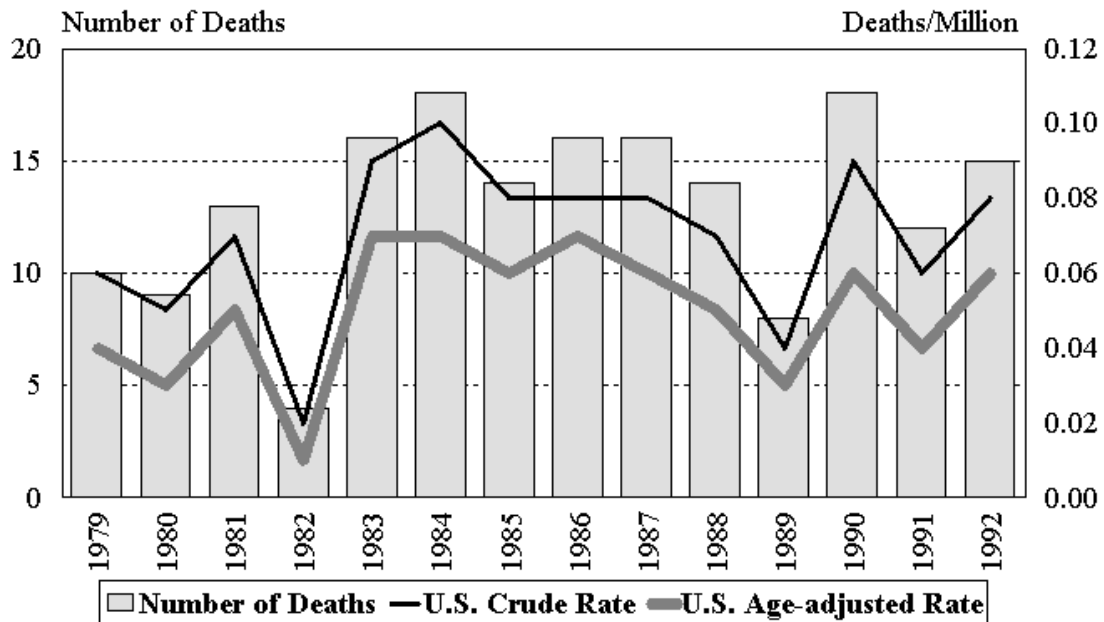
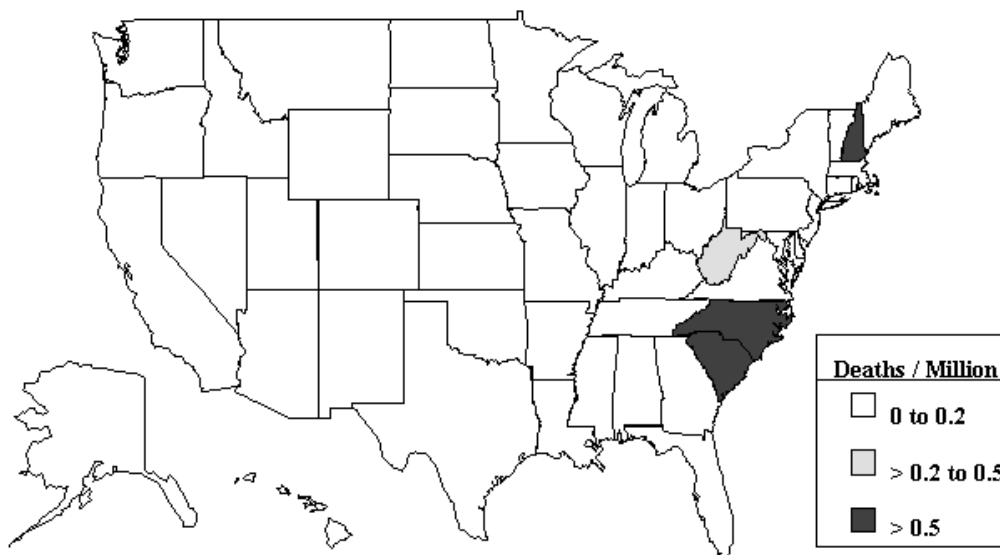


Figure 4-1. Byssinosis: Number of deaths, crude and age-adjusted mortality rates, U.S. residents age 15 and over, 1979-1992



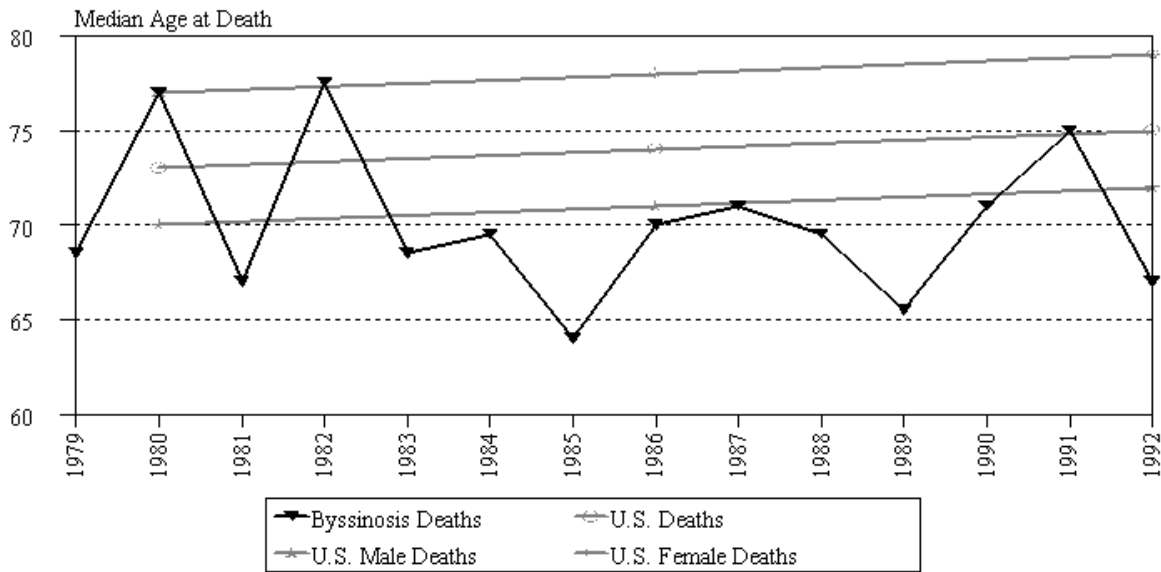
NOTE: See Appendix A for source description and Appendix B for methods and ICD-8 and ICD-9 codes.
 SOURCE: National Center for Health Statistics multiple cause of death data. Population estimates from U.S. Bureau of the Census.

Figure 4-2. Byssinosis: 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 4-3. Byssinosis: 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 4-1. Byssinosis: 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		12	100.0	15	100.0
Sex	Male	8	66.7	9	60.0
	Female	4	33.3	6	40.0
Race	White	11	91.7	10	66.7
	Black	1	8.3	5	33.3
	Other	0	0.0	0	0.0
Age	15-24	0	0.0	3	20.0
	25-34	0	0.0	1	6.7
	35-44	0	0.0	0	0.0
	45-54	1	8.3	0	0.0
	55-64	1	8.3	1	6.7
	65-74	4	33.3	8	53.3
	75-84	4	33.3	2	13.3
	85 and over	2	16.7	0	0.0
	Mean age	73.7		57.9	
	Range for age	53-87		18-84	

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 1979-1990 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 4-2. Byssinosis: Number of deaths by state, U.S. residents age 15 and over, 1979-1992

State	1979-1990	1991	1992	TOTAL
Alabama	5	1	-	6
Alaska	-	-	-	-
Arizona	3	-	-	3
Arkansas	-	-	-	-
California	6	-	1	7
Colorado	-	-	-	-
Connecticut	1	-	-	1
Delaware	-	-	-	-
District of Columbia	-	-	-	-
Florida	1	-	1	2
Georgia	18	1	-	19
Hawaii	-	-	-	-
Idaho	-	-	-	-
Illinois	3	-	1	4
Indiana	-	1	-	1
Iowa	-	-	-	-
Kansas	1	-	-	1
Kentucky	-	-	-	-
Louisiana	1	-	1	2
Maine	-	-	-	-
Maryland	2	-	-	2
Massachusetts	6	-	1	7
Michigan	1	-	-	1
Minnesota	1	-	-	1
Mississippi	-	-	-	-
Missouri	-	-	-	-
Montana	-	-	-	-
Nebraska	-	-	-	-
Nevada	-	-	-	-
New Hampshire	1	1	-	2
New Jersey	2	-	-	2
New Mexico	-	-	-	-
New York	1	-	-	1
North Carolina	66	2	8	76
North Dakota	-	-	-	-
Ohio	4	-	-	4
Oklahoma	-	1	-	1
Oregon	-	-	-	-
Pennsylvania	8	1	-	9
Rhode Island	2	-	-	2
South Carolina	10	3	2	15
South Dakota	-	-	-	-
Tennessee	1	-	-	1
Texas	3	-	-	3
Utah	-	-	-	-
Vermont	2	-	-	2
Virginia	4	-	-	4
Washington	1	-	-	1
West Virginia	1	1	-	2
Wisconsin	1	-	-	1
Wyoming	-	-	-	-
TOTAL	156	12	15	183

- 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 4-3. Byssinosis: 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
Crude mortality rate					
1991	0.06	0.09	0.05	0.10	-
1992	0.08	0.06	0.06	0.38	0.08
Age-adjusted mortality rate					
1991	0.04	0.05	0.04	0.08	-
1992	0.06	0.06	0.04	0.36	0.04

- 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 1979-1990 can be found in the Work-Related Lung Disease Surveillance Report, 1994, see Appendix E.
See Appendix E for revised rates for 1979-1990.

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

Table 4-4. Byssinosis: 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
Years of potential life lost to age 65					
1991	20	0	20	0	-
1992	175	50	35	90	0
Years of potential life lost to life expectancy					
1991	152	64	79	7	-
1992	368	110	113	111	9

- 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 1979-1990 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. Population estimates from U.S. Bureau of the Census.

Table 4-5. Byssinosis: 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	2	5	0.13	5	0.05	10	16.00	16	8.0	17
Alaska	-	-	-	-	-	-	-	-	-	-
Arizona	1	12	0.07	11	0.07	5	21.00	12	21.0	8
Arkansas	-	-	-	-	-	-	-	-	-	-
California	4	3	0.03	20	0.03	17	105.00	3	26.3	5
Colorado	-	-	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-	-
District of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	2	5	0.04	17	0.04	15	71.00	5	35.5	3
Georgia	2	5	0.08	7	0.06	6	46.00	7	23.0	6
Hawaii	-	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	-
Illinois	2	5	0.04	17	0.05	10	104.00	4	52.0	1
Indiana	1	12	0.05	15	0.03	17	14.00	17	14.0	13
Iowa	-	-	-	-	-	-	-	-	-	-
Kansas	1	12	0.10	6	0.04	15	8.00	19	8.0	17
Kentucky	-	-	-	-	-	-	-	-	-	-
Louisiana	1	12	0.06	13	0.06	6	47.00	6	47.0	2
Maine	-	-	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-	-	-	-
Massachusetts	2	5	0.08	7	0.06	6	28.00	10	14.0	13
Michigan	1	12	0.03	20	0.01	20	6.00	22	6.0	22
Minnesota	1	12	0.06	13	0.06	6	21.00	12	21.0	8
Mississippi	-	-	-	-	-	-	-	-	-	-
Missouri	-	-	-	-	-	-	-	-	-	-
Montana	-	-	-	-	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-	-	-	-
New Hampshire	1	12	0.23	3	0.28	3	29.00	9	29.0	4
New Jersey	-	-	-	-	-	-	-	-	-	-
New Mexico	-	-	-	-	-	-	-	-	-	-
New York	-	-	-	-	-	-	-	-	-	-
North Carolina	29	1	1.09	1	0.73	1	382.00	1	13.2	15
North Dakota	-	-	-	-	-	-	-	-	-	-
Ohio	3	4	0.07	11	0.05	10	43.00	8	14.3	12
Oklahoma	1	12	0.08	7	0.03	17	8.00	19	8.0	17
Oregon	-	-	-	-	-	-	-	-	-	-
Pennsylvania	2	5	0.04	17	0.01	20	14.00	17	7.0	21
Rhode Island	-	-	-	-	-	-	-	-	-	-
South Carolina	6	2	0.44	2	0.36	2	128.00	2	21.3	7
South Dakota	-	-	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-	-
Texas	1	12	0.02	22	0.01	20	8.00	19	8.0	17
Utah	-	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-	-
Virginia	2	5	0.08	7	0.05	10	22.00	11	11.0	16
Washington	-	-	-	-	-	-	-	-	-	-
West Virginia	1	12	0.14	4	0.12	4	21.00	12	21.0	8
Wisconsin	1	12	0.05	15	0.05	10	21.00	12	21.0	8
Wyoming	-	-	-	-	-	-	-	-	-	-

- 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 4-6. Byssinosis: Most frequently recorded occupations on death certificate, selected states, U.S. residents age 15 and over, 1991-1992

COC	Occupation	Number	Percent
749	Miscellaneous textile machine operators	3	15.0
914	Homemaker	3	15.0
637	Machinists	2	10.0
739	Knitting, looping, taping, and weaving machine operators	2	10.0
889	Laborers, except construction	2	10.0
203	Clinical laboratory technologists and technicians	1	5.0
423	Sheriffs, bailiffs, and other law enforcement officers	1	5.0
479	Farm workers	1	5.0
518	Industrial machinery repairers	1	5.0
616	Mining machine operators	1	5.0
	All other occupations	3	15.0
	Occupation not reported	0	0.0
	TOTAL	20	100.0

COC - 1980 Census Occupation 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 occupation and years reporting. Data for 1979-1990 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 4-7. Byssinosis: Most frequently recorded industries on death certificate, U.S. residents age 15 and over, selected states, 1991-1992

CIC	Industry	Number	Percent
142	Yarn, thread, and fabric mills	10	50.0
961	Homemaker, student, unemployed, volunteer	3	15.0
021	Horticultural services	1	5.0
041	Coal mining	1	5.0
331	Machinery, except electrical, n.e.c.	1	5.0
392	Not specified manufacturing industries	1	5.0
790	Dressmaking shops	1	5.0
831	Hospitals	1	5.0
910	Justice, public order, and safety	1	5.0
	All other industries	0	0.0
	Industry not reported	0	0.0
	TOTAL	20	100.0

CIC - 1980 Census Industry 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 industry and years reporting. Data for 1979-1990 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 4-8. Byssinosis: 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
749	Miscellaneous textile machine operators	16	60.63	34.65	98.43
738	Winding, twisting machine operators	7	29.07	11.67	59.94

COC - 1980 Census Occupation 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 occupation and years reporting.

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

Table 4-9. Byssinosis: 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
142	Yarn, thread, and fabric mills	43	32.67	23.34	44.51

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 4-4. Byssinosis: Total number of deaths by county,
U.S. residents age 15 and over, 1983-1992

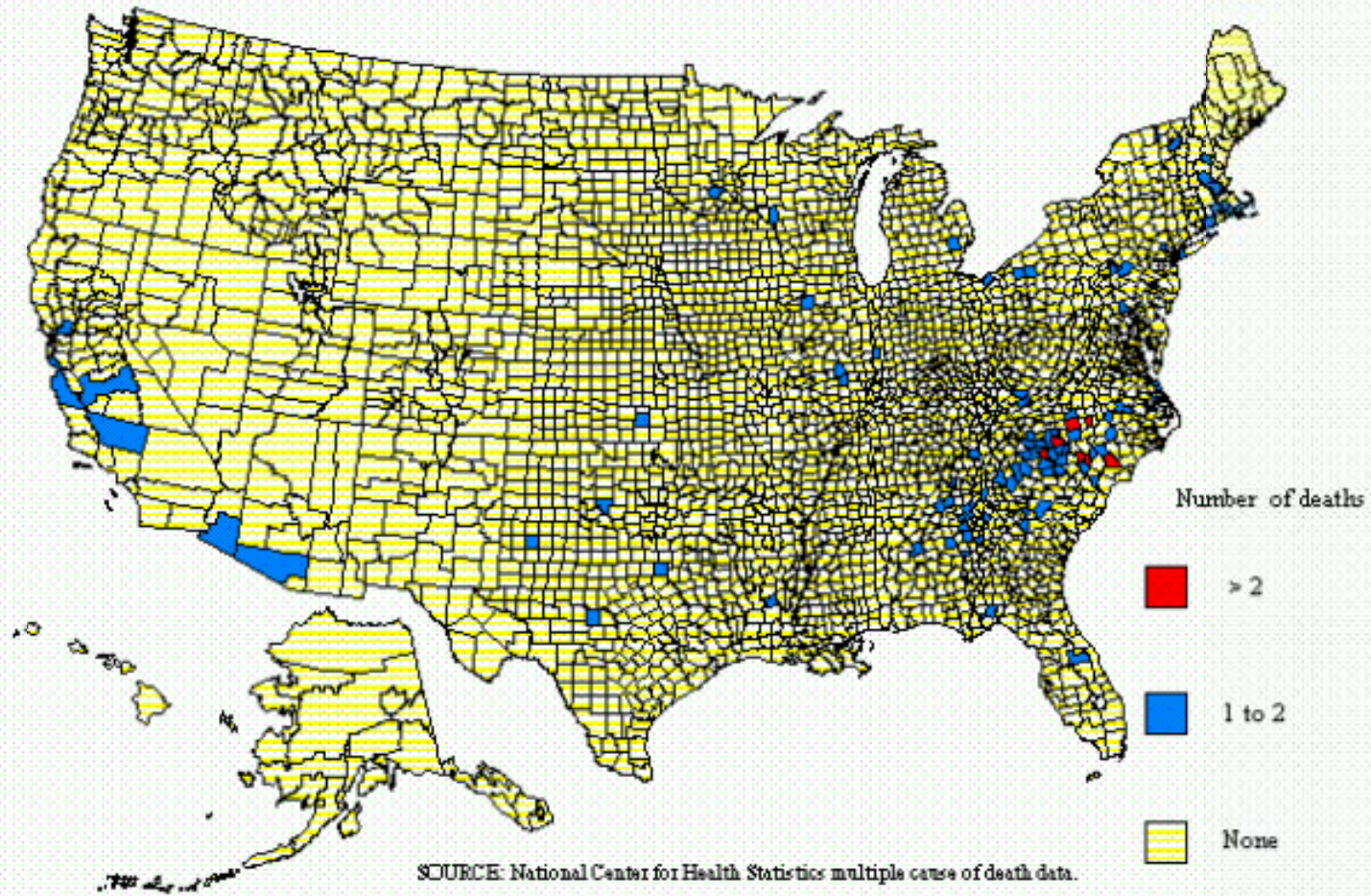


Figure 4-5. Byssinosis: Age-adjusted mortality rates by county,
U.S. residents age 15 and over, 1983-1992

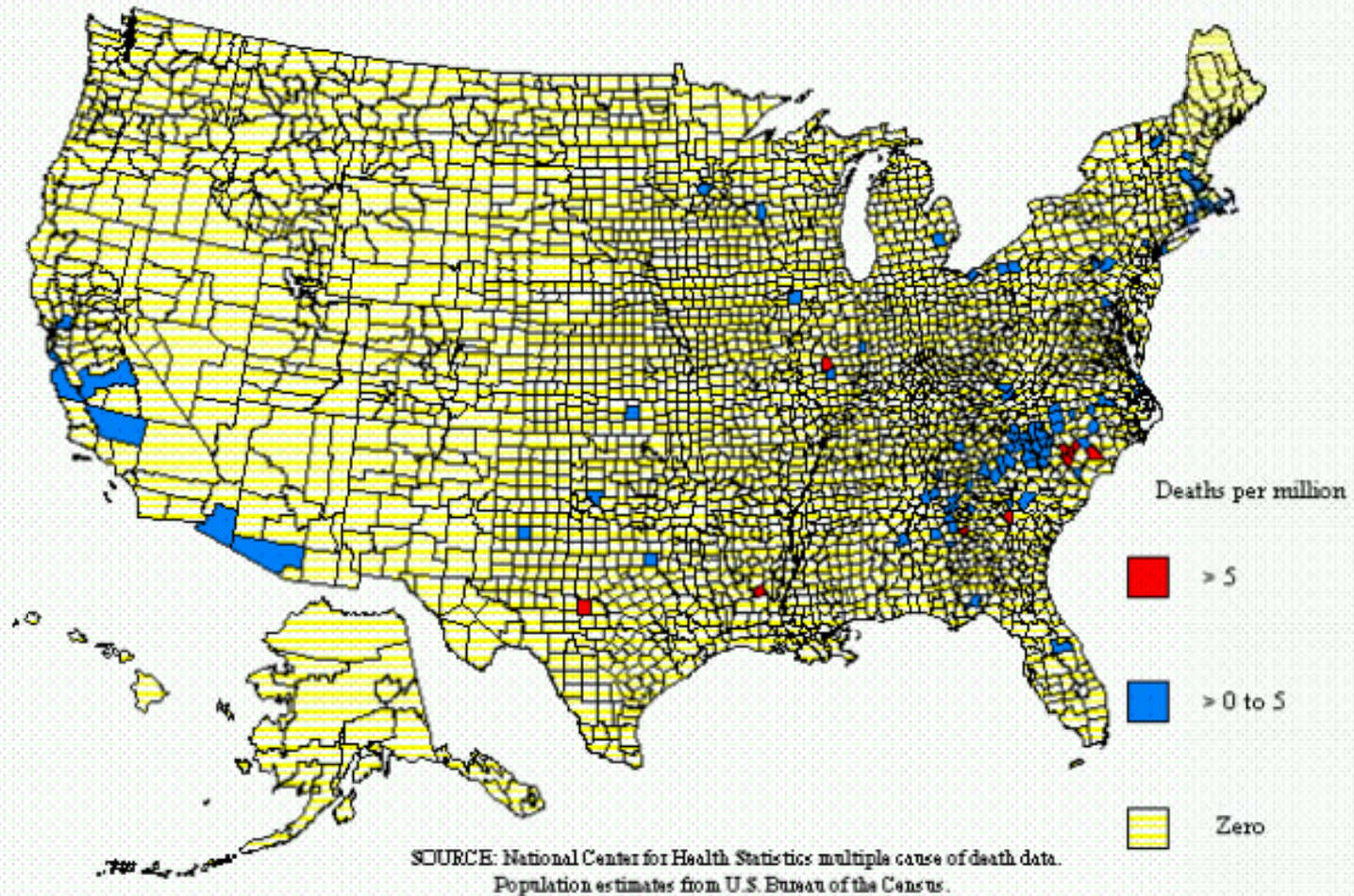
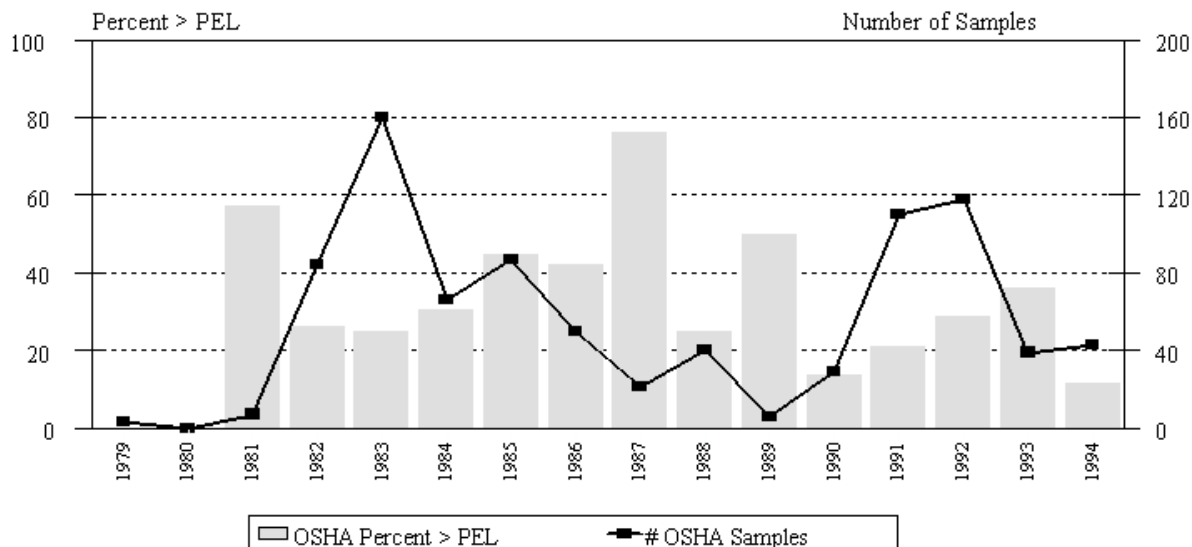
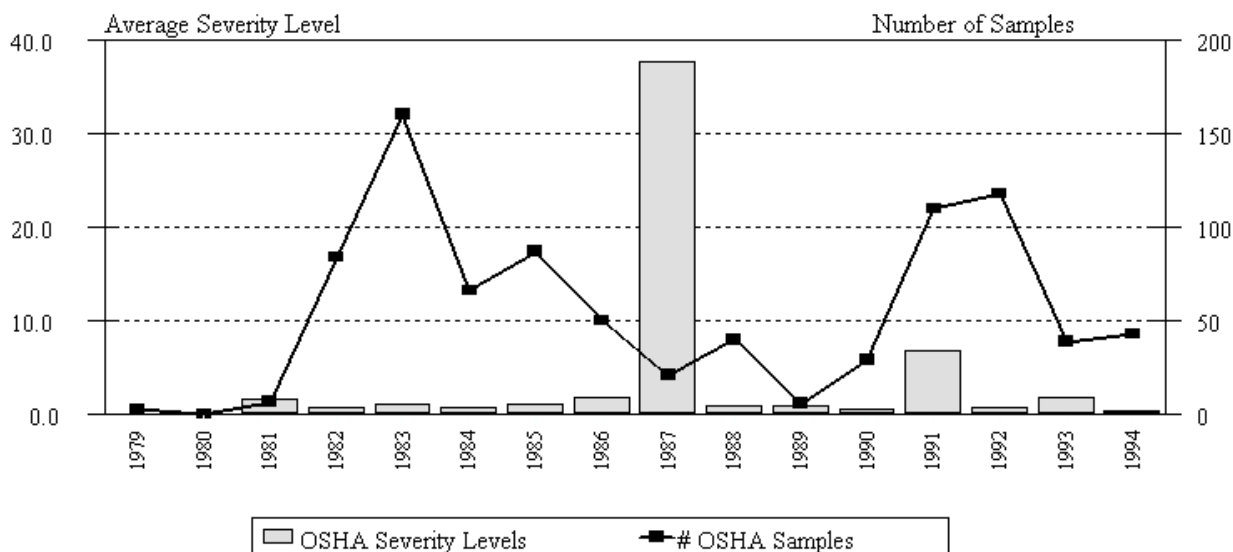


Figure 4-6. Cotton dust: Number of OSHA inspector samples and percent exceeding the permissible exposure limit (PEL), 1979-1994



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 4-7. Cotton dust: Number of OSHA inspector samples and average severity levels, 1979-1994



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.

Table 4-10. Cotton dust: Number of 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 byssinosis	Number of samples	% > PEL	Average severity
142	Yarn, thread, and fabric mills	76	18.4	0.70
961	Homemaker, student, unemployed, volunteer	0	-	-
021	Horticultural services	0	-	-
041	Coal mining	0	-	-
331	Machinery, except electrical, n.e.c.	0	-	-
392	Not specified manufacturing industries	0	-	-
790	Dressmaking shops	0	-	-
831	Hospitals	0	-	-
910	Justice, public order, and safety	0	-	-
	All other industries	6	83.3	6.49
	Industry not reported	0	-	-
	TOTAL	82	23.2	1.13

CIC - 1980 Census Industry Code n.e.c. - not elsewhere classified - 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: Occupational Safety and Health Administration: Integrated Management Information System. National Center for Health Statistics: multiple cause of death data.

Table 4-11. Cotton dust: Number of OSHA inspector samples, percent exceeding the permissible exposure level (PEL) and average severity level, by industry, 1993-1994

CIC	Industries most frequently sampled in 1993-1994	Number of samples	% > PEL	Average severity
142	Yarn, thread, and fabric mills	76	18.4	0.70
150	Miscellaneous textile mill products	5	100.0	7.79
152	Miscellaneous fabricated textile products	1	0.0	0.00
	All other industries	0	-	-
	Industry not reported	0	-	-
	TOTAL	82	23.2	1.13

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

UNITED STATES

Cotton Dust: Exposure

Table 4-12 (page 1 of 2). Cotton 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	22	0.99	36.4	1.52	41	1.15	39.0	1.94	2	0.95	50.0	1.45
Alaska	0	-	-	-	0	-	-	-	0	-	-	-
Arizona	0	-	-	-	0	-	-	-	0	-	-	-
Arkansas	0	-	-	-	0	-	-	-	0	-	-	-
California	0	-	-	-	0	-	-	-	0	-	-	-
Colorado	0	-	-	-	0	-	-	-	0	-	-	-
Connecticut	0	-	-	-	0	-	-	-	0	-	-	-
Delaware	0	-	-	-	0	-	-	-	0	-	-	-
District of Columbia	0	-	-	-	0	-	-	-	0	-	-	-
Florida	0	-	-	-	0	-	-	-	0	-	-	-
Georgia	27	0.79	25.9	1.81	155	5.25	40.6	12.16	19	0.99	31.6	1.94
Hawaii	0	-	-	-	0	-	-	-	0	-	-	-
Idaho	0	-	-	-	0	-	-	-	0	-	-	-
Illinois	2	15.68	100.0	15.68	0	-	-	-	0	-	-	-
Indiana	0	-	-	-	0	-	-	-	0	-	-	-
Iowa	0	-	-	-	0	-	-	-	0	-	-	-
Kansas	0	-	-	-	0	-	-	-	0	-	-	-
Kentucky	0	-	-	-	0	-	-	-	0	-	-	-
Louisiana	0	-	-	-	0	-	-	-	0	-	-	-
Maine	0	-	-	-	0	-	-	-	0	-	-	-
Maryland	0	-	-	-	0	-	-	-	0	-	-	-
Massachusetts	0	-	-	-	0	-	-	-	0	-	-	-
Michigan	0	-	-	-	0	-	-	-	0	-	-	-
Minnesota	0	-	-	-	0	-	-	-	0	-	-	-
Mississippi	1	0.25	0.0	-	0	-	-	-	0	-	-	-
Missouri	0	-	-	-	0	-	-	-	0	-	-	-
Montana	0	-	-	-	0	-	-	-	0	-	-	-

See footnotes at end of table.

UNITED STATES

Cotton Dust: Exposure

Table 4-12 (page 2 of 2). Cotton dust: Number of OSHA inspector samples, percent exceeding the permissible exposure limit (PEL) and average severity levels (Avg. Sev.), by state, 1979-1994

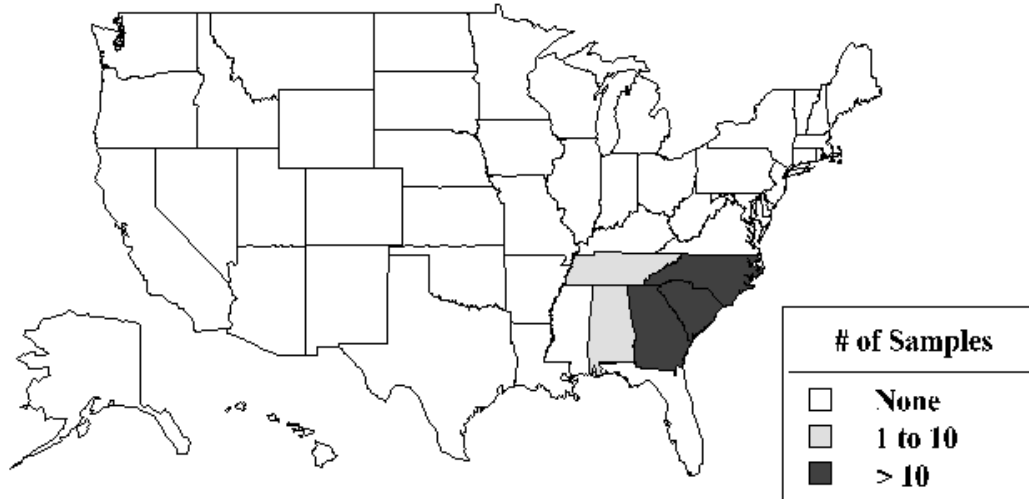
State	1979-1984				1985-1994				1993-1994			
	Total samples		Samples > PEL		Total samples		Samples > PEL		Total samples		Samples > PEL	
	Number	Avg. Sev.	%	Avg. Sev.	Number	Avg. Sev.	%	Avg. Sev.	Number	Avg. Sev.	%	Avg. Sev.
Nebraska	0	-	-	-	0	-	-	-	0	-	-	-
Nevada	0	-	-	-	0	-	-	-	0	-	-	-
New Hampshire	0	-	-	-	0	-	-	-	0	-	-	-
New Jersey	0	-	-	-	1	1.93	100.0	1.93	0	-	-	-
New Mexico	0	-	-	-	0	-	-	-	0	-	-	-
New York	0	-	-	-	0	-	-	-	0	-	-	-
North Carolina	240	0.84	21.3	2.09	200	0.73	22.5	1.40	24	0.78	20.8	1.11
North Dakota	0	-	-	-	0	-	-	-	0	-	-	-
Ohio	0	-	-	-	0	-	-	-	0	-	-	-
Oklahoma	1	0.00	0.0	-	0	-	-	-	0	-	-	-
Oregon	0	-	-	-	0	-	-	-	0	-	-	-
Pennsylvania	0	-	-	-	1	0.00	0.0	-	0	-	-	-
Rhode Island	0	-	-	-	0	-	-	-	0	-	-	-
South Carolina	5	0.52	20.0	1.73	88	1.18	25.0	3.33	36	1.47	19.4	6.37
South Dakota	0	-	-	-	0	-	-	-	0	-	-	-
Tennessee	0	-	-	-	10	3.70	10.0	37.00	1	0.00	0.0	-
Texas	22	1.99	77.3	2.42	47	17.56	44.7	38.57	0	-	-	-
Utah	0	-	-	-	0	-	-	-	0	-	-	-
Vermont	0	-	-	-	0	-	-	-	0	-	-	-
Virginia	0	-	-	-	0	-	-	-	0	-	-	-
Washington	0	-	-	-	0	-	-	-	0	-	-	-
West Virginia	0	-	-	-	0	-	-	-	0	-	-	-
Wisconsin	0	-	-	-	0	-	-	-	0	-	-	-
Wyoming	0	-	-	-	0	-	-	-	0	-	-	-
TOTAL	320	1.01	26.9	2.39	543	3.63	31.1	10.55	82	1.13	23.2	3.33

- indicates incalculable field.

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

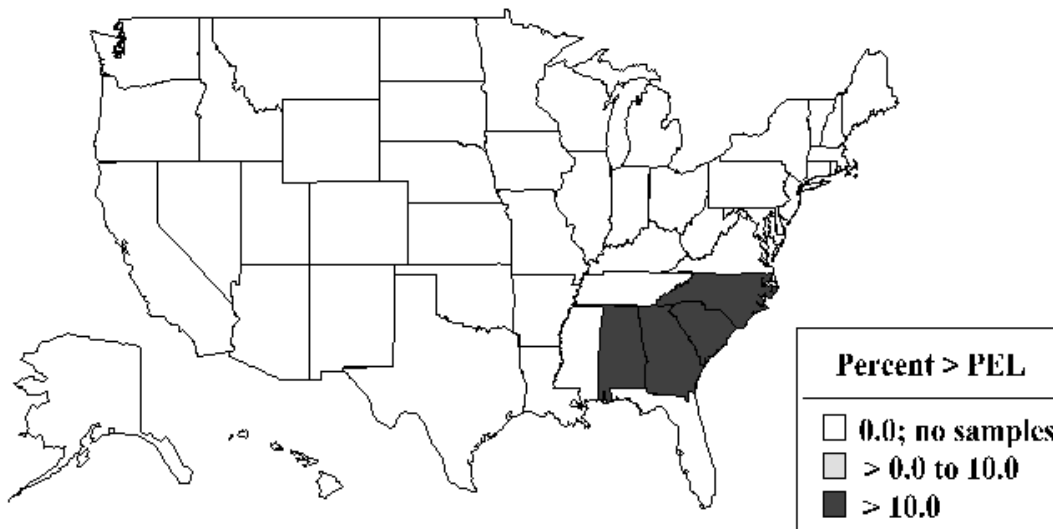
SOURCE: Occupational Safety and Health Administration: Integrated Management Information System.

Figure 4-8. Cotton 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 4-9. Cotton dust: Percent of OSHA inspector samples that exceeded the permissible exposure limit (PEL), by state, 1993-1994



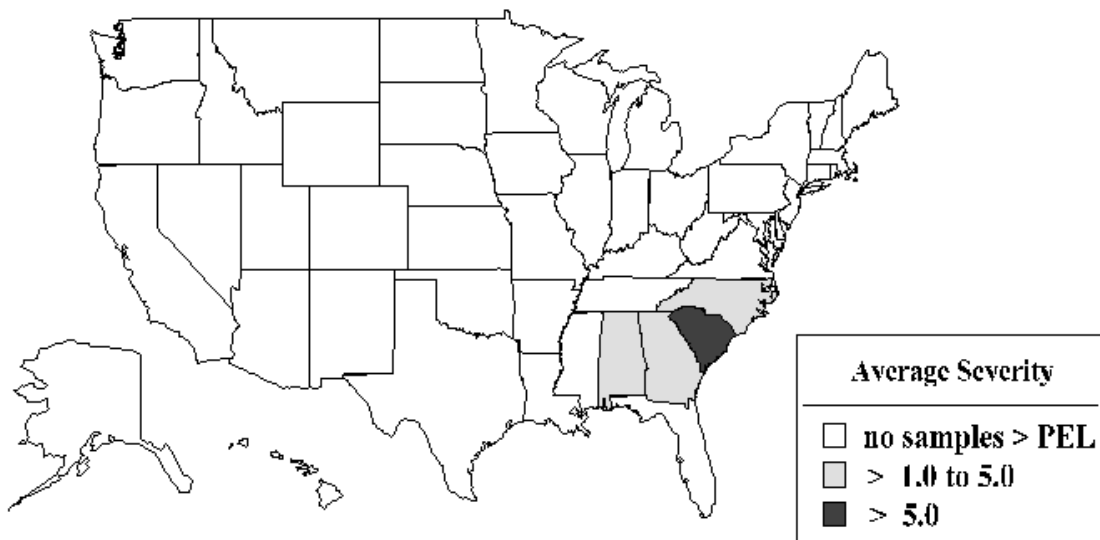
NOTE: See Appendix A for source description, Appendix B for methods, and Appendix D for agents.
SOURCE: Occupational Safety and Health Administration: Integrated Management Information System.

Figure 4-10. Cotton dust: Average severity level by state for OSHA inspector samples, 1993-1994



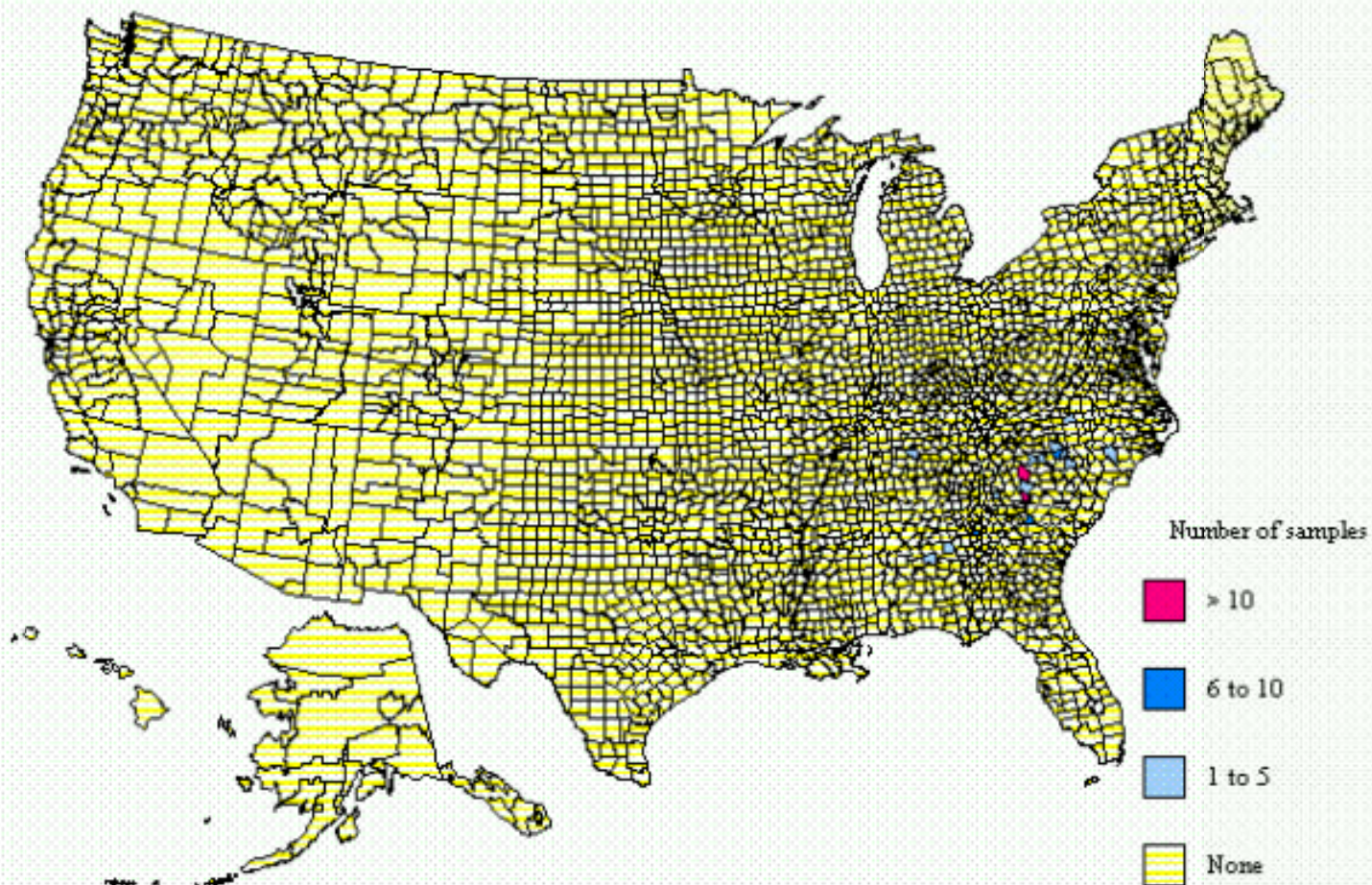
NOTE: See Appendix A for source descriptions, Appendix B for methods, and Appendix D for agents.
SOURCE: Occupational Safety and Health Administration: Integrated Management Information System.

Figure 4-11. Cotton dust: Average severity level by state for OSHA inspector samples that exceeded the permissible exposure limit (PEL), 1993-1994



NOTE: 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 4-12. Cotton dust: Number of OSHA inspector samples collected by county, 1993-1994



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

