



Volume 2

WORK-RELATED LUNG DISEASE SURVEILLANCE REPORT

2007

Respiratory Conditions by NORA Industrial Sector



DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health



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Division of Respiratory Disease Studies
National Institute for Occupational Safety and Health

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Section 1

Respiratory Conditions by NORA Industrial Sector

Respiratory Conditions by NORA Industrial Sector

Table 1-1. Asbestosis: Number and percent of deaths by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	Percent
Manufacturing	1,035	36.2
Construction	702	24.6
Services	434	15.2
Transportation, Warehousing, and Utilities	287	10.0
Wholesale and Retail Trade	166	5.8
Agriculture, Forestry, and Fishing	43	1.5
Healthcare and Social Assistance	23	0.8
Mining	18	0.6
Decedents with unclassified industry	151	5.3
TOTAL	2,859	100.0

NORA - National Occupational Research Agenda

* The comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-2. Asbestosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Construction	702	2.4	2.2	2.6
Manufacturing	1,035	1.4	1.3	1.5
Transportation, Warehousing, and Utilities	287	1.1	1.0	1.2
Services	434	0.6	0.6	0.7
Wholesale and Retail Trade	166	0.6	0.5	0.7
Healthcare and Social Assistance ^{†§}	23	0.4	0.3	0.6
Mining ^{†§}	18	0.3	0.2	0.5
Agriculture, Forestry, and Fishing ^{†§}	43	0.2	0.1	0.3
Decedents with unclassified industry	151			
TOTAL	2,859			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

* The comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

§ indicates that, for decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with a significantly elevated PMR based on at least 5 deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-3. Coal workers' pneumoconiosis: Number and percent of deaths by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	Percent
Mining	3,805	77.8
Manufacturing	293	6.0
Construction	188	3.8
Services	152	3.1
Transportation, Warehousing, and Utilities	103	2.1
Wholesale and Retail Trade	70	1.4
Agriculture, Forestry, and Fishing	50	1.0
Healthcare and Social Assistance	13	0.3
Decedents with unclassified industry	219	4.5
TOTAL	4,893	100.0

NORA - National Occupational Research Agenda

* The comparable number of coal workers' pneumoconiosis deaths in the entire United States for this same time period was 15,036.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-4. Coal workers' pneumoconiosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Mining	3,805	33.5	32.5	34.6
Construction ^{†§}	188	0.4	0.3	0.4
Manufacturing ^{†§}	293	0.2	0.2	0.3
Transportation, Warehousing, and Utilities ^{†§}	103	0.2	0.2	0.3
Healthcare and Social Assistance ^{†§}	13	0.2	0.1	0.3
Wholesale and Retail Trade ^{†§}	70	0.1	0.1	0.2
Services ^{†§}	152	0.1	0.1	0.2
Agriculture, Forestry, and Fishing ^{†§}	50	0.1	0.1	0.2
Decedents with unclassified industry	219			
TOTAL	4,893			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

* The comparable number of coal workers' pneumoconiosis deaths in the entire United States for this same time period was 15,036.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

§ indicates that, for decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with a significantly elevated PMR based on at least 5 deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-5. Silicosis: Number and percent of deaths by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	Percent
Manufacturing	386	43.8
Mining	203	23.0
Construction	118	13.4
Services	60	6.8
Wholesale and Retail Trade	32	3.6
Transportation, Warehousing, and Utilities	26	3.0
Agriculture, Forestry, and Fishing	14	1.6
Healthcare and Social Assistance	6	0.7
Decedents with unclassified industry	36	4.1
TOTAL	881	100.0

NORA - National Occupational Research Agenda

* The comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-6. Silicosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Mining	203	11.2	9.7	12.9
Manufacturing	386	1.7	1.6	1.9
Construction	118	1.3	1.1	1.5
Wholesale and Retail Trade [§]	32	0.4	0.3	0.5
Healthcare and Social Assistance ^{†§}	6	0.3	0.1	0.7
Transportation, Warehousing, and Utilities ^{†§}	26	0.3	0.2	0.5
Services ^{†§}	60	0.3	0.2	0.4
Agriculture, Forestry, and Fishing ^{†§}	14	0.2	0.1	0.3
Decedents with unclassified industry	36			
TOTAL	881			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

* The comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

§ indicates that, for decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with a significantly elevated PMR based on at least 5 deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-7. Byssinosis: Number and percent of deaths by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	Percent
Manufacturing	50	61.7
Services [§]	9	11.1
Mining	4	4.9
Construction [§]	4	4.9
Healthcare and Social Assistance [§]	3	3.7
Agriculture, Forestry, and Fishing	2	2.5
Wholesale and Retail Trade ^{†§}	1	1.2
Transportation, Warehousing, and Utilities ^{†§}	0	0.0
Decedents with unclassified industry	8	9.9
TOTAL	81	100.0

NORA - National Occupational Research Agenda

* The comparable number of byssinosis deaths in the entire United States for this same time period was 125.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with at least two deaths with this condition in the specified time period.

§ indicates that, among decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with at least two deaths with this condition in the specified time period.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-8. Byssinosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Manufacturing	50	3.1	2.3	4.1
Services ^{†§}	9	0.5	0.2	0.9
Construction ^{†§}	4	-	-	-
Mining ^{†§}	4	-	-	-
Healthcare and Social Assistance ^{†§}	3	-	-	-
Agriculture, Forestry, and Fishing ^{†§}	2	-	-	-
Wholesale and Retail Trade ^{†§}	1	-	-	-
Transportation, Warehousing, and Utilities ^{†§}	0	-	-	-
Decedents with unclassified industry	8			
TOTAL	81			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

-indicates no PMR was calculated because there were fewer than 5 deaths.

* The comparable number of byssinosis deaths in the entire United States for this same time period was 125.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

§ indicates that, for decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with a significantly elevated PMR based on at least 5 deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-9. Unspecified and other pneumoconioses: Number and percent of deaths by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	Percent
Mining	860	59.7
Manufacturing	236	16.4
Construction	90	6.3
Services	84	5.8
Transportation, Warehousing, and Utilities	52	3.6
Wholesale and Retail Trade	32	2.2
Agriculture, Forestry, and Fishing	27	1.9
Healthcare and Social Assistance	9	0.6
Decedents with unclassified industry	50	3.5
TOTAL	1,440	100.0

NORA - National Occupational Research Agenda

* The comparable number of unspecified and other pneumoconioses deaths in the entire United States for this same time period was 3,384.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-10. Unspecified and other pneumoconioses: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Mining	860	26.6	24.9	28.5
Manufacturing	236	0.6	0.6	0.7
Construction ^{†§}	90	0.6	0.5	0.7
Transportation, Warehousing, and Utilities ^{†§}	52	0.4	0.3	0.5
Healthcare and Social Assistance ^{†§}	9	0.3	0.2	0.6
Services ^{†§}	84	0.2	0.2	0.3
Wholesale and Retail Trade ^{†§}	32	0.2	0.2	0.3
Agriculture, Forestry, and Fishing ^{†§}	27	0.2	0.1	0.3
Decedents with unclassified industry	50			
TOTAL	1,440			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

* The comparable number of unspecified and other pneumoconioses deaths in the entire United States for this same time period was 3,384.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

§ indicates that, for decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with a significantly elevated PMR based on at least 5 deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-11. All pneumoconioses: Number and percent of deaths by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	Percent
Mining	4,837	48.3
Manufacturing	1,960	19.6
Construction	1,078	10.8
Services	731	7.3
Transportation, Warehousing, and Utilities	460	4.6
Wholesale and Retail Trade	300	3.0
Agriculture, Forestry, and Fishing	136	1.4
Healthcare and Social Assistance	52	0.5
Decedents with unclassified industry	460	4.6
TOTAL	10,014	100.0

NORA - National Occupational Research Agenda

* The comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-12. All pneumoconioses: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Mining	4,837	21.6	21.0	22.2
Construction [†]	1,078	1.0	1.0	1.1
Manufacturing	1,960	0.7	0.7	0.8
Transportation, Warehousing, and Utilities [†]	460	0.5	0.5	0.5
Wholesale and Retail Trade [§]	300	0.3	0.3	0.3
Services [†]	731	0.3	0.3	0.3
Healthcare and Social Assistance ^{†§}	52	0.3	0.2	0.4
Agriculture, Forestry, and Fishing ^{†§}	136	0.2	0.1	0.2
Decedents with unclassified industry	460			
TOTAL	10,014			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

* The comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

§ indicates that, for decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with a significantly elevated PMR based on at least 5 deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-13. Malignant mesothelioma: Number and percent of deaths by NORA industrial sector, U.S. residents age 15 and over, selected states, 1999

NORA Industrial Sector	Number of Deaths*	Percent
Services	135	25.0
Manufacturing	134	24.8
Construction	77	14.2
Transportation, Warehousing, and Utilities	51	9.4
Wholesale and Retail Trade	44	8.1
Healthcare and Social Assistance	20	3.7
Agriculture, Forestry, and Fishing	16	3.0
Mining	3	0.6
Decedents with unclassified industry	61	11.3
TOTAL	541	100.0

NORA - National Occupational Research Agenda

* The comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-14. Malignant mesothelioma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states, 1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Construction	77	1.6	1.2	1.9
Transportation, Warehousing, and Utilities [§]	51	1.2	0.9	1.6
Manufacturing [§]	134	1.2	1.0	1.4
Healthcare and Social Assistance ^{†§}	20	1.1	0.7	1.7
Services [†]	135	1.0	0.8	1.1
Wholesale and Retail Trade ^{†§}	44	0.9	0.6	1.2
Agriculture, Forestry, and Fishing ^{†§}	16	0.6	0.3	0.9
Mining ^{†§}	3	-	-	-
Decedents with unclassified industry	61			
TOTAL	541			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

- indicates no PMR was calculated because there were fewer than 5 deaths.

* The comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

§ indicates that, for decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with a significantly elevated PMR based on at least 5 deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-15. Hypersensitivity pneumonitis: Number and percent of deaths by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	Percent
Agriculture, Forestry, and Fishing	53	43.4
Manufacturing	13	10.7
Services	12	9.8
Wholesale and Retail Trade	8	6.6
Transportation, Warehousing, and Utilities	6	4.9
Healthcare and Social Assistance	5	4.1
Construction [§]	4	3.3
Mining ^{†§}	0	0.0
Decedents with unclassified industry	21	17.2
TOTAL	122	100.0

NORA - National Occupational Research Agenda

* The comparable number of hypersensitivity pneumonitis deaths in the entire United States for this same time period was 398.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with at least two deaths with this condition in the specified time period.

§ indicates that, among decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with at least two deaths with this condition in the specified time period.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-16. Hypersensitivity pneumonitis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Agriculture, Forestry, and Fishing	53	7.2	5.4	9.5
Healthcare and Social Assistance ^{†§}	5	1.2	0.4	2.8
Wholesale and Retail Trade ^{†§}	8	0.7	0.3	1.4
Transportation, Warehousing, and Utilities ^{†§}	6	0.7	0.3	1.5
Manufacturing ^{†§}	13	0.5	0.3	0.8
Services ^{†§}	12	0.4	0.2	0.7
Construction ^{†§}	4	-	-	-
Mining ^{†§}	0	-	-	-
Decedents with unclassified industry	21			
TOTAL	122			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

-indicates no PMR was calculated because there were fewer than 5 deaths.

* The comparable number of hypersensitivity pneumonitis deaths in the entire United States for this same time period was 398.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

§ indicates that, for decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with a significantly elevated PMR based on at least 5 deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-17. Asthma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Healthcare and Social Assistance	2,031	1.2	1.1	1.2
Agriculture, Forestry, and Fishing	1,058	1.1	1.1	1.2
Services	7,320	1.0	1.0	1.0
Wholesale and Retail Trade	2,137	1.0	0.9	1.0
Manufacturing [†]	4,348	0.9	0.9	1.0
Transportation, Warehousing, and Utilities [†]	1,112	0.9	0.9	1.0
Construction ^{†§}	1,224	0.9	0.9	1.0
Mining ^{†§}	190	0.9	0.8	1.1
Decedents with unclassified industry	10,283			
TOTAL	29,703			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

* The comparable number of asthma deaths in the entire United States for this same time period was 115,729.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

§ indicates that, for decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with a significantly elevated PMR based on at least 5 deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-18. Chronic obstructive pulmonary disease: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states, 1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Mining	1,104	1.7	1.6	1.8
Construction	4,288	1.2	1.2	1.2
Transportation, Warehousing, and Utilities	3,639	1.1	1.0	1.1
Healthcare and Social Assistance	2,683	1.0	1.0	1.1
Agriculture, Forestry, and Fishing	2,790	1.0	1.0	1.1
Manufacturing	10,657	1.0	1.0	1.0
Wholesale and Retail Trade [†]	4,648	1.0	0.9	1.0
Services	13,184	0.9	0.9	1.0
Decedents with unclassified industry	14,080			
TOTAL	57,073			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

* The comparable number of chronic obstructive pulmonary disease deaths in the entire United States for this same time period was 245,415.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-19. Respiratory tuberculosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states and years, 1990–1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Mining	107	1.3	1.1	1.6
Agriculture, Forestry, and Fishing	549	1.3	1.2	1.4
Healthcare and Social Assistance	406	1.1	1.0	1.2
Construction [†]	697	1.1	1.0	1.1
Wholesale and Retail Trade ^{†§}	560	0.9	0.9	1.0
Services	1,910	0.9	0.9	1.0
Transportation, Warehousing, and Utilities [†]	456	0.9	0.8	1.0
Manufacturing	1,232	0.8	0.8	0.9
Decedents with unclassified industry	2,154			
TOTAL	8,071			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

* The comparable number of respiratory tuberculosis deaths in the entire United States for this same time period was 35,417.

[†] indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

[§] indicates that, for decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with a significantly elevated PMR based on at least 5 deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-20. Lung cancer: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states, 1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Construction	3,336	1.2	1.2	1.2
Mining	516	1.2	1.1	1.3
Transportation, Warehousing, and Utilities	2,698	1.1	1.1	1.1
Manufacturing	7,567	1.1	1.1	1.1
Wholesale and Retail Trade	3,308	1.1	1.0	1.1
Services	9,680	1.0	1.0	1.0
Healthcare and Social Assistance [†]	1,708	0.9	0.9	1.0
Agriculture, Forestry, and Fishing ^{†§}	1,296	0.8	0.8	0.9
Decedents with unclassified industry	7,453			
TOTAL	37,562			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

* The comparable number of lung cancer deaths in the entire United States for this same time period was 162,546.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

§ indicates that, for decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with a significantly elevated PMR based on at least 5 deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-21. Other interstitial pulmonary diseases: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states, 1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Healthcare and Social Assistance	267	1.3	1.2	1.4
Mining [§]	56	1.1	1.1	1.2
Services	1,142	1.0	1.0	1.1
Wholesale and Retail Trade [†]	379	1.0	1.0	1.0
Construction ^{†§}	272	1.0	1.0	1.0
Transportation, Warehousing, and Utilities	246	0.9	0.9	1.0
Manufacturing	786	0.9	0.9	1.0
Agriculture, Forestry, and Fishing [†]	185	0.9	0.8	0.9
Decedents with unclassified industry	1,138			
TOTAL	4,471			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

* The comparable number of other interstitial pulmonary diseases deaths in the entire United States for this same time period was 18,655.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

§ indicates that, for decedents whose industry was within the specified sector, no occupation (as defined by 3-digit Census Occupation Code) was associated with a significantly elevated PMR based on at least 5 deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Respiratory Conditions by NORA Industrial Sector

Table 1-22. Pneumonia and Influenza: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by NORA industrial sector, U.S. residents age 15 and over, selected states, 1999

NORA Industrial Sector	Number of Deaths*	PMR	95% Confidence Interval	
			LCL	UCL
Mining	631	1.3	1.2	1.4
Agriculture, Forestry, and Fishing [†]	2,605	1.0	1.0	1.0
Construction [†]	2,876	1.0	1.0	1.0
Manufacturing [†]	8,810	1.0	1.0	1.0
Transportation, Warehousing, and Utilities [†]	2,621	1.0	0.9	1.0
Services [†]	12,277	1.0	0.9	1.0
Wholesale and Retail Trade [†]	4,148	1.0	0.9	1.0
Healthcare and Social Assistance	2,355	1.0	0.9	1.0
Decedents with unclassified industry	15,972			
TOTAL	52,295			

NORA - National Occupational Research Agenda LCL - lower confidence limit UCL - upper confidence limit

* The comparable number of pneumonia and influenza deaths in the entire United States for this same time period was 229,136.

† indicates that no industry (as defined by 3-digit Census Industry Code) within the specified sector was associated with a significantly elevated PMR based on at least five deaths with this condition in the specified time period.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Section 2

NORA Agriculture, Forestry, and Fishing (AFF) Sector

NORA Agriculture, Forestry, and Fishing Sector

Table 2-1. NORA agriculture, forestry, and fishing sector: Number and percent of deaths with selected work-related respiratory condition, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	Percent
All Pneumoconioses	136	0.1
Hypersensitivity Pneumonitis	53	0.0
Coal Workers' Pneumoconiosis	50	0.0
Asbestosis	43	0.0
Unspecified and Other Pneumoconioses	27	0.0
Malignant Mesothelioma (all sites)*	16	0.0
Silicosis	14	0.0
Byssinosis	2	0.0
All other conditions within this sector	254,403	99.9
TOTAL	254,744	100.0

NORA - National Occupational Research Agenda

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-2. NORA agriculture, forestry, and fishing sector: Proportionate mortality ratio (PMR) adjusted for age, sex, and race for selected work-related respiratory conditions, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	PMR	95% Confidence Interval	
			LCL	UCL
Hypersensitivity Pneumonitis	53	7.2	5.4	9.5
Malignant Mesothelioma (all sites)*	16	0.6	0.3	0.9
Byssinosis	2	-	-	-
Unspecified and Other Pneumoconioses	27	0.2	0.1	0.3
Silicosis	14	0.2	0.1	0.3
Asbestosis	43	0.2	0.1	0.3
All Pneumoconioses	136	0.2	0.1	0.2
Coal Workers' Pneumoconiosis	50	0.1	0.1	0.2
All other conditions within this sector	254,403			
TOTAL	254,744			

NORA - National Occupational Research Agenda

- indicates no PMR was calculated because there were fewer than 5 deaths.

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-3. NORA agriculture, forestry, and fishing sector and asbestosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
010	Agricultural production, crops	22	51.2
011	Agricultural production, livestock	10	23.3
031	Fishing, hunting, and trapping	5	11.6
230	Logging	5	11.6
	All other industries within this sector	1	2.3
	TOTAL	43	100.0
COC	Occupation		
473	Farmers, except horticulture	25	58.1
496	Timber cutting and logging occupations	5	11.6
498	Fishers	4	9.3
479	Farm workers	2	4.7
	All other occupations within this sector	7	16.3
	Occupation not reported within this sector	0	0.0
	TOTAL	43	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-4. NORA agriculture, forestry, and fishing sector and coal workers' pneumoconiosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
010	Agricultural production, crops	35	70.0
230	Logging	7	14.0
011	Agricultural production, livestock	6	12.0
020	Agricultural services, except horticultural	2	4.0
	All other industries within this sector	0	0.0
	TOTAL	50	100.0
COC	Occupation		
473	Farmers, except horticulture	39	78.0
496	Timber cutting and logging occupations	6	12.0
479	Farm workers	3	6.0
	All other occupations within this sector	2	4.0
	Occupation not reported within this sector	0	0.0
	TOTAL	50	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with coal workers' pneumoconiosis reported was 4,893 in these same selected states and years, and the comparable number of coal workers' pneumoconiosis deaths in the entire United States for this same time period was 15,036.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-5. NORA agriculture, forestry, and fishing sector and silicosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
010	Agricultural production, crops	8	57.1
011	Agricultural production, livestock	4	28.6
	All other industries within this sector	2	14.3
	TOTAL	14	100.0
COC	Occupation		
473	Farmers, except horticulture	9	64.3
479	Farm workers	2	14.3
	All other occupations within this sector	3	21.4
	Occupation not reported within this sector	0	0.0
	TOTAL	14	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with silicosis reported was 881 in these same selected states and years, and the comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-6. NORA agriculture, forestry, and fishing sector and byssinosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
010	Agricultural production, crops	2	100.0
	All other industries within this sector	0	0.0
	TOTAL	2	100.0
COC	Occupation		
473	Farmers, except horticulture	2	100.0
	All other occupations within this sector	0	0.0
	Occupation not reported within this sector	0	0.0
	TOTAL	2	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with byssinosis reported was 81 in these same selected states and years, and the comparable number of byssinosis deaths in the entire United States for this same time period was 125.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-7. NORA agriculture, forestry, and fishing sector and unspecified and other pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
010	Agricultural production, crops	16	59.3
230	Logging	6	22.2
011	Agricultural production, livestock	4	14.8
	All other industries within this sector	1	3.7
	TOTAL	27	100.0
COC	Occupation		
473	Farmers, except horticulture	18	66.7
496	Timber cutting and logging occupations	6	22.2
	All other occupations within this sector	3	11.1
	Occupation not reported within this sector	0	0.0
	TOTAL	27	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with unspecified and other pneumoconioses reported was 1,440 in these same selected states and years, and the comparable number of unspecified and other pneumoconioses deaths in the entire United States for this same time period was 3,384.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-8. NORA agriculture, forestry, and fishing sector and all pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
010	Agricultural production, crops	83	61.0
011	Agricultural production, livestock	24	17.6
230	Logging	18	13.2
020	Agricultural services, except horticultural	5	3.7
031	Fishing, hunting, and trapping	5	3.7
	All other industries within this sector	1	0.7
	TOTAL	136	100.0
COC	Occupation		
473	Farmers, except horticulture	93	68.4
496	Timber cutting and logging occupations	17	12.5
479	Farm workers	8	5.9
498	Fishers	4	2.9
019	Managers and administrators, n.e.c.	2	1.5
	All other occupations within this sector	12	8.8
	Occupation not reported within this sector	0	0.0
	TOTAL	136	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 2-9. NORA agriculture, forestry, and fishing sector and malignant mesothelioma: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
010	Agricultural production, crops	10	62.5
011	Agricultural production, livestock	5	31.3
	All other industries within this sector	1	6.3
	TOTAL	16	100.0
COC	Occupation		
473	Farmers, except horticulture	12	75.0
	All other occupations within this sector	4	25.0
	Occupation not reported within this sector	0	0.0
	TOTAL	16	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with malignant mesothelioma reported was 541 in these same selected states and year, and the comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-10. NORA agriculture, forestry, and fishing sector and hypersensitivity pneumonitis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
011	Agricultural production, livestock	30	56.6
010	Agricultural production, crops	22	41.5
	All other industries within this sector	1	1.9
	TOTAL	53	100.0
COC	Occupation		
473	Farmers, except horticulture	51	96.2
	All other occupations within this sector	2	3.8
	Occupation not reported within this sector	0	0.0
	TOTAL	53	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with hypersensitivity pneumonitis reported was 122 in these same selected states and years, and the comparable number of hypersensitivity pneumonitis deaths in the entire United States for this same time period was 398.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-11. NORA agriculture, forestry, and fishing sector and hypersensitivity pneumonitis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
011	Agricultural production, livestock	30	17.6	11.9	25.2
010	Agricultural production, crops	22	4.4	2.8	6.7
	All other industries within this sector	1			
	TOTAL	53			
COC	Occupation				
473	Farmers, except horticulture	51	8.5	6.4	11.3
	All other occupations within this sector	2			
	Occupation not reported within this sector	0			
	TOTAL	53			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with hypersensitivity pneumonitis reported was 122 in these same selected states and years, and the comparable number of hypersensitivity pneumonitis deaths in the entire United States for this same time period was 398.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-12. NORA agriculture, forestry, and fishing sector and asthma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
011	Agricultural production, livestock	274	1.5	1.3	1.7
010	Agricultural production, crops	687	1.1	1.0	1.2
	All other industries within this sector	97			
	TOTAL	1,058			
COC	Occupation				
473	Farmers, except horticulture	795	1.2	1.1	1.3
	All other occupations within this sector	262			
	Occupation not reported within this sector	1			
	TOTAL	1,058			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with asthma reported was 29,703 in these same selected states and years, and the comparable number of asthma deaths in the entire United States for this same time period was 115,729.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-13. NORA agriculture, forestry, and fishing sector and chronic obstructive pulmonary disease: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
230	Logging	172	1.3	1.1	1.5
	All other industries within this sector	2,618			
	TOTAL	2,790			
COC	Occupation				
496	Timber cutting and logging occupations	130	1.3	1.1	1.5
479	Farm workers	214	1.2	1.0	1.3
	All other occupations within this sector	2,444			
	Occupation not reported within this sector	2			
	TOTAL	2,790			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with chronic obstructive pulmonary disease reported was 57,073 in these same selected states and year, and the comparable number of chronic obstructive pulmonary disease deaths in the entire United States for this same time period was 245,415.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-14. NORA agriculture, forestry, and fishing sector and respiratory tuberculosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
010	Agricultural production, crops	436	1.5	1.3	1.6
	All other industries within this sector	113			
	TOTAL	549			
COC	Occupation				
479	Farm workers	99	1.7	1.4	2.1
473	Farmers, except horticulture	356	1.3	1.1	1.4
	All other occupations within this sector	93			
	Occupation not reported within this sector	1			
	TOTAL	549			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with respiratory tuberculosis reported was 8,071 in these same selected states and years, and the comparable number of respiratory tuberculosis deaths in the entire United States for this same time period was 35,417.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-15. NORA agriculture, forestry, and fishing sector and other interstitial pulmonary diseases: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
086	Veterinarians	5	4.5	1.5	10.6
019	Managers and administrators, n.e.c.	5	4.3	1.4	10.1
	All other occupations within this sector	1,602			
	Occupation not reported within this sector	2			
	TOTAL	1,619			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with other interstitial pulmonary diseases reported was 4,471 in these same selected states and year, and the comparable number of other interstitial pulmonary diseases deaths in the entire United States for this same time period was 18,655.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Agriculture, Forestry, and Fishing Sector

Table 2-16. NORA agriculture, forestry, and fishing sector and pneumonia and influenza: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
567	Carpenters	5	3.2	1.0	7.5
783	Welders and cutters	6	2.7	1.0	6.0
	All other occupations within this sector	2,590			
	Occupation not reported within this sector	4			
	TOTAL	2,605			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with pneumonia and influenza reported was 52,295 in these same selected states and year, and the comparable number of pneumonia and influenza deaths in the entire United States for this same time period was 229,136.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Section 3

NORA Construction (CON) Sector

Table 3-1. NORA construction sector: Number and percent of deaths with selected work-related respiratory condition, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	Percent
All Pneumoconioses	1,078	0.3
Asbestosis	702	0.2
Coal Workers' Pneumoconiosis	188	0.1
Silicosis	118	0.0
Unspecified and Other Pneumoconioses	90	0.0
Malignant Mesothelioma (all sites)*	77	0.0
Byssinosis	4	0.0
Hypersensitivity Pneumonitis	4	0.0
All other conditions within this sector	351,414	99.4
TOTAL	353,675	100.0

NORA - National Occupational Research Agenda

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Construction Sector

Table 3-2. NORA construction sector: Proportionate mortality ratio (PMR) adjusted for age, sex, and race for selected work-related respiratory conditions, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	PMR	95% Confidence Interval	
			LCL	UCL
Asbestosis	702	2.4	2.2	2.6
Malignant Mesothelioma (all sites)*	77	1.6	1.2	1.9
Silicosis	118	1.3	1.1	1.5
All Pneumoconioses	1,078	1.0	1.0	1.1
Byssinosis	4	-	-	-
Unspecified and Other Pneumoconioses	90	0.6	0.5	0.7
Hypersensitivity Pneumonitis	4	-	-	-
Coal Workers' Pneumoconiosis	188	0.4	0.3	0.4
All other conditions within this sector	351,414			
TOTAL	353,675			

NORA - National Occupational Research Agenda

- indicates no PMR was calculated because there were fewer than 5 deaths.

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 3-3. NORA construction sector and asbestosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
060	Construction	702	100.0
	All other industries within this sector	0	0.0
	TOTAL	702	100.0
COC	Occupation		
585	Plumbers, pipefitters, and steamfitters	141	20.1
567	Carpenters	95	13.5
593	Insulation workers	78	11.1
575	Electricians	57	8.1
869	Construction laborers	53	7.5
019	Managers and administrators, n.e.c.	50	7.1
558	Supervisors, construction, n.e.c.	34	4.8
643	Boilermakers	21	3.0
579	Painters, construction and maintenance	19	2.7
653	Sheet metal workers	19	2.7
	All other occupations within this sector	135	19.2
	Occupation not reported within this sector	0	0.0
	TOTAL	702	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Construction Sector

Table 3-4. NORA construction sector and asbestosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
060	Construction	702	2.4	2.2	2.6
	All other industries within this sector	0			
	TOTAL	702			
COC	Occupation				
593	Insulation workers	78	84.1	67.0	105.7
643	Boilermakers	21	31.1	19.2	47.5
585	Plumbers, pipefitters, and steamfitters	141	8.3	7.1	9.9
653	Sheet metal workers	19	8.0	4.8	12.5
584	Plasterers	9	6.8	3.1	12.9
544	Millwrights	6	6.5	2.4	14.2
557	Supervisors: plumbers, pipefitters, and steamfitters	7	5.9	2.4	12.2
575	Electricians	57	4.0	3.1	5.3
783	Welders and cutters	13	3.6	1.9	6.1
019	Managers and administrators, n.e.c.	50	2.2	1.7	2.9
567	Carpenters	95	1.7	1.4	2.1
	All other occupations within this sector	206			
	Occupation not reported within this sector	0			
	TOTAL	702			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 3-5. NORA construction sector and coal workers' pneumoconiosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
060	Construction	188	100.0
	All other industries within this sector	0	0.0
	TOTAL	188	100.0
COC	Occupation		
869	Construction laborers	42	22.3
567	Carpenters	37	19.7
844	Operating engineers	20	10.6
019	Managers and administrators, n.e.c.	13	6.9
558	Supervisors, construction, n.e.c.	12	6.4
563	Brickmasons and stonemasons	8	4.3
585	Plumbers, pipefitters, and steamfitters	8	4.3
804	Truck drivers	8	4.3
579	Painters, construction and maintenance	7	3.7
575	Electricians	5	2.7
	All other occupations within this sector	26	13.8
	Occupation not reported within this sector	2	1.1
	TOTAL	188	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with coal workers' pneumoconiosis reported was 4,893 in these same selected states and years, and the comparable number of coal workers' pneumoconiosis deaths in the entire United States for this same time period was 15,036.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Construction Sector

Table 3-6. NORA construction sector and silicosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
060	Construction	118	100.0
	All other industries within this sector	0	0.0
	TOTAL	118	100.0
COC	Occupation		
869	Construction laborers	24	20.3
567	Carpenters	15	12.7
579	Painters, construction and maintenance	11	9.3
844	Operating engineers	9	7.6
558	Supervisors, construction, n.e.c.	8	6.8
599	Construction trades, n.e.c.	7	5.9
019	Managers and administrators, n.e.c.	6	5.1
563	Brickmasons and stonemasons	6	5.1
597	Structural metal workers	3	2.5
598	Drillers, earth	3	2.5
804	Truck drivers	3	2.5
	All other occupations within this sector	23	19.5
	Occupation not reported within this sector	0	0.0
	TOTAL	118	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with silicosis reported was 881 in these same selected states and years, and the comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 3-7. NORA construction sector and silicosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
060	Construction	118	1.3	1.1	1.5
	All other industries within this sector	0			
	TOTAL	118			
COC	Occupation				
599	Construction trades, n.e.c.	7	7.4	3.0	15.3
579	Painters, construction and maintenance	11	2.0	1.0	3.6
	All other occupations within this sector	100			
	Occupation not reported within this sector	0			
	TOTAL	118			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with silicosis reported was 881 in these same selected states and years, and the comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Construction Sector

Table 3-8. NORA construction sector and byssinosis: Most frequently recorded industries on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry		Number of Deaths*	Percent
CIC	Industry		
060	Construction	4	100.0
	All other industries within this sector	0	0.0
	TOTAL	4	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with byssinosis reported was 81 in these same selected states and years, and the comparable number of byssinosis deaths in the entire United States for this same time period was 125.
 NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.
 SOURCE: National Center for Health Statistics multiple cause-of-death data.

Table 3-9. NORA construction sector and unspecified and other pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
060	Construction	90	100.0
	All other industries within this sector	0	0.0
	TOTAL	90	100.0
COC	Occupation		
869	Construction laborers	21	23.3
567	Carpenters	13	14.4
844	Operating engineers	9	10.0
558	Supervisors, construction, n.e.c.	6	6.7
563	Brickmasons and stonemasons	5	5.6
575	Electricians	5	5.6
783	Welders and cutters	4	4.4
019	Managers and administrators, n.e.c.	3	3.3
585	Plumbers, pipefitters, and steamfitters	3	3.3
597	Structural metal workers	3	3.3
	All other occupations within this sector	17	18.9
	Occupation not reported within this sector	1	1.1
	TOTAL	90	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with unspecified and other pneumoconioses reported was 1,440 in these same selected states and years, and the comparable number of unspecified and other pneumoconioses deaths in the entire United States for this same time period was 3,384.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Construction Sector

Table 3-10. NORA construction sector and all pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
060	Construction	1,078	100.0
	All other industries within this sector	0	0.0
	TOTAL	1,078	100.0
COC	Occupation		
567	Carpenters	156	14.5
585	Plumbers, pipefitters, and steamfitters	153	14.2
869	Construction laborers	131	12.2
593	Insulation workers	79	7.3
019	Managers and administrators, n.e.c.	72	6.7
575	Electricians	70	6.5
558	Supervisors, construction, n.e.c.	59	5.5
844	Operating engineers	45	4.2
579	Painters, construction and maintenance	37	3.4
563	Brickmasons and stonemasons	36	3.3
	All other occupations within this sector	237	22.0
	Occupation not reported within this sector	3	0.3
	TOTAL	1,078	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 3-11. NORA construction sector and all pneumoconioses: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
593	Insulation workers	79	25.8	20.6	32.4
643	Boilermakers	22	9.5	6.0	14.4
585	Plumbers, pipefitters, and steamfitters	153	2.6	2.2	3.0
544	Millwrights	8	2.5	1.1	5.0
653	Sheet metal workers	19	2.3	1.4	3.7
584	Plasterers	11	2.2	1.1	4.0
783	Welders and cutters	22	1.8	1.1	2.7
575	Electricians	70	1.4	1.1	1.8
	All other occupations within this sector	691			
	Occupation not reported within this sector	3			
	TOTAL	1,078			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Construction Sector

Table 3-12. NORA construction sector and malignant mesothelioma: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
060	Construction	77	100.0
	All other industries within this sector	0	0.0
	TOTAL	77	100.0
COC	Occupation		
585	Plumbers, pipefitters, and steamfitters	14	18.2
567	Carpenters	13	16.9
019	Managers and administrators, n.e.c.	9	11.7
575	Electricians	6	7.8
869	Construction laborers	5	6.5
558	Supervisors, construction, n.e.c.	4	5.2
579	Painters, construction and maintenance	4	5.2
534	Heating, air conditioning, and refrigeration mechanics	3	3.9
584	Plasterers	2	2.6
653	Sheet metal workers	2	2.6
783	Welders and cutters	2	2.6
	All other occupations within this sector	12	15.6
	Occupation not reported within this sector	1	1.3
	TOTAL	77	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with malignant mesothelioma reported was 541 in these same selected states and year, and the comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 3-13. NORA construction sector and malignant mesothelioma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
060	Construction	77	1.6	1.2	1.9
	All other industries within this sector	0			
	TOTAL	77			
COC	Occupation				
585	Plumbers, pipefitters, and steamfitters	14	5.5	3.0	9.2
	All other occupations within this sector	62			
	Occupation not reported within this sector	1			
	TOTAL	77			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with malignant mesothelioma reported was 541 in these same selected states and year, and the comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Construction Sector

Table 3-14. NORA construction sector and hypersensitivity pneumonitis: Most frequently recorded industries on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry		Number of Deaths*	Percent
CIC	Industry		
060	Construction	4	100.0
	All other industries within this sector	0	0.0
	TOTAL	4	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with hypersensitivity pneumonitis reported was 122 in these same selected states and years, and the comparable number of hypersensitivity pneumonitis deaths in the entire United States for this same time period was 398.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 3-15. NORA construction sector and chronic obstructive pulmonary disease: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
060	Construction	4,288	1.2	1.2	1.2
	All other industries within this sector	0			
	TOTAL	4,288			
COC	Occupation				
853	Excavating and loading machine operators	22	2.1	1.3	3.1
599	Construction trades, n.e.c.	56	1.9	1.4	2.5
595	Roofers	70	1.7	1.3	2.1
573	Drywall installers	33	1.5	1.0	2.1
579	Painters, construction and maintenance	264	1.4	1.3	1.6
783	Welders and cutters	58	1.4	1.1	1.8
567	Carpenters	839	1.3	1.2	1.4
869	Construction laborers	631	1.2	1.2	1.3
585	Plumbers, pipefitters, and steamfitters	226	1.2	1.1	1.4
844	Operating engineers	240	1.2	1.1	1.4
	All other occupations within this sector	1,831			
	Occupation not reported within this sector	18			
	TOTAL	4,288			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with chronic obstructive pulmonary disease reported was 57,073 in these same selected states and year, and the comparable number of chronic obstructive pulmonary disease deaths in the entire United States for this same time period was 245,415.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Construction Sector

Table 3-16. NORA construction sector and respiratory tuberculosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
869	Construction laborers	221	1.3	1.1	1.5
567	Carpenters	125	1.2	1.0	1.5
	All other occupations within this sector	348			
	Occupation not reported within this sector	3			
	TOTAL	697			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with respiratory tuberculosis reported was 8,071 in these same selected states and years, and the comparable number of respiratory tuberculosis deaths in the entire United States for this same time period was 35,417.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 3-17. NORA construction sector and lung cancer: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
060	Construction	3,336	1.2	1.2	1.2
	All other industries within this sector	0			
	TOTAL	3,336			
COC	Occupation				
779	Machine operators, not specified	6	3.2	1.2	6.9
217	Drafting occupations	10	2.6	1.2	4.7
849	Crane and tower operators	20	1.8	1.1	2.8
556	Supervisors: painters, paperhangers, and plasterers	30	1.5	1.0	2.2
579	Painters, construction and maintenance	199	1.3	1.1	1.5
575	Electricians	166	1.3	1.1	1.5
585	Plumbers, pipefitters, and steamfitters	168	1.2	1.1	1.4
869	Construction laborers	537	1.2	1.1	1.3
844	Operating engineers	186	1.2	1.0	1.4
567	Carpenters	531	1.2	1.1	1.3
019	Managers and administrators, n.e.c.	301	1.1	1.0	1.3
	All other occupations within this sector	1,168			
	Occupation not reported within this sector	14			
	TOTAL	3,336			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with lung cancer reported was 37,562 in these same selected states and year, and the comparable number of lung cancer deaths in the entire United States for this same time period was 162,546.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Construction Sector

Table 3-18. NORA construction sector and pneumonia and influenza: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
444	Miscellaneous food preparation occupations	13	2.1	1.1	3.5
	All other occupations within this sector	8,573			
	Occupation not reported within this sector	224			
	TOTAL	8,810			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
 n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with pneumonia and influenza reported was 52,295 in these same selected states and year, and the comparable number of pneumonia and influenza deaths in the entire United States for this same time period was 229,136.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Section 4

NORA Healthcare and Social Assistance (HAS) Sector

Table 4-1. NORA healthcare and social assistance sector: Number and percent of deaths with selected work-related respiratory condition, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	Percent
All Pneumoconioses	52	0.0
Asbestosis	23	0.0
Malignant Mesothelioma (all sites)*	20	0.0
Coal Workers' Pneumoconiosis	13	0.0
Unspecified and Other Pneumoconioses	9	0.0
Silicosis	6	0.0
Hypersensitivity Pneumonitis	5	0.0
Byssinosis	3	0.0
All other conditions within this sector	265,702	100.0
TOTAL	265,833	100.0

NORA - National Occupational Research Agenda

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Healthcare and Social Assistance Sector

Table 4-2. NORA healthcare and social assistance sector: Proportionate mortality ratio (PMR) adjusted for age, sex, and race for selected work-related respiratory conditions, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	PMR	95% Confidence Interval	
			LCL	UCL
Hypersensitivity Pneumonitis	5	1.2	0.4	2.8
Malignant Mesothelioma (all sites)*	20	1.1	0.7	1.7
Byssinosis	3	-	-	-
Asbestosis	23	0.4	0.3	0.6
Silicosis	6	0.3	0.1	0.7
Unspecified and Other Pneumoconioses	9	0.3	0.2	0.6
All Pneumoconioses	52	0.3	0.2	0.4
Coal Workers' Pneumoconiosis	13	0.2	0.1	0.3
All other conditions within this sector	265,702			
TOTAL	265,833			

NORA - National Occupational Research Agenda

- indicates no PMR was calculated because there were fewer than 5 deaths.

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 4-3. NORA healthcare and social assistance sector and asbestosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
831	Hospitals	18	78.3
832	Nursing and personal care facilities	2	8.7
	All other industries within this sector	3	13.0
	TOTAL	23	100.0
COC	Occupation		
453	Janitors and cleaners	4	17.4
084	Physicians	2	8.7
095	Registered nurses	2	8.7
448	Supervisors, cleaning and building service workers	2	8.7
585	Plumbers, pipefitters, and steamfitters	2	8.7
	All other occupations within this sector	11	47.8
	Occupation not reported within this sector	0	0.0
	TOTAL	23	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Healthcare and Social Assistance Sector

Table 4-4. NORA healthcare and social assistance sector and coal workers' pneumoconiosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
831	Hospitals	9	69.2
840	Health services, n.e.c.	2	15.4
	All other industries within this sector	2	15.4
	TOTAL	13	100.0
COC	Occupation		
453	Janitors and cleaners	3	23.1
	All other occupations within this sector	10	76.9
	Occupation not reported within this sector	0	0.0
	TOTAL	13	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with coal workers' pneumoconiosis reported was 4,893 in these same selected states and years, and the comparable number of coal workers' pneumoconiosis deaths in the entire United States for this same time period was 15,036.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 4-5. NORA healthcare and social assistance sector and silicosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
831	Hospitals	3	50.0
870	Residential care facilities, without nursing	2	33.3
	All other industries within this sector	1	16.7
	TOTAL	6	100.0
COC	Occupation		
453	Janitors and cleaners	2	33.3
	All other occupations within this sector	4	66.7
	Occupation not reported within this sector	0	0.0
	TOTAL	6	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with silicosis reported was 881 in these same selected states and years, and the comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Healthcare and Social Assistance Sector

Table 4-6. NORA healthcare and social assistance sector and byssinosis: Most frequently recorded industries on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry		Number of Deaths*	Percent
CIC	Industry		
831	Hospitals	2	66.7
	All other industries within this sector	1	33.3
	TOTAL	3	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with byssinosis reported was 81 in these same selected states and years, and the comparable number of byssinosis deaths in the entire United States for this same time period was 125.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Healthcare and Social Assistance Sector

Table 4-7. NORA healthcare and social assistance sector and unspecified and other pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
831	Hospitals	5	55.6
	All other industries within this sector	4	44.4
	TOTAL	9	100.0
COC	Occupation		
453	Janitors and cleaners	3	33.3
678	Dental laboratory and medical appliance technicians	2	22.2
696	Stationary engineers	2	22.2
	All other occupations within this sector	2	22.2
	Occupation not reported within this sector	0	0.0
	TOTAL	9	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with unspecified and other pneumoconioses reported was 1,440 in these same selected states and years, and the comparable number of unspecified and other pneumoconioses deaths in the entire United States for this same time period was 3,384.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Healthcare and Social Assistance Sector

Table 4-8. NORA healthcare and social assistance sector and all pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
831	Hospitals	35	67.3
840	Health services, n.e.c.	5	9.6
832	Nursing and personal care facilities	4	7.7
870	Residential care facilities, without nursing	3	5.8
812	Offices and clinics of physicians	2	3.8
871	Social services, n.e.c.	2	3.8
	All other industries within this sector	1	1.9
	TOTAL	52	100.0
COC	Occupation		
453	Janitors and cleaners	11	21.2
447	Nursing aides, orderlies, and attendants	3	5.8
678	Dental laboratory and medical appliance technicians	3	5.8
084	Physicians	2	3.8
095	Registered nurses	2	3.8
203	Clinical laboratory technologists and technicians	2	3.8
448	Supervisors, cleaning and building service workers	2	3.8
449	Maids and housemen	2	3.8
575	Electricians	2	3.8
585	Plumbers, pipefitters, and steamfitters	2	3.8
696	Stationary engineers	2	3.8
	All other occupations within this sector	19	36.5
	Occupation not reported within this sector	0	0.0
	TOTAL	52	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 4-9. NORA healthcare and social assistance sector and malignant mesothelioma: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
831	Hospitals	9	45.0
840	Health services, n.e.c.	3	15.0
812	Offices and clinics of physicians	2	10.0
862	Child day care services	2	10.0
	All other industries within this sector	4	20.0
	TOTAL	20	100.0
COC	Occupation		
447	Nursing aides, orderlies, and attendants	4	20.0
095	Registered nurses	3	15.0
015	Managers, medicine and health	2	10.0
	All other occupations within this sector	10	50.0
	Occupation not reported within this sector	1	5.0
	TOTAL	20	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with malignant mesothelioma reported was 541 in these same selected states and year, and the comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Healthcare and Social Assistance Sector

Table 4-10. NORA healthcare and social assistance sector and hypersensitivity pneumonitis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
831	Hospitals	4	80.0
	All other industries within this sector	1	20.0
	TOTAL	5	100.0
COC	Occupation		
095	Registered nurses	2	40.0
	All other occupations within this sector	3	60.0
	Occupation not reported within this sector	0	0.0
	TOTAL	5	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with hypersensitivity pneumonitis reported was 122 in these same selected states and years, and the comparable number of hypersensitivity pneumonitis deaths in the entire United States for this same time period was 398.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Healthcare and Social Assistance Sector

Table 4-11. NORA healthcare and social assistance sector and asthma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
862	Child day care services	68	1.4	1.1	1.8
840	Health services, n.e.c.	228	1.3	1.1	1.5
831	Hospitals	1,110	1.1	1.1	1.2
	All other industries within this sector	625			
	TOTAL	2,031			
COC	Occupation				
098	Respiratory therapists	13	3.2	1.7	5.4
433	Supervisors, food preparation and service occupations	13	2.6	1.4	4.4
696	Stationary engineers	10	2.5	1.2	4.6
085	Dentists	26	1.9	1.3	2.8
014	Administrators, education and related fields	18	1.8	1.1	2.8
203	Clinical laboratory technologists and technicians	45	1.4	1.1	1.9
095	Registered nurses	415	1.2	1.1	1.3
447	Nursing aides, orderlies, and attendants	427	1.2	1.1	1.3
	All other occupations within this sector	1,043			
	Occupation not reported within this sector	21			
	TOTAL	2,031			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with asthma reported was 29,703 in these same selected states and years, and the comparable number of asthma deaths in the entire United States for this same time period was 115,729.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Healthcare and Social Assistance Sector

Table 4-12. NORA healthcare and social assistance sector and chronic obstructive pulmonary disease: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
832	Nursing and personal care facilities	310	1.1	1.0	1.3
831	Hospitals	1,380	1.1	1.0	1.1
	All other industries within this sector	993			
	TOTAL	2,683			
COC	Occupation				
097	Dietitians	58	1.3	1.0	1.7
449	Maids and housemen	107	1.3	1.1	1.6
447	Nursing aides, orderlies, and attendants	548	1.2	1.1	1.3
	All other occupations within this sector	1,935			
	Occupation not reported within this sector	35			
	TOTAL	2,683			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with chronic obstructive pulmonary disease reported was 57,073 in the same selected states and year, and the comparable number of chronic obstructive pulmonary disease deaths in the entire United States for this same time period was 245,415.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 4-13. NORA healthcare and social assistance sector and respiratory tuberculosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
830	Offices and clinics of health practitioners, n.e.c.	13	2.9	1.6	5.0
831	Hospitals	238	1.2	1.0	1.3
	All other industries within this sector	155			
	TOTAL	406			
COC	Occupation				
804	Truck drivers	5	4.2	1.4	9.9
089	Health diagnosing practitioners, n.e.c.	5	3.2	1.0	7.5
203	Clinical laboratory technologists and technicians	15	2.1	1.1	3.4
	All other occupations within this sector	374			
	Occupation not reported within this sector	7			
	TOTAL	406			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with respiratory tuberculosis reported was 8,071 in these same selected states and years, and the comparable number of respiratory tuberculosis deaths in the entire United States for this same time period was 35,417.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Healthcare and Social Assistance Sector

Table 4-14. NORA healthcare and social assistance sector and lung cancer: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
205	Health record technologists and technicians	5	3.3	1.1	7.6
	All other occupations within this sector	1,679			
	Occupation not reported within this sector	24			
	TOTAL	1,708			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with lung cancer reported was 37,562 in these same selected states and year, and the comparable number of lung cancer deaths in the entire United States for this same time period was 162,546.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Healthcare and Social Assistance Sector

Table 4-15. NORA healthcare and social assistance sector and other interstitial pulmonary diseases: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
812	Offices and clinics of physicians	31	1.8	1.2	2.6
831	Hospitals	128	1.2	1.0	1.5
	All other industries within this sector	108			
	TOTAL	267			
COC	Occupation				
084	Physicians	23	2.1	1.3	3.1
095	Registered nurses	68	1.6	1.2	2.0
	All other occupations within this sector	173			
	Occupation not reported within this sector	3			
	TOTAL	267			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of other interstitial pulmonary diseases was 4,471 in these same selected states and year, and the comparable number of other interstitial pulmonary diseases deaths in the entire United States for this same time period was 18,655.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Healthcare and Social Assistance Sector

Table 4-16. NORA healthcare and social assistance sector and pneumonia and influenza: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
861	Job training and vocational rehabilitation services	20	1.6	1.0	2.5
	All other industries within this sector	2,335			
	TOTAL	2,355			
COC	Occupation				
338	Payroll and timekeeping clerks	6	3.3	1.2	7.2
167	Psychologists	15	1.8	1.0	3.0
	All other occupations within this sector	2,293			
	Occupation not reported within this sector	41			
	TOTAL	2,355			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with pneumonia and influenza reported was 52,295 in these same selected states and year, and the comparable number of pneumonia and influenza deaths in the entire United States for this same time period was 229,136.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Section 5

NORA Manufacturing (MNF) Sector

Table 5-1. NORA *manufacturing* sector: Number and percent of deaths with selected work-related respiratory condition, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	Percent
All Pneumoconioses	1,960	0.2
Asbestosis	1,035	0.1
Silicosis	386	0.0
Coal Workers' Pneumoconiosis	293	0.0
Unspecified and Other Pneumoconioses	236	0.0
Malignant Mesothelioma (all sites)*	134	0.0
Byssinosis	50	0.0
Hypersensitivity Pneumonitis	13	0.0
All other conditions within this sector	1,034,734	99.6
TOTAL	1,038,841	100.0

NORA - National Occupational Research Agenda

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Manufacturing Sector

Table 5-2. NORA manufacturing sector: Proportionate mortality ratio (PMR) adjusted for age, sex, and race for selected work-related respiratory conditions, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	PMR	95% Confidence Interval	
			LCL	UCL
Byssinosis	50	3.1	2.3	4.1
Silicosis	386	1.7	1.6	1.9
Asbestosis	1,035	1.4	1.3	1.5
Malignant Mesothelioma (all sites)*	134	1.2	1.0	1.4
All Pneumoconioses	1,960	0.7	0.7	0.8
Unspecified and Other Pneumoconioses	236	0.6	0.6	0.7
Hypersensitivity Pneumonitis	13	0.5	0.3	0.8
Coal Workers' Pneumoconiosis	293	0.2	0.2	0.3
All other conditions within this sector	1,034,734			
TOTAL	1,038,841			

NORA - National Occupational Research Agenda

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 5-3. NORA manufacturing sector and asbestosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
360	Ship and boat building and repairing	171	16.5
192	Industrial and miscellaneous chemicals	124	12.0
262	Miscellaneous nonmetallic mineral and stone products	75	7.2
270	Blast furnaces, steelworks, rolling and finishing mills	67	6.5
392	Not specified manufacturing industries	61	5.9
142	Yarn, thread, and fabric mills	47	4.5
211	Other rubber products, and plastics footwear and belting	40	3.9
200	Petroleum refining	31	3.0
250	Glass and glass products	30	2.9
160	Pulp, paper, and paperboard mills	29	2.8
	All other industries within this sector	360	34.8
	TOTAL	1,035	100.0
COC	Occupation		
585	Plumbers, pipefitters, and steamfitters	69	6.7
633	Supervisors, production occupations	64	6.2
889	Laborers, except construction	63	6.1
783	Welders and cutters	55	5.3
637	Machinists	44	4.3
779	Machine operators, not specified	41	4.0
575	Electricians	38	3.7
777	Miscellaneous machine operators, n.e.c.	34	3.3
518	Industrial machinery repairers	33	3.2
019	Managers and administrators, n.e.c.	31	3.0
	All other occupations within this sector	553	53.4
	Occupation not reported within this sector	10	1.0
	TOTAL	1,035	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Manufacturing Sector

Table 5-4 (page 1 of 2). NORA manufacturing sector and asbestosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
262	Miscellaneous nonmetallic mineral and stone products	75	16.4	13.0	20.7
360	Ship and boat building and repairing	171	15.7	13.5	18.3
192	Industrial and miscellaneous chemicals	124	4.8	4.0	5.7
211	Other rubber products, and plastics footwear and belting	40	4.3	3.1	5.9
180	Plastics, synthetics, and resins	12	2.8	1.4	4.9
200	Petroleum refining	31	2.7	1.9	3.9
272	Primary aluminum industries	16	2.7	1.5	4.3
250	Glass and glass products	30	2.6	1.7	3.7
282	Fabricated structural metal products	28	2.3	1.5	3.3
210	Tires and inner tubes	15	2.2	1.3	3.7
270	Blast furnaces, steelworks, rolling and finishing mills	67	1.3	1.0	1.7
	All other industries within this sector	426			
	TOTAL	1,035			
COC	Occupation				
593	Insulation workers	25	93.7	60.5	138.2
643	Boilermakers	23	16.9	10.7	25.4
585	Plumbers, pipefitters, and steamfitters	69	13.3	10.5	17.0
563	Brickmasons and stonemasons	8	11.4	4.9	22.4
534	Heating, air conditioning, and refrigeration mechanics	6	10.9	4.0	23.8
646	Lay-out workers	7	9.1	3.7	18.8
676	Patternmakers, lay-out workers, and cutters	5	7.1	2.3	16.7
757	Separating, filtering, and clarifying machine operators	21	5.0	3.1	7.7
224	Chemical technicians	7	4.8	1.9	9.8
579	Painters, construction and maintenance	5	4.5	1.5	10.5
575	Electricians	38	4.5	3.2	6.2
653	Sheet metal workers	22	4.4	2.7	6.6
567	Carpenters	18	4.1	2.4	6.5
544	Millwrights	27	4.0	2.7	5.9

See footnotes at end of table.

Table 5-4 (page 2 of 2). NORA manufacturing sector and asbestosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation (continued)				
783	Welders and cutters	55	3.7	2.8	4.8
547	Specified mechanics and repairers, n.e.c.	15	3.4	1.9	5.7
549	Not specified mechanics and repairers	13	2.6	1.4	4.4
759	Painting and paint spraying machine operators	9	2.6	1.2	4.8
849	Crane and tower operators	12	2.4	1.2	4.1
518	Industrial machinery repairers	33	2.4	1.6	3.3
696	Stationary engineers	14	2.3	1.3	3.9
856	Industrial truck and tractor equipment operators	13	2.1	1.1	3.6
738	Winding and twisting machine operators	11	2.1	1.1	3.7
777	Miscellaneous machine operators, n.e.c.	34	1.5	1.1	2.2
779	Machine operators, not specified	41	1.5	1.0	2.0
	All other occupations within this sector	494			
	Occupation not reported within this sector	10			
	TOTAL	1,035			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Manufacturing Sector

Table 5-5. NORA manufacturing sector and coal workers' pneumoconiosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
270	Blast furnaces, steelworks, rolling and finishing mills	56	19.1
392	Not specified manufacturing industries	48	16.4
351	Motor vehicles and motor vehicle equipment	30	10.2
192	Industrial and miscellaneous chemicals	20	6.8
331	Machinery, except electrical, n.e.c.	13	4.4
271	Iron and steel foundries	8	2.7
342	Electrical machinery, equipment, and supplies, n.e.c.	8	2.7
250	Glass and glass products	7	2.4
172	Printing, publishing, and allied industries, except newspapers	6	2.0
300	Miscellaneous fabricated metal products	6	2.0
	All other industries within this sector	91	31.1
	TOTAL	293	100.0
COC	Occupation		
889	Laborers, except construction	73	24.9
779	Machine operators, not specified	25	8.5
453	Janitors and cleaners	17	5.8
637	Machinists	17	5.8
785	Assemblers	15	5.1
777	Miscellaneous machine operators, n.e.c.	12	4.1
633	Supervisors, production occupations	10	3.4
783	Welders and cutters	8	2.7
796	Production inspectors, checkers, and examiners	7	2.4
019	Managers and administrators, n.e.c.	5	1.7
544	Millwrights	5	1.7
766	Furnace, kiln, and oven operators, except food	5	1.7
849	Crane and tower operators	5	1.7
	All other occupations within this sector	84	28.7
	Occupation not reported within this sector	5	1.7
	TOTAL	293	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with coal workers' pneumoconiosis reported was 4,893 in these same selected states and years, and the comparable number of coal workers' pneumoconiosis deaths in the entire United States for this same time period was 15,036.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 5-6. NORA manufacturing sector and silicosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
270	Blast furnaces, steelworks, rolling and finishing mills	51	13.2
271	Iron and steel foundries	49	12.7
262	Miscellaneous nonmetallic mineral and stone products	44	11.4
392	Not specified manufacturing industries	33	8.5
331	Machinery, except electrical, n.e.c.	23	6.0
252	Structural clay products	20	5.2
300	Miscellaneous fabricated metal products	18	4.7
261	Pottery and related products	17	4.4
250	Glass and glass products	10	2.6
280	Other primary metal industries	9	2.3
351	Motor vehicles and motor vehicle equipment	9	2.3
	All other industries within this sector	103	26.7
	TOTAL	386	100.0
COC	Occupation		
889	Laborers, except construction	67	17.4
633	Supervisors, production occupations	27	7.0
779	Machine operators, not specified	27	7.0
719	Molding and casting machine operators	25	6.5
453	Janitors and cleaners	14	3.6
637	Machinists	14	3.6
768	Crushing and grinding machine operators	13	3.4
675	Hand molders and shapers, except jewelers	11	2.8
777	Miscellaneous machine operators, n.e.c.	11	2.8
019	Managers and administrators, n.e.c.	9	2.3
	All other occupations within this sector	163	42.2
	Occupation not reported within this sector	5	1.3
	TOTAL	386	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with silicosis reported was 881 in these same selected states and years, and the comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Manufacturing Sector

Table 5-7. NORA manufacturing sector and silicosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
262	Miscellaneous nonmetallic mineral and stone products	44	30.7	22.2	41.2
261	Pottery and related products	17	29.3	17.0	46.9
271	Iron and steel foundries	49	21.6	16.0	28.5
252	Structural clay products	20	19.7	12.0	30.4
300	Miscellaneous fabricated metal products	18	5.7	3.4	9.0
251	Cement, concrete, gypsum, and plaster products	8	4.2	1.8	8.3
280	Other primary metal industries	9	3.5	1.6	6.6
270	Blast furnaces, steelworks, rolling and finishing mills	51	3.2	2.4	4.2
250	Glass and glass products	10	3.0	1.4	5.5
331	Machinery, except electrical, n.e.c.	23	2.5	1.6	3.7
392	Not specified manufacturing industries	33	1.6	1.1	2.2
	All other industries within this sector	104			
	TOTAL	386			
COC	Occupation				
725	Miscellaneous metal and plastic processing machine operators	8	76.8	33.1	151.3
787	Hand molding, casting, and forming occupations	8	43.9	18.9	86.3
675	Hand molders and shapers, except jewelers	11	36.1	18.1	64.6
768	Crushing and grinding machine operators	13	31.2	16.6	53.4
719	Molding and casting machine operators	25	19.8	12.8	29.2
883	Freight, stock, and material handlers, n.e.c.	5	4.9	1.6	11.4
766	Furnace, kiln, and oven operators, except food	8	4.9	2.1	9.6
709	Grinding, abrading, buffing, and polishing machine operators	7	4.8	1.9	9.9
849	Crane and tower operators	7	4.3	1.7	8.9
544	Millwrights	7	3.8	1.5	7.8
779	Machine operators, not specified	27	3.1	2.0	4.4
889	Laborers, except construction	67	2.9	2.3	3.7
453	Janitors and cleaners	14	2.4	1.3	4.0
633	Supervisors, production occupations	27	1.8	1.2	2.6
	All other occupations within this sector	147			
	Occupation not reported within this sector	5			
	TOTAL	386			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
 n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with silicosis reported was 881 in these same selected states and years, and the comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 5-8. NORA manufacturing sector and byssinosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
142	Yarn, thread, and fabric mills	39	78.0
151	Apparel and accessories, except knit	2	4.0
351	Motor vehicles and motor vehicle equipment	2	4.0
392	Not specified manufacturing industries	2	4.0
	All other industries within this sector	5	10.0
	TOTAL	50	100.0
COC	Occupation		
749	Miscellaneous textile machine operators	11	22.0
738	Winding and twisting machine operators	8	16.0
518	Industrial machinery repairers	7	14.0
744	Textile sewing machine operators	4	8.0
633	Supervisors, production occupations	2	4.0
637	Machinists	2	4.0
739	Knitting, looping, taping, and weaving machine operators	2	4.0
754	Packaging and filling machine operators	2	4.0
889	Laborers, except construction	2	4.0
	All other occupations within this sector	9	18.0
	Occupation not reported within this sector	1	2.0
	TOTAL	50	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with byssinosis reported was 81 in these same selected states and years, and the comparable number of byssinosis deaths in the entire United States for this same time period was 125.
 NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.
 SOURCE: National Center for Health Statistics multiple cause-of-death data.

NORA Manufacturing Sector

Table 5-9. NORA manufacturing sector and byssinosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
142	Yarn, thread, and fabric mills	39	22.3	15.8	30.4
	All other industries within this sector	11			
	TOTAL	50			
COC	Occupation				
749	Miscellaneous textile machine operators	11	36.0	18.0	64.4
518	Industrial machinery repairers	7	30.8	12.4	63.4
738	Winding and twisting machine operators	8	27.5	11.9	54.2
	All other occupations within this sector	23			
	Occupation not reported within this sector	1			
	TOTAL	50			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
 n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with byssinosis reported was 81 in these same selected states and years, and the comparable number of byssinosis deaths in the entire United States for this same time period was 125.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 5-10. NORA manufacturing sector and unspecified and other pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
270	Blast furnaces, steelworks, rolling and finishing mills	34	14.4
392	Not specified manufacturing industries	30	12.7
351	Motor vehicles and motor vehicle equipment	19	8.1
192	Industrial and miscellaneous chemicals	12	5.1
250	Glass and glass products	11	4.7
271	Iron and steel foundries	10	4.2
331	Machinery, except electrical, n.e.c.	9	3.8
280	Other primary metal industries	8	3.4
252	Structural clay products	7	3.0
262	Miscellaneous nonmetallic mineral and stone products	7	3.0
	All other industries within this sector	89	37.7
	TOTAL	236	100.0
COC	Occupation		
889	Laborers, except construction	44	18.6
633	Supervisors, production occupations	17	7.2
783	Welders and cutters	14	5.9
637	Machinists	12	5.1
453	Janitors and cleaners	10	4.2
779	Machine operators, not specified	8	3.4
785	Assemblers	7	3.0
019	Managers and administrators, n.e.c.	6	2.5
575	Electricians	6	2.5
777	Miscellaneous machine operators, n.e.c.	6	2.5
	All other occupations within this sector	102	43.2
	Occupation not reported within this sector	4	1.7
	TOTAL	236	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with unspecified and other pneumoconioses reported was 1,440 in these same selected states and years, and the comparable number of unspecified and other pneumoconioses deaths in the entire United States for this same time period was 3,384.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Manufacturing Sector

Table 5-11. NORA manufacturing sector and unspecified and other pneumoconioses: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
252	Structural clay products	7	4.5	1.8	9.2
262	Miscellaneous nonmetallic mineral and stone products	7	3.0	1.2	6.3
271	Iron and steel foundries	10	2.8	1.3	5.1
	All other industries within this sector	212			
	TOTAL	236			
COC	Occupation				
783	Welders and cutters	14	1.9	1.0	3.2
	All other occupations within this sector	218			
	Occupation not reported within this sector	4			
	TOTAL	236			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
 n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with unspecified and other pneumoconioses reported was 1,440 in these same selected states and years, and the comparable number of unspecified and other pneumoconioses deaths in the entire United States for this same time period was 3,384.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 5-12. NORA manufacturing sector and all pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
270	Blast furnaces, steelworks, rolling and finishing mills	203	10.4
360	Ship and boat building and repairing	176	9.0
392	Not specified manufacturing industries	170	8.7
192	Industrial and miscellaneous chemicals	159	8.1
262	Miscellaneous nonmetallic mineral and stone products	127	6.5
142	Yarn, thread, and fabric mills	97	4.9
351	Motor vehicles and motor vehicle equipment	78	4.0
271	Iron and steel foundries	71	3.6
331	Machinery, except electrical, n.e.c.	68	3.5
250	Glass and glass products	55	2.8
	All other industries within this sector	756	38.6
	TOTAL	1,960	100.0
COC	Occupation		
889	Laborers, except construction	245	12.5
633	Supervisors, production occupations	119	6.1
779	Machine operators, not specified	99	5.1
637	Machinists	88	4.5
783	Welders and cutters	82	4.2
585	Plumbers, pipefitters, and steamfitters	73	3.7
453	Janitors and cleaners	63	3.2
777	Miscellaneous machine operators, n.e.c.	62	3.2
019	Managers and administrators, n.e.c.	51	2.6
518	Industrial machinery repairers	51	2.6
	All other occupations within this sector	1,002	51.1
	Occupation not reported within this sector	25	1.3
	TOTAL	1,960	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Manufacturing Sector

Table 5-13. NORA manufacturing sector and all pneumoconioses: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
262	Miscellaneous nonmetallic mineral and stone products	127	7.9	6.6	9.4
360	Ship and boat building and repairing	176	4.5	3.9	5.2
261	Pottery and related products	27	3.8	2.5	5.6
271	Iron and steel foundries	71	2.8	2.2	3.6
361	Railroad locomotives and equipment	7	2.7	1.1	5.5
252	Structural clay products	29	2.6	1.8	3.8
192	Industrial and miscellaneous chemicals	159	1.8	1.5	2.1
211	Other rubber products, and plastics footwear and belting	48	1.5	1.1	1.9
250	Glass and glass products	55	1.4	1.0	1.8
	All other industries within this sector	1,261			
	TOTAL	1,960			
COC	Occupation				
593	Insulation workers	25	27.2	17.6	40.1
725	Miscellaneous metal and plastic processing machine operators	9	8.8	4.0	16.7
643	Boilermakers	24	5.0	3.2	7.5
787	Hand molding, casting, and forming occupations	10	4.8	2.3	8.8
563	Brickmasons and stonemasons	12	4.8	2.5	8.3
585	Plumbers, pipefitters, and steamfitters	73	4.0	3.2	5.1
768	Crushing and grinding machine operators	17	3.7	2.1	5.9
675	Hand molders and shapers, except jewelers	13	3.5	1.9	6.0
534	Heating, air conditioning, and refrigeration mechanics	6	3.1	1.2	6.8
719	Molding and casting machine operators	38	2.8	2.0	3.8
646	Lay-out workers	7	2.6	1.0	5.3
544	Millwrights	42	1.8	1.3	2.4
757	Separating, filtering, and clarifying machine operators	24	1.6	1.0	2.4
575	Electricians	47	1.6	1.2	2.1
783	Welders and cutters	82	1.6	1.3	2.0
	All other occupations within this sector	1,506			
	Occupation not reported within this sector	25			
	TOTAL	1,960			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 5-14. NORA manufacturing sector and malignant mesothelioma: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
192	Industrial and miscellaneous chemicals	19	14.2
392	Not specified manufacturing industries	10	7.5
351	Motor vehicles and motor vehicle equipment	8	6.0
270	Blast furnaces, steelworks, rolling and finishing mills	7	5.2
360	Ship and boat building and repairing	7	5.2
142	Yarn, thread, and fabric mills	6	4.5
200	Petroleum refining	5	3.7
160	Pulp, paper, and paperboard mills	4	3.0
211	Other rubber products, and plastics footwear and belting	4	3.0
262	Miscellaneous nonmetallic mineral and stone products	4	3.0
282	Fabricated structural metal products	4	3.0
342	Electrical machinery, equipment, and supplies, n.e.c.	4	3.0
	All other industries within this sector	52	38.8
	TOTAL	134	100.0
COC	Occupation		
019	Managers and administrators, n.e.c.	12	9.0
889	Laborers, except construction	9	6.7
633	Supervisors, production occupations	8	6.0
453	Janitors and cleaners	6	4.5
637	Machinists	6	4.5
779	Machine operators, not specified	6	4.5
785	Assemblers	6	4.5
777	Miscellaneous machine operators, n.e.c.	4	3.0
259	Sales representatives, mining, manufacturing, and wholesale	3	2.2
575	Electricians	3	2.2
696	Stationary engineers	3	2.2
744	Textile sewing machine operators	3	2.2
796	Production inspectors, checkers, and examiners	3	2.2
804	Truck drivers	3	2.2
	All other occupations within this sector	55	41.0
	Occupation not reported within this sector	4	3.0
	TOTAL	134	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with malignant mesothelioma reported was 541 in these same selected states and year, and the comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Manufacturing Sector

Table 5-15. NORA manufacturing sector and malignant mesothelioma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
360	Ship and boat building and repairing	7	6.0	2.4	12.3
192	Industrial and miscellaneous chemicals	19	4.8	2.9	7.5
200	Petroleum refining	5	3.8	1.2	8.9
	All other industries within this sector	103			
	TOTAL	134			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit

UCL - upper confidence limit

* The total number of deaths with malignant mesothelioma reported was 541 in these same selected states and year, and the comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 5-16. NORA *manufacturing* sector and hypersensitivity pneumonitis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
142	Yarn, thread, and fabric mills	3	23.1
	All other industries within this sector	10	76.9
	TOTAL	13	100.0
COC	Occupation		
633	Supervisors, production occupations	2	15.4
637	Machinists	2	15.4
	All other occupations within this sector	9	69.2
	Occupation not reported within this sector	0	0.0
	TOTAL	13	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with hypersensitivity pneumonitis reported was 122 in these same selected states and years, and the comparable number of hypersensitivity pneumonitis deaths in the entire United States for this same time period was 398.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Manufacturing Sector

Table 5-17. NORA manufacturing sector and asthma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
069	Physicists and astronomers	5	7.9	2.6	18.4
549	Not specified mechanics and repairers	28	1.5	1.0	2.2
	All other occupations within this sector	4,247			
	Occupation not reported within this sector	68			
	TOTAL	4,348			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
 n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with asthma reported was 29,703 in these same selected states and years, and the comparable number of asthma deaths in the entire United States for this same time period was 115,729.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 5-18. NORA manufacturing sector and chronic obstructive pulmonary disease: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
242	Furniture and fixtures	335	1.2	1.1	1.3
142	Yarn, thread, and fabric mills	1,423	1.1	1.0	1.1
	All other industries within this sector	8,899			
	TOTAL	10,657			
COC	Occupation				
747	Pressing machine operators	25	1.6	1.0	2.3
709	Grinding, abrading, buffing, and polishing machine operators	50	1.5	1.1	1.9
727	Sawing machine operators	59	1.4	1.1	1.8
804	Truck drivers	187	1.3	1.1	1.5
783	Welders and cutters	182	1.2	1.0	1.4
779	Machine operators, not specified	571	1.2	1.1	1.3
889	Laborers, except construction	1,041	1.2	1.1	1.2
777	Miscellaneous machine operators, n.e.c.	266	1.2	1.0	1.3
785	Assemblers	474	1.1	1.0	1.2
	All other occupations within this sector	7,516			
	Occupation not reported within this sector	286			
	TOTAL	10,657			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with chronic obstructive pulmonary disease reported was 57,073 in the same selected states and year, and the comparable number of chronic obstructive pulmonary disease deaths in the entire United States for this same time period was 245,415.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Manufacturing Sector

Table 5-19. NORA manufacturing sector and respiratory tuberculosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
141	Carpets and rugs	13	2.1	1.1	3.7
280	Other primary metal industries	24	1.7	1.1	2.5
	All other industries within this sector	1,195			
	TOTAL	1,232			
COC	Occupation				
768	Crushing and grinding machine operators	10	3.7	1.8	6.7
	All other occupations within this sector	1,193			
	Occupation not reported within this sector	29			
	TOTAL	1,232			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
 n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with respiratory tuberculosis reported was 8,071 in these same selected states and years, and the comparable number of respiratory tuberculosis deaths in the entire United States for this same time period was 35,417.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 5-20. NORA manufacturing sector and lung cancer: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
371	Scientific and controlling instruments	55	1.4	1.1	1.9
360	Ship and boat building and repairing	84	1.3	1.1	1.7
130	Tobacco manufactures	95	1.3	1.1	1.6
271	Iron and steel foundries	90	1.3	1.1	1.6
351	Motor vehicles and motor vehicle equipment	493	1.2	1.1	1.3
282	Fabricated structural metal products	124	1.2	1.0	1.4
172	Printing, publishing, and allied industries, except newspapers	271	1.2	1.1	1.4
392	Not specified manufacturing industries	782	1.1	1.0	1.2
	All other industries within this sector	5,573			
	TOTAL	7,567			
COC	Occupation				
636	Precision assemblers, metal	14	2.4	1.3	4.1
646	Lay-out workers	10	2.3	1.1	4.2
704	Lathe and turning machine operators	10	2.1	1.0	3.9
319	Receptionists	11	2.0	1.0	3.6
806	Driver-sales workers	34	1.5	1.1	2.1
689	Inspectors, testers, and graders	39	1.5	1.1	2.1
683	Electrical and electronic equipment assemblers	90	1.4	1.1	1.7
756	Mixing and blending machine operators	45	1.4	1.0	1.9
653	Sheet metal workers	51	1.4	1.0	1.8
337	Bookkeepers, accounting, and auditing clerks	58	1.3	1.0	1.7
518	Industrial machinery repairers	185	1.3	1.1	1.5
783	Welders and cutters	142	1.3	1.1	1.5
633	Supervisors, production occupations	516	1.3	1.2	1.4
785	Assemblers	330	1.1	1.0	1.3
019	Managers and administrators, n.e.c.	512	1.1	1.0	1.2
	All other occupations within this sector	5,325			
	Occupation not reported within this sector	195			
	TOTAL	7,567			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with lung cancer reported was 37,562 in these same selected states and year, and the comparable number of lung cancer deaths in the entire United States for this same time period was 162,546.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Manufacturing Sector

Table 5-21. NORA manufacturing sector and other interstitial pulmonary diseases: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
232	Wood buildings and mobile homes	5	4.8	1.5	11.1
282	Fabricated structural metal products	19	1.8	1.1	2.8
	All other industries within this sector	762			
	TOTAL	786			
COC	Occupation				
533	Miscellaneous electrical and electronic equipment repairers	5	5.1	1.6	11.8
544	Millwrights	10	2.4	1.2	4.4
	All other occupations within this sector	748			
	Occupation not reported within this sector	23			
	TOTAL	786			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
 n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of other interstitial pulmonary diseases was 4,471 in these same selected states and year, and the comparable number of other interstitial pulmonary diseases deaths in the entire United States for this same time period was 18,655.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 5-22. NORA manufacturing sector and pneumonia and influenza: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
444	Miscellaneous food preparation occupations	13	2.1	1.1	3.5
	All other occupations within this sector	8,573			
	Occupation not reported within this sector	224			
	TOTAL	8,810			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with pneumonia and influenza reported was 52,295 in these same selected states and year, and the comparable number of pneumonia and influenza deaths in the entire United States for this same time period was 229,136.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Section 6

NORA Mining (MIN) Sector

Table 6-1. NORA *mining* sector: Number and percent of deaths with selected work-related respiratory condition, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	Percent
All Pneumoconioses	4,837	7.4
Coal Workers' Pneumoconiosis	3,805	5.8
Unspecified and Other Pneumoconioses	860	1.3
Silicosis	203	0.3
Asbestosis	18	0.0
Byssinosis	4	0.0
Malignant Mesothelioma (all sites)*	3	0.0
Hypersensitivity Pneumonitis	0	0.0
All other conditions within this sector	55,635	85.1
TOTAL	65,365	100.0

NORA - National Occupational Research Agenda

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Mining Sector

Table 6-2. NORA mining sector: Proportionate mortality ratio (PMR) adjusted for age, sex, and race for selected work-related respiratory conditions, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	PMR	95% Confidence Interval	
			LCL	UCL
Coal Workers' Pneumoconiosis	3,805	33.54	32.5	34.6
Unspecified and Other Pneumoconioses	860	26.63	24.9	28.5
All Pneumoconioses	4,837	21.55	21.0	22.2
Silicosis	203	11.19	9.7	12.9
Byssinosis	4	-	-	-
Malignant Mesothelioma (all sites)*	3	-	-	-
Asbestosis	18	0.29	0.2	0.5
Hypersensitivity Pneumonitis	0	-	-	-
All other conditions within this sector	55,635			
TOTAL	65,365			

NORA - National Occupational Research Agenda

- indicates no PMR was calculated because there were fewer than 5 deaths.

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 6-3. NORA mining sector and asbestosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
050	Nonmetallic mining and quarrying, except fuel	7	38.9
041	Coal mining	5	27.8
042	Oil and gas extraction	4	22.2
040	Metal mining	2	11.1
	All other industries within this sector	0	0.0
	TOTAL	18	100.0
COC	Occupation		
616	Mining machine operators	5	27.8
585	Plumbers, pipefitters, and steamfitters	2	11.1
	All other occupations within this sector	11	61.1
	Occupation not reported within this sector	0	0.0
	TOTAL	18	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified

* The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Mining Sector

Table 6-4. NORA mining sector and coal workers' pneumoconiosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
041	Coal mining	3,765	98.9
040	Metal mining	25	0.7
042	Oil and gas extraction	8	0.2
050	Nonmetallic mining and quarrying, except fuel	7	0.2
	All other industries within this sector	0	0.0
	TOTAL	3,805	100.0
COC	Occupation		
616	Mining machine operators	3,437	90.3
575	Electricians	50	1.3
613	Supervisors, extractive occupations	49	1.3
889	Laborers, except construction	42	1.1
019	Managers and administrators, n.e.c.	25	0.7
804	Truck drivers	19	0.5
824	Locomotive operating occupations	19	0.5
633	Supervisors, production occupations	17	0.4
844	Operating engineers	16	0.4
617	Mining occupations, n.e.c.	14	0.4
	All other occupations within this sector	115	3.0
	Occupation not reported within this sector	2	0.1
	TOTAL	3,805	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified

* The total number of deaths with coal workers' pneumoconiosis reported was 4,893 in these same selected states and years, and the comparable number of coal workers' pneumoconiosis deaths in the entire United States for this same time period was 15,036.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 6-5. NORA mining sector and coal workers' pneumoconiosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
041	Coal mining	3,765	53.2	51.5	54.9
040	Metal mining	25	2.0	1.3	2.9
	All other industries within this sector	15			
	TOTAL	3,805			
COC	Occupation				
616	Mining machine operators	3,437	51.8	50.1	53.6
824	Locomotive operating occupations	19	48.7	29.3	76.1
036	Inspectors and compliance officers, except construction	10	44.2	21.3	81.3
883	Freight, stock, and material handlers, n.e.c.	8	38.1	16.4	75.1
575	Electricians	50	36.3	26.9	47.9
855	Grader, dozer, and scraper operators	6	31.6	11.6	68.8
567	Carpenters	6	22.0	8.1	48.0
777	Miscellaneous machine operators, n.e.c.	5	20.1	6.5	46.9
613	Supervisors, extractive occupations	49	14.6	10.8	19.3
633	Supervisors, production occupations	17	13.0	7.6	20.8
889	Laborers, except construction	42	10.4	7.5	14.0
853	Excavating and loading machine operators	5	9.9	3.2	23.1
804	Truck drivers	19	8.6	5.2	13.5
844	Operating engineers	16	8.3	4.8	13.5
783	Welders and cutters	8	8.2	3.5	16.0
516	Heavy equipment mechanics	12	7.9	4.1	13.8
046	Mining engineers	8	7.1	3.0	13.9
019	Managers and administrators, n.e.c.	25	6.2	4.0	9.1
859	Miscellaneous material moving equipment operators	12	5.7	2.9	9.9
617	Mining occupations, n.e.c.	14	4.6	2.5	7.7
	All other occupations within this sector	35			
	Occupation not reported within this sector	2			
	TOTAL	3,805			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with coal workers' pneumoconiosis reported was 4,893 in these same selected states and years, and the comparable number of coal workers' pneumoconiosis deaths in the entire United States for this same time period was 15,036.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Mining Sector

Table 6-6. NORA mining sector and silicosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
040	Metal mining	86	42.4
041	Coal mining	69	34.0
050	Nonmetallic mining and quarrying, except fuel	48	23.6
	All other industries within this sector	0	0.0
	TOTAL	203	100.0
COC	Occupation		
616	Mining machine operators	136	67.0
019	Managers and administrators, n.e.c.	7	3.4
613	Supervisors, extractive occupations	7	3.4
617	Mining occupations, n.e.c.	7	3.4
889	Laborers, except construction	7	3.4
844	Operating engineers	6	3.0
768	Crushing and grinding machine operators	4	2.0
046	Mining engineers	3	1.5
766	Furnace, kiln, and oven operators, except food	3	1.5
516	Heavy equipment mechanics	2	1.0
615	Explosives workers	2	1.0
633	Supervisors, production occupations	2	1.0
779	Machine operators, not specified	2	1.0
	All other occupations within this sector	15	7.4
	Occupation not reported within this sector	0	0.0
	TOTAL	203	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with silicosis reported was 881 in these same selected states and years, and the comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 6-7. NORA mining sector and silicosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
040	Metal mining	86	41.7	33.6	51.8
050	Nonmetallic mining and quarrying, except fuel	48	29.2	21.5	38.8
041	Coal mining	69	6.2	4.8	7.9
	All other industries within this sector	0			
	TOTAL	203			
COC	Occupation				
844	Operating engineers	6	17.9	6.6	39.0
617	Mining occupations, n.e.c.	7	14.2	5.7	29.3
613	Supervisors, extractive occupations	7	13.1	5.2	26.9
616	Mining machine operators	136	12.9	10.9	15.4
019	Managers and administrators, n.e.c.	7	11.0	4.4	22.8
889	Laborers, except construction	7	10.4	4.2	21.4
	All other occupations within this sector	33			
	Occupation not reported within this sector	0			
	TOTAL	203			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with silicosis reported was 881 in these same selected states and years, and the comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Mining Sector

Table 6-8. NORA *mining* sector and byssinosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
041	Coal mining	3	75.0
	All other industries within this sector	1	25.0
	TOTAL	4	100.0
COC	Occupation		
616	Mining machine operators	4	100.0
	All other occupations within this sector	0	0.0
	Occupation not reported within this sector	0	0.0
	TOTAL	4	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with byssinosis reported was 81 in these same selected states and years, and the comparable number of byssinosis deaths in the entire United States for this same time period was 125.
 NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.
 SOURCE: National Center for Health Statistics multiple cause-of-death data.

Table 6-9. NORA mining sector and unspecified and other pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
041	Coal mining	833	96.9
040	Metal mining	18	2.1
050	Nonmetallic mining and quarrying, except fuel	7	0.8
042	Oil and gas extraction	2	0.2
	All other industries within this sector	0	0.0
	TOTAL	860	100.0
COC	Occupation		
616	Mining machine operators	756	87.9
613	Supervisors, extractive occupations	17	2.0
575	Electricians	12	1.4
889	Laborers, except construction	10	1.2
804	Truck drivers	9	1.0
019	Managers and administrators, n.e.c.	5	0.6
516	Heavy equipment mechanics	4	0.5
617	Mining occupations, n.e.c.	4	0.5
843	Supervisors, material moving equipment operators	4	0.5
046	Mining engineers	3	0.3
633	Supervisors, production occupations	3	0.3
637	Machinists	3	0.3
783	Welders and cutters	3	0.3
824	Locomotive operating occupations	3	0.3
844	Operating engineers	3	0.3
859	Miscellaneous material moving equipment operators	3	0.3
	All other occupations within this sector	18	2.1
	Occupation not reported within this sector	0	0.0
	TOTAL	860	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with unspecified and other pneumoconioses reported was 1,440 in these same selected states and years, and the comparable number of unspecified and other pneumoconioses deaths in the entire United States for this same time period was 3,384.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Mining Sector

Table 6-10. NORA mining sector and unspecified and other pneumoconioses: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
041	Coal mining	833	41.6	38.9	44.6
040	Metal mining	18	4.9	2.9	7.8
050	Nonmetallic mining and quarrying, except fuel	7	2.5	1.0	5.2
	All other industries within this sector	2			
	TOTAL	860			
COC	Occupation				
616	Mining machine operators	756	40.3	37.5	43.3
575	Electricians	12	30.5	15.7	53.2
613	Supervisors, extractive occupations	17	17.7	10.3	28.2
804	Truck drivers	9	14.0	6.4	26.6
889	Laborers, except construction	10	8.7	4.2	15.9
019	Managers and administrators, n.e.c.	5	4.3	1.4	10.1
	All other occupations within this sector	51			
	Occupation not reported within this sector	0			
	TOTAL	860			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with unspecified and other pneumoconioses reported was 1,440 in these same selected states and years, and the comparable number of unspecified and other pneumoconioses deaths in the entire United States for this same time period was 3,384.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 6-11. NORA mining sector and all pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
041	Coal mining	4,623	95.6
040	Metal mining	131	2.7
050	Nonmetallic mining and quarrying, except fuel	69	1.4
042	Oil and gas extraction	14	0.3
	All other industries within this sector	0	0.0
	TOTAL	4,837	100.0
COC	Occupation		
616	Mining machine operators	4,292	88.7
613	Supervisors, extractive occupations	73	1.5
575	Electricians	64	1.3
889	Laborers, except construction	58	1.2
019	Managers and administrators, n.e.c.	36	0.7
804	Truck drivers	30	0.6
617	Mining occupations, n.e.c.	25	0.5
844	Operating engineers	24	0.5
824	Locomotive operating occupations	23	0.5
633	Supervisors, production occupations	22	0.5
	All other occupations within this sector	188	3.9
	Occupation not reported within this sector	2	0.0
	TOTAL	4,837	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Mining Sector

Table 6-12 (page 1 of 2). NORA *mining* sector and all pneumoconioses: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
041	Coal mining	4,623	33.1	32.2	34.1
040	Metal mining	131	5.2	4.4	6.2
050	Nonmetallic mining and quarrying, except fuel	69	3.6	2.8	4.6
	All other industries within this sector	14			
	TOTAL	4,837			
COC	Occupation				
616	Mining machine operators	4,292	32.9	31.9	33.9
824	Locomotive operating occupations	23	30.0	19.0	45.0
036	Inspectors and compliance officers, except construction	12	26.6	13.7	46.4
883	Freight, stock, and material handlers, n.e.c.	10	24.2	11.6	44.4
575	Electricians	64	23.5	18.3	30.3
855	Grader, dozer, and scraper operators	7	18.2	7.3	37.4
777	Miscellaneous machine operators, n.e.c.	6	12.2	4.5	26.6
567	Carpenters	6	11.4	4.2	24.7
768	Crushing and grinding machine operators	9	11.1	5.1	21.0
613	Supervisors, extractive occupations	73	10.9	8.6	13.8
615	Explosives workers	5	10.9	3.5	25.4
633	Supervisors, production occupations	22	8.4	5.2	12.7
889	Laborers, except construction	58	7.3	5.6	9.5
853	Excavating and loading machine operators	7	6.9	2.8	14.3
046	Mining engineers	15	6.7	3.8	11.1
804	Truck drivers	30	6.7	4.5	9.5
844	Operating engineers	24	6.1	3.9	9.1
516	Heavy equipment mechanics	18	5.9	3.5	9.3

See footnotes at end of table.

Table 6-12 (page 2 of 2). NORA *mining* sector and all pneumoconioses: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation (continued)				
637	Machinists	7	5.7	2.3	11.7
783	Welders and cutters	11	5.6	2.8	10.0
019	Managers and administrators, n.e.c.	36	4.5	3.1	6.2
859	Miscellaneous material moving equipment operators	17	4.2	2.4	6.6
617	Mining occupations, n.e.c.	25	4.1	2.7	6.1
	All other occupations within this sector	58			
	Occupation not reported within this sector	2			
	TOTAL	4,837			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Mining Sector

Table 6-13. NORA mining sector and malignant mesothelioma: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
042	Oil and gas extraction	2	66.7
	All other industries within this sector	1	33.3
	TOTAL	3	100.0
COC	Occupation		
783	Welders and cutters	2	66.7
	All other occupations within this sector	1	33.3
	Occupation not reported within this sector	0	0.0
	TOTAL	3	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with malignant mesothelioma reported was 541 in these same selected states and year, and the comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.
 NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.
 SOURCE: National Center for Health Statistics multiple cause-of-death data.

Table 6-14. NORA mining sector and chronic obstructive pulmonary disease: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
041	Coal mining	783	2.0	1.8	2.1
050	Nonmetallic mining and quarrying, except fuel	77	1.3	1.0	1.6
040	Metal mining	115	1.3	1.0	1.5
042	Oil and gas extraction	129	1.2	1.0	1.5
	All other industries within this sector	0			
	TOTAL	1,104			
COC	Occupation				
615	Explosives workers	7	3.0	1.2	6.1
783	Welders and cutters	16	2.2	1.2	3.5
616	Mining machine operators	765	2.0	1.9	2.2
617	Mining occupations, n.e.c.	27	1.8	1.2	2.6
889	Laborers, except construction	25	1.6	1.0	2.3
	All other occupations within this sector	261			
	Occupation not reported within this sector	3			
	TOTAL	1,104			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with chronic obstructive pulmonary disease reported was 57,073 in the same selected states and year, and the comparable number of chronic obstructive pulmonary disease deaths in the entire United States for this same time period was 245,415.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Mining Sector

Table 6-15. NORA *mining* sector and respiratory tuberculosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
050	Nonmetallic mining and quarrying, except fuel	16	1.9	1.1	3.0
040	Metal mining	17	1.8	1.1	2.9
041	Coal mining	67	1.4	1.1	1.8
	All other industries within this sector	7			
	TOTAL	107			
COC	Occupation				
616	Mining machine operators	76	1.7	1.4	2.1
	All other occupations within this sector	30			
	Occupation not reported within this sector	1			
	TOTAL	107			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with respiratory tuberculosis reported was 8,071 in these same selected states and years, and the comparable number of respiratory tuberculosis deaths in the entire United States for this same time period was 35,417.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 6-16. NORA mining sector and lung cancer: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
041	Coal mining	327	1.3	1.1	1.4
	All other industries within this sector	189			
	TOTAL	516			
COC	Occupation				
614	Drillers, oil well	18	1.8	1.0	2.8
616	Mining machine operators	315	1.3	1.1	1.4
	All other occupations within this sector	180			
	Occupation not reported within this sector	3			
	TOTAL	516			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with lung cancer reported was 37,562 in these same selected states and year, and the comparable number of lung cancer deaths in the entire United States for this same time period was 162,546.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Mining Sector

Table 6-17. NORA *mining* sector and other interstitial pulmonary diseases: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
040	Metal mining	15	2.2	1.2	3.6
	All other industries within this sector	41			
	TOTAL	56			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of other interstitial pulmonary diseases was 4,471 in these same selected states and years, and the comparable number of other interstitial pulmonary diseases deaths in the entire United States for this same time period was 18,655.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 6-18. NORA *mining* sector and pneumonia and influenza: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
041	Coal mining	410	1.3	1.2	1.5
	All other industries within this sector	221			
	TOTAL	631			
COC	Occupation				
616	Mining machine operators	394	1.3	1.2	1.5
	All other occupations within this sector	236			
	Occupation not reported within this sector	1			
	TOTAL	631			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with pneumonia and influenza reported was 52,295 in these same selected states and year, and the comparable number of pneumonia and influenza deaths in the entire United States for this same time period was 229,136.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Section 7

NORA Services (SRV) Sector

Table 7-1. NORA services sector: Number and percent of deaths with selected work-related respiratory condition, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	Percent
All Pneumoconioses	731	0.1
Asbestosis	434	0.0
Coal Workers' Pneumoconiosis	152	0.0
Malignant Mesothelioma (all sites)*	135	0.0
Unspecified and Other Pneumoconioses	84	0.0
Silicosis	60	0.0
Hypersensitivity Pneumonitis	12	0.0
Byssinosis	9	0.0
All other conditions within this sector	1,419,930	99.9
TOTAL	1,421,547	100.0

NORA - National Occupational Research Agenda

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Services Sector

Table 7-2. NORA *services* sector: Proportionate mortality ratio (PMR) adjusted for age, sex, and race for selected work-related respiratory conditions, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	PMR	95% Confidence Interval	
			LCL	UCL
Malignant Mesothelioma (all sites)*	135	1.0	0.8	1.1
Asbestosis	434	0.6	0.6	0.7
Byssinosis	9	0.5	0.2	0.9
Hypersensitivity Pneumonitis	12	0.4	0.2	0.7
All Pneumoconioses	731	0.3	0.3	0.3
Silicosis	60	0.3	0.2	0.4
Unspecified and Other Pneumoconioses	84	0.2	0.2	0.3
Coal Workers' Pneumoconiosis	152	0.1	0.1	0.2
All other conditions within this sector	1,419,930			
TOTAL	1,421,547			

NORA - National Occupational Research Agenda

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 7-3. NORA services sector and asbestosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
901	General government, n.e.c.	71	16.4
842	Elementary and secondary schools	53	12.2
942	Military	47	10.8
751	Automotive repair and related services	31	7.1
910	Justice, public order, and safety	25	5.8
932	National security and international affairs	25	5.8
641	Eating and drinking places	18	4.1
712	Real estate, including real estate-insurance offices	15	3.5
711	Insurance	14	3.2
881	Membership organizations	13	3.0
	All other industries within this sector	122	28.1
	TOTAL	434	100.0
COC	Occupation		
905	Military occupations	43	9.9
453	Janitors and cleaners	30	6.9
019	Managers and administrators, n.e.c.	28	6.5
505	Automobile mechanics	22	5.1
575	Electricians	15	3.5
585	Plumbers, pipefitters, and steamfitters	11	2.5
254	Real estate sales occupations	8	1.8
696	Stationary engineers	8	1.8
176	Clergy	7	1.6
417	Firefighting occupations	7	1.6
457	Barbers	7	1.6
637	Machinists	7	1.6
783	Welders and cutters	7	1.6
	All other occupations within this sector	224	51.6
	Occupation not reported within this sector	10	2.3
	TOTAL	434	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Services Sector

Table 7-4. NORA services sector and asbestosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
881	Membership organizations	13	2.5	1.3	4.2
	All other industries within this sector	421			
	TOTAL	434			
COC	Occupation				
593	Insulation workers	5	124.5	40.3	290.9
585	Plumbers, pipefitters, and steamfitters	11	8.2	4.1	14.6
575	Electricians	15	4.7	2.6	7.8
057	Mechanical engineers	6	2.8	1.0	6.2
637	Machinists	7	2.8	1.1	5.7
	All other occupations within this sector	380			
	Occupation not reported within this sector	10			
	TOTAL	434			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
 n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 7-5. NORA services sector and coal workers' pneumoconiosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
842	Elementary and secondary schools	20	13.2
901	General government, n.e.c.	15	9.9
751	Automotive repair and related services	13	8.6
880	Religious organizations	11	7.2
910	Justice, public order, and safety	9	5.9
712	Real estate, including real estate-insurance offices	8	5.3
931	Administration of economic programs	8	5.3
760	Miscellaneous repair services	7	4.6
942	Military	6	3.9
881	Membership organizations	5	3.3
930	Administration of environmental quality and housing programs	5	3.3
	All other industries within this sector	45	29.6
	TOTAL	152	100.0
COC	Occupation		
453	Janitors and cleaners	20	13.2
176	Clergy	11	7.2
505	Automobile mechanics	9	5.9
426	Guards and police, except public service	8	5.3
019	Managers and administrators, n.e.c.	7	4.6
036	Inspectors and compliance officers, except construction	7	4.6
889	Laborers, except construction	6	3.9
808	Bus drivers	4	2.6
905	Military occupations	4	2.6
016	Managers, properties and real estate	3	2.0
253	Insurance sales occupations	3	2.0
379	General office clerks	3	2.0
423	Sheriffs, bailiffs, and other law enforcement officers	3	2.0
457	Barbers	3	2.0
547	Specified mechanics and repairers, n.e.c.	3	2.0
567	Carpenters	3	2.0
575	Electricians	3	2.0
783	Welders and cutters	3	2.0
	All other occupations within this sector	45	29.6
	Occupation not reported within this sector	4	2.6
	TOTAL	152	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with coal workers' pneumoconiosis reported was 4,893 in these same selected states and years, and the comparable number of coal workers' pneumoconiosis deaths in the entire United States for this same time period was 15,036.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Services Sector

Table 7-6. NORA services sector and silicosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
641	Eating and drinking places	11	18.3
901	General government, n.e.c.	9	15.0
760	Miscellaneous repair services	6	10.0
842	Elementary and secondary schools	6	10.0
751	Automotive repair and related services	3	5.0
850	Colleges and universities	3	5.0
880	Religious organizations	3	5.0
171	Newspaper publishing and printing	2	3.3
761	Private households	2	3.3
771	Laundry, cleaning, and garment services	2	3.3
802	Miscellaneous entertainment and recreation services	2	3.3
892	Miscellaneous professional and related services	2	3.3
910	Justice, public order, and safety	2	3.3
	All other industries within this sector	7	11.7
	TOTAL	60	100.0
COC	Occupation		
453	Janitors and cleaners	11	18.3
019	Managers and administrators, n.e.c.	8	13.3
783	Welders and cutters	3	5.0
176	Clergy	2	3.3
188	Painters, sculptors, craft-artists, and artist printmakers	2	3.3
407	Private household cleaners and servants	2	3.3
426	Guards and police, except public service	2	3.3
435	Waiters and waitresses	2	3.3
486	Groundskeepers and gardeners, except farm	2	3.3
514	Automobile body and related repairers	2	3.3
889	Laborers, except construction	2	3.3
	All other occupations within this sector	22	36.7
	Occupation not reported within this sector	0	0.0
	TOTAL	60	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with silicosis reported was 881 in these same selected states and years, and the comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 7-7. NORA *services* sector and byssinosis: Most frequently recorded industries on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry		Number of Deaths*	Percent
CIC	Industry		
901	General government, n.e.c.	2	22.2
	All other industries within this sector	7	77.8
	TOTAL	9	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with byssinosis reported was 81 in these same selected states and years, and the comparable number of byssinosis deaths in the entire United States for this same time period was 125.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Services Sector

Table 7-8. NORA services sector and unspecified and other pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
842	Elementary and secondary schools	17	20.2
901	General government, n.e.c.	8	9.5
722	Services to dwellings and other buildings	7	8.3
641	Eating and drinking places	5	6.0
880	Religious organizations	5	6.0
751	Automotive repair and related services	4	4.8
910	Justice, public order, and safety	4	4.8
711	Insurance	3	3.6
850	Colleges and universities	3	3.6
922	Administration of human resources programs	3	3.6
	All other industries within this sector	25	29.8
	TOTAL	84	100.0
COC	Occupation		
453	Janitors and cleaners	15	17.9
019	Managers and administrators, n.e.c.	7	8.3
176	Clergy	5	6.0
156	Teachers, elementary school	4	4.8
808	Bus drivers	4	4.8
505	Automobile mechanics	3	3.6
243	Supervisors and proprietors, sales occupations	2	2.4
253	Insurance sales occupations	2	2.4
426	Guards and police, except public service	2	2.4
449	Maids and housemen	2	2.4
457	Barbers	2	2.4
575	Electricians	2	2.4
844	Operating engineers	2	2.4
889	Laborers, except construction	2	2.4
	All other occupations within this sector	27	32.1
	Occupation not reported within this sector	3	3.6
	TOTAL	84	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with unspecified and other pneumoconioses reported was 1,440 in these same selected states and years, and the comparable number of unspecified and other pneumoconioses deaths in the entire United States for this same time period was 3,384.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 7-9. NORA services sector and all pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
901	General government, n.e.c.	105	14.4
842	Elementary and secondary schools	96	13.1
942	Military	53	7.3
751	Automotive repair and related services	51	7.0
910	Justice, public order, and safety	41	5.6
641	Eating and drinking places	37	5.1
880	Religious organizations	28	3.8
932	National security and international affairs	27	3.7
760	Miscellaneous repair services	25	3.4
712	Real estate, including real estate-insurance offices	24	3.3
	All other industries within this sector	244	33.4
	TOTAL	731	100.0
COC	Occupation		
453	Janitors and cleaners	76	10.4
019	Managers and administrators, n.e.c.	50	6.8
905	Military occupations	47	6.4
505	Automobile mechanics	34	4.7
176	Clergy	26	3.6
575	Electricians	21	2.9
426	Guards and police, except public service	16	2.2
889	Laborers, except construction	16	2.2
036	Inspectors and compliance officers, except construction	15	2.1
156	Teachers, elementary school	13	1.8
783	Welders and cutters	13	1.8
	All other occupations within this sector	387	52.9
	Occupation not reported within this sector	17	2.3
	TOTAL	731	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Services Sector

Table 7-10. NORA services sector and all pneumoconioses: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
593	Insulation workers	5	38.4	12.4	89.8
585	Plumbers, pipefitters, and steamfitters	12	2.6	1.3	4.5
575	Electricians	21	1.9	1.2	2.9
	All other occupations within this sector	676			
	Occupation not reported within this sector	17			
	TOTAL	731			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
 n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 7-11. NORA services sector and malignant mesothelioma: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
842	Elementary and secondary schools	20	14.8
901	General government, n.e.c.	13	9.6
850	Colleges and universities	8	5.9
910	Justice, public order, and safety	8	5.9
712	Real estate, including real estate-insurance offices	7	5.2
942	Military	7	5.2
751	Automotive repair and related services	6	4.4
641	Eating and drinking places	5	3.7
711	Insurance	5	3.7
880	Religious organizations	5	3.7
	All other industries within this sector	51	37.8
	TOTAL	135	100.0
COC	Occupation		
156	Teachers, elementary school	13	9.6
019	Managers and administrators, n.e.c.	11	8.1
453	Janitors and cleaners	8	5.9
418	Police and detectives, public service	6	4.4
905	Military occupations	6	4.4
313	Secretaries	5	3.7
154	Postsecondary teachers, subject not specified	4	3.0
176	Clergy	4	3.0
379	General office clerks	4	3.0
057	Mechanical engineers	3	2.2
243	Supervisors and proprietors, sales occupations	3	2.2
	All other occupations within this sector	67	49.6
	Occupation not reported within this sector	1	0.7
	TOTAL	135	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with malignant mesothelioma reported was 541 in these same selected states and year, and the comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Services Sector

Table 7-12. NORA *services* sector and malignant mesothelioma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
156	Teachers, elementary school	13	2.1	1.1	3.7
	All other occupations within this sector	121			
	Occupation not reported within this sector	1			
	TOTAL	135			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
 n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with malignant mesothelioma reported was 541 in these same selected states and year, and the comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 7-13. NORA services sector and hypersensitivity pneumonitis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
842	Elementary and secondary schools	2	16.7
850	Colleges and universities	2	16.7
942	Military	2	16.7
	All other industries within this sector	6	50.0
	TOTAL	12	100.0
COC	Occupation		
905	Military occupations	2	16.7
	All other occupations within this sector	10	83.3
	Occupation not reported within this sector	0	0.0
	TOTAL	12	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with hypersensitivity pneumonitis reported was 122 in these same selected states and years, and the comparable number of hypersensitivity pneumonitis deaths in the entire United States for this same time period was 398.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Services Sector

Table 7-14. NORA services sector and asthma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
850	Colleges and universities	274	1.3	1.1	1.4
771	Laundry, cleaning, and garment services	178	1.2	1.0	1.4
901	General government, n.e.c.	502	1.1	1.0	1.2
	All other industries within this sector	6,366			
	TOTAL	7,320			
COC	Occupation				
803	Supervisors, motor vehicle operators	5	4.1	1.3	9.7
169	Social scientists, n.e.c.	7	2.7	1.1	5.6
744	Textile sewing machine operators	14	1.8	1.0	3.1
064	Computer systems analysts and scientists	22	1.6	1.0	2.4
154	Postsecondary teachers, subject not specified	62	1.6	1.2	2.1
666	Dressmakers	49	1.5	1.1	1.9
469	Personal service occupations, n.e.c.	42	1.4	1.0	1.9
186	Musicians and composers	46	1.4	1.0	1.9
159	Teachers, n.e.c.	74	1.3	1.0	1.6
157	Teachers, secondary school	87	1.3	1.0	1.6
	All other occupations within this sector	6,839			
	Occupation not reported within this sector	73			
	TOTAL	7,320			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit

UCL - upper confidence limit

* The total number of deaths with asthma reported was 29,703 in these same selected states and years, and the comparable number of asthma deaths in the entire United States for this same time period was 115,729.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 7-15. NORA services sector and chronic obstructive pulmonary disease: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
751	Automotive repair and related services	627	1.3	1.2	1.4
641	Eating and drinking places	1,373	1.2	1.2	1.3
760	Miscellaneous repair services	183	1.2	1.1	1.4
762	Hotels and motels	335	1.2	1.1	1.3
771	Laundry, cleaning, and garment services	257	1.2	1.0	1.3
802	Miscellaneous entertainment and recreation services	291	1.2	1.0	1.3
942	Military	855	1.1	1.0	1.2
	All other industries within this sector	9,263			
	TOTAL	13,184			
COC	Occupation				
759	Painting and paint spraying machine operators	14	2.3	1.3	3.9
207	Licensed practical nurses	15	1.9	1.1	3.1
435	Waiters and waitresses	419	1.6	1.5	1.8
579	Painters, construction and maintenance	26	1.6	1.0	2.3
747	Pressing machine operators	45	1.4	1.0	1.9
507	Bus, truck, and stationary engine mechanics	45	1.4	1.0	1.8
505	Automobile mechanics	414	1.3	1.1	1.4
889	Laborers, except construction	145	1.2	1.1	1.5
436	Cooks	387	1.1	1.0	1.2
905	Military occupations	745	1.1	1.0	1.2
453	Janitors and cleaners	574	1.1	1.0	1.2
	All other occupations within this sector	10,187			
	Occupation not reported within this sector	168			
	TOTAL	13,184			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with chronic obstructive pulmonary disease reported was 57,073 in the same selected states and year, and the comparable number of chronic obstructive pulmonary disease deaths in the entire United States for this same time period was 245,415.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Services Sector

Table 7-16. NORA services sector and respiratory tuberculosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
791	Miscellaneous personal services	33	1.9	1.3	2.7
750	Automotive services, except repair	17	1.8	1.0	2.9
760	Miscellaneous repair services	35	1.5	1.1	2.1
762	Hotels and motels	79	1.3	1.0	1.6
	All other industries within this sector	1,746			
	TOTAL	1,910			
COC	Occupation				
434	Bartenders	20	2.1	1.3	3.3
913	Retired, with no other occupation reported	11	2.0	1.0	3.6
747	Pressing machine operators	20	1.6	1.0	2.5
449	Maids and housemen	38	1.6	1.1	2.2
889	Laborers, except construction	68	1.3	1.0	1.6
	All other occupations within this sector	1,739			
	Occupation not reported within this sector	14			
	TOTAL	1,910			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with respiratory tuberculosis reported was 8,071 in these same selected states and years, and the comparable number of respiratory tuberculosis deaths in the entire United States for this same time period was 35,417.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 7-17. NORA services sector and lung cancer: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
801	Bowling alleys, billiard and pool parlors	19	1.8	1.1	2.8
772	Beauty shops	211	1.3	1.1	1.5
802	Miscellaneous entertainment and recreation services	251	1.2	1.1	1.4
641	Eating and drinking places	909	1.2	1.1	1.2
942	Military	680	1.1	1.1	1.2
751	Automotive repair and related services	452	1.1	1.0	1.3
	All other industries within this sector	7,158			
	TOTAL	9,680			
COC	Occupation				
518	Industrial machinery repairers	12	2.2	1.1	3.8
459	Attendants, amusement and recreation facilities	48	1.8	1.3	2.4
456	Supervisors, personal service occupations	29	1.6	1.1	2.3
469	Personal service occupations, n.e.c.	43	1.4	1.0	1.9
435	Waiters and waitresses	251	1.4	1.3	1.6
303	Supervisors, general office	60	1.3	1.0	1.7
458	Hairdressers and cosmetologists	188	1.3	1.1	1.4
337	Bookkeepers, accounting, and auditing clerks	138	1.2	1.0	1.4
505	Automobile mechanics	310	1.2	1.1	1.3
905	Military occupations	590	1.1	1.1	1.2
453	Janitors and cleaners	450	1.1	1.0	1.2
019	Managers and administrators, n.e.c.	866	1.1	1.0	1.1
	All other occupations within this sector	6,564			
	Occupation not reported within this sector	131			
	TOTAL	9,680			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with lung cancer reported was 37,562 in these same selected states and year, and the comparable number of lung cancer deaths in the entire United States for this same time period was 162,546.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Services Sector

Table 7-18. NORA services sector and other interstitial pulmonary diseases: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
891	Research, development and testing services	15	2.1	1.2	3.5
700	Banking	43	1.4	1.0	1.9
	All other industries within this sector	1,084			
	TOTAL	1,142			
COC	Occupation				
007	Financial managers	16	1.9	1.1	3.0
	All other occupations within this sector	1,107			
	Occupation not reported within this sector	19			
	TOTAL	1,142			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of other interstitial pulmonary diseases was 4,471 in these same selected states and year, and the comparable number of other interstitial pulmonary diseases deaths in the entire United States for this same time period was 18,655.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 7-19. NORA *services* sector and pneumonia and influenza: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
803	Supervisors, motor vehicle operators	10	2.8	1.3	5.1
	All other occupations within this sector	12,123			
	Occupation not reported within this sector	144			
	TOTAL	12,277			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with pneumonia and influenza reported was 52,295 in these same selected states and year, and the comparable number of pneumonia and influenza deaths in the entire United States for this same time period was 229,136.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Section 8

NORA Transportation, Warehousing, and Utilities (TWU) Sector

NORA Transportation, Warehousing, and Utilities Sector

Table 8-1. NORA transportation, warehousing, and utilities sector: Number and percent of deaths with selected work-related respiratory condition, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	Percent
All Pneumoconioses	460	0.2
Asbestosis	287	0.1
Coal Workers' Pneumoconiosis	103	0.0
Unspecified and Other Pneumoconioses	52	0.0
Malignant Mesothelioma (all sites)*	51	0.0
Silicosis	26	0.0
Hypersensitivity Pneumonitis	6	0.0
Byssinosis	0	0.0
All other conditions within this sector	303,233	99.7
TOTAL	304,218	100.0

NORA - National Occupational Research Agenda

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-2. NORA transportation, warehousing, and utilities sector: Proportionate mortality ratio (PMR) adjusted for age, sex, and race for selected work-related respiratory conditions, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	PMR	95% Confidence Interval	
			LCL	UCL
Malignant Mesothelioma (all sites)*	51	1.2	0.9	1.6
Asbestosis	287	1.1	1.0	1.2
Hypersensitivity Pneumonitis	6	0.7	0.3	1.5
All Pneumoconioses	460	0.5	0.5	0.5
Unspecified and Other Pneumoconioses	52	0.4	0.3	0.5
Silicosis	26	0.3	0.2	0.5
Coal Workers' Pneumoconiosis	103	0.2	0.2	0.3
Byssinosis	0	-	-	-
All other conditions within this sector	303,233			
TOTAL	304,218			

NORA - National Occupational Research Agenda

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-3. NORA transportation, warehousing, and utilities sector and asbestosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
400	Railroads	89	31.0
460	Electric light and power	55	19.2
410	Trucking service	46	16.0
420	Water transportation	24	8.4
462	Electric and gas, and other combinations	14	4.9
412	U.S. Postal Service	10	3.5
432	Services incidental to transportation	8	2.8
471	Sanitary services	8	2.8
472	Not specified utilities	8	2.8
401	Bus service and urban transit	7	2.4
461	Gas and steam supply systems	7	2.4
	All other industries within this sector	11	3.8
	TOTAL	287	100.0
COC	Occupation		
804	Truck drivers	35	12.2
019	Managers and administrators, n.e.c.	16	5.6
507	Bus, truck, and stationary engine mechanics	15	5.2
633	Supervisors, production occupations	14	4.9
575	Electricians	13	4.5
889	Laborers, except construction	12	4.2
829	Sailors and deckhands	11	3.8
823	Railroad conductors and yardmasters	10	3.5
585	Plumbers, pipefitters, and steamfitters	9	3.1
516	Heavy equipment mechanics	7	2.4
577	Electrical power installers and repairers	7	2.4
643	Boilermakers	7	2.4
	All other occupations within this sector	129	44.9
	Occupation not reported within this sector	2	0.7
	TOTAL	287	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-4. NORA transportation, warehousing, and utilities sector and asbestosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
462	Electric and gas, and other combinations	14	3.1	1.7	5.1
460	Electric light and power	55	2.7	2.0	3.5
420	Water transportation	24	2.3	1.5	3.4
400	Railroads	89	1.6	1.3	2.0
	All other industries within this sector	105			
	TOTAL	287			
COC	Occupation				
643	Boilermakers	7	18.4	7.4	38.0
058	Marine and naval architects	5	10.0	3.2	23.4
585	Plumbers, pipefitters, and steamfitters	9	8.1	3.7	15.3
575	Electricians	13	4.8	2.5	8.2
829	Sailors and deckhands	11	4.2	2.1	7.6
549	Not specified mechanics and repairers	5	4.1	1.3	9.5
507	Bus, truck, and stationary engine mechanics	15	3.2	1.8	5.3
633	Supervisors, production occupations	14	2.9	1.6	4.8
	All other occupations within this sector	206			
	Occupation not reported within this sector	2			
	TOTAL	287			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-5. NORA transportation, warehousing, and utilities sector and coal workers' pneumoconiosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
400	Railroads	39	37.9
410	Trucking service	29	28.2
412	U.S. Postal Service	7	6.8
461	Gas and steam supply systems	7	6.8
460	Electric light and power	6	5.8
471	Sanitary services	5	4.9
402	Taxicab service	3	2.9
	All other industries within this sector	7	6.8
	TOTAL	103	100.0
COC	Occupation		
804	Truck drivers	29	28.2
889	Laborers, except construction	16	15.5
019	Managers and administrators, n.e.c.	6	5.8
823	Railroad conductors and yardmasters	4	3.9
355	Mail carriers, postal service	3	2.9
453	Janitors and cleaners	3	2.9
516	Heavy equipment mechanics	3	2.9
783	Welders and cutters	3	2.9
824	Locomotive operating occupations	3	2.9
843	Supervisors, material moving equipment operators	3	2.9
	All other occupations within this sector	29	28.2
	Occupation not reported within this sector	1	1.0
	TOTAL	103	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with coal workers' pneumoconiosis reported was 4,893 in these same selected states and years, and the comparable number of coal workers' pneumoconiosis deaths in the entire United States for this same time period was 15,036.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-6. NORA transportation, warehousing, and utilities sector and silicosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
410	Trucking service	9	34.6
400	Railroads	6	23.1
412	U.S. Postal Service	4	15.4
461	Gas and steam supply systems	2	7.7
470	Water supply and irrigation	2	7.7
	All other industries within this sector	3	11.5
	TOTAL	26	100.0
COC	Occupation		
804	Truck drivers	8	30.8
889	Laborers, except construction	2	7.7
	All other occupations within this sector	15	57.7
	Occupation not reported within this sector	1	3.8
	TOTAL	26	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with silicosis reported was 881 in these same selected states and years, and the comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-7. NORA transportation, warehousing, and utilities sector and unspecified and other pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
400	Railroads	17	32.7
410	Trucking service	11	21.2
460	Electric light and power	6	11.5
470	Water supply and irrigation	4	7.7
471	Sanitary services	4	7.7
412	U.S. Postal Service	2	3.8
420	Water transportation	2	3.8
432	Services incidental to transportation	2	3.8
	All other industries within this sector	4	7.7
	TOTAL	52	100.0
COC	Occupation		
804	Truck drivers	8	15.4
889	Laborers, except construction	8	15.4
019	Managers and administrators, n.e.c.	4	7.7
825	Railroad brake, signal, and switch operators	3	5.8
844	Operating engineers	3	5.8
875	Garbage collectors	3	5.8
355	Mail carriers, postal service	2	3.8
516	Heavy equipment mechanics	2	3.8
823	Railroad conductors and yardmasters	2	3.8
	All other occupations within this sector	17	32.7
	Occupation not reported within this sector	0	0.0
	TOTAL	52	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with unspecified and other pneumoconioses reported was 1,440 in these same selected states and years, and the comparable number of unspecified and other pneumoconioses deaths in the entire United States for this same time period was 3,384.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-8. NORA transportation, warehousing, and utilities sector and all pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
400	Railroads	146	31.7
410	Trucking service	92	20.0
460	Electric light and power	68	14.8
420	Water transportation	27	5.9
412	U.S. Postal Service	23	5.0
471	Sanitary services	18	3.9
461	Gas and steam supply systems	17	3.7
462	Electric and gas, and other combinations	15	3.3
432	Services incidental to transportation	10	2.2
472	Not specified utilities	10	2.2
	All other industries within this sector	34	7.4
	TOTAL	460	100.0
COC	Occupation		
804	Truck drivers	77	16.7
889	Laborers, except construction	37	8.0
019	Managers and administrators, n.e.c.	27	5.9
507	Bus, truck, and stationary engine mechanics	18	3.9
633	Supervisors, production occupations	16	3.5
823	Railroad conductors and yardmasters	15	3.3
575	Electricians	14	3.0
355	Mail carriers, postal service	12	2.6
516	Heavy equipment mechanics	12	2.6
453	Janitors and cleaners	11	2.4
824	Locomotive operating occupations	11	2.4
829	Sailors and deckhands	11	2.4
	All other occupations within this sector	195	42.4
	Occupation not reported within this sector	4	0.9
	TOTAL	460	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-9. NORA transportation, warehousing, and utilities sector and all pneumoconioses: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
643	Boilermakers	7	4.6	1.9	9.6
585	Plumbers, pipefitters, and steamfitters	10	2.5	1.2	4.6
	All other occupations within this sector	439			
	Occupation not reported within this sector	4			
	TOTAL	460			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-10. NORA transportation, warehousing, and utilities sector and malignant mesothelioma: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
460	Electric light and power	10	19.6
400	Railroads	9	17.6
410	Trucking service	8	15.7
412	U.S. Postal Service	6	11.8
461	Gas and steam supply systems	4	7.8
462	Electric and gas, and other combinations	4	7.8
432	Services incidental to transportation	2	3.9
470	Water supply and irrigation	2	3.9
	All other industries within this sector	6	11.8
	TOTAL	51	100.0
COC	Occupation		
804	Truck drivers	5	9.8
019	Managers and administrators, n.e.c.	4	7.8
633	Supervisors, production occupations	4	7.8
823	Railroad conductors and yardmasters	3	5.9
053	Civil engineers	2	3.9
318	Transportation ticket and reservation agents	2	3.9
453	Janitors and cleaners	2	3.9
503	Supervisors, mechanics and repairers	2	3.9
549	Not specified mechanics and repairers	2	3.9
695	Power plant operators	2	3.9
	All other occupations within this sector	22	43.1
	Occupation not reported within this sector	1	2.0
	TOTAL	51	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with malignant mesothelioma reported was 541 in these same selected states and year, and the comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-11. NORA transportation, warehousing, and utilities sector and malignant mesothelioma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
460	Electric light and power	10	3.1	1.5	5.7
	All other industries within this sector	41			
	TOTAL	51			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with malignant mesothelioma reported was 541 in these same selected states and year, and the comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-12. NORA transportation, warehousing, and utilities sector and hypersensitivity pneumonitis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
410	Trucking service	4	66.7
	All other industries within this sector	2	33.3
	TOTAL	6	100.0
COC	Occupation		
804	Truck drivers	3	50.0
	All other occupations within this sector	3	50.0
	Occupation not reported within this sector	0	0.0
	TOTAL	6	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with hypersensitivity pneumonitis reported was 122 in these same selected states and years, and the comparable number of hypersensitivity pneumonitis deaths in the entire United States for this same time period was 398.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-13. NORA transportation, warehousing, and utilities sector and asthma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
208	Health technologists and technicians, n.e.c.	5	3.4	1.1	7.9
	All other occupations within this sector	1,090			
	Occupation not reported within this sector	17			
	TOTAL	1,112			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with asthma reported was 29,703 in these same selected states and years, and the comparable number of asthma deaths in the entire United States for this same time period was 115,729.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-14. NORA transportation, warehousing, and utilities sector and chronic obstructive pulmonary disease: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
410	Trucking service	1,281	1.3	1.2	1.4
	All other industries within this sector	2,358			
	TOTAL	3,639			
COC	Occupation				
804	Truck drivers	1,063	1.3	1.3	1.4
507	Bus, truck, and stationary engine mechanics	72	1.3	1.0	1.6
	All other occupations within this sector	2,450			
	Occupation not reported within this sector	54			
	TOTAL	3,639			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with chronic obstructive pulmonary disease reported was 57,073 in the same selected states and year, and the comparable number of chronic obstructive pulmonary disease deaths in the entire United States for this same time period was 245,415.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-15. NORA transportation, warehousing, and utilities sector and respiratory tuberculosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
829	Sailors and deckhands	11	2.5	1.2	4.4
875	Garbage collectors	25	1.8	1.2	2.6
	All other occupations within this sector	414			
	Occupation not reported within this sector	6			
	TOTAL	456			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with respiratory tuberculosis reported was 8,071 in these same selected states and years, and the comparable number of respiratory tuberculosis deaths in the entire United States for this same time period was 35,417.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-16. NORA transportation, warehousing, and utilities sector and lung cancer: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
472	Not specified utilities	63	1.3	1.0	1.7
410	Trucking service	1,004	1.2	1.1	1.3
400	Railroads	385	1.1	1.0	1.2
	All other industries within this sector	1,246			
	TOTAL	2,698			
COC	Occupation				
235	Technicians, n.e.c.	6	3.4	1.3	7.4
339	Billing clerks	5	3.2	1.0	7.4
823	Railroad conductors and yardmasters	58	1.4	1.1	1.8
804	Truck drivers	840	1.2	1.1	1.3
	All other occupations within this sector	1,748			
	Occupation not reported within this sector	41			
	TOTAL	2,698			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with lung cancer reported was 37,562 in these same selected states and year, and the comparable number of lung cancer deaths in the entire United States for this same time period was 162,546.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-17. NORA transportation, warehousing, and utilities sector and other interstitial pulmonary diseases: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
460	Electric light and power	32	1.7	1.1	2.3
	All other industries within this sector	214			
	TOTAL	246			
COC	Occupation				
508	Aircraft engine mechanics	5	3.7	1.2	8.7
	All other occupations within this sector	230			
	Occupation not reported within this sector	11			
	TOTAL	246			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of other interstitial pulmonary diseases was 4,471 in these same selected states and year, and the comparable number of other interstitial pulmonary diseases deaths in the entire United States for this same time period was 18,655.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Transportation, Warehousing, and Utilities Sector

Table 8-18. NORA transportation, warehousing, and utilities sector and pneumonia and influenza: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
466	Baggage porters and bellhops	14	1.9	1.0	3.2
	All other occupations within this sector	2,565			
	Occupation not reported within this sector	42			
	TOTAL	2,621			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with pneumonia and influenza reported was 52,295 in these same selected states and year, and the comparable number of pneumonia and influenza deaths in the entire United States for this same time period was 229,136.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Section 9

NORA Wholesale and Retail Trade (TRD) Sector

Table 9-1. NORA *wholesale and retail trade* sector: Number and percent of deaths with selected work-related respiratory condition, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	Percent
All Pneumoconioses	300	0.1
Asbestosis	166	0.0
Coal Workers' Pneumoconiosis	70	0.0
Malignant Mesothelioma (all sites)*	44	0.0
Silicosis	32	0.0
Unspecified and Other Pneumoconioses	32	0.0
Hypersensitivity Pneumonitis	8	0.0
Byssinosis	1	0.0
All other conditions within this sector	467,338	99.9
TOTAL	467,991	100.0

NORA - National Occupational Research Agenda

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Wholesale and Retail Trade Sector

Table 9-2. NORA wholesale and retail trade sector: Proportionate mortality ratio (PMR) adjusted for age, sex, and race for selected work-related respiratory conditions, U.S. residents age 15 and over, selected states and years, 1990–1999

Condition	Number of Deaths	PMR	95% Confidence Interval	
			LCL	UCL
Malignant Mesothelioma (all sites)*	44	0.9	0.6	1.2
Hypersensitivity Pneumonitis	8	0.7	0.3	1.4
Asbestosis	166	0.6	0.5	0.7
Silicosis	32	0.4	0.3	0.5
All Pneumoconioses	300	0.3	0.3	0.3
Unspecified and Other Pneumoconioses	32	0.2	0.2	0.3
Byssinosis	1	-	-	-
Coal Workers' Pneumoconiosis	70	0.1	0.1	0.2
All other conditions within this sector	467,338			
TOTAL	467,991			

NORA - National Occupational Research Agenda

- indicates no PMR was calculated because there were fewer than 5 deaths.

* data for malignant mesothelioma are for 1999 only.

NOTE: The sum of the individual and all other condition death totals may be greater than the total number of deaths in the selected states and years because some decedents have more than one condition listed on their death certificates. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 9-3. NORA wholesale and retail trade sector and asbestosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
502	Lumber and construction materials	20	12.0
601	Grocery stores	14	8.4
580	Lumber and building material retailing	11	6.6
521	Hardware, plumbing and heating supplies	10	6.0
612	Motor vehicle dealers	10	6.0
550	Groceries and related products	9	5.4
621	Gasoline service stations	7	4.2
632	Furniture and home furnishings stores	6	3.6
640	Household appliances, TV, and radio stores	6	3.6
672	Fuel dealers	6	3.6
691	Not specified retail trade	6	3.6
	All other industries within this sector	61	36.7
	TOTAL	166	100.0
COC	Occupation		
243	Supervisors and proprietors, sales occupations	50	30.1
804	Truck drivers	11	6.6
889	Laborers, except construction	11	6.6
534	Heating, air conditioning, and refrigeration mechanics	6	3.6
274	Sales workers, other commodities	5	3.0
637	Machinists	5	3.0
259	Sales representatives, mining, manufacturing, and wholesale	4	2.4
268	Sales workers, hardware and building supplies	4	2.4
453	Janitors and cleaners	4	2.4
777	Miscellaneous machine operators, n.e.c.	4	2.4
	All other occupations within this sector	61	36.7
	Occupation not reported within this sector	1	0.6
	TOTAL	166	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Wholesale and Retail Trade Sector

Table 9-4. NORA wholesale and retail trade sector and asbestosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
502	Lumber and construction materials	20	7.0	4.2	10.8
	All other industries within this sector	146			
	TOTAL	166			
COC	Occupation				
534	Heating, air conditioning, and refrigeration mechanics	6	7.5	2.8	16.4
637	Machinists	5	6.9	2.2	16.0
	All other occupations within this sector	154			
	Occupation not reported within this sector	1			
	TOTAL	166			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with asbestosis reported was 2,859 in these same selected states and years, and the comparable number of asbestosis deaths in the entire United States for this same time period was 10,914.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 9-5. NORA wholesale and retail trade sector and coal workers' pneumoconiosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
601	Grocery stores	11	15.7
691	Not specified retail trade	7	10.0
612	Motor vehicle dealers	6	8.6
620	Auto and home supply stores	6	8.6
621	Gasoline service stations	5	7.1
672	Fuel dealers	5	7.1
580	Lumber and building material retailing	4	5.7
600	Miscellaneous general merchandise stores	4	5.7
550	Groceries and related products	2	2.9
581	Hardware stores	2	2.9
640	Household appliances, TV, and radio stores	2	2.9
	All other industries within this sector	16	22.9
	TOTAL	70	100.0
COC	Occupation		
243	Supervisors and proprietors, sales occupations	32	45.7
889	Laborers, except construction	8	11.4
804	Truck drivers	3	4.3
263	Sales workers, motor vehicles and boats	2	2.9
269	Sales workers, parts	2	2.9
274	Sales workers, other commodities	2	2.9
505	Automobile mechanics	2	2.9
844	Operating engineers	2	2.9
	All other occupations within this sector	15	21.4
	Occupation not reported within this sector	2	2.9
	TOTAL	70	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with coal workers' pneumoconiosis reported was 4,893 in these same selected states and years, and the comparable number of coal workers' pneumoconiosis deaths in the entire United States for this same time period was 15,036.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Wholesale and Retail Trade Sector

Table 9-6. NORA wholesale and retail trade sector and silicosis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
682	Miscellaneous retail stores	7	21.9
601	Grocery stores	5	15.6
580	Lumber and building material retailing	3	9.4
502	Lumber and construction materials	2	6.3
521	Hardware, plumbing and heating supplies	2	6.3
620	Auto and home supply stores	2	6.3
621	Gasoline service stations	2	6.3
691	Not specified retail trade	2	6.3
	All other industries within this sector	7	21.9
	TOTAL	32	100.0
COC	Occupation		
243	Supervisors and proprietors, sales occupations	16	50.0
804	Truck drivers	3	9.4
019	Managers and administrators, n.e.c.	2	6.3
675	Hand molders and shapers, except jewelers	2	6.3
889	Laborers, except construction	2	6.3
	All other occupations within this sector	7	21.9
	Occupation not reported within this sector	0	0.0
	TOTAL	32	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with silicosis reported was 881 in these same selected states and years, and the comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 9-7. NORA *wholesale and retail trade* sector and silicosis: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
682	Miscellaneous retail stores	7	3.2	1.3	6.5
	All other industries within this sector	25			
	TOTAL	32			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with silicosis reported was 881 in these same selected states and years, and the comparable number of silicosis deaths in the entire United States for this same time period was 2,407.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Wholesale and Retail Trade Sector

Table 9-8. NORA wholesale and retail trade sector and unspecified and other pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
601	Grocery stores	5	15.6
612	Motor vehicle dealers	5	15.6
580	Lumber and building material retailing	3	9.4
591	Department stores	3	9.4
621	Gasoline service stations	3	9.4
672	Fuel dealers	3	9.4
530	Machinery, equipment, and supplies	2	6.3
640	Household appliances, TV, and radio stores	2	6.3
	All other industries within this sector	6	18.8
	TOTAL	32	100.0
COC	Occupation		
243	Supervisors and proprietors, sales occupations	11	34.4
686	Butchers and meat cutters	3	9.4
019	Managers and administrators, n.e.c.	2	6.3
268	Sales workers, hardware and building supplies	2	6.3
274	Sales workers, other commodities	2	6.3
	All other occupations within this sector	12	37.5
	Occupation not reported within this sector	0	0.0
	TOTAL	32	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with unspecified and other pneumoconioses reported was 1,440 in these same selected states and years, and the comparable number of unspecified and other pneumoconioses deaths in the entire United States for this same time period was 3,384.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 9-9. NORA wholesale and retail trade sector and all pneumoconioses: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
601	Grocery stores	36	12.0
502	Lumber and construction materials	23	7.7
580	Lumber and building material retailing	21	7.0
612	Motor vehicle dealers	21	7.0
621	Gasoline service stations	16	5.3
691	Not specified retail trade	16	5.3
672	Fuel dealers	15	5.0
521	Hardware, plumbing and heating supplies	14	4.7
550	Groceries and related products	12	4.0
620	Auto and home supply stores	11	3.7
	All other industries within this sector	115	38.3
	TOTAL	300	100.0
COC	Occupation		
243	Supervisors and proprietors, sales occupations	108	36.0
889	Laborers, except construction	22	7.3
804	Truck drivers	17	5.7
274	Sales workers, other commodities	10	3.3
019	Managers and administrators, n.e.c.	7	2.3
268	Sales workers, hardware and building supplies	7	2.3
453	Janitors and cleaners	7	2.3
686	Butchers and meat cutters	7	2.3
259	Sales representatives, mining, manufacturing, and wholesale	6	2.0
534	Heating, air conditioning, and refrigeration mechanics	6	2.0
637	Machinists	6	2.0
	All other occupations within this sector	94	31.3
	Occupation not reported within this sector	3	1.0
	TOTAL	300	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Wholesale and Retail Trade Sector

Table 9-10. NORA *wholesale and retail trade* sector and all pneumoconioses: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
502	Lumber and construction materials	23	2.3	1.4	3.4
	All other industries within this sector	277			
	TOTAL	300			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code

n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with all pneumoconioses reported was 10,014 in these same selected states and years, and the comparable number of all pneumoconioses deaths in the entire United States for this same time period was 31,455.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 9-11. NORA wholesale and retail trade sector and malignant mesothelioma: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
691	Not specified retail trade	6	13.6
530	Machinery, equipment, and supplies	4	9.1
682	Miscellaneous retail stores	4	9.1
521	Hardware, plumbing, and heating supplies	3	6.8
601	Grocery stores	3	6.8
611	Food stores, n.e.c.	3	6.8
531	Scrap and waste materials	2	4.5
550	Groceries and related products	2	4.5
580	Lumber and building material retailing	2	4.5
591	Department stores	2	4.5
642	Drug stores	2	4.5
672	Fuel dealers	2	4.5
	All other industries within this sector	9	20.5
	TOTAL	44	100.0
COC	Occupation		
243	Supervisors and proprietors, sales occupations	12	27.3
274	Sales workers, other commodities	6	13.6
019	Managers and administrators, n.e.c.	4	9.1
259	Sales representatives, mining, manufacturing, and wholesale	3	6.8
057	Mechanical engineers	2	4.5
804	Truck drivers	2	4.5
	All other occupations within this sector	15	34.1
	Occupation not reported within this sector	0	0.0
	TOTAL	44	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified
 * The total number of deaths with malignant mesothelioma reported was 541 in these same selected states and year, and the comparable number of malignant mesothelioma deaths in the entire United States for this same time period was 2,484.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Wholesale and Retail Trade Sector

Table 9-12. NORA *wholesale and retail trade* sector and hypersensitivity pneumonitis: Most frequently recorded industries and occupations on death certificate, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	Percent
CIC	Industry		
630	Apparel and accessory stores, except shoe	3	37.5
601	Grocery stores	2	25
	All other industries within this sector	3	37.5
	TOTAL	8	100.0
COC	Occupation		
243	Supervisors and proprietors, sales occupations	2	25.0
	All other occupations within this sector	6	75.0
	Occupation not reported within this sector	0	0.0
	TOTAL	8	100.0

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code n.e.c. - not elsewhere classified

* The total number of deaths with hypersensitivity pneumonitis reported was 122 in these same selected states and years, and the comparable number of hypersensitivity pneumonitis deaths in the entire United States for this same time period was 398.

NOTE: Percentages may not total to 100% due to rounding. See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 9-13. NORA wholesale and retail trade sector and asthma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
642	Drug stores	85	1.3	1.1	1.7
	All other industries within this sector	2,052			
	TOTAL	2,137			
COC	Occupation				
426	Guards and police, except public service	11	2.1	1.1	3.8
	All other occupations within this sector	2,109			
	Occupation not reported within this sector	17			
	TOTAL	2,137			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with asthma reported was 29,703 in these same selected states and years, and the comparable number of asthma deaths in the entire United States for this same time period was 115,729.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Wholesale and Retail Trade Sector

Table 9-14. NORA wholesale and retail trade sector and chronic obstructive pulmonary disease: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
744	Textile sewing machine operators	7	3.0	1.2	6.2
567	Carpenters	18	2.4	1.4	3.7
439	Kitchen workers, food preparation	12	1.9	1.0	3.4
888	Hand packers and packagers	27	1.6	1.0	2.3
885	Garage and service station related occupations	38	1.6	1.1	2.1
889	Laborers, except construction	129	1.4	1.2	1.7
313	Secretaries	86	1.3	1.1	1.6
686	Butchers and meat cutters	106	1.3	1.1	1.6
	All other occupations within this sector	4,181			
	Occupation not reported within this sector	44			
	TOTAL	4,648			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with chronic obstructive pulmonary disease reported was 57,073 in the same selected states and year, and the comparable number of chronic obstructive pulmonary disease deaths in the entire United States for this same time period was 245,415.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 9-15. NORA *wholesale and retail trade* sector and lung cancer: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by industry and occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Industry/Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
CIC	Industry				
682	Miscellaneous retail stores	142	1.2	1.0	1.4
	All other industries within this sector	3,166			
	TOTAL	3,308			
COC	Occupation				
547	Specified mechanics and repairers, n.e.c.	11	2.3	1.2	4.1
888	Hand packers and packagers	21	2.0	1.3	3.1
029	Buyers, wholesale and retail trade except farm products	38	1.6	1.1	2.1
	All other occupations within this sector	3,205			
	Occupation not reported within this sector	33			
	TOTAL	3,308			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with lung cancer reported was 37,562 in these same selected states and year, and the comparable number of lung cancer deaths in the entire United States for this same time period was 162,546.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

NORA Wholesale and Retail Trade Sector

Table 9-16. NORA wholesale and retail trade sector and other interstitial pulmonary diseases: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
453	Janitors and cleaners	7	2.8	1.1	5.8
	All other occupations within this sector	367			
	Occupation not reported within this sector	5			
	TOTAL	379			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with other interstitial pulmonary diseases reported was 4,471 in these same selected states and year, and the comparable number of other interstitial pulmonary diseases deaths in the entire United States for this same time period was 18,655.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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

Table 9-17. NORA *wholesale and retail trade* sector and pneumonia and influenza: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by occupation, U.S. residents age 15 and over, selected states, 1999

Bureau of Census Occupation		Number of Deaths*	PMR	95% Confidence Interval	
				LCL	UCL
COC	Occupation				
338	Payroll and timekeeping clerks	8	2.4	1.0	4.7
	All other occupations within this sector	4,092			
	Occupation not reported within this sector	48			
	TOTAL	4,148			

NORA - National Occupational Research Agenda CIC - Census Industry Code COC - Census Occupation Code
n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit

* The total number of deaths with pneumonia and influenza reported was 52,295 in these same selected states and year, and the comparable number of pneumonia and influenza deaths in the entire United States for this same time period was 229,136.

NOTE: See selected limitations for general cautions regarding inferences based on small numbers of deaths, and see appendices for source description, methods, ICD codes, industry and occupation codes, industrial sector groupings, and list of selected states and years.

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



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