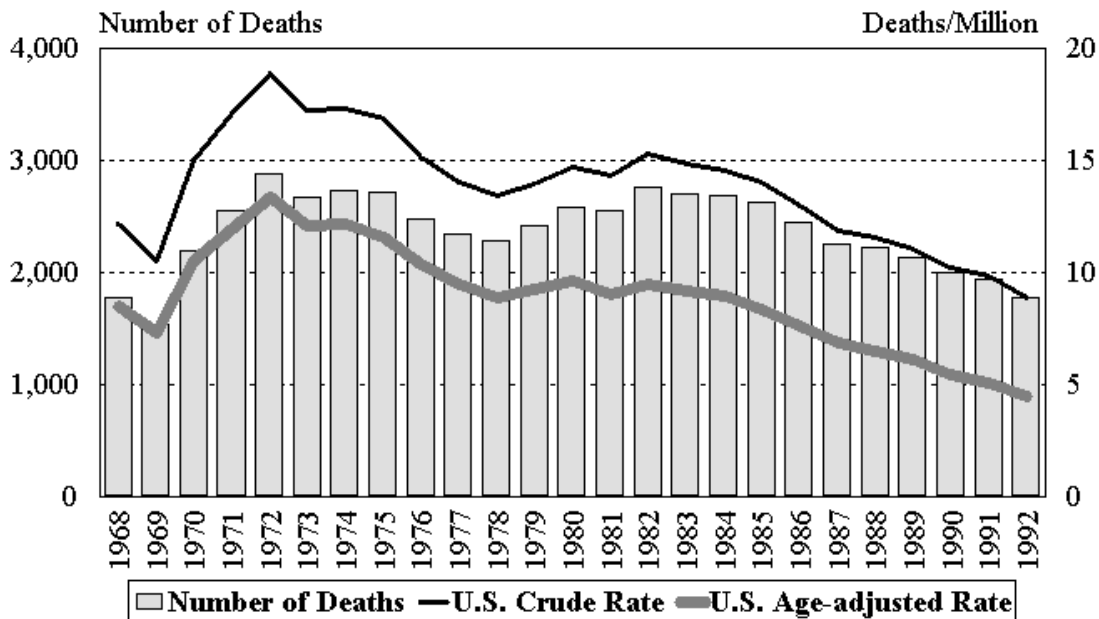
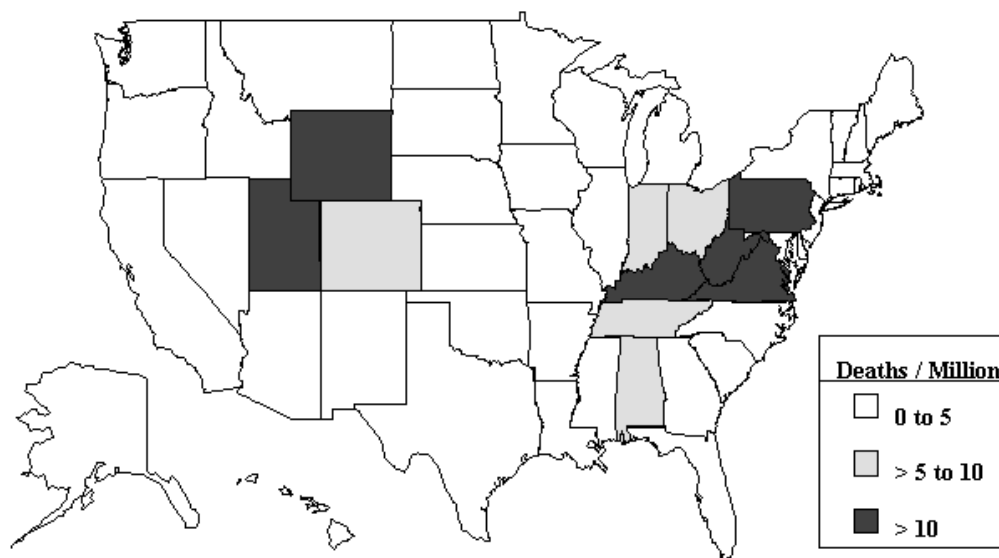


**Figure 2-1. Coal workers' pneumoconiosis: Number of deaths, crude and age-adjusted mortality rates, U.S. residents age 15 and over, 1968-1992**



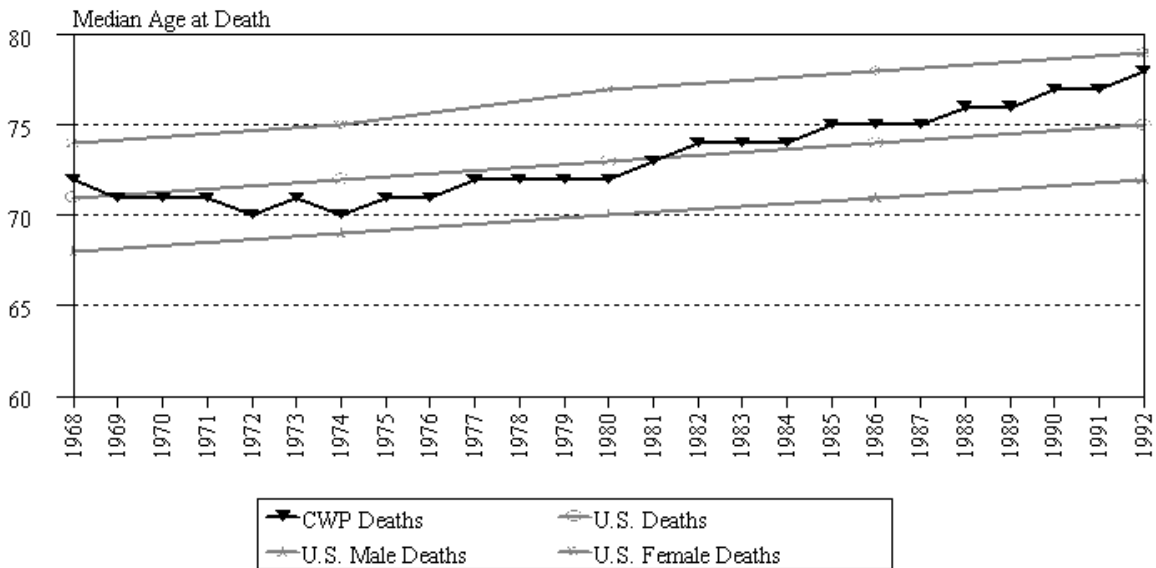
NOTE: See Appendix A for source description and Appendix B for methods and ICD-8 and ICD-9 codes.  
 SOURCE: National Center for Health Statistics multiple cause of death data. Population estimates from U.S. Bureau of the Census.

**Figure 2-2. Coal workers' pneumoconiosis: Crude mortality rates by state, U.S. residents age 15 and over, 1991-1992**



NOTE: See Appendix A for source description and Appendix B for methods and ICD-8 and ICD-9 codes.  
 SOURCE: National Center for Health Statistics multiple cause of death data. Population estimates from U.S. Bureau of the Census.

Figure 2-3. Coal workers' pneumoconiosis(CWP): Median age at death, U.S. residents age 15 and over, 1968-1992



NOTE: See Appendix A for source description and Appendix B for methods and ICD-8 and ICD-9 codes.  
 SOURCE: National Center for Health Statistics multiple cause of death data.

Table 2-1. Coal workers' pneumoconiosis: Number of deaths by sex, race, and age, U.S. residents age 15 and over, 1991-1992

		1991		1992	
		Number	Percent	Number	Percent
Total deaths		1,938	100.0	1,766	100.0
Sex	Male	1,920	99.1	1,761	99.7
	Female	18	0.9	5	0.3
Race	White	1,877	96.8	1,707	96.7
	Black	60	3.1	55	3.1
	Other	1	0.1	4	0.2
Age	15-24	1	0.1	0	0.0
	25-34	2	0.1	2	0.1
	35-44	14	0.7	6	0.3
	45-54	23	1.2	14	0.8
	55-64	110	5.7	90	5.1
	65-74	536	27.7	457	25.9
	75-84	884	45.6	858	48.6
	85 and over	368	19.0	339	19.2
	Mean age	76.8		77.5	
Range for age		19-107		34-102	

NOTE: Percentages may not total to 100% due to rounding. See Appendix A for source description and Appendix B for methods and ICD-8 and ICD-9 codes. Data for 1968-1990 can be found in the Work-Related Lung Disease Surveillance Report, 1994, see Appendix E.  
 SOURCE: National Center for Health Statistics multiple cause of death data.

*Coal Workers' Pneumoconiosis***UNITED STATES****Table 2-2. Coal workers' pneumoconiosis: Number of deaths by state, U.S. residents age 15 and over, 1968-1992**

State	1968-1978	1979-1990	1991	1992	TOTAL
Alabama	126	328	28	23	505
Alaska	1	2	-	1	4
Arizona	32	88	4	2	126
Arkansas	17	72	7	6	102
California	206	254	41	22	523
Colorado	94	189	15	19	317
Connecticut	46	55	1	3	105
Delaware	17	26	4	1	48
District of Columbia	8	6	-	-	14
Florida	198	399	33	23	653
Georgia	12	43	3	2	60
Hawaii	1	3	-	-	4
Idaho	1	3	-	1	5
Illinois	305	727	43	46	1,121
Indiana	104	263	33	19	419
Iowa	35	85	6	6	132
Kansas	28	36	2	2	68
Kentucky	737	1,971	112	116	2,936
Louisiana	5	14	3	-	22
Maine	1	2	-	-	3
Maryland	65	115	5	13	198
Massachusetts	26	14	2	2	44
Michigan	135	216	15	10	376
Minnesota	9	8	-	-	17
Mississippi	7	12	3	1	23
Missouri	25	75	6	11	117
Montana	12	11	-	-	23
Nebraska	4	1	-	-	5
Nevada	4	12	1	1	18
New Hampshire	7	1	-	-	8
New Jersey	229	214	8	14	465
New Mexico	23	44	3	4	74
New York	167	167	4	2	340
North Carolina	30	108	13	10	161
North Dakota	1	4	-	-	5
Ohio	417	1,108	83	74	1,682
Oklahoma	19	57	4	1	81
Oregon	11	28	1	1	41
Pennsylvania	20,965	16,994	961	836	39,756
Rhode Island	5	2	-	-	7
South Carolina	11	19	-	5	35
South Dakota	3	10	-	-	13
Tennessee	140	420	23	30	613
Texas	31	78	7	9	125
Utah	24	135	12	13	184
Vermont	1	6	1	-	8
Virginia	398	1,460	134	147	2,139
Washington	19	55	1	1	76
West Virginia	1,305	3,339	308	283	5,235
Wisconsin	19	21	1	-	41
Wyoming	37	44	7	6	94
<b>TOTAL</b>	<b>26,123</b>	<b>29,344</b>	<b>1,938</b>	<b>1,766</b>	<b>59,171</b>

- indicates no deaths listed.

NOTE: See Appendix A for source description and Appendix B for methods and ICD-8 and ICD-9 codes.

SOURCE: National Center for Health Statistics multiple cause of death data.

**Table 2-3. Coal workers' pneumoconiosis: Mortality rates (per 1,000,000 population) by race and sex, U.S. residents age 15 and over, 1991-1992**

Year	Overall rate	White		Black	
		Males	Females	Males	Females
<b>Crude mortality rate</b>					
1991	9.84	23.03	0.21	5.76	-
1992	8.87	20.89	0.06	5.19	-
<b>Age-adjusted mortality rate</b>					
1991	5.09	13.58	0.12	4.79	-
1992	4.44	11.94	0.04	4.42	-

- indicates no deaths listed.

NOTE: See Appendix A for source description and Appendix B for methods and ICD-8 and ICD-9 codes. Data for 1968-1990 can be found in the Work-Related Lung Disease Surveillance Report, 1994, see Appendix E. See Appendix E for revised rates for 1968-1990.

SOURCE: National Center for Health Statistics multiple cause of death data. Population estimates from U.S. Bureau of the Census.

**Table 2-4. Coal workers' pneumoconiosis: Years of potential life lost by race and sex, U.S. residents age 15 and over, 1991-1992**

Year	Overall	White		Black	
		Males	Females	Males	Females
<b>Years of potential life lost to age 65</b>					
1991	1,360	1,205	115	35	-
1992	880	810	20	50	-
<b>Years of potential life lost to life expectancy</b>					
1991	20,878	17,780	336	472	-
1992	18,329	15,688	88	458	-

- indicates no deaths listed.

NOTE: See Appendix A for source description and Appendix B for methods and ICD-8 and ICD-9 codes. Data for 1968-1990 can be found in the Work-Related Lung Disease Surveillance Report, 1994, see Appendix E.

SOURCE: National Center for Health Statistics multiple cause of death data.

**Table 2-5. Coal workers' pneumoconiosis: Total number of deaths, crude and age-adjusted mortality rates (per 1,000,000 population), and total years of potential life lost (YPLL) to life expectancy, by state, U.S. residents age 15 and over, 1988-1992**

State	Total deaths		Crude mortality		Age-adjusted mortality		YPLL to life expectancy			
	Rate	Rank	Rate	Rank	Rate	Rank	Years	Rank	Years/death	Rank
Alabama	146	9	9.23	8	3.97	9	1,362	10	9.3	33
Alaska	1	42	0.50	39	0.82	22	8	46	8.0	44
Arizona	20	25	1.41	24	0.71	26	214	25	10.7	22
Arkansas	29	22	3.16	14	1.13	19	255	22	8.8	41
California	114	11	0.98	29	0.72	25	1,783	8	15.6	4
Colorado	87	12	6.77	10	3.59	10	762	14	8.8	42
Connecticut	13	29	0.98	29	0.41	32	116	32	8.9	40
Delaware	12	30	4.54	13	2.42	13	114	33	9.5	29
District of Columbia	1	42	0.39	41	0.29	37	14	43	14.0	5
Florida	151	8	2.86	16	1.17	17	1,660	9	11.0	17
Georgia	22	24	0.87	31	0.60	28	245	23	11.1	16
Hawaii	-	-	-	-	-	-	-	-	-	-
Idaho	1	42	0.27	44	0.11	47	8	46	8.0	44
Illinois	229	6	5.12	12	2.67	12	2,461	6	10.7	20
Indiana	123	10	5.68	11	3.01	11	1,342	11	10.9	19
Iowa	33	20	3.04	15	1.11	21	303	21	9.2	37
Kansas	10	32	1.05	28	0.68	27	178	26	17.8	2
Kentucky	648	4	44.80	3	25.43	3	7,669	4	11.8	12
Louisiana	7	36	0.44	40	0.27	40	124	31	17.7	3
Maine	1	42	0.21	47	0.14	46	14	43	14.0	5
Maryland	41	17	2.16	20	1.37	16	457	17	11.1	15
Massachusetts	9	34	0.37	42	0.21	44	113	34	12.6	9
Michigan	80	13	2.21	19	1.17	17	810	13	10.1	27
Minnesota	-	-	-	-	-	-	-	-	-	-
Mississippi	8	35	0.82	33	0.38	35	75	37	9.4	31
Missouri	36	19	1.80	23	0.80	23	372	19	10.3	25
Montana	-	-	-	-	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-	-	-	-	-
Nevada	4	38	0.84	32	0.53	31	42	38	10.5	24
New Hampshire	1	42	0.23	46	0.24	42	21	41	21.0	1
New Jersey	79	14	2.54	18	1.38	15	933	12	11.8	13
New Mexico	16	27	2.81	17	1.50	14	150	28	9.4	31
New York	41	17	0.57	37	0.25	41	381	18	9.3	34
North Carolina	52	16	1.96	21	1.12	20	570	16	11.0	18
North Dakota	2	41	0.82	33	0.28	38	16	42	8.0	44
Ohio	428	5	10.07	7	5.15	7	4,540	5	10.6	23
Oklahoma	17	26	1.39	25	0.56	29	157	27	9.2	35
Oregon	12	30	1.07	27	0.54	30	148	29	12.3	11
Pennsylvania	5,062	1	106.16	2	45.77	2	51,640	1	10.2	26
Rhode Island	1	42	0.25	45	0.15	45	14	43	14.0	5
South Carolina	10	32	0.73	36	0.40	33	92	36	9.2	36
South Dakota	3	40	1.14	26	0.40	33	24	40	8.0	44
Tennessee	168	7	8.68	9	4.56	8	1,804	7	10.7	21
Texas	33	20	0.51	38	0.28	38	313	20	9.5	30
Utah	73	15	12.28	6	7.59	6	699	15	9.6	28
Vermont	4	38	1.81	22	0.76	24	34	39	8.5	43
Virginia	715	3	29.01	4	20.31	4	8,916	3	12.5	10
Washington	15	28	0.79	35	0.38	35	134	30	8.9	39
West Virginia	1,458	2	203.87	1	102.05	1	17,178	2	11.8	14
Wisconsin	7	36	0.37	42	0.23	43	93	35	13.3	8
Wyoming	26	23	15.33	5	7.81	5	237	24	9.1	38

- indicates no deaths listed.

NOTE: Ranks are based on unrounded values. See Appendix A for source description and Appendix B for methods and ICD-8 and ICD-9 codes.

SOURCE: National Center for Health Statistics multiple cause of death data. Population estimates from U.S. Bureau of the Census.

**Table 2-6. Coal workers' pneumoconiosis: Most frequently recorded occupations on death certificate, selected states, U.S. residents age 15 and over, 1991-1992**

COC	Occupation	Number	Percent
616	Mining machine operators	820	70.4
889	Laborers, except construction	39	3.3
019	Managers and administrators, n.e.c.	15	1.3
804	Truck drivers, heavy	15	1.3
453	Janitors and cleaners	13	1.1
633	Supervisors, precision production occupations	13	1.1
575	Electricians	11	0.9
844	Operating engineers	10	0.9
243	Supervisors and proprietors, sales occupations	9	0.8
567	Carpenters	8	0.7
	All other occupations	168	14.4
	Occupation not reported	44	3.8
	<b>TOTAL</b>	<b>1,165</b>	<b>100.0</b>

COC - 1980 Census Occupation Code

n.e.c. - not elsewhere classified

NOTE: See Appendix A for source description, Appendix B for methods and ICD-8 and ICD-9 codes, and Appendix C for list of 25 states reporting usual occupation and years reporting. Data for 1985-1990 can be found in the Work-Related Lung Disease Surveillance Report, 1994, see Appendix E.

SOURCE: National Center for Health Statistics multiple cause of death data.

**Table 2-7. Coal workers' pneumoconiosis: Most frequently recorded industries on death certificate, selected states, U.S. residents age 15 and over, 1991-1992**

CIC	Industry	Number	Percent
041	Coal mining	887	76.1
060	Construction	44	3.8
270	Blast furnaces, steelworks, rolling and finishing mills	21	1.8
400	Railroads	13	1.1
392	Not specified manufacturing industries	12	1.0
351	Motor vehicles and motor vehicle equipment	9	0.8
010	Agricultural production, crops	7	0.6
192	Industrial and miscellaneous chemicals	7	0.6
842	Elementary and secondary schools	6	0.5
961	Homemaker, student, unemployed, volunteer	5	0.4
	All other industries	114	9.8
	Industry not reported	40	3.4
	<b>TOTAL</b>	<b>1,165</b>	<b>100.0</b>

CIC - 1980 Census Industry Code

NOTE: See Appendix A for source description, Appendix B for methods and ICD-8 and ICD-9 codes, and Appendix C for list of 25 states reporting usual industry and years reporting. Data for 1985-1990 can be found in the Work-Related Lung Disease Surveillance Report, 1994, see Appendix E.

SOURCE: National Center for Health Statistics multiple cause of death data.

**Table 2-8. Coal workers' pneumoconiosis: Proportionate mortality ratio (PMR) by usual occupation, selected states and years, U.S. residents age 15 and over, 1985-1992**

COC	Occupation	Number of deaths	PMR	95% confidence interval	
				LCL	UCL
616	Mining machine operators	2959	98.10	94.33	101.98
853	Excavate, loading machine operators	7	7.74	3.11	15.96
613	Supervisors, extractive occupations	6	5.35	1.96	11.66
617	Mining occupations, n.e.c.	9	3.82	1.75	7.25
859	Miscellaneous material moving equipment operators	9	2.79	1.28	5.29
824	Locomotive operating occupations	14	2.62	1.43	4.40
719	Molding and casting machine operators	9	2.25	1.03	4.27
844	Operating engineers	27	1.83	1.20	2.66
575	Electricians	36	1.67	1.16	2.32

COC - 1980 Census Occupation Code n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

NOTE: See Appendix A for source description, Appendix B for methods and ICD-8 and ICD-9 codes, and Appendix C for list of 25 states reporting usual occupation and years reporting.

SOURCE: National Center for Health Statistics multiple cause of death data.

**Table 2-9. Coal workers' pneumoconiosis: Proportionate mortality ratio (PMR) by usual industry, selected states and years, U.S. residents age 15 and over, 1985-1992**

CIC	Industry	Number of deaths	PMR	95% confidence interval	
				LCL	UCL
041	Coal mining	3,158	100.22	96.64	103.85
040	Metal mining	24	4.86	3.12	7.23

CIC - 1980 Census Industry Code LCL - lower confidence limit UCL - upper confidence limit

NOTE: See Appendix A for source description, Appendix B for methods and ICD-8 and ICD-9 codes, and Appendix C for list of 25 states reporting usual industry and years reporting.

SOURCE: National Center for Health Statistics multiple cause of death data.



Figure 2-4. Coal workers' pneumoconiosis: Total number of deaths by county,  
U.S. residents age 15 and over, 1983-1992

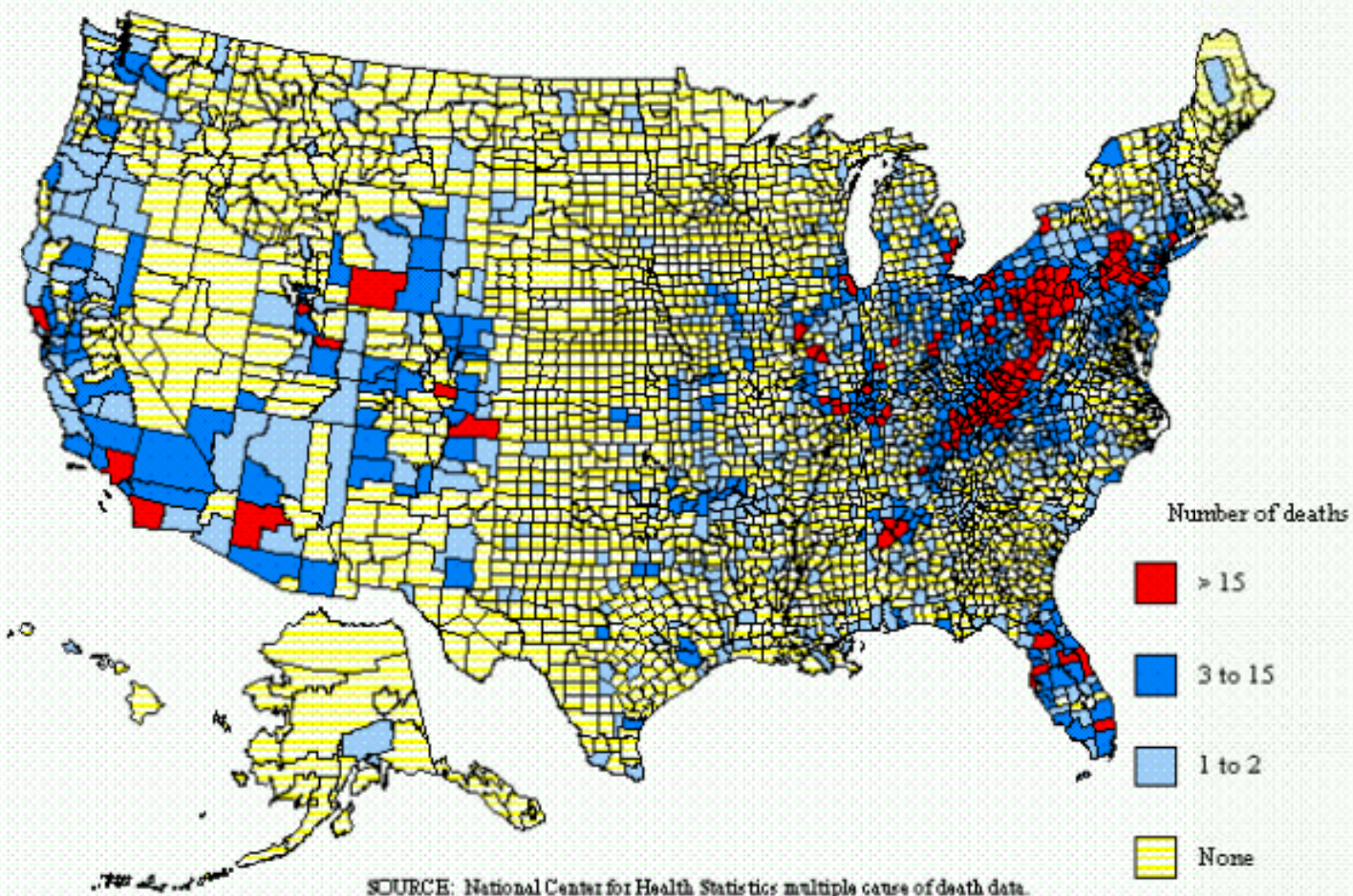
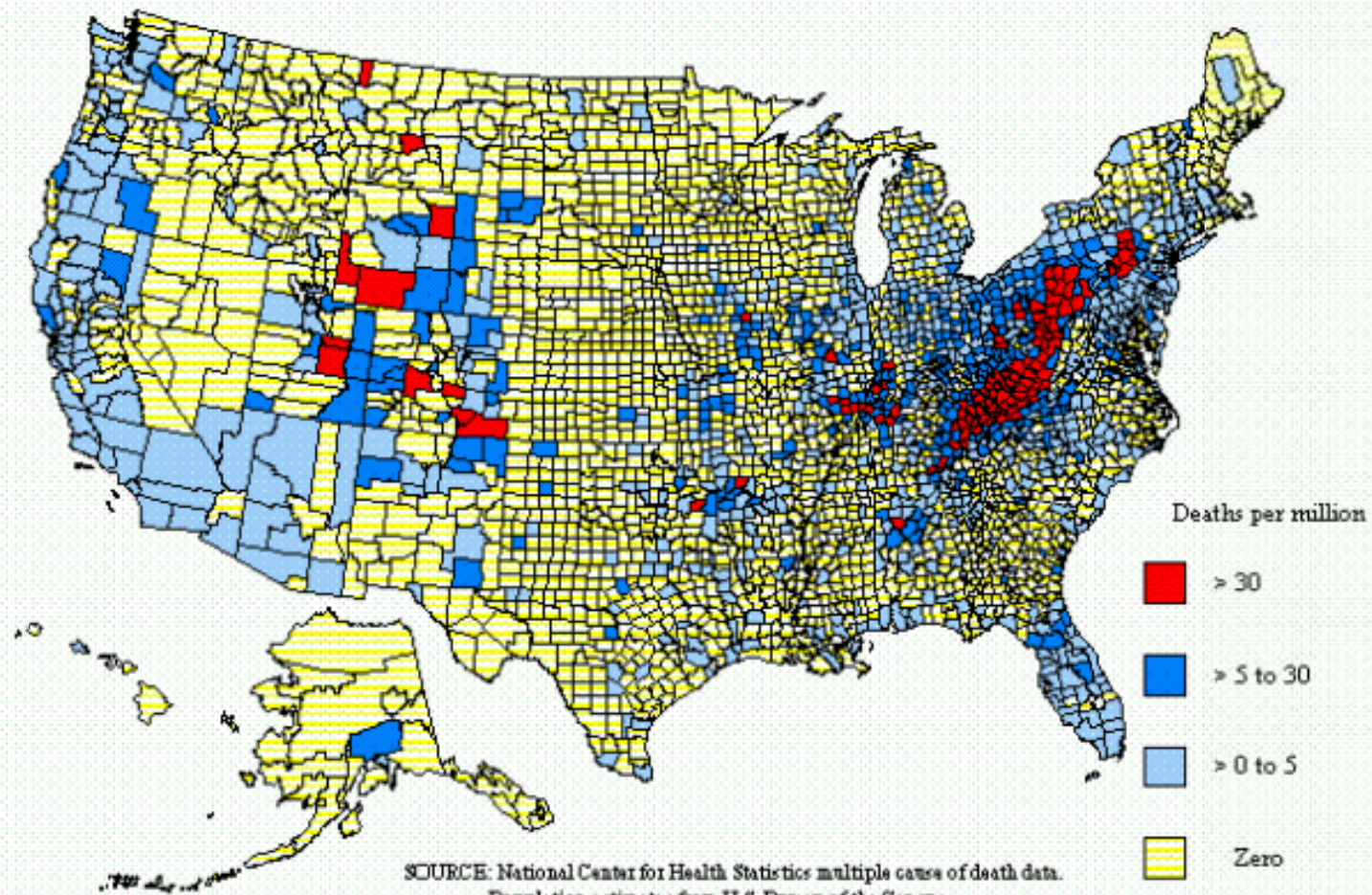
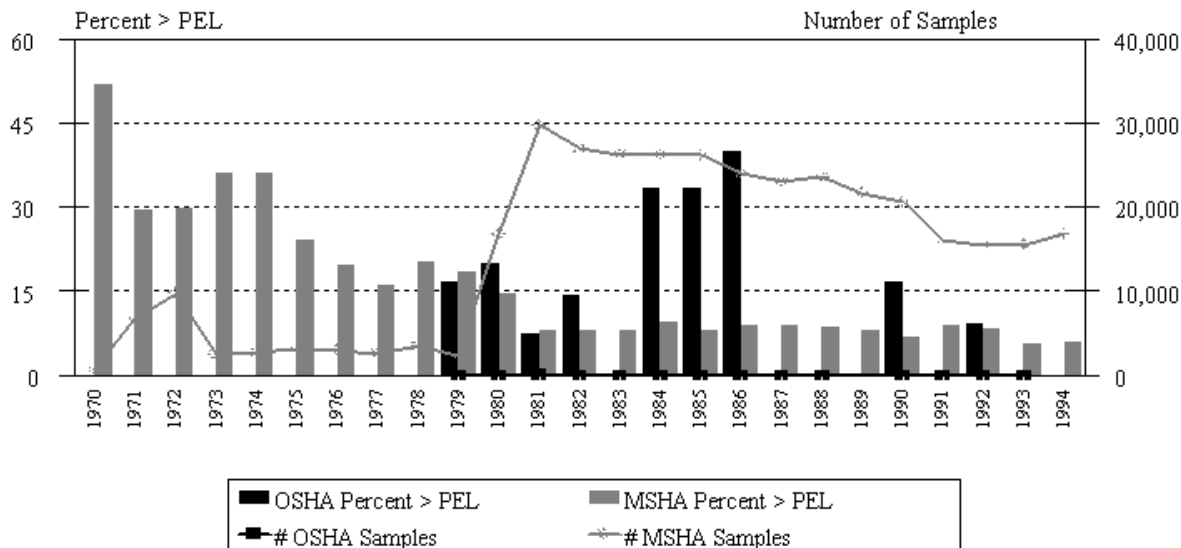


Figure 2-5. Coal workers' pneumoconiosis: Age-adjusted mortality rates  
by county, U.S. residents age 15 and over, 1983-1992

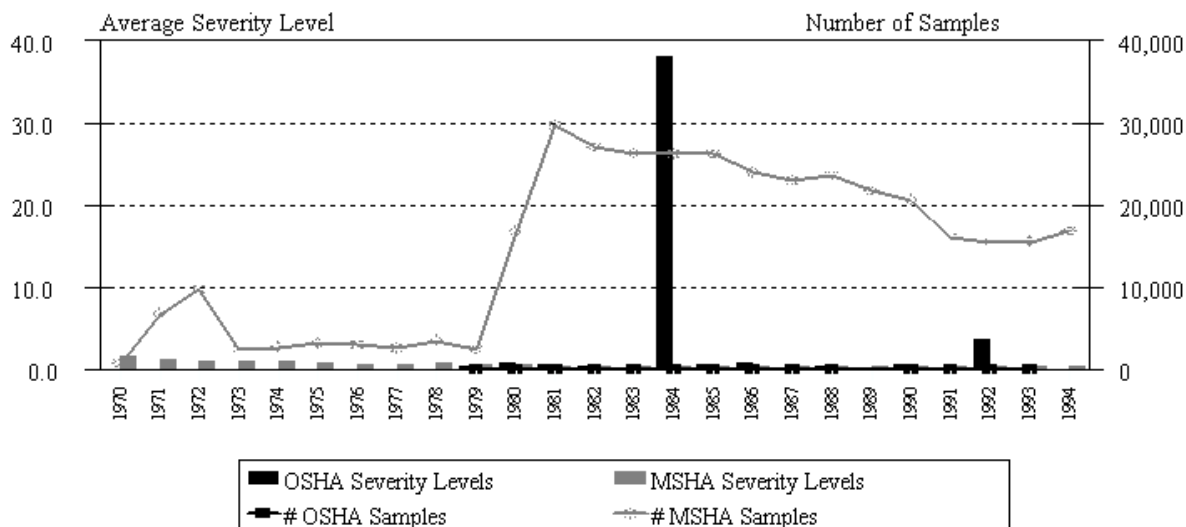


**Figure 2-6. Coal and coal mine dust: Number of MSHA and OSHA inspector samples and percent exceeding the permissible exposure limit (PEL), 1970-1994**



NOTE: See Appendix A for source description, Appendix B for methods, and Appendix D for agents.  
 SOURCE: Mine Safety and Health Administration: respirable coal mine dust data. Occupational Safety and Health Administration: Integrated Management Information System.

**Figure 2-7. Coal and coal mine dust: Number of MSHA and OSHA inspector samples and average severity levels, 1970-1994**



NOTE: See Appendix A for source description, Appendix B for methods, and Appendix D for agents.  
 SOURCE: Mine Safety and Health Administration: respirable coal mine dust data. Occupational Safety and Health Administration: Integrated Management Information System.

**Table 2-10. Coal and coal mine dust: Number of MSHA and OSHA inspector samples, percent exceeding the permissible exposure limit (PEL) and average severity level, by industry, 1993-1994**

CIC	Industries most frequently recorded on 1991-1992 death certificates with coal workers' pneumoconiosis	Number of samples	% > PEL	Average severity
041	Coal mining	32,362	5.8	0.38
060	Construction	0	-	-
270	Blast furnaces, steelworks, rolling and finishing mills	0	-	-
400	Railroads	0	-	-
392	Not specified manufacturing industries	0	-	-
351	Motor vehicles and motor vehicle equipment	0	-	-
010	Agricultural productions, crops	0	-	-
192	Industrial and miscellaneous chemicals	0	-	-
842	Elementary and secondary schools	0	-	-
961	Homemaker, student, unemployed, volunteer	0	-	-
	All other industries	7	0.0	0.19
	Industry not reported	0	-	-
	<b>TOTAL</b>	<b>32,369</b>	<b>5.8</b>	<b>0.38</b>

CIC - 1980 Census Industry Code - indicates incalculable field  
 NOTE: See Appendix A for source description, Appendix B for methods, Appendix C for list of 25 states reporting usual industry and years reporting, and Appendix D for agents.  
 SOURCE: Mine Safety and Health Administration: respirable coal mine dust data. Occupational Safety and Health Administration: Integrated Management Information System. National Center for Health Statistics: multiple cause of death data.

**Table 2-11. Coal and coal mine dust: Number of MSHA and OSHA inspector samples, percent exceeding the permissible exposure limit (PEL) and average severity level, by industry, 1993-1994**

CIC	Industries most frequently sampled in 1993-1994	Number of samples	% > PEL	Average severity
041	Coal mining	32,362	5.8	0.38
160	Pulp, paper, and paperboard mills	4	0.0	0.22
891	Noncommercial educational and scientific research	3	0.0	0.14
	All other industries	0	-	-
	Industry not reported	0	-	-
	<b>TOTAL</b>	<b>32,369</b>	<b>5.8</b>	<b>0.38</b>

CIC - 1980 Census Industry Code - indicates incalculable field  
 NOTE: See Appendix A for source description, Appendix B for methods, and Appendix D for agents.  
 SOURCE: Mine Safety and Health Administration: respirable coal mine dust data. Occupational Safety and Health Administration: Integrated Management Information System.

**UNITED STATES**

*Coal and Coal Mine Dust: Exposure*

**Table 2-12 (page 1 of 2). Coal and coal mine dust: Number of MSHA inspector samples, percent exceeding the permissible exposure limit (PEL) and average severity levels (Avg. Sev.), by state, 1970-1994**

State	1970-1984				1985-1994				1993-1994			
	Total samples		Samples > PEL		Total samples		Samples > PEL		Total samples		Samples > PEL	
	Number	Avg. Sev.	%	Avg. Sev.	Number	Avg. Sev.	%	Avg. Sev.	Number	Avg. Sev.	%	Avg. Sev.
Alabama	3,738	0.56	13.0	1.85	6,902	0.48	9.2	1.74	1,539	0.41	4.8	2.12
Alaska	23	0.20	0.0	-	25	0.40	4.0	4.30	1	0.10	0.0	-
Arizona	46	0.37	6.5	1.47	158	0.22	2.5	1.26	11	0.15	0.0	-
Arkansas	96	0.18	5.2	1.16	123	0.19	4.1	1.86	17	0.09	0.0	-
California	0	-	-	-	1	0.20	0.0	-	1	0.20	0.0	-
Colorado	2,250	1.04	30.1	2.43	2,796	0.67	15.7	1.91	381	0.50	10.0	1.40
Connecticut	0	-	-	-	0	-	-	-	0	-	-	-
Delaware	0	-	-	-	0	-	-	-	0	-	-	-
District of Columbia	0	-	-	-	0	-	-	-	0	-	-	-
Florida	0	-	-	-	0	-	-	-	0	-	-	-
Georgia	29	0.20	0.0	-	0	-	-	-	0	-	-	-
Hawaii	0	-	-	-	0	-	-	-	0	-	-	-
Idaho	0	-	-	-	1	0.40	0.0	-	0	-	-	-
Illinois	6,279	0.83	21.5	2.09	8,249	0.54	9.0	1.54	1,354	0.46	4.8	1.42
Indiana	2,282	0.34	6.7	2.46	2,559	0.34	4.8	2.50	424	0.37	7.5	1.65
Iowa	113	0.33	3.5	2.96	153	0.56	16.3	1.81	13	0.28	0.0	-
Kansas	91	0.18	3.3	2.00	116	0.19	1.7	2.00	5	0.12	0.0	-
Kentucky	32,882	0.59	13.4	2.28	53,871	0.46	9.0	2.14	9,960	0.39	6.6	1.73
Louisiana	0	-	-	-	56	0.16	0.0	-	23	0.22	0.0	-
Maine	0	-	-	-	0	-	-	-	0	-	-	-
Maryland	602	0.42	5.0	2.17	945	0.43	6.5	2.35	298	0.28	3.4	1.54
Massachusetts	0	-	-	-	0	-	-	-	0	-	-	-
Michigan	0	-	-	-	1	0.24	0.0	-	0	-	-	-
Minnesota	0	-	-	-	3	0.15	0.0	-	0	-	-	-
Mississippi	0	-	-	-	0	-	-	-	0	-	-	-
Missouri	184	0.24	1.6	4.27	371	0.20	1.9	1.77	74	0.21	2.7	1.53
Montana	116	0.31	5.2	2.35	300	0.27	3.0	3.92	52	0.15	3.8	1.70

See footnotes at end of table.

**UNITED STATES**

*Coal and Coal Mine Dust: Exposure*

**Table 2-12 (page 2 of 2). Coal and coal mine dust: Number of MSHA inspector samples, percent exceeding the permissible exposure limit (PEL) and average severity levels (Avg. Sev.), by state, 1970-1994**

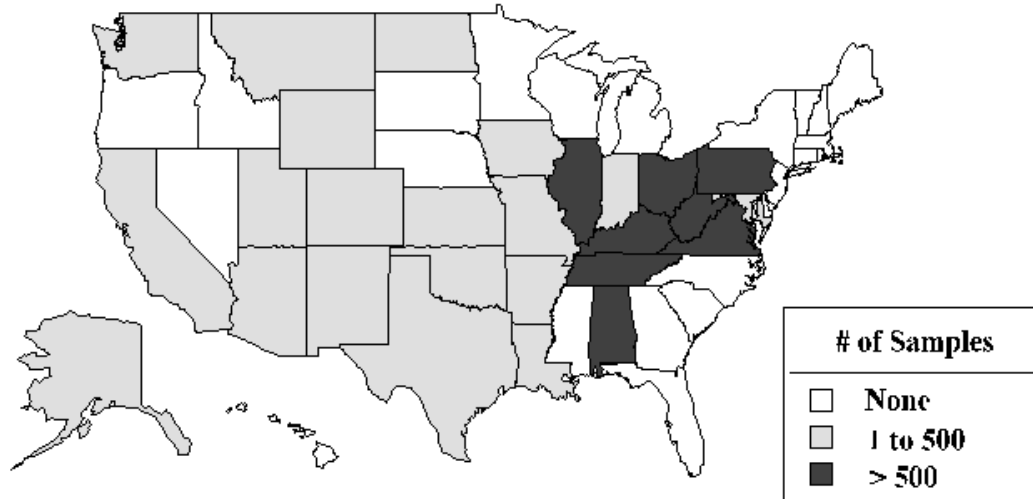
State	1970-1984				1985-1994				1993-1994			
	Total samples		Samples > PEL		Total samples		Samples > PEL		Total samples		Samples > PEL	
	Number	Avg. Sev.	%	Avg. Sev.	Number	Avg. Sev.	%	Avg. Sev.	Number	Avg. Sev.	%	Avg. Sev.
Nebraska	0	-	-	-	0	-	-	-	0	-	-	-
Nevada	0	-	-	-	0	-	-	-	0	-	-	-
New Hampshire	0	-	-	-	0	-	-	-	0	-	-	-
New Jersey	0	-	-	-	0	-	-	-	0	-	-	-
New Mexico	369	1.15	28.2	2.97	558	0.40	8.4	1.68	96	0.44	13.5	1.42
New York	0	-	-	-	0	-	-	-	0	-	-	-
North Carolina	0	-	-	-	9	0.10	0.0	-	0	-	-	-
North Dakota	258	0.19	1.9	1.56	442	0.17	1.1	3.79	34	0.11	0.0	-
Ohio	8,574	0.69	20.6	1.76	10,524	0.33	4.6	1.83	1,566	0.23	1.6	1.54
Oklahoma	690	0.29	5.5	2.57	1,167	0.33	5.0	2.57	181	0.30	3.3	2.38
Oregon	0	-	-	-	0	-	-	-	0	-	-	-
Pennsylvania	32,528	0.45	8.4	2.20	22,387	0.37	6.2	1.72	4,442	0.29	4.1	1.89
Rhode Island	0	-	-	-	0	-	-	-	0	-	-	-
South Carolina	0	-	-	-	0	-	-	-	0	-	-	-
South Dakota	0	-	-	-	0	-	-	-	0	-	-	-
Tennessee	4,106	0.52	9.1	2.27	4,112	0.38	5.5	2.13	503	0.28	3.6	1.63
Texas	540	0.18	3.0	2.04	1,210	0.14	1.5	2.07	215	0.12	1.4	1.50
Utah	1,601	0.89	24.7	2.05	3,388	0.76	19.2	1.91	415	0.67	14.5	1.54
Vermont	0	-	-	-	0	-	-	-	0	-	-	-
Virginia	23,490	0.52	11.7	1.98	24,565	0.44	8.8	1.80	3,296	0.40	6.2	1.80
Washington	34	0.20	0.0	-	72	0.22	2.8	2.45	28	0.17	0.0	-
West Virginia	41,525	0.63	15.1	2.08	56,576	0.43	7.1	1.82	7,105	0.42	6.9	1.68
Wisconsin	0	-	-	-	0	-	-	-	0	-	-	-
Wyoming	548	0.55	13.7	2.00	1,209	0.34	8.1	1.54	328	0.29	6.1	1.59
<b>TOTAL</b>	<b>162,994</b>	<b>0.58</b>	<b>13.3</b>	<b>2.12</b>	<b>202,849</b>	<b>0.44</b>	<b>7.9</b>	<b>1.91</b>	<b>32,362</b>	<b>0.38</b>	<b>5.8</b>	<b>1.73</b>

- indicates incalculable field.

NOTE: See Appendix A for source description, Appendix B for methods, and Appendix D for agents.

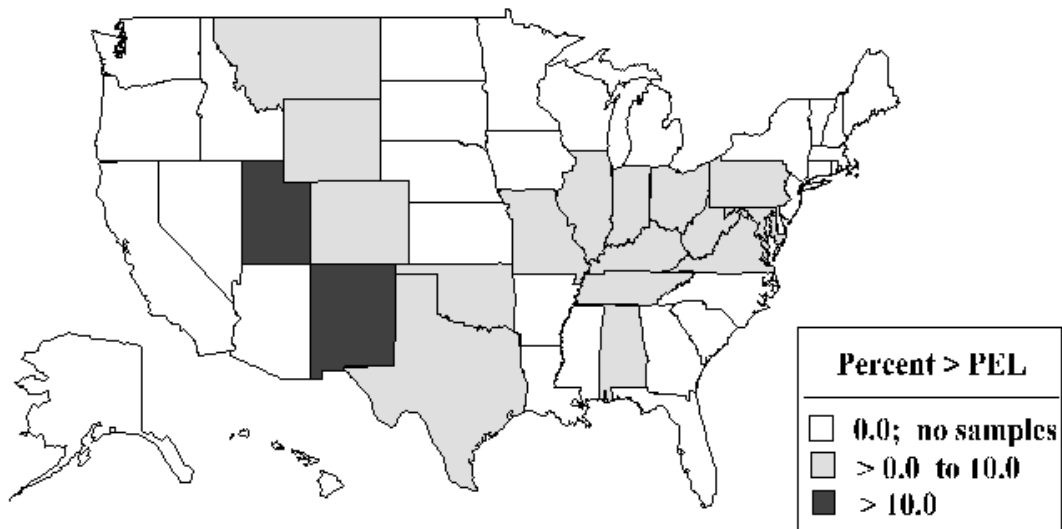
SOURCE: Mine Safety and Health Administration: respirable coal mine dust data.

**Figure 2-8. Coal and coal mine dust: Number of MSHA inspector samples collected by state, 1993-1994**



NOTE: See Appendix A for source description, Appendix B for methods, and Appendix D for agents.  
SOURCE: Mine Safety and Health Administration: respirable coal mine dust data.

**Figure 2-9. Coal and coal mine dust: Percent of MSHA inspector samples that exceeded the permissible exposure limit (PEL), by state, 1993-1994**



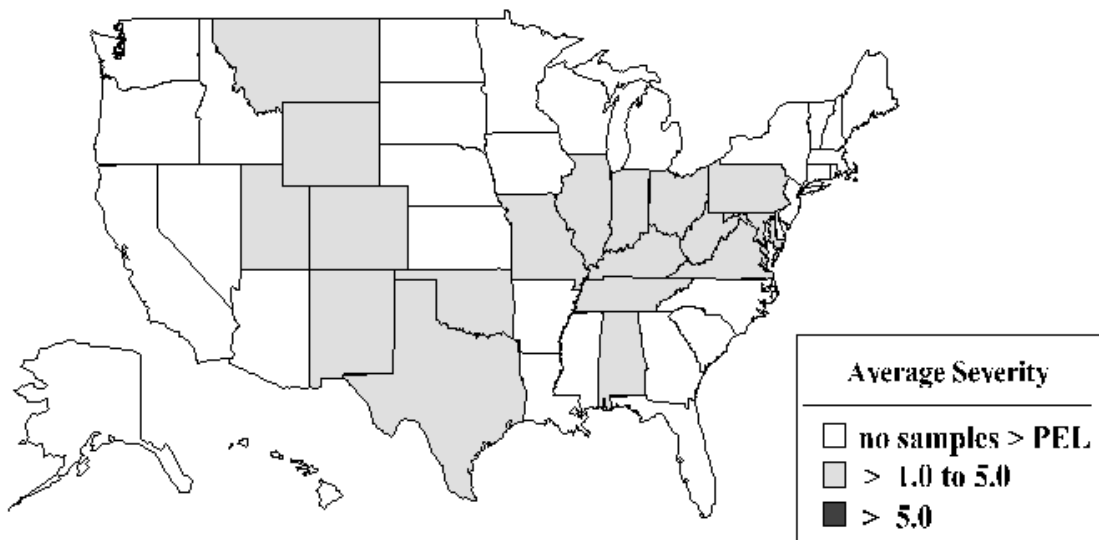
NOTE: See Appendix A for source description, Appendix B for methods, and Appendix D for agents.  
SOURCE: Mine Safety and Health Administration: respirable coal mine dust data.

**Figure 2-10. Coal and coal mine dust: Average severity level by state for MSHA inspector samples, 1993-1994**



NOTE: See Appendix A for source description, Appendix B for methods, and Appendix D for agents.  
 SOURCE: Mine Safety and Health Administration: respirable coal mine dust data.

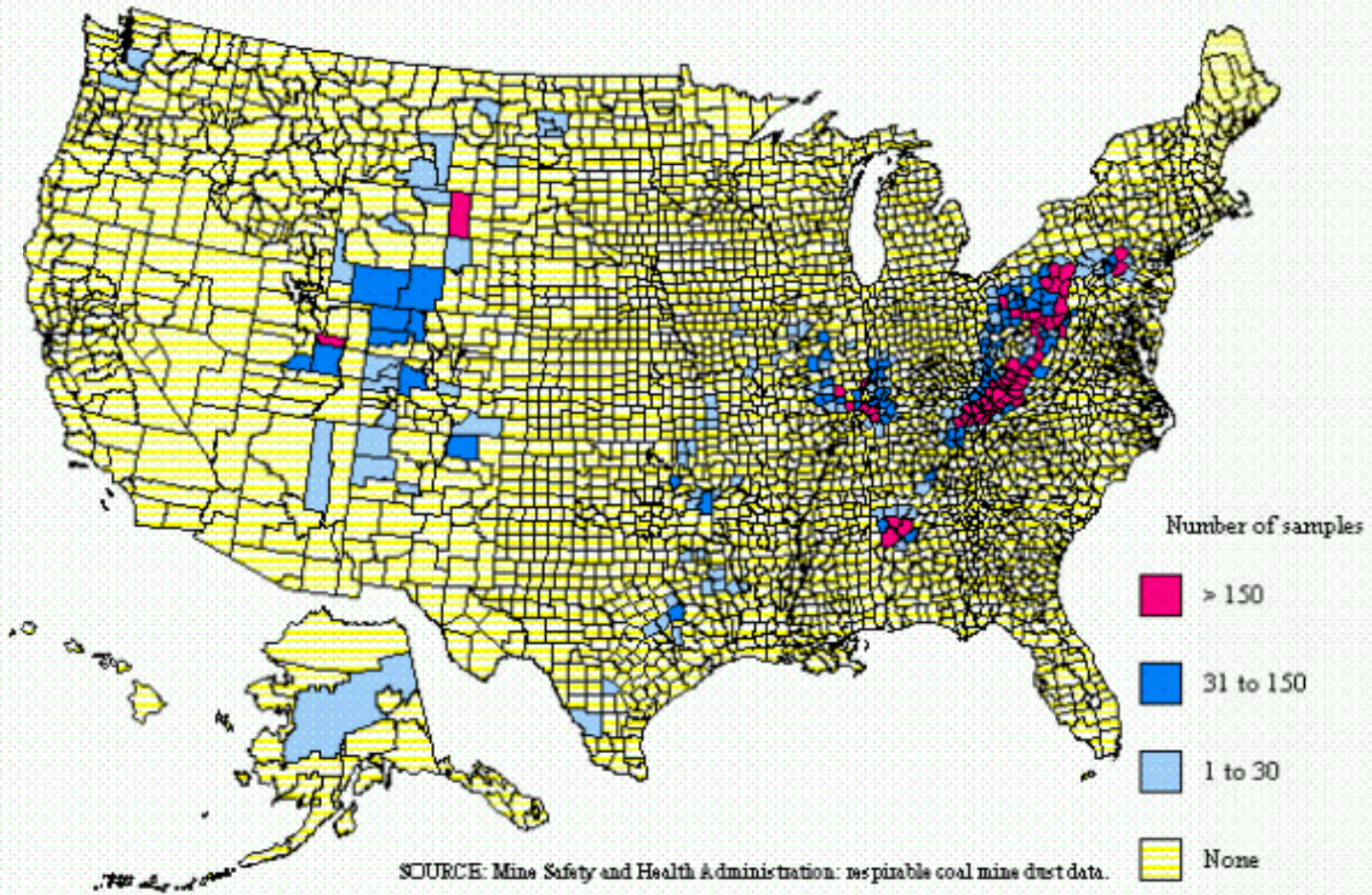
**Figure 2-11. Coal and coal mine dust: Average severity level by state for MSHA inspector samples that exceeded the permissible exposure limit (PEL), 1993-1994**



NOTE: See Appendix A for source description, Appendix B for methods, and Appendix D for agents.  
 SOURCE: Mine Safety and Health Administration: respirable coal mine dust data.



Figure 2-12. Coal and coal mine dust: Number of MSHA inspector samples collected by county, 1993-1994



**UNITED STATES**

*Coal and Coal Mine Dust: Exposure*

**Table 2-13 (page 1 of 2). Coal and coal mine dust: Number of OSHA inspector samples, percent exceeding the permissible exposure limit (PEL) and average severity levels (Avg. Sev.), by state, 1979-1994**

State	1979-1984				1985-1994				1993-1994			
	Total samples		Samples > PEL		Total samples		Samples > PEL		Total samples		Samples > PEL	
	Number	Avg. Sev.	%	Avg. Sev.	Number	Avg. Sev.	%	Avg. Sev.	Number	Avg. Sev.	%	Avg. Sev.
Alabama	7	0.43	14.3	1.15	0	-	-	-	0	-	-	-
Alaska	0	-	-	-	0	-	-	-	0	-	-	-
Arizona	0	-	-	-	0	-	-	-	0	-	-	-
Arkansas	0	-	-	-	0	-	-	-	0	-	-	-
California	0	-	-	-	0	-	-	-	0	-	-	-
Colorado	0	-	-	-	6	0.47	0.0	-	0	-	-	-
Connecticut	0	-	-	-	0	-	-	-	0	-	-	-
Delaware	0	-	-	-	0	-	-	-	0	-	-	-
District of Columbia	0	-	-	-	0	-	-	-	0	-	-	-
Florida	2	0.11	0.0	-	0	-	-	-	0	-	-	-
Georgia	0	-	-	-	0	-	-	-	0	-	-	-
Hawaii	0	-	-	-	0	-	-	-	0	-	-	-
Idaho	0	-	-	-	0	-	-	-	0	-	-	-
Illinois	10	34.37	40.0	85.29	0	-	-	-	0	-	-	-
Indiana	2	0.21	0.0	-	2	0.00	0.0	-	0	-	-	-
Iowa	3	0.08	0.0	-	8	0.49	12.5	2.62	0	-	-	-
Kansas	0	-	-	-	0	-	-	-	0	-	-	-
Kentucky	0	-	-	-	6	0.18	0.0	-	3	0.14	0.0	-
Louisiana	2	0.21	0.0	-	0	-	-	-	0	-	-	-
Maine	0	-	-	-	0	-	-	-	0	-	-	-
Maryland	0	-	-	-	12	0.25	0.0	-	2	0.45	0.0	-
Massachusetts	0	-	-	-	0	-	-	-	0	-	-	-
Michigan	0	-	-	-	3	13.09	33.3	38.50	0	-	-	-
Minnesota	0	-	-	-	0	-	-	-	0	-	-	-
Mississippi	0	-	-	-	0	-	-	-	0	-	-	-
Missouri	3	0.14	0.0	-	0	-	-	-	0	-	-	-
Montana	0	-	-	-	2	0.10	0.0	-	0	-	-	-

See footnotes at end of table.

**UNITED STATES**

*Coal and Coal Mine Dust: Exposure*

**Table 2-13 (page 2 of 2). Coal and coal mine dust: Number of OSHA inspector samples, percent exceeding the permissible exposure limit (PEL) and average severity levels (Avg. Sev.), by state, 1979-1994**

State	1979-1984				1985-1994				1993-1994			
	Total samples		Samples > PEL		Total samples		Samples > PEL		Total samples		Samples > PEL	
	Number	Avg. Sev.	%	Avg. Sev.	Number	Avg. Sev.	%	Avg. Sev.	Number	Avg. Sev.	%	Avg. Sev.
Nebraska	0	-	-	-	0	-	-	-	0	-	-	-
Nevada	0	-	-	-	0	-	-	-	0	-	-	-
New Hampshire	0	-	-	-	0	-	-	-	0	-	-	-
New Jersey	0	-	-	-	0	-	-	-	0	-	-	-
New Mexico	0	-	-	-	0	-	-	-	0	-	-	-
New York	1	0.18	0.0	-	1	1.11	100.0	1.11	0	-	-	-
North Carolina	0	-	-	-	0	-	-	-	0	-	-	-
North Dakota	2	4.54	100.0	4.54	0	-	-	-	0	-	-	-
Ohio	16	0.34	6.3	1.75	7	0.68	28.6	1.43	0	-	-	-
Oklahoma	0	-	-	-	1	0.45	0.0	-	0	-	-	-
Oregon	0	-	-	-	0	-	-	-	0	-	-	-
Pennsylvania	5	0.06	0.0	-	0	-	-	-	0	-	-	-
Rhode Island	0	-	-	-	0	-	-	-	0	-	-	-
South Carolina	0	-	-	-	0	-	-	-	0	-	-	-
South Dakota	0	-	-	-	0	-	-	-	0	-	-	-
Tennessee	0	-	-	-	4	0.11	0.0	-	2	0.00	0.0	-
Texas	14	0.18	0.0	-	0	-	-	-	0	-	-	-
Utah	0	-	-	-	0	-	-	-	0	-	-	-
Vermont	0	-	-	-	0	-	-	-	0	-	-	-
Virginia	0	-	-	-	4	0.00	0.0	-	0	-	-	-
Washington	0	-	-	-	0	-	-	-	0	-	-	-
West Virginia	4	2.09	50.0	4.00	0	-	-	-	0	-	-	-
Wisconsin	8	0.49	25.0	1.21	1	0.23	0.0	-	0	-	-	-
Wyoming	2	0.71	0.0	-	0	-	-	-	0	-	-	-
<b>TOTAL</b>	<b>81</b>	<b>4.69</b>	<b>14.8</b>	<b>30.30</b>	<b>57</b>	<b>1.00</b>	<b>8.8</b>	<b>9.02</b>	<b>7</b>	<b>0.19</b>	<b>0.0</b>	<b>-</b>

- indicates incalculable field.

NOTE: See Appendix A for source description, Appendix B for methods, and Appendix D for agents.

SOURCE: Occupational Safety and Health Administration: Integrated Management Information System.

**Figure 2-13. Coal and coal mine dust: Number of OSHA inspector samples collected by state, 1993-1994**



NOTE: See Appendix A for source description, Appendix B for methods, and Appendix D for agents.  
 SOURCE: Occupational Safety and Health Administration: Integrated Management Information System.

**Figure 2-14. Coal and coal mine dust: Percent of OSHA inspector samples that exceeded the permissible exposure limit (PEL), by state, 1993-1994**



NOTE: No samples collected were above the PEL. See Appendix A for source description, Appendix B for methods, and Appendix D for agents.  
 SOURCE: Occupational Safety and Health Administration: Integrated Management Information System.

**Figure 2-15. Coal and coal mine dust: Average severity level by state for OSHA inspector samples, 1993-1994**



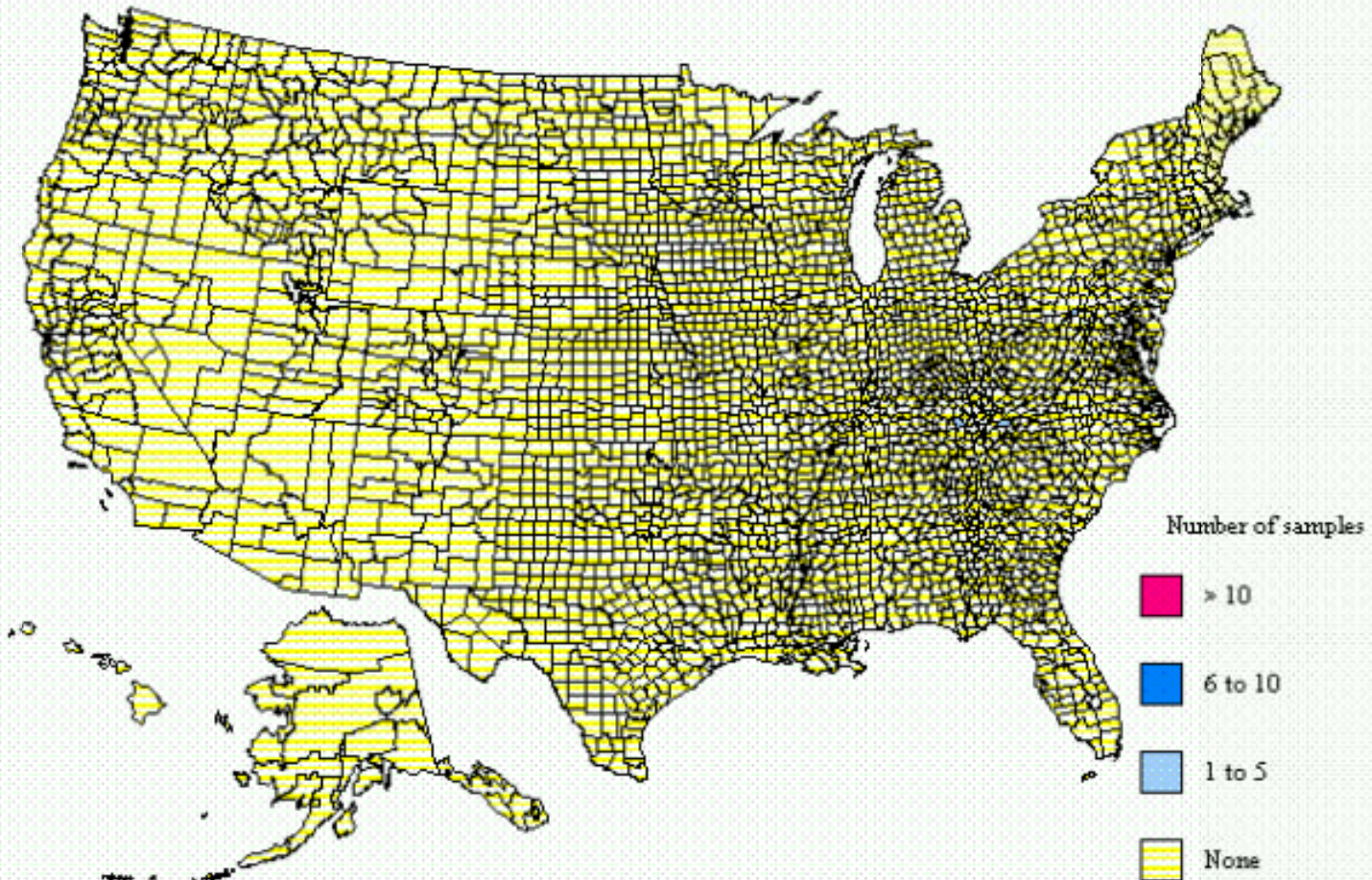
NOTE: No samples collected were above the PEL. See Appendix A for source descriptions, Appendix B for methods, and Appendix D for agents.  
SOURCE: Occupational Safety and Health Administration: Integrated Management Information System.

**Figure 2-16. Coal and coal mine dust: Average severity level by state for OSHA inspector samples that exceeded the permissible exposure limit (PEL), 1993-1994**



NOTE: No samples collected were above the PEL. See Appendix A for source descriptions, Appendix B for methods, and Appendix D for agents.  
SOURCE: Occupational Safety and Health Administration: Integrated Management Information System.

Figure 2-17. Coal and coal mine dust. Number of OSHA inspector samples collected by county, 1993-1994



SOURCE: Occupational Safety and Health Administration: Integrated Management Information System.