	102	22	35	42	55	1,023	95	1,118

See footnotes at end of table.

TABLE 53. - Bituminous coal mines: Fatalities, by principal cause of injury, 1906-76 ^{1/} - Continued

Year	Underground workings								Surface ^{2/}	Grand total
	Falls of roof and face	Haulage	Gas or dust explosions	Explosives	Electricity	Machinery	All other underground	Total		
1946-----	420	172	27	12	17	34	29	711	84	795
1947-----	434	213	154	23	20	23	27	894	91	985
1948-----	430	182	44	22	19	22	42	761	101	862
1949-----	259	108	3	14	10	21	10	425	69	494
1950-----	296	121	3	10	11	19	9	469	81	550
Average-----	368	159	46	16	15	24	24	652	85	737
1951-----	284	112	153	7	18	27	17	618	66	684
1952-----	228	109	11	5	10	15	11	389	60	449
1953-----	221	81	9	4	12	14	8	349	48	397
1954-----	168	69	17	5	11	16	5	291	43	334
1955-----	186	69	2	10	15	16	5	303	57	360
Average-----	217	88	39	6	13	18	9	390	55	445
1956-----	208	73	5	8	14	18	16	342	50	392
1957-----	198	56	63	7	11	18	22	375	52	427
1958-----	157	46	41	7	14	12	12	289	^{3/} 37	326
1959-----	135	37	10	4	7	13	4	210	36	246
1960-----	145	38	3	3	18	14	25	246	44	290
Average-----	169	50	24	6	13	15	16	293	43	336
1961-----	135	41	26	4	12	12	12	242	33	275
1962-----	105	43	52	4	6	16	-	226	37	263
1963-----	123	37	31	2	5	14	6	218	34	252
1964-----	114	42	3	1	5	17	6	188	30	218
1965-----	126	34	19	1	4	14	17	215	36	251
Average-----	121	40	26	2	6	15	8	218	34	252
1966-----	110	40	10	3	2	12	12	189	38	227
1967-----	94	29	12	2	10	14	5	166	47	213
1968-----	98	31	88	2	17	15	16	267	40	307
1969-----	77	32	-	1	7	18	7	142	48	190
1970-----	84	37	41	2	11	26	4	205	50	255
Average-----	93	34	30	2	9	17	9	194	45	239
1971-----	60	35	2	2	13	21	7	140	36	176
1972-----	49	37	5	2	2	14	12	121	32	153
1973-----	44	30	2	1	5	15	1	98	33	131
1974-----	47	15	-	-	4	17	6	89	42	131
1975-----	53	20	-	-	8	16	2	99	54	153
Average-----	51	27	2	1	6	17	6	109	39	149
1976-----	38	19	23	-	3	17	4	104	36	140

^{1/} Figures for 1906-09 cover only those States that maintained complete records of fatal injuries. These represented 98 to 99 percent of the total production of coal in the United States. Figures for 1910 to date represent the entire bituminous coal industry.

^{2/} Includes fatalities that occurred at all other work locations, including the associated surface works of underground mines, strip mines, and mechanical-cleaning plants; beginning with 1955, includes fatalities in auger mines.

^{3/} Includes one surface fatality resulting from a fall of roof underground in Kentucky, 1958.

TABLE 54. - Pennsylvania anthracite mines: Fatalities, by principal cause of injury, 1906-76

Year	Underground workings									Surface 1/	Grand total
	Falls of roof and face	Haulage	Gas or dust ex- plosions	Explo- sives	Elec- tricity	All other under- ground	Total under- ground	Shaft and slope	Total		
1906-----	214	67	46	82	1	27	437	19	456	101	557
1907-----	294	88	45	87	3	57	574	27	601	107	708
1908-----	299	90	55	94	1	33	572	24	596	82	678
1909-----	254	71	31	69	6	49	480	10	490	77	567
1910-----	253	93	20	82	3	38	489	20	509	92	601
Average-----	262	82	39	83	3	41	510	20	530	92	622
1911-----	252	92	34	88	2	126	594	21	615	84	699
1912-----	243	79	35	77	5	37	476	22	498	103	601
1913-----	257	85	50	75	1	55	523	30	553	65	618
1914-----	228	76	44	90	3	45	486	47	533	62	595
1915-----	261	80	34	79	4	58	516	10	526	60	586
Average-----	248	83	39	82	3	64	519	26	545	75	620
1916-----	215	64	43	86	9	57	474	15	489	66	555
1917-----	265	64	41	55	3	39	467	16	483	99	582
1918-----	242	66	26	50	11	47	442	11	453	98	551
1919-----	229	73	42	149	4	49	546	13	559	76	635
1920-----	197	66	36	49	6	40	394	22	416	75	491
Average-----	229	67	38	78	7	46	465	15	480	83	563
1921-----	243	70	64	68	4	50	499	11	510	37	547
1922-----	128	58	13	38	3	19	259	5	264	36	300
1923-----	219	73	42	49	5	45	433	15	448	61	509
1924-----	216	58	50	53	8	45	430	12	442	54	496
1925-----	170	56	43	53	4	20	346	4	350	50	400
Average-----	195	63	42	52	5	36	393	10	403	47	450
1926-----	220	52	49	50	2	39	412	8	420	33	453
1927-----	225	52	60	62	6	43	448	7	455	34	489
1928-----	243	52	29	33	6	42	405	12	417	30	447
1929-----	260	65	27	43	6	31	432	12	444	38	482
1930-----	243	40	30	47	8	34	402	2	404	40	444
Average-----	238	52	39	47	6	38	420	8	428	35	463
1931-----	234	43	20	25	3	23	348	4	352	31	383
1932-----	161	33	7	15	5	12	233	2	235	14	249
1933-----	119	32	13	10	7	17	198	6	204	27	231
1934-----	150	29	12	15	3	25	234	4	238	30	268
1935-----	140	30	23	19	2	15	229	10	239	35	274
Average-----	161	33	15	17	4	18	248	5	253	28	281
1936-----	120	26	16	20	8	26	216	6	222	22	244
1937-----	120	31	-	14	4	16	185	5	190	25	215
1938-----	128	23	20	11	2	17	201	3	204	21	225
1939-----	121	27	3	17	2	15	185	6	191	20	211
1940-----	105	36	5	8	7	8	169	3	172	12	184
Average-----	118	29	9	14	5	16	191	5	196	20	216

NOTE: Beginning with 1941, the cause classification in this historical series is changed as follows: (1) Fatalities in shafts and slopes have been included in "Underground workings" and are distributed according to the specified causes; prior to 1941 these deaths were grouped and shown as "Shaft and slope." (2) Fatalities from underground machinery accidents are grouped and shown separately; prior to 1941 such deaths were included in "All other underground." (3) Fatalities from roof or face falls caused by haulage equipment or machinery knocking out roof support have been included in the respective haulage or machinery classifications; prior to 1941 such deaths were included in "Falls of roof and face." (4) Fatalities from pressure bumps and bursts and from inrush of water or material are included in "All other underground;" prior to 1941 such deaths were included in "Falls of roof and face."

Year	Underground workings								Surface 1/	Grand total
	Falls of roof and face	Haulage	Gas or dust ex- plosions	Explo- sives	Elec- tricity	Machinery	All other under- ground	Total		
1941-----	91	27	8	12	5	-	29	172	22	194
1942-----	123	38	9	13	6	1	20	210	16	226
1943-----	104	36	15	9	2	3	28	197	29	226
1944-----	68	24	4	16	3	-	36	151	23	174
1945-----	62	25	4	11	1	1	25	129	14	143
Average-----	90	30	8	12	3	1	28	172	21	193

See footnote at end of table.

TABLE 54. - Pennsylvania anthracite mines: Fatalities, by principal cause of injury, 1906-76 - Continued

Year	Underground workings								Surface 1/	Grand total
	Falls of roof and face	Haulage	Gas or dust ex- plosions	Explo- sives	Elec- tricity	Machinery	All other under- ground	Total		
1946-----	93	23	2	8	3	1	22	152	21	173
1947-----	76	17	35	7	4	-	14	153	20	173
1948-----	78	14	2	7	1	1	16	119	18	137
1949-----	52	14	5	3	-	-	9	83	8	91
1950-----	52	7	5	5	1	-	8	78	15	93
Average-----	70	15	10	6	2	(2/)	14	117	16	133
1951-----	43	17	9	5	1	1	13	89	12	101
1952-----	36	19	4	4	-	2	20	85	14	99
1953-----	42	2	5	1	2	-	8	60	4	64
1954-----	36	8	1	-	1	-	5	51	11	62
1955-----	31	8	2	2	-	-	6	49	11	60
Average-----	38	11	4	2	1	1	10	67	10	77
1956-----	31	6	4	1	2	-	4	48	8	56
1957-----	30	5	3	4	1	-	6	49	2	51
1958-----	19	-	1	1	-	1	4	26	6	32
1959-----	18	8	-	2	-	-	13	41	6	47
1960-----	18	4	-	-	-	-	5	28	7	35
Average-----	23	5	1	2	1	(2/)	6	38	6	44
1961-----	9	3	-	1	-	1	-	14	5	19
1962-----	8	2	-	-	-	-	8	18	8	26
1963-----	13	2	5	3	-	-	4	27	5	32
1964-----	9	5	3	3	-	-	2	22	2	24
1965-----	5	1	-	-	-	-	2	8	-	8
Average-----	9	3	2	1	-	(2/)	3	18	4	22
1966-----	5	-	-	-	-	-	-	5	1	6
1967-----	7	-	-	-	-	1	-	8	1	9
1968-----	1	-	-	-	-	-	-	1	3	4
1969-----	1	1	1	-	-	-	4	7	6	13
1970-----	-	-	-	1	-	-	-	1	4	5
Average-----	3	(2/)	(2/)	(2/)	-	(2/)	1	4	3	7
1971-----	1	-	-	-	-	-	-	1	4	5
1972-----	1	-	-	-	-	-	-	1	2	3
1973-----	1	-	-	-	-	-	-	1	-	1
1974-----	-	-	-	1	-	-	-	1	1	2
1975-----	-	-	-	-	-	-	-	-	2	2
Average-----	1	-	-	(2/)	-	-	-	(2/)	2	3
1976-----	-	-	-	-	-	-	-	-	1	1

1/ Includes strip mines, culm banks, dredges, and mechanical-cleaning plants.

2/ Less than 0.5.

TABLE 55. - All coal mines: Fatalities, by principal cause of injury, 1906-76 ^{1/}

Year	Underground workings									Surface ^{2/}	Grand total
	Falls of roof and face	Haulage	Gas or dust explosions	Explosives	Electricity	All other underground	Total underground	Shaft and slope	Total		
1906-----	1,040	259	265	197	53	54	1,868	92	1,960	178	2,138
1907-----	1,205	348	956	221	52	156	2,938	86	3,024	218	3,242
1908-----	1,128	319	375	203	54	130	2,209	77	2,286	159	2,445
1909-----	1,229	311	295	191	58	361	2,445	47	2,492	150	2,642
1910-----	1,314	388	497	195	79	84	2,557	80	2,637	184	2,821
Average-----	1,183	325	477	202	59	157	2,403	76	2,479	178	2,657
1911-----	1,259	386	365	160	94	170	2,434	52	2,486	170	2,656
1912-----	1,186	375	290	147	80	81	2,159	61	2,220	199	2,419
1913-----	1,264	429	514	138	80	137	2,562	62	2,624	161	2,785
1914-----	1,131	385	349	146	89	100	2,200	88	2,288	166	2,454
1915-----	1,079	349	304	155	89	93	2,069	40	2,109	160	2,269
Average-----	1,184	386	364	149	86	116	2,285	61	2,346	171	2,517
1916-----	1,065	394	226	146	90	106	2,027	49	2,076	150	2,226
1917-----	1,230	497	360	110	79	99	2,375	60	2,435	261	2,696
1918-----	1,294	512	129	135	88	123	2,281	52	2,333	247	2,580
1919-----	1,107	383	191	206	68	128	2,083	52	2,135	188	2,323
1920-----	1,134	408	160	131	76	112	2,021	56	2,077	195	2,272
Average-----	1,165	439	214	146	81	113	2,158	53	2,211	209	2,420
1921-----	1,025	345	126	142	80	121	1,839	36	1,875	120	1,995
1922-----	908	344	311	93	74	75	1,805	41	1,846	138	1,984
1923-----	1,167	420	372	115	75	109	2,258	46	2,304	158	2,462
1924-----	1,062	357	536	99	80	101	2,235	29	2,264	138	2,402
1925-----	1,080	366	345	102	84	96	2,073	34	2,107	127	2,234
Average-----	1,048	366	338	110	79	101	2,042	37	2,079	136	2,215
1926-----	1,214	436	422	96	96	101	2,365	35	2,400	118	2,518
1927-----	1,149	361	247	110	100	113	2,080	29	2,109	122	2,231
1928-----	1,068	365	376	74	88	96	2,067	25	2,092	84	2,176
1929-----	1,182	414	195	88	81	87	2,047	29	2,076	111	2,187
1930-----	1,099	325	264	78	71	102	1,939	11	1,950	113	2,063
Average-----	1,142	380	301	89	88	100	2,100	25	2,125	110	2,235
1931-----	858	237	88	40	65	67	1,355	23	1,378	85	1,463
1932-----	627	179	169	36	47	57	1,115	15	1,130	77	1,207
1933-----	577	194	40	34	53	62	960	16	976	88	1,064
1934-----	689	197	52	36	56	89	1,119	13	1,132	94	1,226
1935-----	664	228	49	50	45	85	1,121	23	1,144	98	1,242
Average-----	683	207	80	39	53	72	1,134	17	1,151	89	1,240
1936-----	744	228	57	51	52	107	1,239	17	1,256	86	1,342
1937-----	726	275	116	45	56	80	1,298	20	1,318	95	1,413
1938-----	602	165	104	34	40	70	1,015	12	1,027	78	1,105
1939-----	621	182	46	32	51	71	1,003	11	1,014	64	1,078
1940-----	625	228	297	36	37	70	1,293	15	1,308	80	1,388
Average-----	663	216	124	40	47	79	1,169	16	1,185	80	1,265

NOTE: Beginning with 1941, the cause classification in this historical series is changed as follows: (1) Fatalities in shafts and slopes have been included in "Underground workings" and are distributed according to the specified causes; prior to 1941 these deaths were grouped and shown as "Shaft and slope." (2) Fatalities from underground machinery accidents are grouped and shown separately; prior to 1941 such deaths were included in "All other underground." (3) Fatalities from roof or face falls caused by haulage equipment or machinery knocking out roof support have been included in the respective haulage or machinery classifications; prior to 1941 such deaths were included in "Falls of roof and face." (4) Fatalities from pressure bumps and bursts and from inrush of water or material are included in "All other underground;" prior to 1941 such deaths were included in "Falls of roof and face."

Year	Underground workings								Surface ^{2/}	Grand total
	Falls of roof and face	Haulage	Gas or dust explosions	Explosives	Electricity	Machinery	All other underground	Total		
1941-----	643	233	97	36	47	39	71	1,166	100	1,266
1942-----	702	291	157	29	57	50	67	1,353	118	1,471
1943-----	665	289	181	36	35	34	87	1,327	124	1,451
1944-----	619	263	36	37	30	49	132	1,166	132	1,298
1945-----	491	241	76	34	21	41	56	960	108	1,068
Average-----	624	263	110	34	38	43	83	1,195	116	1,311

See footnotes at end of table.

TABLE 55. - All coal mines: Fatalities, by principal cause of injury, 1906-76 ^{1/} - Continued

Year	Underground workings								Surface ^{1/}	Grand total
	Falls of roof and face	Haulage	Gas or dust explosions	Explosives	Electricity	Machinery	All other underground	Total		
1946-----	513	195	29	20	20	35	51	863	105	968
1947-----	510	230	189	30	24	23	41	1,047	111	1,158
1948-----	508	196	46	29	20	23	58	880	119	999
1949-----	311	122	8	17	10	21	19	508	77	585
1950-----	348	128	8	15	12	19	17	547	96	643
Average-----	438	174	56	22	17	24	38	769	101	870
1951-----	327	129	162	12	19	28	30	707	78	785
1952-----	264	128	15	9	10	17	31	474	74	548
1953-----	263	83	14	5	14	14	16	409	52	461
1954-----	204	77	18	5	12	16	10	342	54	396
1955-----	217	77	4	12	15	16	11	352	68	420
Average-----	255	99	43	8	14	19	19	457	65	522
1956-----	239	79	9	9	16	18	20	390	58	448
1957-----	228	61	66	11	12	18	28	424	54	478
1958-----	176	46	42	8	14	13	16	315	^{3/} 43	358
1959-----	153	45	10	6	7	13	17	251	42	293
1960-----	163	42	3	4	18	14	30	274	51	325
Average-----	192	55	25	8	14	15	22	331	49	380
1961-----	144	44	26	5	12	13	12	256	38	294
1962-----	113	45	52	4	6	16	8	244	45	289
1963-----	136	39	36	5	5	14	10	245	39	284
1964-----	123	47	6	4	5	17	8	210	32	242
1965-----	131	35	19	1	4	14	19	223	36	259
Average-----	130	43	28	3	6	15	11	236	38	274
1966-----	115	40	10	3	2	12	12	194	39	233
1967-----	101	29	12	2	10	15	5	174	48	222
1968-----	99	31	88	2	17	15	16	268	43	311
1969-----	78	33	1	1	7	18	11	149	54	203
1970-----	84	37	41	3	11	26	4	206	54	260
Average-----	96	34	30	2	9	17	10	198	48	246
1971-----	61	35	2	2	13	21	7	141	40	181
1972-----	50	37	5	2	2	14	12	122	34	156
1973-----	45	30	2	1	5	15	1	99	33	132
1974-----	47	15	-	1	4	17	6	90	43	133
1975-----	53	20	-	-	8	16	2	99	56	155
Average-----	51	27	2	1	6	17	6	110	41	151
1976-----	38	19	23	-	3	17	4	104	37	141

^{1/} Figures for 1906-09 cover only those States that maintained complete records of fatal injuries. These represented 98 to 99 percent of the total production of coal in the United States. Figures for 1910 to date represent the entire coal industry.

^{2/} Includes fatalities that occurred at all other work locations, including the associated surface works of underground mines, strip mines, cula banks, dredges, and mechanical-cleaning plants; beginning with 1955, includes fatalities in super mines.

^{3/} Includes one surface fatality resulting from a fall of roof underground in a bituminous coal mine in Kentucky, 1958.

TABLE 50. - Bituminous coal mines: Percentage distribution of fatalities,
by principal cause of injury, 1906-76 ^{1/}

Year	Underground workings									Surface ^{2/}	Grand total
	Falls of roof and face	Haulage	Gas or dust explosions	Explosives	Electricity	All other underground	Total underground	Shaft and slope	Total		
1906-----	52.2	12.1	13.9	7.3	3.3	1.7	90.5	4.6	95.1	4.9	100.0
1907-----	36.0	10.3	36.0	5.2	1.9	3.9	93.3	2.3	95.6	4.4	100.0
1908-----	46.9	13.0	18.1	6.1	3.0	5.5	92.6	3.0	95.6	4.4	100.0
1909-----	47.0	11.6	12.7	5.9	2.5	15.0	94.7	1.8	96.5	3.5	100.0
1910-----	47.8	13.3	21.5	5.1	3.4	2.1	93.2	2.7	95.9	4.1	100.0
Average-----	45.3	11.9	21.5	5.8	2.8	5.7	93.0	2.8	95.8	4.2	100.0
1911-----	51.5	15.0	16.9	3.7	4.7	2.2	94.0	1.6	95.6	4.4	100.0
1912-----	51.9	16.3	14.0	3.9	4.1	2.4	92.6	2.1	94.7	5.3	100.0
1913-----	46.5	15.9	21.4	2.9	4.1	3.8	94.1	1.5	95.6	4.4	100.0
1914-----	48.6	16.6	16.4	3.0	4.6	3.0	92.2	2.2	94.4	5.6	100.0
1915-----	48.6	16.0	16.0	4.5	5.1	2.1	92.3	1.8	94.1	5.9	100.0
Average-----	49.3	16.0	17.1	3.5	4.4	2.8	93.1	1.8	94.9	5.1	100.0
1916-----	50.9	19.7	11.0	3.6	4.8	2.9	92.9	2.1	95.0	5.0	100.0
1917-----	45.7	20.5	15.1	2.6	3.6	2.8	90.3	2.0	92.3	7.7	100.0
1918-----	51.8	22.0	5.1	4.2	3.8	3.7	90.6	2.1	92.7	7.3	100.0
1919-----	52.0	18.4	8.8	3.4	3.8	4.7	91.1	2.3	93.4	6.6	100.0
1920-----	52.6	19.2	7.0	4.6	3.9	4.1	91.4	1.9	93.3	6.7	100.0
Average-----	50.4	20.0	9.5	3.7	4.0	3.6	91.2	2.0	93.2	6.8	100.0
1921-----	54.0	19.0	4.3	5.1	5.2	4.9	92.5	1.8	94.3	5.7	100.0
1922-----	46.3	17.0	17.7	3.3	4.2	3.3	91.8	2.1	93.9	6.1	100.0
1923-----	48.5	17.8	16.9	3.3	3.6	3.3	93.4	1.6	95.0	5.0	100.0
1924-----	44.4	15.7	25.5	2.4	3.8	2.9	94.7	.9	95.6	4.4	100.0
1925-----	49.6	16.9	16.5	2.7	4.4	4.1	94.2	1.6	95.8	4.2	100.0
Average-----	48.3	17.1	16.8	3.3	4.2	3.7	93.4	1.6	95.0	5.0	100.0
1926-----	48.1	18.6	18.1	2.2	4.6	3.0	94.6	1.3	95.9	4.1	100.0
1927-----	53.1	17.7	10.7	2.8	5.4	4.0	93.7	1.2	94.9	5.1	100.0
1928-----	47.7	18.1	20.1	2.4	4.7	3.1	96.1	.8	96.9	3.1	100.0
1929-----	54.1	20.5	9.9	2.6	4.4	3.2	94.7	1.0	95.7	4.3	100.0
1930-----	52.9	17.6	14.4	1.9	3.9	4.2	94.9	.6	95.5	4.5	100.0
Average-----	51.0	18.5	14.8	2.4	4.6	3.5	94.8	1.0	95.8	4.2	100.0
1931-----	57.8	18.0	6.3	1.4	5.7	4.0	93.2	1.8	95.0	5.0	100.0
1932-----	48.7	15.2	16.9	2.2	4.4	4.7	92.1	1.3	93.4	6.6	100.0
1933-----	55.0	19.4	3.3	2.9	5.5	5.4	91.5	1.2	92.7	7.3	100.0
1934-----	56.3	17.5	4.2	2.2	5.5	6.7	92.4	.9	93.3	6.7	100.0
1935-----	54.1	20.5	2.7	3.2	4.4	7.2	92.1	1.4	93.5	6.5	100.0
Average-----	54.4	18.2	6.8	2.3	5.1	5.6	92.4	1.2	93.6	6.4	100.0
1936-----	56.8	18.4	3.8	2.8	4.0	7.4	93.2	1.0	94.2	5.8	100.0
1937-----	50.6	20.4	9.7	2.6	4.3	5.3	92.9	1.3	94.2	5.8	100.0
1938-----	53.9	16.1	9.6	2.6	4.3	6.0	92.5	1.0	93.5	6.5	100.0
1939-----	57.7	17.9	4.9	1.7	5.7	6.4	94.3	.6	94.9	5.1	100.0
1940-----	43.2	15.9	24.3	2.3	2.5	5.2	93.4	1.0	94.4	5.6	100.0
Average-----	51.9	17.8	11.0	2.5	4.0	6.0	93.2	1.1	94.3	5.7	100.0

NOTE: Beginning with 1941, the cause classification in this historical series is changed as follows: (1) Fatalities in shafts and slopes have been included in "Underground workings" and are distributed according to the specified causes; prior to 1941 these deaths were grouped and shown as "Shaft and slope." (2) Fatalities from underground machinery accidents are grouped and shown separately; prior to 1941 such deaths were included in "All other underground." (3) Fatalities from roof or face falls caused by haulage equipment or machinery knocking out roof support have been included in the respective haulage or machinery classifications; prior to 1941 such deaths were included in "Falls of roof and face." (4) Fatalities from pressure bumps and bursts and from inrush of water or material are included in "All other underground;" prior to 1941 such deaths were included in "Falls of roof and face."

Year	Underground workings								Surface ^{2/}	Grand total
	Falls of roof and face	Haulage	Gas or dust explosions	Explosives	Electricity	Machinery	All other underground	Total		
1941-----	51.5	19.2	8.3	2.2	3.9	3.7	3.9	92.7	7.3	100.0
1942-----	46.5	20.3	11.9	1.3	4.1	3.9	3.8	91.8	8.2	100.0
1943-----	45.8	20.6	13.6	2.2	2.7	2.5	4.8	92.2	7.8	100.0
1944-----	49.0	21.3	2.8	1.9	2.4	4.4	8.5	90.3	9.7	100.0
1945-----	46.4	23.3	7.8	2.5	2.2	4.3	3.3	89.8	10.2	100.0
Average-----	47.8	20.8	9.1	2.0	3.1	3.8	4.9	91.5	8.5	100.0

See footnotes at end of table.

TABLE 56. - Bituminous coal mines: Percentage distribution of fatalities,
by principal cause of injury, 1906-76 ^{1/} - Continued

Year	Underground workings								Surface ^{2/}	Grand total
	Falls of roof and face	Haulage	Gas or dust explosions	Explosives	Electricity	Machinery	All other underground	Total		
1946-----	52.8	21.6	3.4	1.5	2.1	4.3	3.7	89.4	10.6	100.0
1947-----	44.1	21.6	15.6	2.3	2.0	2.4	2.8	90.8	9.2	100.0
1948-----	49.9	21.1	5.1	2.6	2.2	2.5	4.9	88.3	11.7	100.0
1949-----	52.4	21.9	.6	2.8	2.0	4.3	2.0	86.0	14.0	100.0
1950-----	53.8	22.0	.6	1.8	2.0	3.5	1.6	85.3	14.7	100.0
Average-----	49.9	21.6	6.2	2.2	2.0	3.3	3.3	88.5	11.5	100.0
1951-----	41.5	16.4	22.4	1.0	2.6	4.0	2.5	90.4	9.6	100.0
1952-----	50.8	24.2	2.5	1.1	2.2	3.3	2.5	86.6	13.4	100.0
1953-----	55.7	20.4	2.3	1.0	3.0	3.5	2.0	87.9	12.1	100.0
1954-----	50.3	20.6	5.1	1.5	3.3	4.8	1.5	87.1	12.9	100.0
1955-----	51.6	19.2	.6	2.8	4.2	4.4	1.4	84.2	15.8	100.0
Average-----	48.8	19.8	8.8	1.4	2.9	4.0	2.0	87.7	12.3	100.0
1956-----	53.0	18.6	1.3	2.0	3.6	4.6	4.1	87.2	12.8	100.0
1957-----	46.4	13.1	14.8	1.6	2.6	4.2	5.1	87.8	12.2	100.0
1958-----	48.1	14.1	12.6	2.1	4.3	3.7	3.7	88.6	11.4	100.0
1959-----	54.9	15.0	4.1	1.6	2.9	5.3	1.6	85.4	14.6	100.0
1960-----	50.0	13.1	1.0	1.0	6.2	4.9	8.6	84.8	15.2	100.0
Average-----	50.3	14.9	7.1	1.8	3.9	4.5	4.7	87.2	12.8	100.0
1961-----	49.0	14.9	9.5	1.4	4.4	4.4	4.4	88.0	12.0	100.0
1962-----	39.9	16.3	19.8	1.5	2.3	6.1	-	85.9	14.1	100.0
1963-----	48.8	14.7	12.3	.8	2.0	5.5	2.4	86.5	13.5	100.0
1964-----	52.2	19.3	1.4	.5	2.3	7.8	2.7	86.2	13.8	100.0
1965-----	50.2	13.5	7.6	.4	1.6	5.6	6.8	85.7	14.3	100.0
Average-----	48.0	15.9	10.3	.8	2.4	5.9	3.2	86.5	13.5	100.0
1966-----	48.5	17.6	4.4	1.3	.9	5.3	5.3	83.3	16.7	100.0
1967-----	44.1	13.6	5.6	.9	4.7	6.6	2.4	77.9	22.1	100.0
1968-----	31.9	10.1	28.7	.7	5.5	4.9	5.2	87.0	13.0	100.0
1969-----	40.5	16.8	-	.5	3.7	9.5	3.7	74.7	25.3	100.0
1970-----	32.9	14.5	16.1	.8	4.3	10.2	1.6	80.4	19.6	100.0
Average-----	38.9	14.2	12.6	.8	3.8	7.1	3.8	81.2	18.8	100.0
1971-----	34.1	19.9	1.1	1.1	7.4	11.9	4.0	79.5	20.5	100.0
1972-----	32.0	24.2	3.3	1.3	1.3	9.2	7.8	79.1	20.9	100.0
1973-----	33.5	22.9	1.5	.8	3.8	11.5	.8	74.8	25.2	100.0
1974-----	35.8	11.5	-	-	3.1	12.9	4.6	67.9	32.1	100.0
1975-----	34.6	13.1	-	-	5.2	10.5	1.3	64.7	35.3	100.0
Average-----	34.0	18.3	1.2	.6	4.2	11.2	3.7	73.2	26.8	100.0
1976-----	27.1	13.6	16.4	-	2.1	12.1	2.9	74.3	25.7	100.0

1/ Figures for 1906-09 cover only those States that maintained complete records of fatal injuries. These represented 98 to 99 percent of the total production of coal in the United States. Figures for 1910 to date represent the entire bituminous coal industry.

2/ Includes fatalities that occurred at all other work locations, including the associated surface works of underground mines, strip mines, and mechanical-cleaning plants; beginning with 1955, includes fatalities in auger mines.

TABLE 57. - Pennsylvania anthracite mines: Percentage distribution of fatalities, by principal cause of injury, 1906-76

Year	Underground workings									Surface 1/	Grand total
	Falls of roof and face	Haulage	Gas or dust ex- plosions	Explo- sives	Elec- tricity	All other under- ground	Total under- ground	Shaft and slope	Total		
1906	38.4	12.0	8.3	14.7	0.2	4.9	78.5	3.4	81.9	18.1	100.0
1907	41.5	12.4	6.4	12.3	.4	8.1	81.1	3.8	84.9	15.1	100.0
1908	44.1	13.3	8.1	13.9	.1	4.9	84.4	3.5	87.9	12.1	100.0
1909	44.8	12.5	5.5	12.2	1.1	8.6	84.7	1.7	86.4	13.6	100.0
1910	42.1	15.5	3.3	13.7	.5	6.3	81.4	3.3	84.7	15.3	100.0
Average	42.1	13.2	6.3	13.3	.5	6.6	82.0	3.2	85.2	14.8	100.0
1911	36.1	13.2	4.9	12.6	.2	18.0	85.0	3.0	88.0	12.0	100.0
1912	40.4	13.2	5.8	12.8	.8	6.2	79.2	3.7	82.9	17.1	100.0
1913	41.6	13.8	8.1	12.1	.1	8.9	84.6	4.9	89.5	10.5	100.0
1914	38.3	12.8	7.4	15.1	.5	7.6	81.7	7.9	89.6	10.4	100.0
1915	44.5	13.7	5.8	13.5	.7	9.9	88.1	1.7	89.8	10.2	100.0
Average	40.0	13.4	6.3	13.2	.5	10.3	83.7	4.2	87.9	12.1	100.0
1916	38.7	11.5	7.8	15.5	1.6	10.3	85.4	2.7	88.1	11.9	100.0
1917	45.5	11.0	7.0	9.5	.5	6.7	80.2	2.8	83.0	17.0	100.0
1918	43.9	12.0	4.7	9.1	2.0	8.5	80.2	2.0	82.2	17.8	100.0
1919	36.1	11.5	6.6	23.5	.6	7.7	86.0	2.0	88.0	12.0	100.0
1920	40.1	13.5	7.3	10.0	1.2	8.1	80.2	4.5	84.7	15.3	100.0
Average	40.7	11.9	6.7	14.0	1.1	8.2	82.6	2.7	85.3	14.7	100.0
1921	44.4	12.8	11.7	12.4	.7	9.2	91.2	2.0	93.2	6.8	100.0
1922	42.7	19.3	4.3	12.7	1.0	6.3	86.3	1.7	88.0	12.0	100.0
1923	43.0	14.3	8.3	9.6	1.0	8.9	85.1	2.9	88.0	12.0	100.0
1924	43.5	11.7	10.1	10.7	1.6	9.1	86.7	2.4	89.1	10.9	100.0
1925	42.5	14.0	10.8	13.2	1.0	5.0	86.5	1.0	87.5	12.5	100.0
Average	43.3	14.0	9.3	11.6	1.1	8.0	87.3	2.3	89.6	10.4	100.0
1926	48.6	11.5	10.8	11.0	.4	8.6	90.9	1.8	92.7	7.3	100.0
1927	46.0	10.6	12.3	12.7	1.2	8.8	91.6	1.4	93.0	7.0	100.0
1928	54.4	11.6	6.5	7.4	1.3	9.4	90.6	2.7	93.3	6.7	100.0
1929	53.9	13.5	5.6	8.9	1.2	6.5	89.6	2.5	92.1	7.9	100.0
1930	54.7	9.0	6.8	10.6	1.8	7.6	90.5	.5	91.0	9.0	100.0
Average	51.4	11.2	8.4	10.2	1.3	8.2	90.7	1.7	92.4	7.6	100.0
1931	61.1	11.2	5.2	6.6	.8	6.0	90.9	1.0	91.9	8.1	100.0
1932	64.7	13.3	2.8	6.0	2.0	4.8	93.6	.8	94.4	5.6	100.0
1933	51.5	13.9	5.6	4.3	3.0	7.4	85.7	2.6	88.3	11.7	100.0
1934	56.0	10.8	4.5	5.6	1.1	9.3	87.3	1.5	88.8	11.2	100.0
1935	51.1	11.0	8.4	6.9	.7	5.5	83.6	3.6	87.2	12.8	100.0
Average	57.3	11.8	5.3	6.1	1.4	6.4	88.3	1.7	90.0	10.0	100.0
1936	49.2	10.7	6.6	8.2	3.2	10.6	88.5	2.5	91.0	9.0	100.0
1937	55.8	14.4	-	6.5	1.9	7.4	86.0	2.4	88.4	11.6	100.0
1938	56.9	10.2	8.9	4.9	.9	7.5	89.3	1.4	90.7	9.3	100.0
1939	57.3	12.8	1.4	8.1	1.0	7.1	87.7	2.8	90.5	9.5	100.0
1940	57.1	19.6	2.7	4.3	3.8	4.3	91.8	1.7	93.5	6.5	100.0
Average	54.6	13.4	4.2	6.5	2.3	7.4	88.4	2.3	90.7	9.3	100.0

NOTE: Beginning with 1941, the cause classification in this historical series is changed as follows: (1) Fatalities in shafts and slopes have been included in "Underground workings" and are distributed according to the specified causes; prior to 1941 these deaths were grouped and shown as "Shaft and slope." (2) Fatalities from underground machinery accidents are grouped and shown separately; prior to 1941 such deaths were included in "All other underground." (3) Fatalities from roof or face falls caused by haulage equipment or machinery knocking out roof support have been included in the respective haulage or machinery classifications; prior to 1941 such deaths were included in "Falls of roof and face." (4) Fatalities from pressure bumps and bursts and from inrush of water or material are included in "All other underground;" prior to 1941 such deaths were included in "Falls of roof and face."

Year	Underground workings								Surface 1/	Grand total
	Falls of roof and face	Haulage	Gas or dust ex- plosions	Explo- sives	Elec- tricity	Machinery	All other under- ground	Total		
1941	46.9	13.9	4.1	6.2	2.6	-	15.0	88.7	11.3	100.0
1942	54.4	16.8	4.0	5.8	2.7	0.4	8.8	92.9	7.1	100.0
1943	46.0	15.9	6.6	4.0	.9	1.4	12.4	87.2	12.8	100.0
1944	39.1	13.8	2.3	9.2	1.7	-	20.7	86.8	13.2	100.0
1945	43.3	17.5	2.8	7.7	.7	.7	17.5	90.2	9.8	100.0
Average	46.6	15.6	4.1	6.2	1.6	.5	14.5	89.1	10.9	100.0

See footnote at end of table.

TABLE 57. - Pennsylvania anthracite mines: Percentage distribution of fatalities,
by principal cause of injury, 1906-76 - Continued

Year	Underground workings								Surface 1/	Grand total
	Falls of roof and face	Haulage	Gas or dust ex- plosions	Explo- sives	Elec- tricity	Machinery	All other under- ground	Total		
1946-----	53.8	13.3	1.2	4.6	1.7	0.6	12.7	87.9	12.1	100.0
1947-----	43.9	9.8	20.2	4.1	2.3	-	8.1	88.4	11.6	100.0
1948-----	57.0	10.2	1.5	5.1	.7	.7	11.7	86.9	13.1	100.0
1949-----	57.1	15.4	5.5	3.3	-	-	9.9	91.2	8.8	100.0
1950-----	55.9	7.5	5.4	5.4	1.1	-	8.6	83.9	16.1	100.0
Average-----	52.7	11.3	7.5	4.5	1.5	(2/)	10.5	88.0	12.0	100.0
1951-----	42.6	16.8	8.9	5.0	1.0	1.0	12.8	88.1	11.9	100.0
1952-----	36.3	19.2	4.1	4.1	-	2.0	20.2	85.9	14.1	100.0
1953-----	65.7	3.1	7.8	1.6	3.1	-	12.5	93.8	6.2	100.0
1954-----	58.1	12.9	1.6	-	1.6	-	8.1	82.3	17.7	100.0
1955-----	51.7	13.4	3.3	3.3	-	-	10.0	81.7	18.3	100.0
Average-----	49.3	14.3	5.2	2.6	1.3	1.3	13.0	87.0	13.0	100.0
1956-----	55.4	10.7	7.1	1.8	3.6	-	7.1	85.7	14.3	100.0
1957-----	58.8	9.8	5.9	7.8	2.0	-	11.8	96.1	3.9	100.0
1958-----	59.4	-	3.1	3.1	-	3.1	12.5	81.2	18.8	100.0
1959-----	38.3	17.0	-	4.3	-	-	27.6	87.2	12.8	100.0
1960-----	51.4	11.5	-	2.8	-	-	14.3	80.0	20.0	100.0
Average-----	52.3	11.4	4.5	4.5	(2/)	(2/)	13.7	86.4	13.6	100.0
1961-----	47.3	15.8	-	5.3	-	5.3	-	73.7	26.3	100.0
1962-----	30.8	7.6	-	-	-	-	30.8	69.2	30.8	100.0
1963-----	40.6	6.3	15.6	9.4	-	-	12.5	84.4	15.6	100.0
1964-----	37.5	20.9	12.5	12.5	-	-	8.3	91.7	8.3	100.0
1965-----	62.5	12.5	-	-	-	-	25.0	100.0	-	100.0
Average-----	40.9	13.6	9.1	4.6	-	(2/)	13.6	81.8	18.2	100.0
1966-----	83.3	-	-	-	-	-	-	83.3	16.7	100.0
1967-----	77.8	-	-	-	-	11.1	-	88.9	11.1	100.0
1968-----	25.0	-	-	-	-	-	-	25.0	75.0	100.0
1969-----	7.7	7.7	-	-	-	-	30.7	53.8	46.2	100.0
1970-----	-	-	-	20.0	-	-	-	20.0	80.0	100.0
Average-----	42.8	(2/)	(2/)	(2/)	-	(2/)	14.4	57.2	42.8	100.0
1971-----	20.0	-	-	-	-	-	-	20.0	80.0	100.0
1972-----	33.3	-	-	-	-	-	-	33.3	66.7	100.0
1973-----	100.0	-	-	-	-	-	-	100.0	-	100.0
1974-----	-	-	-	50.0	-	-	-	50.0	50.0	100.0
1975-----	-	-	-	-	-	-	-	-	100.0	100.0
Average-----	30.7	-	-	10.0	-	-	-	40.7	59.3	100.0
1976-----	-	-	-	-	-	-	-	-	100.0	100.0

1/ Includes strip mines, culm banks, dredges, and mechanical-cleaning plants.

2/ Less than 0.05.