Section 9

Asthma

Table 9-1. Asthma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by usual industry, U.S. residents age 15 and over, selected states and years, 1990–1999

CIC	Industry	Number of Deaths	PMR	95% Confidence Interval	
				LCL	UCL
011	Agricultural production, livestock	274	1.5	1.3	1.7
862	Child day care services	68	1.4	1.1	1.8
642	Drug stores	85	1.3	1.1	1.7
840	Health services, n.e.c.	228	1.3	1.1	1.5
850	Colleges and universities	274	1.3	1.1	1.4
771	Laundry, cleaning, and garment services	178	1.2	1.0	1.4
831	Hospitals	1,110	1.1	1.1	1.2
901	General government, n.e.c.	502	1.1	1.0	1.2
010	Agricultural production, crops	687	1.1	1.0	1.2
961	Non-paid worker or non-worker or own home/at home	9,142	1.1	1.0	1.1

CIC - Census Industry Code n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit
NOTE: The comparable total number of asthma deaths in the selected states for this same time period was 29,703, and the comparable number of asthma deaths in the entire United States for this same time period was 115,729. 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, and list of selected states and years.
SOURCE: National Center for Health Statistics multiple cause-of-death data.

Table 9-2. Asthma: Proportionate mortality ratio (PMR) adjusted for age, sex, and race by usual occupation, U.S. residents age 15 and over, selected states and years, 1990–1999

COC	Occupation	Number of Deaths	PMR	95% Confidence Interval	
				LCL	UCL
098	Respiratory therapists	13	3.1	1.6	5.3
169	Social scientists, n.e.c.	8	2.9	1.2	5.6
758	Compressing and compacting machine operators	9	2.7	1.3	5.2
028	Purchasing agents and buyers, farm products	10	2.2	1.0	4.0
089	Health diagnosing practitioners, n.e.c.	11	2.2	1.1	3.9
197	Public relations specialists	17	2.1	1.2	3.3
317	Hotel clerks	13	2.0	1.1	3.4
085	Dentists	26	1.9	1.2	2.8
154	Postsecondary teachers, subject not specified	62	1.6	1.2	2.1
186	Musicians and composers	48	1.4	1.1	1.9
203	Clinical laboratory technologists and technicians	47	1.4	1.0	1.9
446	Health aides, except nursing	52	1.4	1.0	1.8
686	Butchers and meat cutters	66	1.4	1.1	1.7
915	Student	315	1.3	1.2	1.4
055	Electrical and electronic engineers	70	1.3	1.0	1.6
157	Teachers, secondary school	87	1.3	1.0	1.6
473	Farmers, except horticulture	796	1.2	1.1	1.3
917	Unemployed, never worked, disabled	603	1.2	1.1	1.3
207	Licensed practical nurses	153	1.2	1.0	1.4
095	Registered nurses	457	1.2	1.1	1.3
447	Nursing aides, orderlies, and attendants	465	1.2	1.1	1.3
914	Housewife/Homemaker	8,233	1.0	1.0	1.1

COC - Census Occupation Code n.e.c. - not elsewhere classified LCL - lower confidence limit UCL - upper confidence limit
NOTE: The comparable total number of asthma deaths in the selected states for this same time period was 29,703, and the comparable number of asthma deaths in the entire United States for this same time period was 115,729. 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, and list of selected states and years.
SOURCE: National Center for Health Statistics multiple cause-of-death data.

Table 9-3. Work-related asthma: Number of cases by classification and state, 1993–2002

Classification	California		Massachusetts		Michigan		New Jersey		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Work-aggravated asthma*	**553**	**29.6**	**51**	**10.2**	**199**	**13.2**	**31**	**12.0**	**834**	**20.2**
New-onset asthma†	**888**	**47.5**	**437**	**87.6**	**1,307**	**86.8**	**193**	**74.5**	**2,825**	**68.4**
Reactive airways dysfunction syndrome	***93***	***5.0***	***52***	***10.4***	***153***	***10.2***	***51***	***19.7***	***349***	***8.5***
Occupational asthma	***795***	***42.6***	***385***	***77.2***	***1,154***	***76.7***	***137***	***54.9***	***2,476***	***60.0***
Known asthma inducer‡ with objective evidence	-	-	-	-	22	1.5	2	0.8	24	0.6
Known asthma inducer with no objective evidence	151	8.1	136	27.3	516	34.3	59	22.8	862	20.9
Unknown asthma inducer	644	34.5	249	49.9	616	40.9	81	31.3	1,590	38.5
Unclassified	**427**	**22.9**	**11**	**2.2**	**-**	**-**	**35**	**13.5**	**473**	**11.5**
TOTAL	**1,868**	**100.0**	**499**	**100.0**	**1,506**	**100.0**	**259**	**100.0**	**4,132**	**100.0**

- indicates no cases reported.
* Pre-existing asthma aggravated by exposure or condition at work.
† Includes cases of reactive airways dysfunction syndrome and occupational asthma.
‡ Known asthma inducers, defined by medical literature review, are designated in the Association of Occupational and Environmental Clinics exposure coding scheme (www.aoec.org/tools.htm).
NOTE: Percentages may not sum to 100% due to rounding. See appendices for source description. For case identification and classification criteria, see *Appendix G.*
SOURCE: Provisional Sentinel Event Notification Systems for Occupational Risks surveillance data as of September 2006, reported by R Harrison and J Flattery (California); L Davis, E Pechter, and M Sharma (Massachusetts); K Rosenman, MJ Reilly, and D Kalinowski (Michigan); and D Valiante, D Schill, and K McGreevy (New Jersey).

Table 9-4. Work-related asthma: Number of cases by ascertainment source and state, 1993–2002

	California		Massachusetts		Michigan		New Jersey		Total	
Source	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Healthcare professional report*	1,868	100.0	463	92.8	1,087	72.2	186	71.8	3,604	87.2
Hospital data	-	-	29	5.8	382	25.4	69	26.6	480	11.6
Workers' compensation	-	-	7	1.4	5	0.3	2	0.8	14	0.3
Co-worker	-	-	-	-	14	0.9	-	-	14	0.3
Poison control	-	-	-	-	8	0.5	-	-	8	0.2
Other†	-	-	-	-	10	0.7	2	0.8	12	0.3
TOTAL	**1,868**	**100.0**	**499**	**100.0**	**1,506**	**100.0**	**259**	**100.0**	**4,132**	**100.0**

- indicates no cases reported.
* Massachusetts, Michigan, and New Jersey actively solicit reports from health care professionals; California uses an existing administrative data source to passively identify health care professional reports of work-related asthma.
† Some cases have been identified through death certificates, self reports, or reports from the Mine Safety and Health Administration or Occupational Safety and Health Administration.
NOTE: Percentages may not sum to 100% due to rounding. Hospital data may include hospital discharge data and emergency department visit data. See appendices for source description.
SOURCE: Provisional Sentinel Event Notification Systems for Occupational Risks surveillance data as of September 2006, reported by R Harrison and J Flattery (California); L Davis, E Pechter, and M Sharma (Massachusetts); K Rosenman, MJ Reilly, and D Kalinowski (Michigan); and D Valiante, D Schill, and K McGreevy (New Jersey).

Table 9-5 (page 1 of 3). Work-related asthma: Most frequently reported agents associated with work-related asthma cases by state, 1993–2002

		California		Massachusetts		Michigan		New Jersey		Total	
Code*	Agent	No.	%	No.	%	No.	%	No.	%	No.	%
320.06	Chemicals, n.o.s.	204	10.9	35	7.0	136	9.0	29	11.2	404	9.8
010.00	Dust, n.o.s.	293	15.7	50	10.0	30	2.0	13	5.0	386	9.3
320.01	Air pollutants, indoor	137	7.3	103	20.6	103	6.8	25	9.7	368	8.9
322.00	Cleaning materials, n.o.s.	118	6.3	41	8.2	103	6.8	7	2.7	269	6.5
330.03	Smoke, n.o.s.	117	6.3	25	5.0	81	5.4	10	3.9	233	5.6
390.01	Mold, n.o.s.	144	7.7	53	10.6	11	0.7	10	3.9	218	5.3
170.01	Cutting oils	4	0.2	8	1.6	182	12.1	2	0.8	196	4.7
171.01	Paint	103	5.5	21	4.2	59	3.9	6	2.3	189	4.6
221.00	Diisocyanates, n.o.s.	22	1.2	18	3.6	90	6.0	3	1.2	133	3.2
270.02	Latex, natural rubber	33	1.8	42	8.4	47	3.1	9	3.5	131	3.2
171.00	Solvents, n.o.s.	37	2.0	19	3.8	44	2.9	10	3.9	110	2.7
023.01	Welding fume, stainless steel	5	0.3	-	-	97	6.4	1	0.4	103	2.5
320.11	Glues, n.o.s.	48	2.6	14	2.8	23	1.5	6	2.3	91	2.2
120.03	Formaldehyde	26	1.4	23	4.6	35	2.3	6	2.3	90	2.2
320.33	Air pollutants, indoor-building renovation	75	4.0	5	1.0	-	-	-	-	80	1.9
320.16	Pesticides, n.o.s.	64	3.4	7	1.4	5	0.3	2	0.8	78	1.9
322.10	Bleach	26	1.4	12	2.4	35	2.3	5	1.9	78	1.9
331.01	Diesel exhaust	41	2.2	9	1.8	16	1.1	9	3.5	75	1.8
221.01	Toluene diisocyanate	6	0.3	6	1.2	58	3.9	2	0.8	72	1.7
330.01	Cigarette smoke	45	2.4	9	1.8	16	1.1	1	0.4	71	1.7
010.09	Man-made mineral fibers	39	2.1	14	2.8	11	0.7	1	0.4	65	1.6
320.23	Perfume, n.o.s.	54	2.9	7	1.4	4	0.3	-	-	65	1.6
221.02	Methylene diisocyanate	4	0.2	-	-	55	3.7	3	1.2	62	1.5
030.02	Chlorine	29	1.6	2	0.4	23	1.5	7	2.7	61	1.5
120.05	Glutaraldehyde	17	0.9	17	3.4	10	0.7	7	2.7	51	1.2
010.02	Asbestos	35	1.9	10	2.0	5	0.3	-	-	50	1.2
373.00	Wood dust, n.o.s.	26	1.4	4	0.8	17	1.1	3	1.2	50	1.2
322.21	Cleaners, floor stripping	16	0.9	12	2.4	15	1.0	2	0.8	45	1.1
023.00	Welding, n.o.s.	21	1.1	13	2.6	3	0.2	7	2.7	44	1.1
330.02	Plastic smoke	13	0.7	1	0.2	24	1.6	4	1.5	42	1.0
360.04	Stress	40	2.1	1	0.2	1	0.1	-	-	42	1.0
050.00	Acids, bases, oxidizers, n.o.s.	4	0.2	6	1.2	27	1.8	3	1.2	40	1.0
110.02	Epoxy resins	5	0.3	7	1.4	26	1.7	1	0.4	39	0.9
322.19	Cleaners, disinfectant, n.o.s.	24	1.3	9	1.8	4	0.3	-	-	37	0.9
010.03	Cement dust	22	1.2	8	1.6	6	0.4	-	-	36	0.9
060.11	4-Phenylcyclohexene	31	1.7	5	1.0	-	-	-	-	36	0.9
370.00	Plant material, n.o.s.	29	1.6	2	0.4	4	0.3	-	-	35	0.8
161.00	Polycyclic aromatic hydrocarbons, n.o.s.	31	1.7	-	-	3	0.2	-	-	34	0.8

See footnotes at end of table.

Table 9-5 (page 2 of 3). Work-related asthma: Most frequently reported agents associated with work-related asthma cases by state, 1993–2002

		California		Massachusetts		Michigan		New Jersey		Total	
Code*	Agent	No.	%	No.	%	No.	%	No.	%	No.	%
322.16	Cleaners, carpet	23	1.2	1	0.2	9	0.6	1	0.4	34	0.8
142.00	Acrylates, n.o.s.	-	-	2	0.4	26	1.7	-	-	28	0.7
331.00	Exhaust, n.o.s.	20	1.1	5	1.0	-	-	2	0.8	27	0.7
370.01	Paper dust	13	0.7	2	0.4	3	0.2	7	2.7	25	0.6
322.07	Ammonia solution, n.o.s.	17	0.9	5	1.0	1	0.1	1	0.4	24	0.6
021.00	Metal dust, n.o.s.	17	0.9	3	0.6	2	0.1	1	0.4	23	0.6
350.03	Heat	17	0.9	2	0.4	4	0.3	-	-	23	0.6
380.00	Animal material, n.o.s.	10	0.5	4	0.8	8	0.5	1	0.4	23	0.6
371.00	Flour, n.o.s.	6	0.3	4	0.8	9	0.6	3	1.2	22	0.5
370.10	Pollen	20	1.1	-	-	-	-	1	0.4	21	0.5
050.10	Hydrochloric acid	7	0.4	2	0.4	5	0.3	6	2.3	20	0.5
050.18	Sodium hydroxide	6	0.3	4	0.8	7	0.5	3	1.2	20	0.5
052.01	Ammonia gas	1	0.1	2	0.4	15	1.0	2	0.8	20	0.5
050.24	Sulfuric acid	12	0.6	1	0.2	4	0.3	2	0.8	19	0.5
331.02	Engine exhaust	3	0.2	2	0.4	8	0.5	6	2.3	19	0.5
010.13	Silica, crystalline	12	0.6	2	0.4	3	0.2	1	0.4	18	0.4
040.20	Sulfur oxides	10	0.5	2	0.4	3	0.2	3	1.2	18	0.4
160.02	Toluene	4	0.2	5	1.0	3	0.2	6	2.3	18	0.4
320.17	Photo developing chemicals, n.o.s.	7	0.4	8	1.6	2	0.1	1	0.4	18	0.4
320.29	Printing chemicals, n.o.s.	3	0.2	6	1.2	9	0.6	-	-	18	0.4
020.15	Cobalt	-	-	1	0.2	15	1.0	1	0.4	17	0.4
160.03	Xylene	7	0.4	2	0.4	6	0.4	2	0.8	17	0.4
370.35	Capsicum	15	0.8	-	-	1	0.1	1	0.4	17	0.4
010.04	Carbon black	12	0.6	2	0.4	1	0.1	1	0.4	16	0.4
061.04	Gasoline	10	0.5	1	0.2	2	0.1	3	1.2	16	0.4
170.00	Hydrocarbons, n.o.s.	14	0.7	2	0.4	-	-	-	-	16	0.4
380.04	Dander, animal	14	0.7	1	0.2	1	0.1	-	-	16	0.4
040.04	Carbon monoxide	8	0.4	5	1.0	-	-	2	0.8	15	0.4
070.05	Ethanol	9	0.5	-	-	4	0.3	2	0.8	15	0.4
320.15	Odors	13	0.7	1	0.2	1	0.1	-	-	15	0.4
061.00	Petroleum fractions, n.o.s.	5	0.3	-	-	7	0.5	2	0.8	14	0.3
231.00	Ethanolamines, n.o.s.	9	0.5	-	-	5	0.3	-	-	14	0.3
373.02	California redwood	14	0.7	-	-	-	-	-	-	14	0.3
130.01	Acetone	8	0.4	2	0.4	3	0.2	-	-	13	0.3
171.02	Thinner	10	0.5	2	0.4	-	-	1	0.4	13	0.3
171.07	Lacquer	11	0.6	2	0.4	-	-	-	-	13	0.3
180.03	Hydroquinone	6	0.3	4	0.8	3	0.2	-	-	13	0.3
270.07	Polyurethane	7	0.4	6	1.2	-	-	-	-	13	0.3

See footnotes at end of table.

Table 9-5 (page 3 of 3). Work-related asthma: Most frequently reported agents associated with work-related asthma cases by state, 1993–2002

		California		Massachusetts		Michigan		New Jersey		Total	
Code*	Agent	No.	%	No.	%	No.	%	No.	%	No.	%
370.03	Grain dust	7	0.4	1	0.2	5	0.3	-	-	13	0.3
370.07	Grass cuttings	11	0.6	1	0.2	-	-	1	0.4	13	0.3
171.06	Paint, oil-based	10	0.5	2	0.4	-	-	-	-	12	0.3
221.04	Hexamethylene diisocyanate	-	-	1	0.2	11	0.7	-	-	12	0.3
322.22	Cleaners, graffiti removing	11	0.6	1	0.2	-	-	-	-	12	0.3
350.02	Cold	9	0.5	1	0.2	-	-	2	0.8	12	0.3
320.12	Hair products	3	0.2	4	0.8	4	0.3	-	-	11	0.3
320.14	Lubricants, n.o.s.	2	0.1	1	0.2	6	0.4	2	0.8	11	0.3
380.01	Antigens, animal	11	0.6	-	-	-	-	-	-	11	0.3
382.13	Mites, n.o.s.	9	0.5	1	0.2	-	-	1	0.4	11	0.3
024.00	Soluble halogenated platinum compounds	-	-	-	-	-	-	10	3.9	10	0.2
060.08	Natural gas	7	0.4	2	0.4	1	0.1	-	-	10	0.2
320.10	Fire extinguisher discharge	10	0.5	-	-	-	-	-	-	10	0.2
320.13	Herbicides, n.o.s.	9	0.5	-	-	-	-	1	0.4	10	0.2
320.28	Cosmetics, n.o.s.	6	0.3	2	0.4	-	-	2	0.8	10	0.2
	All others	451	24.1	187	37.5	163	10.8	102	39.4	903	21.9

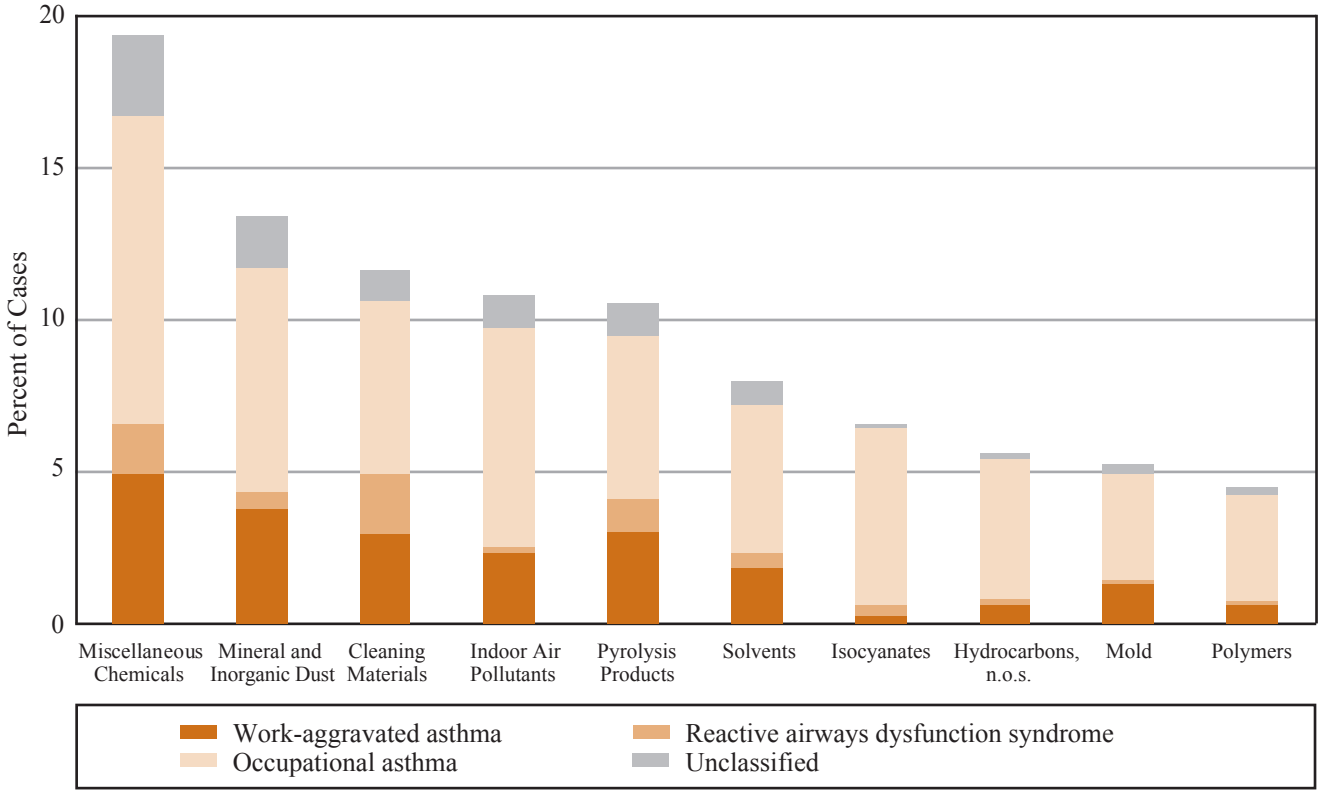
- indicates no cases reported. n.o.s. - not otherwise specified

* Association of Occupational and Environmental Clinics (AOEC) exposure codes, 05/2005 (www.aoec.org)

NOTE: Number column sums exceed the corresponding number of cases because each case was associated with up to three putative agents. Percentages are based on the number of cases reported from California (n=1,868), Massachusetts (n=499), Michigan (n=1,506), and New Jersey (n=259). See appendices for source description and methods.

SOURCE: Provisional Sentinel Event Notification Systems for Occupational Risks surveillance data as of September 2006, reported by R Harrison and J Flattery (California); L Davis, E Pechter, and M Sharma (Massachusetts); K Rosenman, MJ Reilly, and D Kalinowski (Michigan); and D Valiante, D Schill, and K McGreevy (New Jersey).

Figure 9-1. Work-related asthma: Most frequently reported agent categories associated with cases of work-related asthma, 1993–2002



n.o.s. - not otherwise specified

NOTE: Each case was associated with up to three putative agents. Percentages are based on the number of cases (n=4,132). The category 'Miscellaneous Chemicals' accounts for a large range of exposures including pesticides, perfume, enzymes, and odors; 'Mineral and Inorganic Dust' includes exposures such as plaster, fiberglass, and cement; 'Indoor Air Pollutants' includes pollutants from building renovation; 'Pyrolysis Products' includes smoke and diesel exhaust; 'Solvents' includes paint and paint thinners; 'Hydrocarbons, n.o.s.' includes cutting oils; and 'Polymers' includes natural rubber latex. AOEC lists some exposures in these categories as known asthmagens. For agent categorization methods, see *Appendix B*. For case identification and classification criteria, see *Appendix G*.

SOURCE: Provisional Sentinel Event Notification Systems for Occupational Risks surveillance data as of September 2006, reported by R Harrison and J Flattery (California); L Davis, E Pechter, and M Sharma (Massachusetts); K Rosenman, MJ Reilly, and D Kalinowski (Michigan); and D Valiante, D Schill, and K McGreevy (New Jersey).

Table 9-6 (page 1 of 2). Work-related asthma: Primary industries associated with work-related asthma cases by state, 1993–2002

Industry (SIC)	California		Massachusetts		Michigan		New Jersey		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Agriculture, forestry, and fishing	**76**	**4.1**	**5**	**1.0**	**8**	**0.5**	**2**	**0.8**	**91**	**2.2**
Agricultural production crops (01)	33	1.8	-	-	2	0.1	-	-	35	0.8
Agricultural services (07)	17	0.9	3	0.6	2	0.1	2	0.8	24	0.6
Forestry (08)	20	1.1	-	-	-	-	-	-	20	0.5
Agricultural production livestock and animal specialties (02)	4	0.2	2	0.4	4	0.3	-	-	10	0.2
All others within this division	2	0.1	-	-	-	-	-	-	2	0.0
Mining (10,13,14)	**2**	**0.1**	**-**	**-**	**3**	**0.2**	**-**	**-**	**5**	**0.1**
Construction	**62**	**3.3**	**21**	**4.2**	**36**	**2.4**	**16**	**6.2**	**135**	**3.3**
Construction, special trade contractors (17)	34	1.8	14	2.8	31	2.1	14	5.4	93	2.3
Building construction, general contractors and operative builders (15)	18	1.0	2	0.4	1	0.1	1	0.4	22	0.5
Heavy construction other than building construction, contractors (16)	10	0.5	5	1.0	4	0.3	1	0.4	20	0.5
Manufacturing	**274**	**14.7**	**126**	**25.3**	**1,004**	**66.7**	**93**	**35.9**	**1,497**	**36.2**
Transportation equipment (37)	47	2.5	4	0.8	631	41.9	4	1.5	686	16.6
Chemicals and allied products (28)	20	1.1	22	4.4	47	3.1	22	8.5	111	2.7
Fabricated metal products except machinery and transportation equipment (34)	21	1.1	12	2.4	62	4.1	2	0.8	97	2.3
Industrial and commercial machinery and computer equipment (35)	22	1.2	13	2.6	53	3.5	3	1.2	91	2.2
Food and kindred products (20)	41	2.2	9	1.8	23	1.5	15	5.8	88	2.1
Rubber and miscellaneous plastics products (30)	3	0.2	7	1.4	53	3.5	8	3.1	71	1.7
Electronic and other electrical equipment and components, except computers (36)	29	1.6	14	2.8	11	0.7	8	3.1	62	1.5
Primary metal industries (33)	8	0.4	-	-	44	2.9	8	3.1	60	1.5
Lumber and wood products, except furniture (24)	32	1.7	1	0.2	14	0.9	-	-	47	1.1
Miscellaneous manufacturing industries (39)	9	0.5	12	2.4	18	1.2	2	0.8	41	1.0
Measuring, analyzing, and controlling instruments (38)	15	0.8	10	2.0	6	0.4	2	0.8	33	0.8
Stone, clay, glass, and concrete products (32)	14	0.7	2	0.4	9	0.6	2	0.8	27	0.7
Paper and allied products (26)	3	0.2	6	1.2	10	0.7	7	2.7	26	0.6
Printing, publishing, and allied industries (27)	3	0.2	5	1.0	14	0.9	3	1.2	25	0.6
All others within this division	7	0.4	9	1.8	9	0.6	7	2.7	32	0.8
Transportation	**154**	**8.2**	**12**	**2.4**	**29**	**1.9**	**11**	**4.2**	**206**	**5.0**
Local and suburban transit and interurban highway passenger transportation (41)	39	2.1	2	0.4	2	0.1	4	1.5	47	1.1
Communications (48)	39	2.1	1	0.2	3	0.2	-	-	43	1.0
Electric, gas, and sanitary services (49)	26	1.4	4	0.8	7	0.5	2	0.8	39	0.9
Motor freight transportation and warehousing (42)	24	1.3	-	-	7	0.5	2	0.8	33	0.8
Transportation by air (45)	14	0.7	2	0.4	3	0.2	1	0.4	20	0.5
United States Postal service (43)	11	0.6	-	-	2	0.1	-	-	13	0.3
All others within this division	1	0.1	3	0.6	5	0.3	2	0.8	11	0.3
Wholesale trade	**38**	**2.0**	**9**	**1.8**	**21**	**1.4**	**5**	**1.9**	**73**	**1.8**
Wholesale trade, durable goods (50)	18	1.0	5	1.0	12	0.8	2	0.8	37	0.9
Wholesale trade, nondurable goods (51)	20	1.1	4	0.8	9	0.6	3	1.2	36	0.9

See footnotes at end of table.

Table 9-6 (page 2 of 2). Work-related asthma: Primary industries associated with work-related asthma cases by state, 1993–2002

Industry (SIC)	California		Massachusetts		Michigan		New Jersey		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Retail trade	**94**	**5.0**	**20**	**4.0**	**43**	**2.9**	**6**	**2.3**	**163**	**3.9**
Eating and drinking places (58)	19	1.0	5	1.0	13	0.9	-	-	37	0.9
Food stores (54)	22	1.2	4	0.8	7	0.5	2	0.8	35	0.8
Miscellaneous retail (59)	16	0.9	3	0.6	5	0.3	1	0.4	25	0.6
Automotive dealers and gasoline service stations (55)	11	0.6	2	0.4	8	0.5	2	0.8	23	0.6
General merchandise stores (53)	13	0.7	2	0.4	6	0.4	1	0.4	22	0.5
All others within this division	13	0.7	4	0.8	4	0.3	-	-	21	0.5
Finance, insurance, and real estate	**56**	**3.0**	**4**	**0.8**	**12**	**0.8**	**2**	**0.8**	**74**	**1.8**
Insurance carriers (63)	15	0.8	2	0.4	3	0.2	1	0.4	21	0.5
Real estate (65)	16	0.9	-	-	5	0.3	-	-	21	0.5
Depository institutions (60)	17	0.9	1	0.2	1	0.1	-	-	19	0.5
All others within this division	8	0.4	1	0.2	3	0.3	-	-	13	0.3
Services	**828**	**44.3**	**253**	**50.7**	**303**	**20.1**	**73**	**28.2**	**1,457**	**35.3**
Health services (80)	307	16.4	145	29.1	165	11.0	34	13.1	651	15.8
Educational services (82)	242	13	64	12.8	60	4.0	17	6.6	383	9.3
Social services (83)	92	4.9	5	1.0	8	0.5	5	1.9	110	2.7
Business services (73)	61	3.3	6	1.2	14	0.9	2	0.8	83	2.0
Amusement and recreation services (79)	36	1.9	4	0.8	6	0.4	-	-	46	1.1
Engineering, accounting, research, management, and related services (87)	26	1.4	6	1.2	7	0.5	5	1.9	44	1.1
Hotels, rooming houses, camps and other lodging places (70)	15	0.8	3	0.6	14	0.9	2	0.8	34	0.8
Automotive repair, services and parking (75)	15	0.8	7	1.4	9	0.6	3	1.2	34	0.8
Personal services (72)	11	0.6	8	1.6	10	0.7	3	1.2	32	0.8
Membership organizations (86)	9	0.5	3	0.6	4	0.3	-	-	16	0.4
Miscellaneous repair services (76)	6	0.3	1	0.2	2	0.1	1	0.4	10	0.2
All others within this division	8	0.4	1	0.2	4	0.3	1	0.4	14	0.3
Public administration	**266**	**14.2**	**49**	**9.8**	**41**	**2.7**	**19**	**7.3**	**375**	**9.1**
Justice, public order, and safety (92)	133	7.1	20	4.0	19	1.3	5	1.9	177	4.3
Executive, legislative, general government, except finance (91)	50	2.7	7	1.4	1	0.1	6	2.3	64	1.5
Administration of economic programs (96)	22	1.2	13	2.6	6	0.4	1	0.4	42	1.0
Administration of human resource programs (94)	28	1.5	4	0.8	6	0.4	3	1.2	41	1.0
Administration of environmental quality and housing programs (95)	11	0.6	1	0.2	6	0.4	-	-	18	0.4
Public finance, taxation, and monetary policy (93)	14	0.7	1	0.2	1	0.1	1	0.4	17	0.4
National security and international affairs (97)	8	0.4	3	0.6	2	0.1	3	1.2	16	0.4
Unclassifiable	**18**	**1.0**	**-**	**-**	**6**	**0.4**	**32**	**12.4**	**56**	**1.4**
TOTAL	**1,868**	**100.0**	**499**	**100.0**	**1,506**	**100.0**	**259**	**100.0**	**4,132**	**100.0**

- indicates no cases reported. SIC - Standard Industrial Classification

NOTE: Percentages are based on total number of cases by state, but may not sum to 100% due to rounding. See appendices for source description and methods.

SOURCE: Provisional Sentinel Event Notification Systems for Occupational Risks surveillance data as of September 2006, reported by R Harrison and J Flattery (California); L Davis, E Pechter, and M Sharma (Massachusetts); K Rosenman, MJ Reilly, and D Kalinowski (Michigan); and D Valiante, D Schill, and K McGreevy (New Jersey).

Table 9-7 (page 1 of 3). Work-related asthma: Primary occupations associated with work-related asthma cases by state, 1993–2002

	California		Massachusetts		Michigan		New Jersey		Total	
Occupation (COC)	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Managerial and professional specialty	**417**	**22.3**	**164**	**32.9**	**157**	**10.4**	**46**	**17.8**	**784**	**19.0**
Registered nurses (095)	93	5.0	74	14.8	44	2.9	11	4.2	222	5.4
Teachers, elementary school (156)	43	2.3	12	2.4	3	0.2	3	1.2	61	1.5
Managers and administrators, n.e.c. (022)	37	2.0	6	1.2	7	0.5	-	-	50	1.2
Teachers, secondary school (157)	16	0.9	14	2.8	6	0.4	3	1.2	39	0.9
Teachers, n.e.c. (159)	14	0.7	6	1.2	15	1.0	3	1.2	38	0.9
Social workers (174)	20	1.1	5	1.0	7	0.5	2	0.8	34	0.8
Management related occupations, n.e.c. (037)	21	1.1	7	1.4	3	0.2	1	0.4	32	0.8
Teachers, special education (158)	11	0.6	3	0.6	2	0.1	1	0.4	17	0.4
Computer systems analysts, scientists (064)	14	0.7	-	-	-	-	1	0.4	15	0.4
Respiratory therapists (098)	9	0.5	1	0.2	3	0.2	-	-	13	0.3
Accountants and auditors (023)	8	0.4	1	0.2	3	0.2	-	-	12	0.3
Administrators, officials, public administration (005)	8	0.4	-	-	2	0.1	1	0.4	11	0.3
Chemists, except biochemists (073)	2	0.1	3	0.6	2	0.1	4	1.5	11	0.3
Personnel, training, and labor relations specialists (027)	7	0.4	-	-	3	0.2	-	-	10	0.2
Physicians (084)	2	0.1	2	0.4	6	0.4	-	-	10	0.2
All others within this grouping	112	6.0	30	6.0	51	3.4	16	6.2	209	5.1
Technical, sales, and administrative support	**552**	**29.6**	**107**	**21.4**	**137**	**9.1**	**44**	**17**	**840**	**20.3**
General office clerks (379)	66	3.5	16	3.2	8	0.5	3	1.2	93	2.3
Health technologists and technicians, n.e.c. (208)	40	2.1	6	1.2	11	0.7	6	2.3	63	1.5
Secretaries (313)	37	2.0	11	2.2	9	0.6	3	1.2	60	1.5
Licensed practical nurses (207)	24	1.3	8	1.6	6	0.4	2	0.8	40	1.0
Administrative support, n.e.c. (389)	27	1.4	3	0.6	7	0.5	1	0.4	38	0.9
Investigators and adjusters, except insurance (376)	21	1.1	3	0.6	1	0.1	3	1.2	28	0.7
Cashiers (276)	18	1.0	4	0.8	1	0.1	-	-	23	0.6
Bookkeepers, accounting, and auditing clerks (337)	21	1.1	1	0.2	-	-	1	0.4	23	0.6
Receptionists (319)	19	1.0	-	-	2	0.1	1	0.4	22	0.5
Typists (315)	15	0.8	4	0.8	1	0.1	1	0.4	21	0.5
Clinical laboratory technologists and technicians (203)	8	0.4	8	1.6	2	0.1	2	0.8	20	0.5
Radiologic technicians (206)	10	0.5	4	0.8	3	0.2	1	0.4	18	0.4
Order clerks (327)	14	0.7	2	0.4	2	0.1	-	-	18	0.4
Traffic, shipping, receiving and clerks (364)	6	0.3	1	0.2	11	0.7	-	-	18	0.4
Teachers' aides (387)	12	0.6	2	0.4	2	0.1	1	0.4	17	0.4
Supervisors and proprietors, sales occupations (243)	13	0.7	1	0.2	2	0.1	-	-	16	0.4
Supervisors, general office (303)	10	0.5	3	0.6	3	0.2	-	-	16	0.4
Stock and inventory clerks (365)	9	0.5	1	0.2	5	0.3	1	0.4	16	0.4
Technicians, n.e.c. (235)	11	0.6	-	-	1	0.1	2	0.8	14	0.3
Chemical technicians (224)	5	0.3	2	0.4	4	0.3	2	0.8	13	0.3
Records clerks (336)	5	0.3	2	0.4	5	0.3	-	-	12	0.3
Electrical/electronic technician (213)	9	0.5	1	0.2	1	0.1	-	-	11	0.3
Science technicians, n.e.c. (225)	1	0.1	-	-	6	0.4	4	1.5	11	0.3
Telephone operators (348)	10	0.5	-	-	1	0.1	-	-	11	0.3
Dental hygienists (204)	1	0.1	3	0.6	5	0.3	1	0.4	10	0.2
Sales workers, other commodities (274)	8	0.4	-	-	2	0.1	-	-	10	0.2
Eligibility clerks, social welfare workers (377)	10	0.5	-	-	-	-	-	-	10	0.2
All others within this grouping	122	6.5	21	4.2	36	2.4	9	3.5	188	4.5

See footnotes at end of table.

Table 9-7 (page 2 of 3). Work-related asthma: Primary occupations associated with work-related asthma cases by state, 1993–2002

	California		Massachusetts		Michigan		New Jersey		Total	
Occupation (COC)	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Service	**292**	**15.6**	**62**	**12.4**	**147**	**9.8**	**26**	**10**	**527**	**12.8**
Janitors and cleaners (453)	65	3.5	6	1.2	48	3.2	7	2.7	126	3.0
Firefighting occupations (417)	35	1.9	8	1.6	3	0.2	2	0.8	48	1.2
Nursing aides, orderlies, and attendants (447)	20	1.1	12	2.4	5	0.3	3	1.2	40	1.0
Health aides, except nursing (446)	9	0.5	1	0.2	23	1.5	3	1.2	36	0.9
Supervisors, cleaning and building service workers (448)	8	0.4	1	0.2	18	1.2	-	-	27	0.7
Correctional institution officers (424)	21	1.1	1	0.2	3	0.2	1	0.4	26	0.6
Maids and housemen (449)	11	0.6	5	1.0	7	0.5	3	1.2	26	0.6
Miscellaneous food preparation occupations (444)	16	0.9	2	0.4	7	0.5	-	-	25	0.6
Cooks (436)	11	0.6	2	0.4	7	0.5	2	0.8	22	0.5
Police and detectives, public service (418)	15	0.8	-	-	1	0.1	1	0.4	17	0.4
Hairdressers and cosmetologists (458)	6	0.3	7	1.4	3	0.2	-	-	16	0.4
Guards and police, except public service (426)	8	0.4	5	1.0	1	0.1	-	-	14	0.3
Dental assistants (445)	2	0.1	2	0.4	7	0.5	-	-	11	0.3
All others within this grouping	65	3.5	10	2.0	14	0.9	4	1.5	93	2.3
Farming, forestry, and fishing	**59**	**3.2**	**6**	**1.2**	**9**	**0.6**	**2**	**0.8**	**76**	**1.8**
Farm workers (479)	25	1.3	-	-	1	0.1	-	-	26	0.6
Groundskeepers and gardeners, except farm (486)	17	0.9	1	0.2	-	-	1	0.4	19	0.5
All others within this grouping	17	0.9	5	1.0	8	0.5	1	0.4	31	0.8
Precision production, craft and repair	**152**	**8.1**	**65**	**13**	**224**	**14.9**	**39**	**15.1**	**480**	**11.6**
Supervisors, production (628)	13	0.7	6	1.2	34	2.3	4	1.5	57	1.4
Millwrights (544)	1	0.1	1	0.2	39	2.6	-	-	41	1.0
Optical goods workers (677)	2	0.1	-	-	27	1.8	-	-	29	0.7
Electricians (575)	9	0.5	-	-	12	0.8	5	1.9	26	0.6
Plumbers, pipe fitters, and steamfitters (585)	5	0.3	2	0.4	13	0.9	2	0.8	22	0.5
Machinists (637)	4	0.2	4	0.8	10	0.7	2	0.8	20	0.5
Specified mechanics and repairers, n.e.c. (547)	4	0.2	-	-	13	0.9	2	0.8	19	0.5
Carpenters (567)	9	0.5	7	1.4	-	-	2	0.8	18	0.4
Painters, construction, maintenance (579)	11	0.6	-	-	4	0.3	1	0.4	16	0.4
Electrical and electronic equipment assemblers (683)	10	0.5	4	0.8	-	-	1	0.4	15	0.4
Industrial machinery repairers (518)	3	0.2	3	0.6	4	0.3	3	1.2	13	0.3
Construction trades, n.e.c. (599)	3	0.2	3	0.6	7	0.5	-	-	13	0.3
Bakers (687)	4	0.2	4	0.8	2	0.1	1	0.4	11	0.3
Bus, truck, stationary engine mechanics (507)	6	0.3	-	-	3	0.2	1	0.4	10	0.2
Not specified mechanics and repairers (549)	6	0.3	3	0.6	-	-	1	0.4	10	0.2
All others within this grouping	62	3.3	28	5.6	56	3.7	14	5.4	160	3.9

See footnotes at end of table.

Table 9-7 (page 3 of 3). Work-related asthma: Primary occupations associated with work-related asthma cases by state, 1993–2002

	California		Massachusetts		Michigan		New Jersey		Total	
Occupation (COC)	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Operators, fabricators, and laborers	**287**	**15.4**	**94**	**18.8**	**752**	**49.9**	**69**	**26.6**	**1,202**	**29.1**
Assemblers (785)	16	0.9	6	1.2	182	12.1	1	0.4	205	5.0
Welders and cutters (783)	16	0.9	8	1.6	66	4.4	5	1.9	95	2.3
Laborers, except construction (889)	23	1.2	5	1.0	57	3.8	2	0.8	87	2.1
Miscellaneous machine operators, n.e.c. (777)	20	1.1	5	1.0	34	2.3	7	2.7	66	1.6
Miscellaneous metal, plastic, stone and glass working machine operators (715)	1	0.1	-	-	57	3.8	-	-	58	1.4
Production inspectors, checkers and examiners (796)	5	0.3	3	0.6	37	2.5	1	0.4	46	1.1
Painting and paint spray machine operators (759)	9	0.5	12	2.4	17	1.1	2	0.8	40	1.0
Bus drivers (808)	27	1.4	-	-	4	0.3	-	-	31	0.8
Hand painting, coating, and decorating occupations (789)	1	0.1	1	0.2	27	1.8	1	0.4	30	0.7
Truck drivers (804)	18	1.0	-	-	7	0.5	5	1.9	30	0.7
Machine feeders and offbearers (878)	1	0.1	-	-	28	1.9	-	-	29	0.7
Mixing and blending machine operators (756)	6	0.3	7	1.4	14	0.9	1	0.4	28	0.7
Freight, stock, and material handlers, n.e.c. (883)	14	0.7	3	0.6	10	0.7	-	-	27	0.7
Molding and casting machine operators (719)	3	0.2	1	0.2	22	1.5	-	-	26	0.6
Separating, filtering & clarifying machine operators (757)	7	0.4	3	0.6	5	0.3	10	3.9	25	0.6
Machine operators, not specified (779)	11	0.6	8	1.6	-	-	5	1.9	24	0.6
Pressing machine operators (747)	-	-	-	-	22	1.5	-	-	22	0.5
Construction laborers (869)	19	1.0	1	0.2	1	0.1	1	0.4	22	0.5
Packaging and filling machine operators (754)	7	0.4	2	0.4	4	0.3	8	3.1	21	0.5
Industrial truck and tractor equipment operators (856)	5	0.3	-	-	10	0.7	4	1.5	19	0.5
Grinding, abrading, buffing & polishing machine (709)	-	-	3	0.6	12	0.8	1	0.4	16	0.4
Textile sewing machine operators (744)	2	0.1	2	0.4	11	0.7	-	-	15	0.4
Hand packers and packagers (888)	3	0.2	2	0.4	9	0.6	1	0.4	15	0.4
Laundering and dry cleaning machine operators (748)	5	0.3	2	0.4	3	0.2	2	0.8	12	0.3
Metal plating machine operators (723)	1	0.1	2	0.4	7	0.5	1	0.4	11	0.3
Printing press operators (734)	3	0.2	2	0.4	4	0.3	1	0.4	10	0.2
Miscellaneous hand working occupations (795)	2	0.1	-	-	8	0.5	-	-	10	0.2
Operating engineers (844)	8	0.4	1	0.2	-	-	1	0.4	10	0.2
All others within this grouping	54	2.9	15	3.0	94	6.2	9	3.5	172	4.2
Military occupations	**2**	**0.1**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**0.0**
Unclassifiable and miscellaneous unemployed	**107**	**5.7**	**1**	**0.2**	**80**	**5.3**	**33**	**12.7**	**221**	**5.3**
TOTAL	**1,868**	**100.0**	**499**	**100.0**	**1,506**	**100.0**	**259**	**100.0**	**4,132**	**100.0**

- indicates no cases reported. n.e.c. - not elsewhere classified COC - Census Occupation Code

NOTE: Percentages are based on total number of cases by state, but may not sum to 100% due to rounding. See appendices for source description and methods.

SOURCE: Provisional Sentinel Event Notification Systems for Occupational Risks surveillance data as of September 2006, reported by R Harrison and J Flattery (California); L Davis, E Pechter, and M Sharma (Massachusetts); K Rosenman, MJ Reilly, and D Kalinowski (Michigan); and D Valiante, D Schill, and K McGreevy (New Jersey).

Table 9-8. Asthma: Estimated prevalence by current industry, U.S. residents age 18 and over, 1997–2004

Industry	Estimated Population	Asthma Prevalence (%)	Asthma 95% Confidence Interval	Asthma Attack in Past 12 Months Prevalence (%)	Asthma Attack in Past 12 Months 95% Confidence Interval
Social services, religious and membership organizations	4,792,065	11.2	10.2 – 12.1	5.0	4.3 – 5.6
Health services, except hospitals	7,127,658	10.9	10.2 – 11.7	4.6	4.1 – 5.1
Eating and drinking places	5,859,543	10.9	10.0 – 11.8	4.0	3.4 – 4.5
Banking and credit agencies	2,834,368	10.7	9.5 – 11.9	3.7	2.9 – 4.4
Elementary and secondary schools and colleges	10,764,867	10.5	9.9 – 11.1	4.2	3.8 – 4.6
Other educational services	564,502	10.4	8.0 – 12.7	3.2	2.0 – 4.4
Legal, engineering and other professional services	4,918,120	10.1	9.3 – 11.0	3.4	2.9 – 3.9
Food bakery and dairy stores	2,844,674	10.1	8.9 – 11.3	3.7	2.9 – 4.5
Business services	7,129,982	10.0	9.2 – 10.7	3.7	3.3 – 4.2
Entertainment and recreation services	2,333,724	9.8	8.5 – 11.2	3.9	2.9 – 4.8
Transportation equipment	2,264,491	9.8	8.5 – 11.1	2.9	2.1 – 3.6
Communications	1,922,663	9.7	8.3 – 11.0	3.8	2.9 – 4.6
General merchandise stores	2,288,212	9.7	8.4 – 11.0	3.4	2.6 – 4.2
Other and not specified retail trade	6,383,824	9.5	8.8 – 10.3	3.2	2.8 – 3.7
Hospitals	5,257,550	9.5	8.7 – 10.4	3.8	3.3 – 4.4
Other personal services	3,209,391	9.4	8.4 – 10.5	3.2	2.6 – 3.8
Printing publishing and allied industries	1,624,590	9.3	7.9 – 10.8	3.3	2.4 – 4.2
Public administration	6,197,367	9.3	8.6 – 10.0	3.1	2.7 – 3.5
Automotive dealers and gasoline stations	2,004,364	9.3	7.9 – 10.7	2.9	2.1 – 3.8
Private households	860,021	9.1	7.1 – 11.1	3.4	2.1 – 4.7
Utilities and sanitary	1,410,693	8.9	7.3 – 10.5	2.2	1.4 – 2.9
Insurance, real estate and other finance	5,596,922	8.9	8.1 – 9.7	3.4	2.9 – 3.9
Other transportation	2,922,408	8.6	7.6 – 9.7	3.1	2.4 – 3.7
Chemicals and allied products	1,205,561	8.5	6.8 – 10.2	1.7	1.0 – 2.5
Other and not specified durable goods	2,095,107	8.4	7.2 – 9.7	2.9	2.1 – 3.6
Furniture lumber and wood	1,444,475	8.3	6.7 – 9.9	2.6	1.6 – 3.6
Wholesale trade	4,202,951	8.3	7.4 – 9.2	2.4	1.9 – 2.8
Machinery except electrical	2,034,373	7.9	6.7 – 9.2	2.1	1.4 – 2.8
Trucking service and warehousing	2,493,836	7.7	6.6 – 8.9	2.3	1.6 – 2.9
Other non durable goods	1,529,929	7.7	6.2 – 9.2	1.7	1.1 – 2.4
Fabricated metal industries, including ordnance	1,085,863	7.7	5.9 – 9.4	2.7	1.6 – 3.9
Repair services	1,930,215	7.6	6.2 – 8.9	2.4	1.6 – 3.1
Forestry and fisheries	161,902	7.4	3.0 – 11.7	0.2	0.0 – 0.7
Mining	492,923	7.3	4.7 – 10.0	1.6	0.7 – 2.5
Electrical machinery, equipment and supplies	1,619,529	7.0	5.8 – 8.3	2.1	1.4 – 2.8
Construction	9,135,539	7.0	6.4 – 7.6	1.9	1.6 – 2.2
Agriculture	2,990,283	6.9	5.9 – 8.0	2.1	1.5 – 2.6
Railroads	283,429	6.5	3.4 – 9.6	1.3	0.0 – 3.0
Textile mill and finished textile products	1,189,333	5.7	4.4 – 7.0	1.5	0.8 – 2.2
Primary metal industry	746,402	5.5	3.7 – 7.4	2.6	1.4 – 3.9
Food and kindred products	1,878,810	4.9	4.0 – 5.9	1.1	0.7 – 1.6
Armed forces (excludes Reserves and National Guard)	33,960	4.8	0.0 – 10.4	1.3	0.0 – 3.9
Refused, not ascertained, don't know	4,532,398	5.7	5.0 – 6.3	1.8	1.4 – 2.2
TOTAL	**132,198,813**	**9.1**	**8.9 – 9.3**	**3.2**	**3.1 – 3.3**

NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-9. Asthma: Estimated prevalence by current industry, U.S. male residents age 18 and over, 1997–2004

Industry	Estimated Population	Asthma Prevalence (%)	Asthma 95% Confidence Interval	Asthma Attack in Past 12 Months Prevalence (%)	Asthma Attack in Past 12 Months 95% Confidence Interval
Banking and credit agencies	912,345	10.6	8.4 – 12.8	2.3	1.1 – 3.5
Eating and drinking places	2,714,796	10.0	8.7 – 11.3	3.0	2.2 – 3.8
Legal, engineering and other professional services	2,631,885	9.4	8.2 – 10.6	2.8	2.2 – 3.4
Transportation equipment	1,713,402	9.3	7.7 – 10.8	2.4	1.6 – 3.2
Other personal services	1,162,388	9.3	7.4 – 11.1	2.4	1.5 – 3.4
Elementary and secondary schools and colleges	3,405,089	9.0	8.0 – 10.1	2.5	2.0 – 3.1
Entertainment and recreation services	1,354,252	9.0	7.3 – 10.7	2.3	1.4 – 3.3
Business services	4,082,969	9.0	8.0 – 9.9	3.0	2.4 – 3.6
Machinery except electrical	1,572,963	8.7	7.2 – 10.3	2.3	1.4 – 3.1
Social services, religious and membership organizations	1,278,262	8.7	7.0 – 10.4	2.9	2.0 – 3.8
Health services, except hospitals	1,453,541	8.7	7.1 – 10.3	2.8	1.9 – 3.7
Chemicals and allied products	803,248	8.7	6.5 – 10.8	1.6	0.8 – 2.5
Other educational services	182,072	8.6	4.6 – 12.6	1.8	0.0 – 3.7
Automotive dealers and gasoline stations	1,482,018	8.5	6.8 – 10.3	2.1	1.2 – 3.0
Food bakery and dairy stores	1,330,771	8.5	6.8 – 10.1	2.4	1.5 – 3.4
Utilities and sanitary	1,138,955	8.2	6.5 – 10.0	2.1	1.2 – 3.0
General merchandise stores	818,489	8.2	6.1 – 10.4	1.5	0.6 – 2.4
Hospitals	1,240,188	8.2	6.5 – 9.8	2.1	1.3 – 2.9
Printing publishing and allied industries	944,693	8.2	6.3 – 10.1	2.8	1.6 – 4.0
Public administration	3,402,703	8.1	7.1 – 9.1	1.8	1.4 – 2.3
Other non durable goods	1,116,743	7.8	5.9 – 9.7	1.5	0.7 – 2.2
Other transportation	1,855,755	7.8	6.4 – 9.1	2.2	1.5 – 3.0
Communications	1,134,612	7.8	6.2 – 9.4	2.8	1.8 – 3.8
Other and not specified retail trade	3,062,881	7.7	6.6 – 8.7	2.0	1.5 – 2.5
Furniture lumber and wood	1,094,707	7.7	6.0 – 9.4	1.9	1.0 – 2.8
Wholesale trade	2,998,164	7.5	6.5 – 8.6	1.8	1.3 – 2.3
Other and not specified durable goods	1,396,893	7.5	6.0 – 9.1	2.2	1.3 – 3.2
Insurance, real estate and other finance	2,633,959	7.5	6.4 – 8.6	2.4	1.8 – 3.1
Trucking service and warehousing	2,038,124	7.2	5.9 – 8.5	2.0	1.3 – 2.7
Fabricated metal industries, including ordnance	854,014	7.2	5.2 – 9.1	2.2	1.0 – 3.4
Repair services	1,724,978	7.1	5.7 – 8.5	2.0	1.3 – 2.8
Private households	62,342	6.8	1.3 – 12.3	-	-
Mining	434,376	6.7	3.9 – 9.5	1.2	0.3 – 2.0
Construction	8,286,254	6.6	6.1 – 7.2	1.7	1.4 – 2.0
Electrical machinery, equipment and supplies	1,036,872	6.6	5.1 – 8.2	1.2	0.6 – 1.9
Agriculture	2,304,073	6.3	5.1 – 7.5	1.6	1.0 – 2.2
Forestry and fisheries	126,399	6.0	1.4 – 10.6	-	-
Railroads	262,163	5.8	2.9 – 8.7	0.4	0.0 – 0.9
Primary metal industry	641,803	5.8	3.7 – 7.8	2.6	1.2 – 4.0
Food and kindred products	1,286,490	5.0	3.7 – 6.2	0.9	0.4 – 1.4
Textile mill and finished textile products	552,242	4.9	3.0 – 6.8	0.5	0.0 – 1.0
Armed forces (excludes Reserves and National Guard)	24,397	3.8	0.0 – 9.1	1.8	0.0 – 5.4
Refused, not ascertained, don't know	2,495,210	4.9	4.1 – 5.8	1.4	0.9 – 1.9
TOTAL	**71,048,475**	**7.8**	**7.6 – 8.0**	**2.1**	**2.0 – 2.2**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-10. Asthma: Estimated prevalence by current industry, U.S. female residents age 18 and over, 1997–2004

Industry	Estimated Population	Asthma		Asthma Attack in Past 12 Months	
		Prevalence (%)	95% Confidence Interval	Prevalence (%)	95% Confidence Interval
Railroads	21,267	15.3	0.0 – 34.9	12.0	0.0 – 31.3
Communications	788,051	12.4	10.2 – 14.7	5.1	3.6 – 6.6
Forestry and fisheries	35,503	12.2	1.5 – 22.9	1.0	0.0 – 3.0
Social services, religious and membership organizations	3,513,803	12.1	11.0 – 13.2	5.7	4.9 – 6.6
Mining	58,548	11.9	4.0 – 19.7	5.3	0.7 – 9.8
Utilities and sanitary	271,738	11.7	8.0 – 15.5	2.6	1.0 – 4.1
Eating and drinking places	3,144,746	11.7	10.5 – 12.9	4.8	4.0 – 5.5
Food bakery and dairy stores	1,513,903	11.6	9.9 – 13.3	4.8	3.6 – 6.0
Health services, except hospitals	5,674,117	11.5	10.7 – 12.4	5.1	4.5 – 5.7
Repair services	205,237	11.5	7.2 – 15.8	5.5	2.7 – 8.4
Transportation equipment	551,089	11.5	8.8 – 14.1	4.2	2.5 – 5.9
Automotive dealers and gasoline stations	522,345	11.4	8.7 – 14.1	5.3	3.4 – 7.2
Business services	3,047,013	11.3	10.1 – 12.4	4.7	3.9 – 5.4
Other and not specified retail trade	3,320,943	11.3	10.1 – 12.4	4.4	3.6 – 5.1
Other educational services	382,430	11.2	8.3 – 14.1	3.9	2.3 – 5.5
Elementary and secondary schools and colleges	7,359,777	11.2	10.4 – 11.9	5.0	4.5 – 5.5
Entertainment and recreation services	979,472	11.0	8.9 – 13.2	6.0	4.2 – 7.8
Printing publishing and allied industries	679,897	11.0	8.6 – 13.4	4.0	2.5 – 5.4
Legal, engineering and other professional services	2,286,235	10.9	9.7 – 12.2	4.1	3.3 – 4.9
Public administration	2,794,664	10.8	9.7 – 11.9	4.6	3.9 – 5.4
Banking and credit agencies	1,922,023	10.7	9.3 – 12.1	4.3	3.4 – 5.2
Construction	849,285	10.5	8.3 – 12.7	4.3	2.8 – 5.8
General merchandise stores	1,469,724	10.5	8.8 – 12.1	4.5	3.4 – 5.6
Furniture lumber and wood	349,768	10.3	6.4 – 14.2	4.8	1.9 – 7.8
Other and not specified durable goods	698,214	10.3	8.0 – 12.5	4.1	2.7 – 5.5
Other transportation	1,066,653	10.2	8.4 – 12.0	4.5	3.4 – 5.6
Insurance, real estate and other finance	2,962,964	10.2	9.0 – 11.3	4.3	3.4 – 5.1
Wholesale trade	1,204,787	10.0	8.3 – 11.8	3.8	2.8 – 4.8
Hospitals	4,017,362	10.0	9.0 – 10.9	4.4	3.7 – 5.0
Trucking service and warehousing	455,711	9.9	7.2 – 12.6	3.4	1.8 – 5.1
Fabricated metal industries, including ordnance	231,849	9.5	5.5 – 13.5	4.6	1.6 – 7.5
Other personal services	2,047,003	9.5	8.2 – 10.8	3.6	2.8 – 4.5
Private households	797,679	9.3	7.2 – 11.3	3.7	2.3 – 5.1
Agriculture	686,210	9.1	6.8 – 11.4	3.6	2.2 – 5.0
Chemicals and allied products	402,313	8.2	5.4 – 11.0	2.0	0.5 – 3.4
Electrical machinery, equipment and supplies	582,658	7.8	5.6 – 10.0	3.6	2.0 – 5.3
Armed forces (excludes Reserves and National Guard)	9,563	7.5	0.0 – 21.7	-	-
Other non durable goods	413,186	7.4	5.0 – 9.7	2.4	1.1 – 3.7
Textile mill and finished textile products	637,092	6.5	4.7 – 8.3	2.4	1.2 – 3.5
Machinery except electrical	461,410	5.2	3.4 – 6.9	1.6	0.6 – 2.5
Food and kindred products	592,320	4.9	3.3 – 6.5	1.6	0.6 – 2.6
Primary metal industry	104,600	4.3	0.7 – 7.9	2.6	0.0 – 5.3
Refused, not ascertained, don't know	2,037,188	6.6	5.6 – 7.6	2.3	1.7 – 2.8
TOTAL	**61,150,338**	**10.6**	**10.3 – 10.8**	**4.4**	**4.3 – 4.6**

- No estimates due to no asthma cases or no respondents.
NOTE:See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-11. Asthma: Estimated prevalence by current occupation, U.S. residents age 18 and over, 1997–2004

Occupation	Estimated Population	Asthma Prevalence (%)	Asthma 95% Confidence Interval	Asthma Attack in Past 12 Months Prevalence (%)	Asthma Attack in Past 12 Months 95% Confidence Interval
Health service	2,653,011	11.5	10.3 – 12.7	5.1	4.2 – 6.0
Health technologist and technicians	1,866,864	11.5	10.0 – 13.0	4.8	3.8 – 5.8
Forestry and fishing	156,776	11.4	5.9 – 16.9	1.4	0.0 – 2.8
Other professional specialty	2,951,511	11.2	10.0 – 12.4	3.8	3.2 – 4.5
Personal service	2,761,264	11.1	9.8 – 12.3	4.5	3.7 – 5.3
Teachers, librarians, and counselors	6,945,590	10.9	10.2 – 11.7	4.5	4.0 – 5.0
Food service	5,384,039	10.8	9.8 – 11.7	3.9	3.3 – 4.5
Other administrative support	11,357,068	10.6	10.0 – 11.1	4.1	3.7 – 4.4
Architects and surveyors	230,282	10.5	6.6 – 14.4	3.2	1.1 – 5.4
Financial records processing	2,115,305	10.4	9.0 – 11.9	4.4	3.3 – 5.4
Other sales	6,175,047	10.4	9.6 – 11.2	3.8	3.3 – 4.3
Secretaries, stenographers, and typists	2,683,590	10.4	9.2 – 11.5	4.3	3.6 – 5.1
Writers, artists, entertainers, and athletes	2,321,769	10.3	9.1 – 11.5	3.6	2.8 – 4.3
Health assessment and treating occupations	3,350,709	10.0	8.9 – 11.0	4.4	3.7 – 5.2
Technologist and technicians except health	2,654,392	9.7	8.6 – 10.9	3.4	2.7 – 4.1
Officials and administrators, public administration	778,000	9.6	7.5 – 11.7	3.9	2.7 – 5.2
Other protective service	966,817	9.4	7.6 – 11.2	4.0	2.9 – 5.2
Natural mathematical and computer scientists	2,647,882	9.3	8.2 – 10.4	3.1	2.4 – 3.8
Managers and administrators, except public administration	12,511,135	9.3	8.7 – 9.8	3.2	2.9 – 3.5
Freight, stock and material handlers	3,844,693	9.1	8.0 – 10.2	2.2	1.7 – 2.7
Cleaning and building service	3,095,439	8.9	7.9 – 10.0	3.3	2.6 – 4.0
Management related	5,119,952	8.9	8.1 – 9.7	3.4	2.9 – 3.9
Mail and message distributing	890,721	8.9	6.9 – 10.8	2.8	1.6 – 3.9
Private household	690,863	8.7	6.4 – 10.9	3.1	1.6 – 4.6
Sales representatives, commodities and finance	4,235,862	8.5	7.6 – 9.4	2.8	2.3 – 3.3
Police and firefighters	1,452,583	8.5	6.9 – 10.0	2.2	1.4 – 2.9
Computer equipment operators	378,791	8.4	5.5 – 11.3	3.4	1.5 – 5.2
Supervisors and proprietors	3,863,362	8.2	7.3 – 9.1	2.8	2.2 – 3.3
Engineers	1,987,807	8.0	6.7 – 9.3	2.2	1.5 – 2.9
Health diagnosing	1,060,786	8.0	6.2 – 9.7	3.0	1.9 – 4.2
Motor vehicle operators	4,025,765	7.8	6.9 – 8.6	2.4	1.9 – 2.9
Precision production	3,405,364	7.7	6.7 – 8.6	2.3	1.7 – 2.8
Fabricators, assemblers, inspectors and samplers	2,652,587	7.6	6.5 – 8.6	2.3	1.7 – 2.9
Mechanics and repairers	4,689,178	7.4	6.5 – 8.2	1.9	1.5 – 2.4
Material moving equipment operators	1,180,909	7.2	5.6 – 8.9	1.7	0.8 – 2.5
Machine operators and tenderers, except precision	4,396,288	7.2	6.4 – 8.1	2.1	1.6 – 2.5
Farm workers and other agricultural workers	1,992,139	7.1	5.8 – 8.5	2.0	1.3 – 2.7
Construction and extractive trades	5,829,283	6.4	5.7 – 7.1	1.6	1.3 – 2.0
Other transportation, except motor vehicles	192,922	6.4	2.1 – 10.7	0.4	0.0 – 1.0
Construction laborers	1,065,269	5.7	4.3 – 7.1	1.9	1.1 – 2.7
Farm operators and managers	893,227	5.4	3.7 – 7.1	1.7	0.8 – 2.6
Military	22,962	1.9	0.0 – 5.7	1.9	0.0 – 5.7
Refused, not ascertained, don't know	4,721,015	6.0	5.3 – 6.6	1.8	1.5 – 2.2
TOTAL	**132,198,813**	**9.1**	**8.9 – 9.3**	**3.2**	**3.1 – 3.3**

NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-12. Asthma: Estimated prevalence by current occupation, U.S. male residents age 18 and over, 1997–2004

Occupation	Estimated Population	Asthma		Asthma Attack in Past 12 Months	
		Prevalence (%)	95% Confidence Interval	Prevalence (%)	95% Confidence Interval
Forestry and fishing	151,438	11.3	5.7 – 17.0	1.4	0.0 – 2.9
Architects and surveyors	189,636	11.2	6.6 – 15.8	3.2	0.8 – 5.7
Private household	35,450	11.0	1.1 – 20.9	0.0	-
Other professional specialty	1,498,819	10.7	8.9 – 12.4	2.6	1.8 – 3.4
Computer equipment operators	173,689	10.4	5.3 – 15.6	2.4	0.0 – 5.0
Food service	2,201,759	9.7	8.2 – 11.2	3.0	2.2 – 3.9
Personal service	487,213	9.7	6.8 – 12.6	2.1	0.9 – 3.3
Other administrative support	2,994,472	9.6	8.4 – 10.7	2.7	2.0 – 3.4
Financial records processing	213,438	9.3	5.3 – 13.3	2.5	0.4 – 4.5
Other sales	2,358,262	9.3	7.9 – 10.7	2.4	1.8 – 3.1
Technologist and technicians except health	1,806,343	9.2	7.7 – 10.6	2.6	1.8 – 3.5
Freight, stock and material handlers	2,927,999	9.1	7.9 – 10.4	2.2	1.5 – 2.8
Teachers, librarians, and counselors	2,176,104	9.1	7.8 – 10.3	2.6	1.9 – 3.2
Secretaries, stenographers, and typists	59,874	8.8	1.4 – 16.3	7.5	0.2 – 14.7
Cleaning and building service	1,665,993	8.7	7.2 – 10.3	2.8	1.9 – 3.8
Natural mathematical and computer scientists	1,845,611	8.5	7.1 – 9.9	2.7	1.9 – 3.5
Writers, artists, entertainers, and athletes	1,192,122	8.5	6.9 – 10.1	2.9	1.9 – 3.9
Health service	286,971	8.4	5.3 – 11.4	3.1	1.2 – 5.0
Managers and administrators, except public administration	7,386,680	8.3	7.6 – 9.0	2.3	1.9 – 2.6
Other protective service	700,881	8.2	6.1 – 10.2	3.1	1.9 – 4.4
Management related	2,156,992	8.0	6.8 – 9.2	2.4	1.7 – 3.0
Sales representatives, commodities and finance	2,656,538	8.0	6.8 – 9.1	2.3	1.7 – 2.8
Officials and administrators, public administration	406,991	7.8	4.9 – 10.7	1.6	0.4 – 2.9
Police and firefighters	1,231,087	7.8	6.2 – 9.5	1.7	0.9 – 2.5
Mail and message distributing	515,279	7.7	5.0 – 10.3	2.1	0.7 – 3.6
Engineers	1,783,994	7.5	6.2 – 8.8	1.8	1.1 – 2.5
Fabricators, assemblers, inspectors and samplers	1,652,525	7.5	6.1 – 8.9	1.9	1.2 – 2.6
Health technologist and technicians	373,730	7.3	4.5 – 10.1	2.3	0.8 – 3.8
Precision production	2,591,182	7.2	6.1 – 8.3	1.9	1.3 – 2.5
Mechanics and repairers	4,482,463	7.2	6.3 – 8.0	1.8	1.3 – 2.2
Health assessment and treating occupations	433,914	7.1	4.5 – 9.8	3.1	1.1 – 5.1
Supervisors and proprietors	2,319,783	7.1	6.0 – 8.2	1.7	1.1 – 2.3
Motor vehicle operators	3,515,566	7.1	6.1 – 8.0	2.0	1.5 – 2.5
Material moving equipment operators	1,103,958	7.0	5.3 – 8.7	1.6	0.7 – 2.4
Health diagnosing	763,693	7.0	5.0 – 9.0	2.5	1.2 – 3.7
Machine operators and tenderers, except precision	2,912,854	6.8	5.7 – 7.8	1.8	1.3 – 2.3
Farm workers and other agricultural workers	1,622,902	6.7	5.2 – 8.2	1.6	0.9 – 2.3
Other transportation, except motor vehicles	188,622	6.4	2.0 – 10.8	0.3	0.0 – 0.8
Construction and extractive trades	5,674,441	6.3	5.6 – 7.0	1.5	1.2 – 1.9
Farm operators and managers	738,134	5.8	3.9 – 7.7	1.5	0.5 – 2.5
Construction laborers	1,038,707	5.7	4.2 – 7.1	1.8	1.0 – 2.6
Military	16,561	2.7	0.0 – 8.0	2.7	0.0 – 8.0
Refused, not ascertained, don't know	2,515,809	5.0	4.1 – 5.8	1.3	0.8 – 1.8
TOTAL	**71,048,475**	**7.8**	**7.6 – 8.0**	**2.1**	**2.0 – 2.2**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-13. Asthma: Estimated prevalence by current occupation, U.S. female residents age 18 and over, 1997–2004

Occupation	Estimated Population	Asthma		Asthma Attack in Past 12 Months	
		Prevalence (%)	95% Confidence Interval	Prevalence (%)	95% Confidence Interval
Forestry and fishing	5,338	13.6	0.0 – 38.3	-	-
Other protective service	265,936	12.6	8.8 – 16.4	6.4	3.7 – 9.1
Health technologist and technicians	1,493,134	12.5	10.8 – 14.3	5.5	4.3 – 6.6
Motor vehicle operators	510,199	12.5	9.8 – 15.3	5.1	3.3 – 6.8
Writers, artists, entertainers, and athletes	1,129,647	12.2	10.4 – 14.1	4.3	3.2 – 5.4
Police and firefighters	221,496	12.2	7.8 – 16.5	4.7	1.9 – 7.6
Engineers	203,813	12.0	7.3 – 16.8	5.7	2.6 – 8.8
Health service	2,366,040	11.9	10.6 – 13.2	5.3	4.4 – 6.3
Teachers, librarians, and counselors	4,769,485	11.8	10.9 – 12.7	5.3	4.7 – 6.0
Other professional specialty	1,452,692	11.8	10.2 – 13.4	5.1	4.0 – 6.2
Mechanics and repairers	206,714	11.6	7.2 – 16.0	5.7	2.7 – 8.8
Food service	3,182,280	11.5	10.3 – 12.7	4.5	3.8 – 5.3
Officials and administrators, public administration	371,010	11.5	8.4 – 14.5	6.5	4.2 – 8.8
Personal service	2,274,051	11.4	10.0 – 12.8	5.0	4.1 – 6.0
Natural mathematical and computer scientists	802,272	11.1	9.1 – 13.1	4.1	2.8 – 5.3
Other sales	3,816,785	11.1	10.0 – 12.1	4.6	3.9 – 5.3
Material moving equipment operators	76,951	11.1	3.7 – 18.4	2.7	0.0 – 5.7
Technologist and technicians except health	848,049	11.0	9.0 – 13.0	4.9	3.5 – 6.2
Other administrative support	8,362,596	10.9	10.2 – 11.6	4.6	4.1 – 5.0
Managers and administrators, except public administration	5,124,455	10.7	9.8 – 11.5	4.6	4.0 – 5.2
Financial records processing	1,901,868	10.5	9.0 – 12.1	4.6	3.4 – 5.8
Construction and extractive trades	154,843	10.5	5.5 – 15.5	4.1	0.7 – 7.5
Health diagnosing	297,093	10.5	6.8 – 14.1	4.4	1.9 – 7.0
Mail and message distributing	375,442	10.5	7.5 – 13.4	3.6	1.9 – 5.4
Health assessment and treating occupations	2,916,795	10.4	9.3 – 11.5	4.7	3.9 – 5.4
Secretaries, stenographers, and typists	2,623,716	10.4	9.2 – 11.6	4.3	3.5 – 5.1
Supervisors and proprietors	1,543,579	9.8	8.3 – 11.2	4.4	3.4 – 5.4
Management related	2,962,961	9.5	8.5 – 10.6	4.2	3.5 – 4.9
Sales representatives, commodities and finance	1,579,324	9.5	8.0 – 10.9	3.7	2.8 – 4.6
Cleaning and building service	1,429,446	9.1	7.7 – 10.6	3.9	3.0 – 4.9
Precision production	814,181	9.1	6.9 – 11.2	3.5	2.3 – 4.8
Freight, stock and material handlers	916,695	9.1	7.1 – 11.0	2.4	1.5 – 3.3
Farm workers and other agricultural workers	369,236	8.9	5.8 – 11.9	3.7	1.7 – 5.8
Private household	655,413	8.6	6.3 – 10.9	3.3	1.7 – 4.8
Machine operators and tenderers, except precision	1,483,434	8.1	6.7 – 9.6	2.6	1.7 – 3.5
Fabricators, assemblers, inspectors and samplers	1,000,062	7.7	6.1 – 9.3	3.1	2.0 – 4.1
Architects and surveyors	40,646	7.2	0.8 – 13.6	3.2	0.0 – 7.8
Construction laborers	26,562	7.0	0.0 – 16.7	6.5	0.0 – 16.2
Computer equipment operators	205,102	6.7	3.5 – 9.8	4.2	1.5 – 6.9
Other transportation, except motor vehicles	4,300	5.4	0.0 – 16.2	5.4	0.0 – 16.2
Farm operators and managers	155,093	3.6	0.9 – 6.3	2.5	0.3 – 4.7
Military	6,401	0.0	0.0 – 0.0	0.0	0.0 – 0.0
Refused, not ascertained, don't know	2,205,205	7.1	6.1 – 8.1	2.5	1.9 – 3.1
TOTAL	**61,150,338**	**10.6**	**10.3 – 10.8**	**4.4**	**4.3 – 4.6**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-14 (page 1 of 2). Asthma: Estimated prevalence by current industry and smoking status, U.S. residents age 18 and over, 1997–2004

Industry	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Health services, except hospitals	4,220,811	9.8	8.9 – 10.8	1,326,263	12.1	10.3 – 13.9	1,544,324	12.9	11.2 – 14.5
Eating and drinking places	2,885,257	10.5	9.2 – 11.8	695,747	9.3	6.9 – 11.6	2,249,022	12.1	10.7 – 13.5
Food, bakery and dairy stores	1,526,023	9.2	7.6 – 10.8	446,161	10.2	7.4 – 13.0	861,100	11.9	9.6 – 14.2
General merchandise stores	1,338,543	8.0	6.4 – 9.5	378,149	12.7	8.9 – 16.4	564,335	11.8	9.0 – 14.6
Private households	543,221	6.4	4.4 – 8.3	136,039	16.9	10.1 – 23.7	177,152	11.5	6.4 – 16.7
Social services, religious and membership organizations	2,926,783	11.2	10.0 – 12.4	997,132	10.8	8.9 – 12.8	855,931	11.3	9.2 – 13.4
Business services	3,964,486	8.9	8.0 – 9.9	1,364,284	11.6	9.8 – 13.4	1,768,271	11.0	9.6 – 12.5
Other and not specified retail trade	3,589,002	9.1	8.0 – 10.1	1,241,884	9.9	8.1 – 11.6	1,529,268	10.4	8.8 – 12.0
Other personal services	1,674,915	8.7	7.2 – 10.1	607,166	10.4	7.8 – 13.0	913,108	10.3	8.3 – 12.4
Banking and credit agencies	1,774,282	10.7	9.2 – 12.3	504,815	11.5	8.6 – 14.5	546,012	10.0	7.6 – 12.5
Other transportation	1,520,149	7.5	6.1 – 8.9	709,055	10.1	7.7 – 12.5	677,128	9.8	7.5 – 12.2
Legal, engineering and other professional services	3,005,822	10.0	8.9 – 11.1	1,097,872	10.6	8.8 – 12.5	792,489	9.8	7.8 – 11.8
Hospitals	3,323,384	8.7	7.7 – 9.6	1,009,095	12.6	10.5 – 14.7	905,288	9.5	7.6 – 11.5
Communications	1,104,050	9.7	8.0 – 11.5	390,827	9.9	7.0 – 12.8	422,291	9.4	6.6 – 12.2
Automotive dealers and gasoline stations	921,072	9.7	7.5 – 11.9	397,469	8.6	5.5 – 11.7	673,875	9.3	6.8 – 11.8
Elementary and secondary schools and colleges	7,396,700	10.4	9.6 – 11.1	2,004,792	11.8	10.3 – 13.2	1,330,738	9.2	7.6 – 10.7
Public administration	3,573,316	9.1	8.1 – 10.0	1,406,952	10.0	8.4 – 11.6	1,187,671	9.2	7.6 – 10.8
Transportation equipment	1,107,459	10.6	8.6 – 12.7	556,899	9.0	6.4 – 11.5	597,209	9.1	6.8 – 11.4
Other nondurable goods	705,306	6.4	4.5 – 8.2	367,915	8.6	4.9 – 12.3	452,834	9.1	6.1 – 12.0
Other and not specified durable goods	1,104,659	7.7	6.0 – 9.5	449,663	9.7	6.8 – 12.6	534,616	9.0	6.5 – 11.4
Other educational services	349,521	9.7	6.8 – 12.6	137,436	12.5	7.2 – 17.7	76,686	8.6	3.0 – 14.3
Insurance, real estate and other finance	3,170,966	9.0	7.9 – 10.1	1,247,369	8.8	7.2 – 10.4	1,155,766	8.5	7.0 – 10.1
Furniture, lumber and wood	687,181	7.9	5.6 – 10.2	273,128	9.2	5.7 – 12.7	477,650	8.5	5.6 – 11.4
Trucking service and warehousing	1,197,822	7.6	5.9 – 9.3	494,129	6.8	4.4 – 9.2	789,818	8.5	6.5 – 10.5
Entertainment and recreation services	1,374,662	9.3	7.5 – 11.1	437,711	13.4	10.0 – 16.8	517,506	8.4	6.0 – 10.8
Repair services	774,323	7.4	5.4 – 9.4	442,147	6.9	4.1 – 9.6	697,805	8.3	6.0 – 10.6
Chemicals and allied products	681,276	8.9	6.6 – 11.2	266,746	7.9	4.4 – 11.4	252,556	8.3	4.5 – 12.1
Utilities and sanitary	732,957	9.0	6.8 – 11.1	338,062	10.0	6.7 – 13.3	333,258	7.9	4.6 – 11.2

See footnotes at end of table.

Table 9-14 (page 2 of 2). Asthma: Estimated prevalence by current industry and smoking status, U.S. residents age 18 and over, 1997–2004

Industry	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Fabricated metal industries, including ordnance	459,245	7.3	4.8 – 9.8	256,876	8.1	4.0 – 12.1	369,407	7.9	4.9 – 10.8
Armed forces (excludes Reserves and National Guard)	19,585	6.1	0.0 – 14.6	8,740	-	-	5,636	7.8	0.0 – 23.3
Agriculture	1,692,103	6.4	5.0 – 7.8	570,676	7.1	5.0 – 9.3	711,949	7.4	5.2 – 9.6
Printing publishing and allied industries	818,225	10.0	7.8 – 12.2	371,680	10.3	7.0 – 13.5	433,901	7.4	5.0 – 9.9
Electrical machinery, equipment and supplies	915,210	7.2	5.6 – 8.8	312,445	6.3	3.3 – 9.3	388,785	7.3	4.7 – 10.0
Machinery, except electrical	1,012,010	7.1	5.5 – 8.8	465,639	10.8	7.5 – 14.0	548,260	7.2	4.9 – 9.4
Construction	3,987,779	6.4	5.6 – 7.2	1,804,630	8.2	6.8 – 9.6	3,296,357	7.2	6.2 – 8.1
Wholesale trade	2,137,212	7.8	6.6 – 9.1	952,149	10.9	8.7 – 13.0	1,089,183	7.0	5.4 – 8.6
Primary metal industry	326,480	4.3	2.0 – 6.6	169,513	6.1	2.1 – 10.0	247,279	6.9	3.1 – 10.7
Food and kindred products	963,813	4.2	3.0 – 5.4	368,240	4.2	2.2 – 6.2	541,573	6.8	4.6 – 9.1
Mining	238,721	8.7	4.5 – 12.9	89,919	4.8	0.9 – 8.7	163,413	6.7	2.2 – 11.2
Textile mill and finished textile products	668,322	5.6	3.9 – 7.3	188,813	6.8	3.0 – 10.5	325,896	5.5	3.2 – 7.8
Railroads	123,505	7.3	1.8 – 12.8	76,471	5.8	0.8 – 10.7	79,725	5.4	0.7 – 10.1
Forestry and fisheries	81,726	8.0	1.9 – 14.1	42,998	9.4	0.0 – 19.7	36,539	3.7	0.0 – 9.0
Refused, not ascertained, don't know	2,714,759	5.3	4.4 – 6.1	556,268	8.0	5.7 – 10.3	744,936	7.3	5.5 – 9.0
TOTAL	**73,332,639**	**8.7**	**8.5 – 9.0**	**25,959,959**	**10.0**	**9.6 – 10.4**	**31,866,543**	**9.3**	**9.0 – 9.6**

- No estimates due to no asthma cases or no respondents.
NOTE:See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-15 (page 1 of 2). Asthma: Estimated prevalence by current industry and smoking status, U.S. male residents age 18 and over, 1997–2004

Industry	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Banking and credit agencies	532,216	12.1	8.9 – 15.3	193,417	10.9	6.3 – 15.5	182,624	6.3	2.9 – 9.7
Transportation equipment	821,006	10.4	8.0 – 12.9	449,922	9.1	6.1 – 12.0	439,923	7.3	4.8 – 9.8
Legal, engineering and other professional services	1,591,163	9.8	8.2 – 11.3	641,856	9.3	6.9 – 11.6	387,374	8.5	5.5 – 11.4
Chemicals and allied products	438,417	9.8	6.7 – 12.8	195,022	9.1	4.6 – 13.6	165,918	5.4	1.7 – 9.1
Eating and drinking places	1,352,606	9.7	7.8 – 11.6	333,229	9.6	5.9 – 13.3	1,010,197	10.8	8.6 – 12.9
Elementary and secondary schools and colleges	2,224,341	9.6	8.3 – 10.9	711,146	8.3	6.2 – 10.4	457,917	7.5	5.1 – 9.8
Printing publishing and allied industries	436,865	9.4	6.2 – 12.5	227,159	7.7	4.3 – 11.2	280,669	6.6	3.6 – 9.5
Other personal services	520,249	8.7	6.0 – 11.4	268,906	9.1	5.2 – 13.1	367,235	10.2	6.9 – 13.6
Food, bakery and dairy stores	724,506	8.7	6.4 – 11.1	237,988	7.8	4.5 – 11.0	360,656	8.5	5.2 – 11.9
Automotive dealers and gasoline stations	683,611	8.7	6.2 – 11.2	322,278	8.6	5.0 – 12.2	467,205	8.4	5.4 – 11.5
Other educational services	91,214	8.7	3.0 – 14.4	58,862	10.6	2.9 – 18.2	31,996	4.9	0.0 – 11.9
Social services, religious and membership organizations	719,760	8.6	6.4 – 10.7	340,194	9.2	5.9 – 12.5	213,433	8.4	4.1 – 12.7
Mining	204,301	8.6	4.0 – 13.3	80,906	3.9	0.0 – 8.0	148,298	5.7	1.1 – 10.2
Entertainment and recreation services	796,115	8.5	6.2 – 10.7	251,642	13.0	8.5 – 17.5	305,929	7.1	4.1 – 10.1
Communications	629,337	8.5	6.2 – 10.8	250,610	6.6	3.5 – 9.6	252,357	7.1	3.9 – 10.3
Business services	2,223,188	8.4	7.2 – 9.7	834,921	10.1	7.8 – 12.3	1,002,209	9.4	7.6 – 11.3
Health services, except hospitals	897,406	8.3	6.3 – 10.2	320,868	9.0	5.3 – 12.7	230,733	9.7	5.8 – 13.6
Machinery, except electrical	749,288	8.2	6.1 – 10.3	380,228	10.8	7.0 – 14.5	437,389	8.0	5.3 – 10.7
Utilities and sanitary	581,915	8.2	5.8 – 10.5	281,922	9.8	6.1 – 13.5	271,018	6.9	3.2 – 10.6
Wholesale trade	1,436,034	7.9	6.3 – 9.5	735,735	9.1	6.8 – 11.4	804,606	5.7	4.0 – 7.4
Public administration	1,913,141	7.7	6.4 – 8.9	876,657	9.3	7.1 – 11.4	593,863	7.9	5.7 – 10.1
Insurance, real estate and other finance	1,449,079	7.7	6.1 – 9.2	673,128	7.6	5.4 – 9.8	501,032	6.8	4.5 – 9.1
Other and not specified retail trade	1,627,075	7.5	6.1 – 9.0	646,741	7.3	5.2 – 9.4	775,766	8.4	6.3 – 10.6
Trucking service and warehousing	954,496	7.5	5.4 – 9.5	427,023	6.5	3.9 – 9.1	646,785	7.3	5.2 – 9.5
Forestry and fisheries	60,105	7.5	0.1 – 14.8	33,924	5.1	0.0 – 14.8	31,731	4.3	0.0 – 10.4
Electrical machinery, equipment and supplies	586,945	7.2	5.1 – 9.3	212,249	5.0	1.9 – 8.2	235,722	6.8	3.4 – 10.1
General merchandise stores	441,285	7.0	4.3 – 9.7	171,617	6.7	2.6 – 10.7	203,243	12.3	7.1 – 17.6
Repair services	664,515	7.0	4.9 – 9.2	411,488	6.6	3.7 – 9.4	634,585	7.6	5.2 – 10.0

See footnotes at end of table.

Table 9-15 (page 2 of 2). Asthma: Estimated prevalence by current industry and smoking status, U.S. male residents age 18 and over, 1997–2004

Industry	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Hospitals	751,433	6.8	4.8 – 8.8	278,750	11.9	7.8 – 15.9	204,907	8.3	4.4 – 12.1
Other and not specified durable goods	694,378	6.8	4.7 – 8.9	323,603	8.5	5.1 – 12.0	373,867	8.2	5.2 – 11.2
Furniture, lumber and wood	488,909	6.8	4.4 – 9.3	225,719	9.8	5.9 – 13.7	373,564	7.6	4.5 – 10.7
Other transportation	897,513	6.7	4.9 – 8.6	502,733	8.0	5.3 – 10.7	447,574	9.7	6.7 – 12.7
Other nondurable goods	494,180	6.6	4.2 – 9.0	300,751	8.1	3.8 – 12.3	320,082	9.5	5.9 – 13.2
Fabricated metal industries, including ordnance	350,276	6.5	3.9 – 9.2	207,868	8.6	3.8 – 13.3	295,535	6.9	3.8 – 10.0
Construction	3,555,816	6.2	5.3 – 7.0	1,649,806	7.1	5.8 – 8.5	3,041,470	7.0	6.0 – 7.9
Private households	28,358	6.1	0.1 – 12.1	8,885	11.0	0.0 – 31.0	25,100	6.1	0.0 – 15.4
Agriculture	1,267,735	6.1	4.4 – 7.8	461,568	7.0	4.6 – 9.4	560,650	5.4	3.3 – 7.4
Railroads	111,392	6.0	1.2 – 10.8	72,740	6.1	0.9 – 11.2	74,998	5.5	0.5 – 10.4
Textile mill and finished textile products	265,252	5.2	2.3 – 8.0	120,345	5.9	1.6 – 10.2	161,601	3.9	0.8 – 7.0
Primary metal industry	280,072	4.1	1.7 – 6.5	145,923	7.0	2.5 – 11.6	212,678	7.2	2.9 – 11.4
Food and kindred products	608,220	4.0	2.5 – 5.6	286,064	3.5	1.5 – 5.5	387,603	7.5	4.6 – 10.4
Armed forces (excludes Reserves and National Guard)	14,026	3.4	0.0 – 10.2	7,154	-	-	3,218	13.7	0.0 – 40.7
Refused, not ascertained, don't know	1,381,928	4.5	3.4 – 5.7	352,362	6.4	3.6 – 9.2	446,928	6.4	4.2 – 8.6
TOTAL	**36,539,662**	**7.8**	**7.5 – 8.1**	**15,513,906**	**8.3**	**7.8 – 8.8**	**18,370,185**	**7.7**	**7.3 – 8.1**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-16 (page 1 of 2). Asthma: Estimated prevalence by current industry and smoking status, U.S. female residents age 18 and over, 1997–2004

Industry	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Railroads	12,112	19.1	0.0 – 50.5	3,731	-	-	4,727	4.9	0.0 – 14.6
Armed forces (excludes Reserves and National Guard)	5,559	12.9	0.0 – 36.5	1,586	-	-	2,418	-	-
Automotive dealers and gasoline stations	237,462	12.6	8.2 – 17.0	75,192	8.7	3.3 – 14.1	206,670	11.3	7.2 – 15.4
Social services, religious and membership organizations	2,207,023	12.1	10.6 – 13.5	656,938	11.7	9.3 – 14.1	642,498	12.3	9.9 – 14.7
Utilities and sanitary	151,042	12.0	6.7 – 17.3	56,140	10.8	3.5 – 18.2	62,240	12.4	5.2 – 19.5
Communications	474,713	11.3	8.6 – 14.1	140,216	15.9	10.1 – 21.8	169,933	12.8	7.8 – 17.9
Transportation equipment	286,453	11.2	7.4 – 15.0	106,977	8.5	3.5 – 13.4	157,287	14.1	8.9 – 19.2
Eating and drinking places	1,532,651	11.2	9.4 – 13.0	362,518	9.0	6.0 – 12.0	1,238,825	13.2	11.3 – 15.1
Public administration	1,660,175	10.7	9.3 – 12.2	530,295	11.2	8.7 – 13.7	593,808	10.5	8.1 – 12.9
Elementary and secondary schools and colleges	5,172,360	10.7	9.8 – 11.5	1,293,646	13.7	11.8 – 15.6	872,821	10.1	8.0 – 12.1
Printing publishing and allied industries	381,360	10.6	7.6 – 13.6	144,521	14.3	8.1 – 20.4	153,233	9.0	4.6 – 13.3
Furniture, lumber and wood	198,272	10.5	5.2 – 15.8	47,409	6.4	0.0 – 14.2	104,087	11.6	4.2 – 18.9
Other and not specified retail trade	1,961,927	10.4	8.9 – 11.8	595,143	12.7	9.8 – 15.5	753,502	12.4	10.0 – 14.8
Entertainment and recreation services	578,547	10.4	7.5 – 13.3	186,070	14.0	8.9 – 19.1	211,577	10.3	6.4 – 14.1
Health services, except hospitals	3,323,405	10.3	9.2 – 11.3	1,005,395	13.1	11.0 – 15.1	1,313,591	13.4	11.6 – 15.3
Legal, engineering and other professional services	1,414,660	10.3	8.7 – 11.9	456,017	12.6	9.5 – 15.6	405,115	11.1	8.3 – 13.9
Insurance, real estate and other finance	1,721,887	10.2	8.6 – 11.7	574,241	10.3	7.9 – 12.6	654,735	9.9	7.7 – 12.0
Banking and credit agencies	1,242,065	10.1	8.4 – 11.9	311,398	11.9	8.2 – 15.7	363,388	11.9	8.7 – 15.2
Other educational services	258,307	10.0	6.7 – 13.4	78,574	13.9	6.7 – 21.0	44,690	11.3	3.1 – 19.5
Fabricated metal industries, including ordnance	108,970	9.7	3.9 – 15.6	49,008	6.0	0.0 – 12.3	73,872	11.6	3.6 – 19.7
Repair services	109,808	9.6	4.0 – 15.2	30,659	10.8	0.9 – 20.7	63,220	15.5	6.9 – 24.0
Food, bakery and dairy stores	801,517	9.6	7.4 – 11.9	208,173	13.0	8.2 – 17.8	500,444	14.3	11.1 – 17.4
Business services	1,741,298	9.6	8.2 – 11.0	529,363	14.0	11.2 – 16.9	766,061	13.1	10.7 – 15.5
Mining	34,420	9.4	0.0 – 18.9	9,012	12.6	0.0 – 27.5	15,115	17.1	0.0 – 36.1
Other and not specified durable goods	410,281	9.4	6.4 – 12.3	126,059	12.7	7.4 – 18.1	160,749	10.8	6.4 – 15.2
Forestry and fisheries	21,621	9.3	0.0 – 20.1	9,074	25.4	0.0 – 55.8	4,808	-	-
Hospitals	2,571,951	9.2	8.1 – 10.3	730,345	12.9	10.5 – 15.4	700,381	9.9	7.7 – 12.2
Other personal services	1,154,666	8.6	7.0 – 10.3	338,260	11.4	8.0 – 14.8	545,874	10.4	7.9 – 12.9

See footnotes at end of table.

Table 9-16 (page 2 of 2). Asthma: Estimated prevalence by current industry and smoking status, U.S. female residents age 18 and over, 1997–2004

Industry	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Other transportation	622,636	8.6	6.4 – 10.8	206,322	15.2	10.4 – 20.0	229,554	10.2	6.3 – 14.0
General merchandise stores	897,258	8.5	6.6 – 10.3	206,532	17.7	11.9 – 23.5	361,092	11.5	8.2 – 14.8
Construction	431,963	8.3	5.5 – 11.1	154,824	19.0	12.0 – 26.1	254,887	9.5	6.1 – 12.9
Trucking service and warehousing	243,326	8.2	4.9 – 11.4	67,106	8.8	2.7 – 14.9	143,033	13.6	7.9 – 19.3
Wholesale trade	701,178	7.7	5.8 – 9.6	216,414	16.7	11.6 – 21.9	284,577	10.8	6.9 – 14.6
Agriculture	424,368	7.4	4.9 – 9.9	109,108	7.7	2.6 – 12.8	151,299	15.1	8.5 – 21.8
Chemicals and allied products	242,859	7.3	4.0 – 10.6	71,724	4.7	0.0 – 9.3	86,638	13.8	5.6 – 22.1
Electrical machinery, equipment and supplies	328,265	7.3	4.6 – 9.9	100,196	9.0	2.5 – 15.4	153,063	8.1	3.9 – 12.4
Private households	514,863	6.4	4.4 – 8.4	127,154	17.3	10.2 – 24.5	152,052	12.4	6.7 – 18.2
Textile mill and finished textile products	403,070	5.9	3.7 – 8.1	68,468	8.3	1.5 – 15.1	164,295	7.1	3.6 – 10.5
Other nondurable goods	211,125	5.8	3.1 – 8.6	67,164	11.2	4.3 – 18.1	132,752	8.0	3.2 – 12.8
Primary metal industry	46,408	5.6	0.0 – 11.9	23,590	-	-	34,601	5.5	0.0 – 12.1
Food and kindred products	355,593	4.4	2.4 – 6.4	82,176	6.5	1.2 – 11.9	153,969	5.2	2.2 – 8.2
Machinery, except electrical	262,722	3.9	1.9 – 5.8	85,411	10.7	4.5 – 17.0	110,871	4.0	1.0 – 7.1
Refused, not ascertained, don't know	1,332,832	6.0	4.8 – 7.3	203,906	10.7	6.8 – 14.6	298,008	8.6	5.7 – 11.5
TOTAL	**36,792,977**	**9.7**	**9.4 – 10.0**	**10,446,053**	**12.5**	**11.8 – 13.1**	**13,496,359**	**11.5**	**10.9 – 12.0**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-17 (page 1 of 2). Asthma: Estimated prevalence by current occupation and smoking status, U.S. residents age 18 and over, 1997–2004

Occupation	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Forestry and fishing	62,234	12.6	3.8 – 21.4	32,761	10.8	0.0 – 22.7	60,530	10.8	1.7 – 19.8
Other professional specialty	1,838,285	11.6	10.0 – 13.1	746,664	10.7	8.4 – 13.0	353,436	10.2	7.1 – 13.3
Teachers, librarians, and counselors	4,947,395	10.8	9.9 – 11.7	1,264,637	12.6	10.8 – 14.4	714,610	8.9	6.8 – 10.9
Personal service	1,668,368	10.7	9.1 – 12.3	504,559	13.0	9.9 – 16.1	574,309	10.6	8.0 – 13.2
Financial records processing	1,225,524	10.5	8.4 – 12.5	407,538	10.3	7.4 – 13.2	471,378	10.0	7.5 – 12.4
Health technologist and technicians	1,118,460	10.2	8.3 – 12.1	331,759	12.8	9.1 – 16.5	411,523	14.0	10.7 – 17.4
Other administrative support	6,749,991	10.0	9.2 – 10.8	1,993,188	11.4	10.0 – 12.8	2,565,801	11.5	10.2 – 12.8
Food service	2,637,410	9.8	8.5 – 11.2	661,352	10.9	8.3 – 13.5	2,065,809	12.0	10.5 – 13.5
Other sales	3,500,758	9.6	8.5 – 10.7	996,598	10.2	8.2 – 12.2	1,649,426	12.4	10.7 – 14.1
Architects and surveyors	139,408	9.6	4.9 – 14.2	59,655	12.3	4.1 – 20.5	30,361	11.6	0.0 – 24.9
Technologist and technicians except health	1,565,082	9.5	8.0 – 11.1	550,089	9.6	7.0 – 12.3	530,464	10.5	7.8 – 13.2
Managers and administrators, except public administration	6,738,014	9.5	8.8 – 10.2	2,991,984	9.5	8.3 – 10.6	2,735,593	8.5	7.5 – 9.5
Writers, artists, entertainers, and athletes	1,375,809	9.4	7.9 – 10.9	530,710	12.2	9.4 – 15.0	409,918	10.8	7.7 – 13.8
Health assessment and treating occupations	2,158,095	9.4	8.2 – 10.6	714,893	12.0	9.5 – 14.5	460,559	9.8	6.9 – 12.6
Natural mathematical and computer scientists	1,724,794	9.4	8.0 – 10.8	558,856	9.4	6.8 – 12.1	354,239	8.7	5.8 – 11.6
Other protective service	482,828	9.3	6.6 – 12.0	202,840	8.5	4.8 – 12.3	276,970	10.3	6.9 – 13.6
Officials and administrators, public administration	431,561	9.2	6.6 – 11.9	227,573	10.8	6.3 – 15.2	116,922	8.6	3.8 – 13.4
Health service	1,478,898	9.0	7.5 – 10.5	388,825	13.0	9.8 – 16.2	771,352	15.5	13.0 – 18.0
Secretaries, stenographers, and typists	1,646,141	9.0	7.6 – 10.4	510,767	14.4	11.2 – 17.6	520,023	10.7	8.0 – 13.4
Freight, stock and material handlers	2,073,394	8.8	7.4 – 10.3	514,471	10.5	7.5 – 13.5	1,237,022	9.1	7.2 – 10.9
Police and firefighters	883,103	8.7	6.6 – 10.7	296,303	8.7	5.1 – 12.3	264,605	7.6	4.5 – 10.7
Management related	3,080,545	8.6	7.6 – 9.6	1,090,030	10.4	8.6 – 12.2	942,661	8.0	6.3 – 9.7
Supervisors and proprietors	1,998,764	8.6	7.3 – 9.9	864,310	8.3	6.4 – 10.2	983,403	7.3	5.8 – 8.9
Cleaning and building service	1,626,735	8.5	6.9 – 10.0	537,007	9.9	7.4 – 12.3	913,407	9.4	7.5 – 11.2
Sales representatives, commodities and finance	2,331,585	8.0	6.8 – 9.2	1,036,688	9.2	7.3 – 11.0	851,895	9.1	7.0 – 11.1
Engineers	1,318,553	8.0	6.4 – 9.6	417,266	7.3	4.6 – 10.0	248,887	8.9	5.3 – 12.4
Computer equipment operators	232,805	8.0	4.1 – 11.9	68,947	9.8	3.1 – 16.5	72,501	8.8	2.8 – 14.9
Health diagnosing	791,649	8.0	6.0 – 10.0	211,441	8.9	4.6 – 13.1	54,515	4.2	0.0 – 12.1

See footnotes at end of table.

Table 9-17 (page 2 of 2). Asthma: Estimated prevalence by current occupation and smoking status, U.S. residents age 18 and over, 1997–2004

Occupation	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Motor vehicle operators	1,714,208	7.7	6.3 – 9.1	920,386	8.3	6.4 – 10.1	1,366,656	7.5	6.0 – 9.0
Mail and message distributing	460,542	7.5	4.9 – 10.1	220,229	9.8	5.8 – 13.7	208,084	10.9	6.4 – 15.4
Mechanics and repairers	1,986,208	6.8	5.6 – 8.0	1,186,984	8.2	6.4 – 10.0	1,495,345	7.5	6.1 – 9.0
Precision production	1,516,041	6.7	5.4 – 8.0	809,275	8.6	6.4 – 10.9	1,065,793	8.5	6.6 – 10.3
Machine operators and tenderers, except precision	2,114,395	6.3	5.2 – 7.3	783,434	8.6	6.1 – 11.1	1,486,562	7.9	6.5 – 9.3
Fabricators, assemblers, inspectors and samplers	1,312,728	6.2	4.8 – 7.6	485,050	10.2	7.4 – 13.0	847,577	8.3	6.3 – 10.3
Farm operators and managers	543,609	6.0	3.6 – 8.4	209,737	5.6	2.7 – 8.4	136,582	2.0	0.0 – 4.1
Private household	447,662	5.9	3.8 – 8.0	110,594	16.8	8.9 – 24.7	130,476	11.4	5.2 – 17.6
Material moving equipment operators	497,904	5.9	3.8 – 8.0	257,695	7.1	3.4 – 10.7	415,126	9.2	6.0 – 12.3
Construction and extractive trades	2,446,680	5.9	4.9 – 6.9	1,102,800	7.8	6.1 – 9.5	2,252,697	6.3	5.2 – 7.4
Farm workers and other agricultural workers	1,060,580	5.8	4.0 – 7.6	331,277	8.7	5.1 – 12.2	585,259	8.2	5.8 – 10.6
Construction laborers	491,231	5.4	3.3 – 7.5	170,385	5.2	1.7 – 8.6	392,515	6.5	4.2 – 8.9
Other transportation, except motor vehicles	85,616	3.8	0.0 – 9.0	52,319	2.9	0.0 – 6.2	54,987	13.8	2.0 – 25.6
Military	10,579	-	-	7,194	-	-	5,189	8.5	0.0 – 25.4
Refused, not ascertained, don't know	2,818,468	5.4	4.6 – 6.3	600,891	9.6	7.2 – 12.0	781,580	7.0	5.3 – 8.7
TOTAL	**73,332,639**	**8.7**	**8.5 – 9.0**	**25,959,959**	**10.0**	**9.6 – 10.4**	**31,866,543**	**9.3**	**9.0 – 9.6**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-18 (page 1 of 2). Asthma: Estimated prevalence by current occupation and smoking status, U.S. male residents age 18 and over, 1997–2004

Occupation	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Forestry and fishing	59,586	11.9	3.0 – 20.8	30,892	11.4	0.0 – 24.1	59,709	10.9	1.8 – 20.1
Other professional specialty	928,578	11.0	8.7 – 13.4	415,843	9.6	6.6 – 12.7	147,738	10.9	5.3 – 16.5
Personal service	262,401	11.0	6.9 – 15.1	107,086	8.2	2.5 – 13.8	113,402	8.5	2.6 – 14.4
Financial records processing	126,989	10.8	5.1 – 16.5	36,289	6.0	0.0 – 12.8	47,428	8.4	0.6 – 16.2
Computer equipment operators	105,046	10.7	3.7 – 17.6	34,679	10.1	0.0 – 21.3	29,427	11.6	0.7 – 22.5
Private household	16,639	10.6	0.0 – 23.0	6,273	15.5	0.0 – 43.6	12,539	9.3	0.0 – 26.8
Architects and surveyors	106,282	9.8	4.2 – 15.3	55,679	13.2	4.4 – 21.9	26,818	13.1	0.0 – 28.0
Other administrative support	1,643,610	9.7	8.0 – 11.3	602,798	9.2	6.9 – 11.6	738,629	9.7	7.5 – 12.0
Cleaning and building service	770,123	9.4	6.9 – 12.0	372,328	7.9	5.2 – 10.6	512,502	8.5	6.0 – 10.9
Other sales	1,264,773	9.1	7.1 – 11.0	457,155	8.8	6.1 – 11.5	616,122	10.6	7.7 – 13.5
Food service	1,075,914	9.0	6.9 – 11.1	259,196	10.7	6.3 – 15.2	855,512	10.5	8.1 – 12.8
Freight, stock and material handlers	1,547,804	8.9	7.2 – 10.6	423,927	10.5	7.2 – 13.8	940,416	9.0	6.9 – 11.2
Teachers, librarians, and counselors	1,478,263	8.9	7.4 – 10.4	453,190	11.1	8.1 – 14.1	239,180	6.5	3.6 – 9.3
Managers and administrators, except public administration	3,872,381	8.8	7.9 – 9.8	1,916,923	8.3	6.9 – 9.8	1,568,857	6.9	5.6 – 8.2
Technologist and technicians except health	1,045,383	8.7	6.8 – 10.6	408,722	9.8	6.6 – 13.0	345,442	9.9	6.5 – 13.2
Other protective service	334,597	8.7	5.4 – 11.9	167,790	7.4	3.6 – 11.2	195,338	8.1	4.5 – 11.7
Natural mathematical and computer scientists	1,169,859	8.6	6.9 – 10.3	412,986	8.1	5.0 – 11.1	255,212	9.0	5.5 – 12.6
Supervisors and proprietors	1,185,799	8.2	6.5 – 9.9	562,384	6.1	4.0 – 8.1	559,240	6.0	4.1 – 8.0
Police and firefighters	750,317	7.9	5.7 – 10.0	264,568	9.3	5.3 – 13.3	208,727	5.8	2.8 – 8.8
Writers, artists, entertainers, and athletes	682,903	7.9	5.9 – 10.0	269,542	10.7	7.0 – 14.5	237,280	7.4	4.1 – 10.7
Management related	1,276,453	7.8	6.2 – 9.4	519,443	8.3	5.9 – 10.7	359,307	8.4	5.6 – 11.3
Sales representatives, commodities and finance	1,440,892	7.7	6.1 – 9.3	715,112	8.0	5.9 – 10.1	492,132	8.9	6.1 – 11.6
Officials and administrators, public administration	211,360	7.7	4.0 – 11.3	138,113	8.3	2.7 – 14.0	55,574	7.4	0.3 – 14.6
Motor vehicle operators	1,455,031	7.6	6.0 – 9.1	835,501	6.8	5.0 – 8.5	1,206,000	6.7	5.1 – 8.3
Engineers	1,167,515	7.3	5.6 – 8.9	389,506	7.0	4.3 – 9.7	224,853	9.6	5.7 – 13.5
Health diagnosing	559,165	7.1	4.8 – 9.5	169,141	7.9	3.2 – 12.7	32,205	-	-
Mechanics and repairers	1,888,029	6.8	5.6 – 8.0	1,144,308	7.8	6.0 – 9.6	1,430,335	7.3	5.8 – 8.8
Machine operators and tenderers, except precision	1,261,403	6.7	5.3 – 8.2	586,889	6.9	4.2 – 9.6	1,054,754	6.8	5.2 – 8.4

See footnotes at end of table.

Table 9-18 (page 2 of 2). Asthma: Estimated prevalence by current occupation and smoking status, U.S. male residents age 18 and over, 1997–2004

Occupation	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Farm operators and managers	443,572	6.7	3.9 – 9.6	183,077	5.5	2.5 – 8.6	108,186	1.3	0.0 – 3.3
Precision production	1,086,607	6.5	4.9 – 8.0	668,954	8.4	6.0 – 10.8	823,845	7.4	5.5 – 9.2
Secretaries, stenographers, and typists	36,365	6.5	0.0 – 14.9	12,181	13.7	0.0 – 32.6	11,328	11.1	0.0 – 31.5
Health service	142,779	6.3	2.5 – 10.2	46,093	6.6	0.0 – 13.3	96,996	12.3	6.1 – 18.6
Health technologist and technicians	229,360	6.1	2.7 – 9.5	64,601	8.8	1.4 – 16.3	79,124	9.5	3.1 – 15.8
Construction and extractive trades	2,389,704	5.9	4.8 – 6.9	1,079,560	7.6	6.0 – 9.3	2,180,360	6.2	5.1 – 7.2
Fabricators, assemblers, inspectors and samplers	724,511	5.8	3.9 – 7.7	347,934	10.2	6.8 – 13.7	575,251	8.0	5.5 – 10.6
Mail and message distributing	265,063	5.8	2.3 – 9.3	136,442	7.2	2.7 – 11.6	113,527	12.6	5.8 – 19.5
Material moving equipment operators	468,082	5.7	3.6 – 7.8	244,344	7.2	3.4 – 11.0	382,728	8.5	5.3 – 11.8
Construction laborers	480,846	5.5	3.3 – 7.7	167,989	5.2	1.8 – 8.7	378,735	6.3	3.9 – 8.6
Farm workers and other agricultural workers	837,877	5.4	3.3 – 7.4	281,622	9.3	5.3 – 13.3	489,857	7.0	4.6 – 9.5
Health assessment and treating occupations	266,133	5.4	2.6 – 8.2	105,458	12.8	5.3 – 20.4	61,057	4.9	0.0 – 10.0
Other transportation, except motor vehicles	84,043	3.9	0.0 – 9.1	51,671	2.9	0.0 – 6.3	52,907	13.9	1.7 – 26.1
Military	7,735	-	-	5,609	-	-	3,218	13.7	0.0 – 40.7
Refused, not ascertained, don't know	1,389,892	4.4	3.3 – 5.5	362,111	7.5	4.5 – 10.5	448,392	5.9	3.8 – 8.0
TOTAL	**36,539,662**	**7.8**	**7.5 – 8.1**	**15,513,906**	**8.3**	**7.8 – 8.8**	**18,370,185**	**7.7**	**7.3 – 8.1**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-19 (page 1 of 2). Asthma: Estimated prevalence by current occupation and smoking status, U.S. female residents age 18 and over, 1997–2004

Occupation	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Officials and administrators, public administration	220,201	5.6	2.8 – 8.4	89,460	8.8	3.5 – 14.0	61,349	6.6	0.7 – 12.5
Police and firefighters	132,786	5.6	1.5 – 9.6	31,735	0.0	-	55,878	5.5	0.0 – 11.5
Other professional specialty	909,707	5.6	4.1 – 7.1	330,821	4.2	2.1 – 6.2	205,699	4.2	1.9 – 6.5
Engineers	151,038	5.3	1.9 – 8.7	27,760	11.1	0.0 – 23.6	24,035	2.1	0.0 – 6.3
Teachers, librarians, and counselors	3,468,490	5.2	4.4 – 6.0	811,447	6.2	4.6 – 7.8	475,430	4.2	2.4 – 6.1
Farm workers and other agricultural workers	222,703	5.0	1.8 – 8.2	49,655	-	0.0 – 0.0	94,436	2.8	0.5 – 5.1
Health technologist and technicians	889,100	4.9	3.4 – 6.4	267,158	6.7	3.7 – 9.8	332,399	6.1	3.7 – 8.4
Technologist and technicians except health	519,699	4.8	3.1 – 6.6	141,367	4.3	1.3 – 7.4	185,022	5.1	2.4 – 7.9
Health assessment and treating occupations	1,891,276	4.5	3.6 – 5.4	609,435	5.4	3.6 – 7.3	399,501	4.4	2.4 – 6.3
Managers and administrators, except public administration	2,865,633	4.5	3.7 – 5.2	1,075,062	5.6	4.2 – 6.9	1,166,159	4.0	2.9 – 5.1
Other administrative support	5,106,381	4.5	4.0 – 5.1	1,390,390	5.7	4.5 – 6.9	1,827,172	3.8	3.0 – 4.6
Financial records processing	1,098,535	4.4	2.6 – 6.1	371,249	4.1	2.2 – 6.0	423,950	5.1	3.1 – 7.0
Supervisors and proprietors	812,965	4.4	2.9 – 5.8	300,593	5.0	2.4 – 7.6	424,163	4.1	2.3 – 6.0
Personal service	1,405,968	4.3	3.1 – 5.4	397,473	8.6	5.7 – 11.6	460,906	4.1	2.3 – 5.8
Computer equipment operators	127,759	4.3	0.5 – 8.1	34,268	4.5	0.0 – 9.5	43,075	3.5	0.0 – 8.3
Health diagnosing	232,484	4.3	1.3 – 7.3	42,299	7.4	0.2 – 14.5	22,309	-	-
Writers, artists, entertainers, and athletes	692,906	4.2	2.8 – 5.7	261,168	5.5	2.9 – 8.1	172,638	2.9	0.8 – 5.0
Other protective service	148,231	4.1	1.3 – 7.0	35,050	8.8	0.0 – 18.2	81,632	9.6	3.9 – 15.3
Health service	1,336,120	4.1	2.9 – 5.2	342,732	7.1	4.4 – 9.8	674,356	7.1	5.2 – 9.0
Other sales	2,235,985	4.0	3.0 – 4.9	539,443	4.6	2.9 – 6.4	1,033,304	6.0	4.5 – 7.4
Management related	1,804,092	4.0	3.1 – 5.0	570,587	5.6	3.8 – 7.5	583,354	3.2	2.0 – 4.5
Architects and surveyors	33,126	4.0	0.0 – 9.6	3,977	-	0.0 – 0.0	3,543	-	-
Secretaries, stenographers, and typists	1,609,775	3.9	3.0 – 4.9	498,587	5.6	3.5 – 7.6	508,695	4.1	2.2 – 6.0
Mechanics and repairers	98,179	3.7	0.0 – 7.4	42,676	8.1	0.1 – 16.0	65,010	7.4	1.4 – 13.4
Food service	1,561,496	3.5	2.6 – 4.5	402,155	4.4	2.5 – 6.4	1,210,298	5.8	4.5 – 7.2
Motor vehicle operators	259,178	3.5	1.5 – 5.4	84,885	9.3	3.5 – 15.1	160,657	5.5	2.2 – 8.8
Sales representatives, commodities and finance	890,693	3.5	2.2 – 4.7	321,575	3.2	1.4 – 5.0	359,762	4.4	2.4 – 6.4

See footnotes at end of table.

Table 9-19 (page 2 of 2). Asthma: Estimated prevalence by current occupation and smoking status, U.S. female residents age 18 and over, 1997–2004

Occupation	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Natural mathematical and computer scientists	554,934	3.5	2.1 – 4.8	145,870	6.2	2.6 – 9.8	99,027	4.4	0.4 – 8.3
Cleaning and building service	856,612	3.3	2.1 – 4.4	163,847	5.4	1.8 – 9.0	400,609	4.8	3.0 – 6.6
Construction and extractive trades	56,976	2.9	0.0 – 7.1	23,240	8.2	0.0 – 23.1	72,338	3.9	0.0 – 8.0
Mail and message distributing	195,479	2.6	0.6 – 4.6	83,788	5.5	1.3 – 9.6	94,557	4.1	0.1 – 8.1
Fabricators, assemblers, inspectors and samplers	588,217	2.5	1.2 – 3.9	137,116	6.1	2.4 – 9.7	271,781	2.7	1.1 – 4.4
Precision production	429,435	2.3	1.0 – 3.6	140,321	5.1	1.2 – 8.9	239,975	4.8	2.1 – 7.6
Machine operators and tenderers, except precision	852,992	2.2	1.2 – 3.3	196,545	3.3	0.9 – 5.6	431,808	3.1	1.3 – 4.9
Freight, stock and material handlers	525,591	2.1	0.9 – 3.3	90,544	2.5	0.0 – 5.0	296,607	2.9	1.2 – 4.6
Private household	431,023	1.8	0.6 – 2.9	104,321	6.9	1.6 – 12.2	117,937	5.7	0.0 – 11.5
Farm operators and managers	100,037	1.0	0.0 – 3.0	26,660	5.9	0.0 – 13.8	28,396	4.6	0.0 – 11.1
Material moving equipment operators	29,822	1.0	0.0 – 2.9	13,351	4.4	0.0 – 12.9	32,397	3.8	0.0 – 9.5
Construction laborers	10,386	-	-	2,396	-	-	13,780	12.4	0.0 – 30.5
Other transportation, except motor vehicles	1,572	-	-	648	-	-	2,080	11.2	0.0 – 33.9
Forestry and fishing	2,648	-	-	1,869	-	-	821	-	-
Military	2,844	-	-	1,586	-	-	1,971	-	-
Refused, not ascertained, don't know	1,428,577	2.0	1.4 – 2.7	238,781	5.3	2.8 – 7.7	333,188	3.7	1.8 – 5.5
TOTAL	**36,792,977**	**9.7**	**9.4 – 10.0**	**10,446,053**	**12.5**	**11.8 – 13.1**	**13,496,359**	**11.5**	**10.9 – 12.0**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-20 (page 1 of 2). Asthma attack in past 12 months: Estimated prevalence by current industry and smoking status, U.S. residents age 18 and over, 1997–2004

Industry	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Social services, religious and membership organizations	2,926,783	5.2	4.3 – 6.1	996,694	5.0	3.7 – 6.2	855,931	4.2	2.9 – 5.4
Health services, except hospitals	4,220,379	4.3	3.6 – 4.9	1,326,263	5.3	4.0 – 6.5	1,544,324	5.1	4.1 – 6.1
Elementary and secondary schools and colleges	7,395,372	4.3	3.9 – 4.8	2,004,792	4.7	3.8 – 5.6	1,330,442	2.9	2.0 – 3.7
Printing publishing and allied industries	818,225	4.2	2.7 – 5.7	371,680	2.9	1.3 – 4.5	433,901	1.9	0.6 – 3.2
Banking and credit agencies	1,774,282	4.0	3.0 – 4.9	504,815	3.0	1.5 – 4.4	546,012	3.4	1.9 – 5.0
Furniture, lumber and wood	687,181	3.9	2.0 – 5.8	273,128	2.3	0.7 – 3.9	477,650	1.0	0.1 – 1.9
Eating and drinking places	2,884,106	3.8	3.0 – 4.6	695,747	3.3	1.8 – 4.9	2,248,445	4.4	3.5 – 5.3
Communications	1,104,050	3.7	2.5 – 4.8	390,508	3.8	2.0 – 5.6	422,291	4.0	2.2 – 5.8
Entertainment and recreation services	1,374,662	3.6	2.3 – 5.0	437,711	6.1	3.7 – 8.4	517,506	2.7	1.3 – 4.1
Hospitals	3,323,384	3.5	2.9 – 4.1	1,009,095	5.0	3.7 – 6.4	905,288	3.9	2.7 – 5.2
Business services	3,964,486	3.4	2.8 – 4.0	1,361,870	4.2	3.1 – 5.3	1,767,725	4.1	3.2 – 5.1
Legal, engineering and other professional services	3,005,822	3.4	2.7 – 4.0	1,097,289	4.1	2.9 – 5.2	792,489	2.6	1.6 – 3.7
Insurance, real estate and other finance	3,170,966	3.3	2.5 – 4.0	1,247,369	3.6	2.6 – 4.6	1,155,766	3.6	2.5 – 4.6
Other and not specified retail trade	3,588,458	3.3	2.6 – 3.9	1,240,551	2.9	2.0 – 3.8	1,529,268	3.3	2.5 – 4.2
Automotive dealers and gasoline stations	921,072	3.3	2.0 – 4.6	397,469	2.3	0.9 – 3.8	672,853	2.9	1.4 – 4.3
Food, bakery and dairy stores	1,526,023	3.2	2.1 – 4.3	446,161	2.9	1.5 – 4.3	861,100	5.0	3.5 – 6.6
Public administration	3,573,316	3.1	2.5 – 3.7	1,406,952	3.2	2.3 – 4.1	1,187,671	2.9	2.0 – 3.8
Other educational services	349,521	3.0	1.5 – 4.5	137,436	3.0	0.6 – 5.5	76,686	3.4	0.2 – 6.6
General merchandise stores	1,338,543	2.9	1.9 – 3.8	377,356	4.7	2.7 – 6.7	564,335	3.8	2.1 – 5.5
Transportation equipment	1,107,039	2.8	1.7 – 3.8	556,899	3.1	1.5 – 4.7	597,209	2.9	1.5 – 4.3
Other transportation	1,520,149	2.7	1.8 – 3.6	709,055	2.9	1.8 – 4.1	677,128	4.1	2.6 – 5.6
Other personal services	1,674,915	2.6	1.8 – 3.4	607,166	4.4	2.6 – 6.1	913,108	3.6	2.4 – 4.8
Other and not specified durable goods	1,104,659	2.5	1.4 – 3.5	449,663	4.6	2.5 – 6.7	534,616	2.3	1.1 – 3.5
Wholesale trade	2,137,212	2.5	1.8 – 3.2	952,149	2.9	1.8 – 4.0	1,089,183	1.7	1.0 – 2.4
Chemicals and allied products	680,301	2.4	1.2 – 3.5	266,746	0.7	0.0 – 1.7	252,556	1.1	0.0 – 2.3
Trucking service and warehousing	1,197,822	2.2	1.3 – 3.2	494,129	2.0	0.6 – 3.4	789,818	2.6	1.4 – 3.7
Utilities and sanitary	732,957	2.2	1.1 – 3.3	338,062	3.2	1.2 – 5.3	333,258	1.0	0.1 – 1.8
Primary metal industry	326,480	2.1	0.5 – 3.7	169,513	2.2	0.1 – 4.3	247,279	3.6	0.9 – 6.4

See footnotes at end of table.

Table 9-20 (page 2 of 2). Asthma attack in past 12 months: Estimated prevalence by current industry and smoking status, U.S. residents age 18 and over, 1997–2004

Industry	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Construction	3,985,288	2.1	1.6 – 2.5	1,804,630	1.9	1.3 – 2.6	3,296,357	1.8	1.4 – 2.3
Private households	543,221	2.0	1.0 – 3.1	136,039	7.5	3.1 – 11.9	177,152	4.6	0.5 – 8.6
Electrical machinery, equipment and supplies	915,210	2.0	1.2 – 2.8	312,445	2.7	0.7 – 4.7	388,785	1.8	0.2 – 3.4
Fabricated metal industries, including ordnance	459,245	1.9	0.6 – 3.2	256,876	4.3	1.2 – 7.4	369,407	2.6	0.7 – 4.6
Agriculture	1,692,103	1.9	1.2 – 2.7	570,676	2.5	1.3 – 3.7	710,409	2.1	1.1 – 3.1
Mining	238,721	1.9	0.4 – 3.4	89,919	0.9	0.0 – 2.3	162,418	1.6	0.1 – 3.0
Railroads	123,505	1.9	0.0 – 5.5	76,471	1.1	0.0 – 2.6	79,725	0.7	0.0 – 1.6
Repair services	774,323	1.8	0.8 – 2.8	442,147	1.7	0.6 – 2.9	697,805	3.5	2.0 – 5.1
Machinery, except electrical	1,012,010	1.8	1.0 – 2.7	465,639	3.0	1.2 – 4.9	548,260	1.9	0.6 – 3.1
Textile mill and finished textile products	668,322	1.4	0.5 – 2.2	188,813	2.2	0.1 – 4.2	325,896	1.5	0.3 – 2.6
Other nondurable goods	705,306	1.3	0.5 – 2.0	367,915	2.1	0.7 – 3.5	450,861	2.1	0.6 – 3.7
Food and kindred products	963,813	1.3	0.6 – 2.0	368,240	0.8	0.0 – 1.5	541,573	1.1	0.3 – 1.8
Forestry and fisheries	81,726	0.4	0.0 – 1.3	42,998	-	-	36,539	-	-
Armed forces (excludes Reserves and National Guard)	19,585	-	-	8,740	-	-	5,636	7.8	0.0 – 23.3
Refused, not ascertained, don't know	2,713,880	1.5	1.0 – 2.0	556,268	2.9	1.6 – 4.2	744,936	2.8	1.7 – 3.8
TOTAL	**73,324,420**	**3.2**	**3.0 – 3.3**	**25,954,077**	**3.5**	**3.3 – 3.7**	**31,859,595**	**3.1**	**2.9 – 3.3**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-21 (page 1 of 2). Asthma attack in past 12 months: Estimated prevalence by current industry and smoking status, U.S. male residents age 18 and over, 1997–2004

Industry	Nonsmokers			Current Smokers			Former Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Printing publishing and allied industries	436,865	3.6	1.5 – 5.7	280,669	1.7	0.1 – 3.2	227,159	2.6	0.6 – 4.6
Eating and drinking places	1,351,454	3.3	2.1 – 4.5	1,010,197	2.6	1.5 – 3.7	333,229	3.3	0.5 – 6.0
Communications	629,337	3.1	1.7 – 4.6	252,357	3.3	1.0 – 5.7	250,291	1.5	0.2 – 2.9
Business services	2,223,188	3.1	2.2 – 3.9	1,002,209	3.0	1.9 – 4.1	832,901	2.9	1.8 – 4.1
Social services, religious and membership organizations	719,760	3.1	1.8 – 4.4	213,433	2.5	0.4 – 4.6	340,194	2.5	1.1 – 4.0
Legal, engineering and other professional services	1,591,163	3.0	2.1 – 3.8	387,374	1.9	0.4 – 3.3	641,272	3.0	1.7 – 4.3
Elementary and secondary schools and colleges	2,224,341	3.0	2.3 – 3.8	457,917	1.1	0.2 – 1.9	711,146	2.0	1.0 – 3.0
Food, bakery and dairy stores	724,506	2.8	1.4 – 4.2	360,656	2.5	0.8 – 4.1	237,988	1.4	0.1 – 2.7
Insurance, real estate and other finance	1,449,079	2.8	1.9 – 3.8	501,032	1.9	0.7 – 3.0	673,128	2.0	0.9 – 3.1
Banking and credit agencies	532,216	2.8	0.9 – 4.7	182,624	1.4	0.0 – 2.9	193,417	1.7	0.0 – 3.3
Other educational services	91,214	2.8	0.0 – 6.2	31,996	-	-	58,862	1.2	0.0 – 3.5
Other transportation	897,513	2.6	1.3 – 3.8	447,574	2.9	1.2 – 4.6	502,733	1.1	0.2 – 2.0
Furniture, lumber and wood	488,909	2.6	1.0 – 4.3	373,564	0.7	0.0 – 1.7	225,719	2.4	0.6 – 4.2
Other personal services	520,249	2.4	1.0 – 3.8	367,235	2.4	0.7 – 4.1	268,906	2.6	0.5 – 4.8
Transportation equipment	820,586	2.4	1.2 – 3.5	439,923	2.2	0.7 – 3.7	449,922	2.8	1.1 – 4.5
Automotive dealers and gasoline stations	683,611	2.4	1.0 – 3.8	466,183	1.9	0.1 – 3.6	322,278	1.9	0.4 – 3.3
Entertainment and recreation services	796,115	2.4	0.9 – 3.8	305,929	1.5	0.1 – 2.9	251,642	3.2	1.1 – 5.4
Health services, except hospitals	896,975	2.2	1.2 – 3.2	230,733	4.5	2.1 – 6.8	320,868	3.0	0.4 – 5.6
Machinery, except electrical	749,288	2.2	1.1 – 3.3	437,389	2.1	0.6 – 3.7	380,228	2.7	0.6 – 4.9
Wholesale trade	1,436,034	2.2	1.3 – 3.0	804,606	1.1	0.5 – 1.8	735,735	1.9	0.8 – 2.9
Chemicals and allied products	437,442	2.2	0.9 – 3.6	165,918	0.9	0.0 – 2.1	195,022	0.9	0.0 – 2.3
Trucking service and warehousing	954,496	2.1	1.0 – 3.2	646,785	2.3	1.1 – 3.6	427,023	1.4	0.0 – 2.8
Other and not specified retail trade	1,626,531	2.1	1.3 – 2.9	775,766	1.8	0.9 – 2.7	646,741	2.1	1.0 – 3.1
Utilities and sanitary	581,915	2.1	0.9 – 3.4	271,018	0.8	0.0 – 1.7	281,922	3.2	0.9 – 5.5
Hospitals	751,433	1.9	0.9 – 2.9	204,907	2.7	0.5 – 4.8	278,750	2.3	0.4 – 4.2
Construction	3,553,325	1.9	1.4 – 2.4	3,041,470	1.7	1.2 – 2.2	1,649,806	1.4	0.8 – 1.9
Other and not specified durable goods	694,378	1.9	0.7 – 3.2	373,867	1.3	0.1 – 2.5	323,603	4.1	1.5 – 6.7
Primary metal industry	280,072	1.8	0.2 – 3.4	212,678	3.8	0.7 – 7.0	145,923	2.5	0.1 – 5.0

See footnotes at end of table.

Table 9-21 (page 2 of 2). Asthma attack in past 12 months: Estimated prevalence by current industry and smoking status, U.S. male residents age 18 and over, 1997–2004

Industry	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Public administration	1,913,141	1.7	1.2 – 2.3	876,657	2.1	1.1 – 3.0	593,863	1.7	0.7 – 2.7
Fabricated metal industries, including ordnance	350,276	1.6	0.1 – 3.0	207,868	3.9	0.3 – 7.5	295,535	1.8	0.2 – 3.5
Repair services	664,515	1.5	0.4 – 2.5	411,488	1.6	0.4 – 2.8	634,585	2.9	1.3 – 4.5
Electrical machinery, equipment and supplies	586,945	1.5	0.6 – 2.4	212,249	1.1	0.0 – 2.2	235,722	0.7	0.0 – 2.0
Agriculture	1,267,735	1.4	0.6 – 2.2	461,568	2.4	1.0 – 3.7	560,075	1.6	0.6 – 2.7
Mining	204,301	1.3	0.0 – 2.7	80,906	-	-	147,303	1.5	0.0 – 3.1
Food and kindred products	608,220	0.9	0.2 – 1.7	286,064	0.5	0.0 – 1.3	387,603	1.1	0.2 – 2.1
Other nondurable goods	494,180	0.7	0.0 – 1.5	300,751	1.9	0.4 – 3.5	320,082	2.2	0.3 – 4.1
Textile mill and finished textile products	265,252	0.7	0.0 – 1.7	120,345	0.7	0.0 – 1.9	161,601	-	-
General merchandise stores	441,285	0.4	0.0 – 1.0	170,824	1.4	0.0 – 2.8	203,243	4.0	0.9 – 7.0
Armed forces (excludes Reserves and National Guard)	14,026	-	-	7,154	-	-	3,218	13.7	0.0 – 40.7
Railroads	111,392	-	-	72,740	1.1	0.0 – 2.8	74,998	0.4	0.0 – 1.2
Forestry and fisheries	60,105	-	-	33,924	-	-	31,731	-	-
Private households	28,358	-	-	8,885	-	-	25,100	-	-
Refused, not ascertained, don't know	1,381,048	1.3	0.6 – 1.9	352,362	2.0	0.5 – 3.5	446,928	1.8	0.7 – 2.8
TOTAL	**36,532,771**	**2.2**	**2.1 – 2.4**	**15,510,190**	**2.1**	**1.9– 2.3**	**18,367,592**	**2.0**	**1.8 – 2.2**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-22 (page 1 of 2). Asthma attack in past 12 months: Estimated prevalence by current industry and smoking status, U.S. female residents age 18 and over, 1997–2004

Industry	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Railroads	12,112	19.1	0.0 – 50.5	3,731	-	-	4,727	4.9	0.0 – 14.6
Furniture, lumber and wood	198,272	7.0	2.0 – 11.9	47,409	1.7	0.0 – 4.9	104,087	2.2	0.0 – 4.4
Social services, religious and membership organizations	2,207,023	5.9	4.8 – 7.0	656,500	6.2	4.4 – 8.0	642,498	4.7	3.2 – 6.2
Automotive dealers and gasoline stations	237,462	5.8	2.6 – 9.0	75,192	4.4	0.1 – 8.7	206,670	5.0	2.3 – 7.7
Mining	34,420	5.6	0.0 – 12.2	9,012	9.4	0.0 – 22.7	15,115	2.0	0.0 – 6.0
Entertainment and recreation services	578,547	5.3	2.8 – 7.8	186,070	9.9	5.3 – 14.6	211,577	4.4	1.8 – 7.1
Elementary and secondary schools and colleges	5,171,032	4.9	4.3 – 5.5	1,293,646	6.2	4.9 – 7.5	872,525	3.8	2.5 – 5.1
Printing publishing and allied industries	381,360	4.9	2.7 – 7.1	144,521	3.4	0.5 – 6.3	153,233	2.3	0.1 – 4.6
Health services, except hospitals	3,323,405	4.8	4.1 – 5.6	1,005,395	6.0	4.5 – 7.4	1,313,591	5.2	4.1 – 6.3
Public administration	1,660,175	4.7	3.7 – 5.7	530,295	5.0	3.4 – 6.7	593,808	4.1	2.6 – 5.6
Communications	474,713	4.4	2.5 – 6.3	140,216	7.8	3.4 – 12.2	169,933	5.0	2.1 – 7.9
Banking and credit agencies	1,242,065	4.4	3.3 – 5.6	311,398	3.8	1.7 – 5.9	363,388	4.4	2.3 – 6.6
Eating and drinking places	1,532,651	4.2	3.1 – 5.4	362,518	3.4	1.7 – 5.1	1,238,248	5.9	4.6 – 7.2
Other and not specified retail trade	1,961,927	4.2	3.3 – 5.2	593,809	3.7	2.2 – 5.2	753,502	5.0	3.5 – 6.4
General merchandise stores	897,258	4.1	2.7 – 5.5	206,532	7.5	4.1 – 10.9	361,092	3.7	1.7 – 5.8
Primary metal industry	46,408	4.0	0.0 – 9.4	23,590	-	-	34,601	2.5	0.0 – 6.1
Business services	1,741,298	3.9	3.0 – 4.8	528,969	6.2	4.1 – 8.2	765,516	5.6	4.0 – 7.1
Hospitals	2,571,951	3.9	3.2 – 4.7	730,345	6.1	4.3 – 7.8	700,381	4.3	2.8 – 5.8
Repair services	109,808	3.8	0.7 – 6.9	30,659	3.1	0.0 – 9.2	63,220	9.8	3.1 – 16.6
Transportation equipment	286,453	3.8	1.4 – 6.3	106,977	4.3	0.5 – 8.1	157,287	4.9	1.9 – 7.8
Legal, engineering and other professional services	1,414,660	3.8	2.8 – 4.9	456,017	5.6	3.6 – 7.5	405,115	3.4	1.8 – 5.0
Agriculture	424,368	3.7	1.7 – 5.6	109,108	2.9	0.0 – 6.0	150,333	3.9	1.3 – 6.6
Food, bakery and dairy stores	801,517	3.6	2.0 – 5.1	208,173	4.7	2.1 – 7.3	500,444	6.9	4.5 – 9.3
Insurance, real estate and other finance	1,721,887	3.6	2.4 – 4.8	574,241	5.5	3.7 – 7.3	654,735	4.9	3.3 – 6.4
Construction	431,963	3.6	1.6 – 5.5	154,824	7.9	3.1 – 12.6	254,887	3.5	1.5 – 5.6
Other and not specified durable goods	410,281	3.4	1.6 – 5.3	126,059	5.8	2.3 – 9.4	160,749	4.5	1.6 – 7.4
Wholesale trade	701,178	3.2	2.0 – 4.5	216,414	6.5	3.2 – 9.8	284,577	3.2	1.4 – 4.9
Other educational services	258,307	3.1	1.5 – 4.7	78,574	4.4	0.5 – 8.3	44,690	5.8	0.4 – 11.3

See footnotes at end of table.

Table 9-22 (page 2 of 2). Asthma attack in past 12 months: Estimated prevalence by current industry and smoking status, U.S. female residents age 18 and over, 1997–2004

Industry	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Fabricated metal industries, including ordnance	108,970	3.1	0.2 – 6.0	49,008	6.0	0.0 – 12.3	73,872	5.8	0.0 – 12.8
Other transportation	622,636	2.9	1.7 – 4.0	206,322	7.4	4.1 – 10.7	229,554	6.4	3.6 – 9.2
Electrical machinery, equipment and supplies	328,265	2.9	1.1 – 4.6	100,196	6.2	0.6 – 11.8	153,063	3.5	0.1 – 6.9
Other personal services	1,154,666	2.7	1.7 – 3.6	338,260	5.8	3.1 – 8.4	545,874	4.4	2.9 – 6.0
Trucking service and warehousing	243,326	2.7	0.6 – 4.8	67,106	6.1	0.9 – 11.2	143,033	3.5	0.8 – 6.2
Utilities and sanitary	151,042	2.6	0.4 – 4.8	56,140	3.4	0.0 – 7.1	62,240	1.8	0.0 – 4.1
Chemicals and allied products	242,859	2.6	0.5 – 4.8	71,724	-	-	86,638	1.7	0.0 – 4.2
Other nondurable goods	211,125	2.5	0.7 – 4.3	67,164	2.9	0.0 – 6.5	130,779	2.0	0.0 – 4.3
Private households	514,863	2.1	1.0 – 3.2	127,154	8.0	3.3 – 12.8	152,052	5.3	0.7 – 10.0
Food and kindred products	355,593	1.9	0.4 – 3.4	82,176	1.6	0.0 – 3.5	153,969	0.9	0.0 – 1.8
Textile mill and finished textile products	403,070	1.8	0.5 – 3.1	68,468	4.8	0.0 – 9.8	164,295	2.9	0.5 – 5.2
Forestry and fisheries	21,621	1.7	0.0 – 5.0	9,074	-	-	4,808	-	-
Machinery, except electrical	262,722	0.9	0.0 – 1.9	85,411	4.4	0.7 – 8.0	110,871	0.9	0.0 – 2.3
Armed forces (excludes Reserves and National Guard)	5,559	-	-	1,586	-	-	2,418	-	-
Refused, not ascertained, don't know	1,332,832	1.7	1.1 – 2.4	203,906	4.4	2.0 – 6.8	298,008	4.3	2.1 – 6.4
TOTAL	**36,791,650**	**4.1**	**3.9 – 4.3**	**10,443,887**	**5.5**	**5.1 – 6.0**	**13,492,003**	**4.6**	**4.2 – 4.9**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-23 (page 1 of 2). Asthma attack in past 12 months: Estimated prevalence by current occupation and smoking status, U.S. residents age 18 and over, 1997–2004

Occupation	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Architects and surveyors	139,408	4.7	1.4 – 8.1	59,655	1.5	0.0 – 4.3	30,361	-	-
Teachers, librarians, and counselors	4,946,322	4.5	3.9 – 5.1	1,264,637	4.9	3.8 – 6.1	714,610	3.2	1.9 – 4.5
Health technologist and technicians	1,118,460	4.2	2.9 – 5.4	331,759	5.5	3.1 – 8.0	411,523	6.0	3.9 – 8.2
Financial records processing	1,225,524	4.2	2.6 – 5.8	407,538	3.8	2.0 – 5.5	471,378	4.9	3.1 – 6.7
Health assessment and treating occupations	2,157,409	4.2	3.4 – 5.1	714,893	5.5	3.7 – 7.3	460,559	4.1	2.3 – 5.8
Other professional specialty	1,838,285	4.2	3.3 – 5.1	746,664	3.1	1.9 – 4.4	353,436	3.0	1.4 – 4.6
Other administrative support	6,749,571	4.1	3.6 – 4.6	1,992,076	4.7	3.8 – 5.6	2,565,801	3.5	2.8 – 4.2
Secretaries, stenographers, and typists	1,646,141	4.0	3.0 – 4.9	510,767	5.7	3.6 – 7.7	520,023	4.2	2.3 – 6.1
Health service	1,478,898	3.8	2.8 – 4.9	388,825	6.6	4.2 – 9.0	771,352	6.8	5.1 – 8.6
Personal service	1,668,368	3.8	2.8 – 4.8	504,559	7.1	4.7 – 9.5	574,309	4.2	2.6 – 5.7
Technologists and technicians except health	1,565,082	3.8	2.8 – 4.9	550,089	2.8	1.5 – 4.1	530,464	2.5	1.3 – 3.7
Officials and administrators, public administration	431,561	3.7	2.0 – 5.4	227,573	3.6	1.4 – 5.7	116,922	5.6	1.4 – 9.8
Other protective service	481,854	3.6	2.1 – 5.2	202,840	3.8	1.3 – 6.4	276,970	5.0	2.6 – 7.3
Cleaning and building service	1,626,735	3.6	2.6 – 4.7	536,175	3.0	1.5 – 4.4	913,111	3.0	2.1 – 4.0
Food service	2,636,258	3.5	2.7 – 4.3	661,352	4.1	2.3 – 5.8	2,065,809	4.4	3.5 – 5.3
Writers, artists, entertainers, and athletes	1,375,809	3.5	2.6 – 4.5	530,710	4.6	2.8 – 6.4	409,918	2.5	1.1 – 3.8
Other sales	3,500,215	3.4	2.7 – 4.1	996,598	3.7	2.5 – 4.8	1,649,426	4.7	3.6 – 5.7
Management related	3,080,545	3.4	2.7 – 4.1	1,089,447	4.2	3.1 – 5.4	942,661	2.5	1.6 – 3.4
Managers and administrators, except public administration	6,738,014	3.3	2.8 – 3.7	2,989,964	3.5	2.8 – 4.1	2,735,016	2.9	2.2 – 3.5
Health diagnosing	791,649	3.3	1.9 – 4.7	211,441	2.7	0.3 – 5.1	54,515	-	-
Supervisors and proprietors	1,998,764	3.1	2.3 – 4.0	862,976	2.4	1.3 – 3.5	983,403	2.4	1.5 – 3.3
Natural mathematical and computer scientists	1,724,794	3.0	2.2 – 3.8	558,856	3.3	1.8 – 4.8	354,239	3.4	1.4 – 5.5
Computer equipment operators	232,805	3.0	0.7 – 5.2	68,947	5.4	0.0 – 11.2	72,501	3.0	0.0 – 6.3
Sales representatives, commodities and finance	2,331,585	2.8	2.1 – 3.5	1,036,688	2.3	1.4 – 3.1	851,895	3.5	2.3 – 4.7
Motor vehicle operators	1,714,208	2.5	1.6 – 3.3	920,386	2.1	1.2 – 3.0	1,366,656	2.5	1.6 – 3.4
Freight, stock and material handlers	2,073,394	2.3	1.6 – 3.1	514,471	1.8	0.8 – 2.8	1,236,000	2.2	1.3 – 3.1
Farm workers and other agricultural workers	1,060,580	2.2	1.1 – 3.3	331,277	1.2	0.1 – 2.3	584,293	2.2	1.1 – 3.4
Machine operators and tenderers, except precision	2,114,395	2.1	1.4 – 2.7	783,434	2.6	1.5 – 3.7	1,486,562	1.8	1.1 – 2.5

See footnotes at end of table.

Table 9-23 (page 2 of 2). Asthma attack in past 12 months: Estimated prevalence by current occupation and smoking status, U.S. residents age 18 and over, 1997–2004

Occupation	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Precision production	1,515,201	2.0	1.3 – 2.8	809,275	2.8	1.6 – 4.1	1,063,820	2.2	1.3 – 3.1
Police and firefighters	883,103	2.0	1.1 – 3.0	296,303	2.4	0.5 – 4.3	264,605	2.2	0.4 – 3.9
Mechanics and repairers	1,984,557	2.0	1.3 – 2.7	1,186,984	1.9	1.2 – 2.7	1,495,345	1.9	1.1 – 2.7
Construction and extractive trades	2,446,680	1.8	1.2 – 2.3	1,102,800	1.4	0.7 – 2.2	2,252,697	1.5	1.0 – 2.1
Private household	447,662	1.7	0.6 – 2.8	110,594	6.5	1.5 – 11.5	130,476	5.1	0.0 – 10.4
Engineers	1,318,553	1.7	1.0 – 2.5	417,266	3.4	1.4 – 5.5	248,887	2.5	0.6 – 4.5
Forestry and fishing	62,234	1.7	0.0 – 4.1	32,761	1.4	0.0 – 4.2	60,530	1.1	0.0 – 3.2
Fabricators, assemblers, inspectors and samplers	1,312,728	1.6	0.9 – 2.4	485,050	3.4	1.8 – 5.0	847,032	2.8	1.6 – 3.9
Mail and message distributing	460,542	1.4	0.5 – 2.4	220,229	3.5	1.3 – 5.7	208,084	4.9	1.4 – 8.4
Construction laborers	491,231	1.3	0.3 – 2.4	170,385	1.8	0.0 – 3.9	392,515	2.8	1.2 – 4.3
Farm operators and managers	543,609	1.3	0.2 – 2.5	209,737	3.1	0.9 – 5.4	136,582	1.0	0.0 – 2.3
Material moving equipment operators	497,904	0.7	0.0 – 1.4	257,695	2.1	0.0 – 4.5	414,130	2.6	0.9 – 4.2
Military	10,579	-	-	7,194	-	-	5,189	8.5	0.0 – 25.4
Other transportation, except motor vehicles	85,616	-	-	52,319	1.0	0.0 – 3.0	54,987	0.4	0.0 – 1.3
Refused, not ascertained, don't know	2,817,589	1.6	1.1 – 2.0	600,891	3.5	2.1 – 4.8	781,006	2.4	1.4 – 3.3
TOTAL	**73,324,420**	**3.2**	**3.0 – 3.3**	**25,954,077**	**3.5**	**3.3 – 3.7**	**31,859,595**	**3.1**	**2.9 – 3.3**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-24 (page 1 of 2). Asthma attack in past 12 months: Estimated prevalence by current occupation and smoking status, U.S. male residents age 18 and over, 1997–2004

Occupation	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Secretaries, stenographers, and typists	36,365	5.8	0.0 – 14.0	12,181	9.2	0.0 – 26.4	11,328	11.1	0.0 – 31.5
Architects and surveyors	106,282	5.0	0.9 – 9.0	55,679	1.6	0.0 – 4.7	26,818	-	-
Cleaning and building service	770,123	4.1	2.2 – 5.9	372,328	1.9	0.6 – 3.2	512,502	1.7	0.7 – 2.6
Food service	1,074,763	3.5	2.2 – 4.8	259,196	3.5	0.2 – 6.9	855,512	2.4	1.3 – 3.4
Other protective service	333,623	3.4	1.5 – 5.3	167,790	2.8	0.5 – 5.1	195,338	3.0	0.6 – 5.4
Technologist and technicians except health	1,045,383	3.3	2.1 – 4.6	408,722	2.2	0.9 – 3.6	345,442	1.1	0.0 – 2.1
Health diagnosing	559,165	2.9	1.4 – 4.4	169,141	1.5	0.0 – 4.0	32,205	-	-
Financial records processing	126,989	2.8	0.0 – 5.6	36,289	-	-	47,428	3.7	0.0 – 9.0
Natural mathematical and computer scientists	1,169,859	2.8	1.8 – 3.7	412,986	2.3	0.7 – 3.9	255,212	3.1	0.7 – 5.5
Other administrative support	1,643,189	2.8	1.8 – 3.7	601,686	2.3	1.1 – 3.6	738,629	2.8	1.6 – 4.0
Writers, artists, entertainers, and athletes	682,903	2.8	1.5 – 4.1	269,542	3.8	1.3 – 6.3	237,280	2.2	0.4 – 3.9
Other professional specialty	928,578	2.8	1.8 – 3.9	415,843	2.3	0.8 – 3.8	147,738	1.3	0.0 – 3.4
Teachers, librarians, and counselors	1,477,832	2.8	2.0 – 3.7	453,190	2.7	1.3 – 4.1	239,180	1.1	0.0 – 2.2
Management related	1,276,453	2.5	1.6 – 3.4	518,859	2.7	1.3 – 4.0	359,307	1.3	0.3 – 2.4
Other sales	1,264,229	2.4	1.5 – 3.4	457,155	2.5	1.1 – 3.9	616,122	2.5	1.2 – 3.8
Managers and administrators, except public administration	3,872,381	2.4	1.9 – 2.9	1,914,902	2.3	1.6 – 3.0	1,568,857	2.0	1.3 – 2.8
Freight, stock and material handlers	1,547,804	2.4	1.5 – 3.3	423,927	1.7	0.6 – 2.7	939,394	2.0	0.9 – 3.1
Sales representatives, commodities and finance	1,440,892	2.3	1.5 – 3.1	715,112	1.8	0.8 – 2.8	492,132	2.8	1.3 – 4.2
Health assessment and treating occupations	266,133	2.3	0.1 – 4.4	105,458	5.8	0.0 – 11.6	61,057	2.1	0.0 – 5.4
Motor vehicle operators	1,455,031	2.3	1.4 – 3.2	835,501	1.4	0.6 – 2.2	1,206,000	2.1	1.2 – 3.0
Supervisors and proprietors	1,185,799	2.3	1.3 – 3.3	562,384	1.0	0.2 – 1.8	559,240	1.2	0.4 – 1.9
Mechanics and repairers	1,886,379	1.9	1.3 – 2.6	1,144,308	1.7	1.0 – 2.4	1,430,335	1.6	0.8 – 2.4
Precision production	1,085,766	1.9	1.0 – 2.8	668,954	2.4	1.1 – 3.6	823,845	1.5	0.6 – 2.3
Machine operators and tenderers, except precision	1,261,403	1.9	1.1 – 2.8	586,889	2.4	1.2 – 3.7	1,054,754	1.3	0.6 – 2.0
Health service	142,779	1.8	0.0 – 4.0	46,093	3.0	0.0 – 7.3	96,996	5.2	1.2 – 9.1
Officials and administrators, public administration	211,360	1.8	0.1 – 3.5	138,113	0.2	0.0 – 0.6	55,574	4.5	0.0 – 10.5
Construction and extractive trades	2,389,704	1.8	1.2 – 2.3	1,079,560	1.3	0.6 – 2.0	2,180,360	1.5	1.0 – 2.0
Forestry and fishing	59,586	1.8	0.0 – 4.3	30,892	1.5	0.0 – 4.5	59,709	1.1	0.0 – 3.2

See footnotes at end of table.

Table 9-24 (page 2 of 2). Asthma attack in past 12 months: Estimated prevalence by current occupation and smoking status, U.S. male residents age 18 and over, 1997–2004

Occupation	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Health technologist and technicians	229,360	1.5	0.0 – 3.2	64,601	0.6	0.0 – 1.7	79,124	5.9	0.9 – 10.8
Personal service	262,401	1.4	0.4 – 2.4	107,086	1.4	0.0 – 4.0	113,402	4.5	0.8 – 8.2
Farm workers and other agricultural workers	837,877	1.4	0.4 – 2.5	281,622	1.4	0.1 – 2.7	489,857	2.1	0.8 – 3.5
Police and firefighters	750,317	1.4	0.5 – 2.3	264,568	2.7	0.5 – 4.8	208,727	1.3	0.0 – 2.7
Farm operators and managers	443,572	1.4	0.1 – 2.8	183,077	2.7	0.4 – 5.1	108,186	-	-
Engineers	1,167,515	1.3	0.5 – 2.0	389,506	2.9	0.9 – 4.9	224,853	2.6	0.4 – 4.7
Construction laborers	480,846	1.3	0.3 – 2.4	167,989	1.9	0.0 – 3.9	378,735	2.4	0.9 – 3.9
Computer equipment operators	105,046	1.3	0.0 – 3.3	34,679	6.3	0.0 – 16.7	29,427	2.2	0.0 – 6.5
Fabricators, assemblers, inspectors and samplers	724,511	0.9	0.2 – 1.7	347,934	2.3	0.7 – 4.0	575,251	2.8	1.3 – 4.3
Material moving equipment operators	468,082	0.7	0.0 – 1.4	244,344	2.0	0.0 – 4.4	381,733	2.5	0.8 – 4.2
Mail and message distributing	265,063	0.6	0.0 – 1.4	136,442	2.3	0.0 – 4.8	113,527	5.5	0.1 – 10.9
Other transportation, except motor vehicles	84,043	-	-	51,671	1.0	0.0 – 3.0	52,907	-	-
Military	7,735	-	-	5,609	-	-	3,218	13.7	0.0 – 40.7
Private household	16,639	-	-	6,273	-	-	12,539	-	-
Refused, not ascertained, don't know	1,389,012	1.1	0.5 – 1.8	362,111	2.3	0.7 – 3.8	447,817	1.4	0.5 – 2.4
TOTAL	**36,532,771**	**2.2**	**2.1 – 2.4**	**15,510,190**	**2.1**	**1.9 – 2.3**	**18,367,592**	**2.0**	**1.8 – 2.2**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.

Table 9-25 (page 1 of 2). Asthma attack in past 12 months: Estimated prevalence by current occupation and smoking status, U.S. female residents age 18 and over, 1997–2004

Occupation	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Officials and administrators, public administration	220,201	5.6	2.8 – 8.4	89,460	8.8	3.5 – 14.0	61,349	6.6	0.7 – 12.5
Police and firefighters	132,786	5.6	1.5 – 9.6	31,735	-	-	55,878	5.5	0.0 – 11.5
Other professional specialty	909,707	5.6	4.1 – 7.1	330,821	4.2	2.1 – 6.2	205,699	4.2	1.9 – 6.5
Engineers	151,038	5.3	1.9 – 8.7	27,760	11.1	0.0 – 23.6	24,035	2.1	0.0 – 6.3
Teachers, librarians, and counselors	3,468,490	5.2	4.4 – 6.0	811,447	6.2	4.6 – 7.8	475,430	4.2	2.4 – 6.1
Farm workers and other agricultural workers	222,703	5.0	1.8 – 8.2	49,655	-	-	94,436	2.8	0.5 – 5.1
Health technologist and technicians	889,100	4.9	3.4 – 6.4	267,158	6.7	3.7 – 9.8	332,399	6.1	3.7 – 8.4
Technologist and technicians except health	519,699	4.8	3.1 – 6.6	141,367	4.3	1.3 – 7.4	185,022	5.1	2.4 – 7.9
Health assessment and treating occupations	1,891,276	4.5	3.6 – 5.4	609,435	5.4	3.6 – 7.3	399,501	4.4	2.4 – 6.3
Managers and administrators, except public administration	2,865,633	4.5	3.7 – 5.2	1,075,062	5.6	4.2 – 6.9	1,166,159	4.0	2.9 – 5.1
Other administrative support	5,106,381	4.5	4.0 – 5.1	1,390,390	5.7	4.5 – 6.9	1,827,172	3.8	3.0 – 4.6
Financial records processing	1,098,535	4.4	2.6 – 6.1	371,249	4.1	2.2 – 6.0	423,950	5.1	3.1 – 7.0
Supervisors and proprietors	812,965	4.4	2.9 – 5.8	300,593	5.0	2.4 – 7.6	424,163	4.1	2.3 – 6.0
Personal service	1,405,968	4.3	3.1 – 5.4	397,473	8.6	5.7 – 11.6	460,906	4.1	2.3 – 5.8
Computer equipment operators	127,759	4.3	0.5 – 8.1	34,268	4.5	0.0 – 9.5	43,075	3.5	0.0 – 8.3
Health diagnosing	232,484	4.3	1.3 – 7.3	42,299	7.4	0.2 – 14.5	22,309	-	-
Writers, artists, entertainers, and athletes	692,906	4.2	2.8 – 5.7	261,168	5.5	2.9 – 8.1	172,638	2.9	0.8 – 5.0
Other protective service	148,231	4.1	1.3 – 7.0	35,050	8.8	0.0 – 18.2	81,632	9.6	3.9 – 15.3
Health service	1,336,120	4.1	2.9 – 5.2	342,732	7.1	4.4 – 9.8	674,356	7.1	5.2 – 9.0
Other sales	2,235,985	4.0	3.0 – 4.9	539,443	4.6	2.9 – 6.4	1,033,304	6.0	4.5 – 7.4
Management related	1,804,092	4.0	3.1 – 5.0	570,587	5.6	3.8 – 7.5	583,354	3.2	2.0 – 4.5
Architects and surveyors	33,126	4.0	0.0 – 9.6	3,977	-	-	3,543	-	-
Secretaries, stenographers, and typists	1,609,775	3.9	3.0 – 4.9	498,587	5.6	3.5 – 7.6	508,695	4.1	2.2 – 6.0
Mechanics and repairers	98,179	3.7	0.0 – 7.4	42,676	8.1	0.1 – 16.0	65,010	7.4	1.4 – 13.4
Food service	1,561,496	3.5	2.6 – 4.5	402,155	4.4	2.5 – 6.4	1,210,298	5.8	4.5 – 7.2
Motor vehicle operators	259,178	3.5	1.5 – 5.4	84,885	9.3	3.5 – 15.1	160,657	5.5	2.2 – 8.8
Sales representatives, commodities and finance	890,693	3.5	2.2 – 4.7	321,575	3.2	1.4 – 5.0	359,762	4.4	2.4 – 6.4
Natural mathematical and computer scientists	554,934	3.5	2.1 – 4.8	145,870	6.2	2.6 – 9.8	99,027	4.4	0.4 – 8.3

See footnotes at end of table.

Table 9-25 (page 2 of 2). Asthma attack in past 12 months: Estimated prevalence by current occupation and smoking status, U.S. female residents age 18 and over, 1997–2004

Occupation	Nonsmokers			Former Smokers			Current Smokers		
	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval	Estimated Population	Prevalence (%)	95% Confidence Interval
Cleaning and building service	856,612	3.3	2.1 – 4.4	163,847	5.4	1.8 – 9.0	400,609	4.8	3.0 – 6.6
Construction and extractive trades	56,976	2.9	0.0 – 7.1	23,240	8.2	0.0 – 23.1	72,338	3.9	0.0 – 8.0
Mail and message distributing	195,479	2.6	0.6 – 4.6	83,788	5.5	1.3 – 9.6	94,557	4.1	0.1 – 8.1
Fabricators, assemblers, inspectors and samplers	588,217	2.5	1.2 – 3.9	137,116	6.1	2.4 – 9.7	271,781	2.7	1.1 – 4.4
Precision production	429,435	2.3	1.0 – 3.6	140,321	5.1	1.2 – 8.9	239,975	4.8	2.1 – 7.6
Machine operators and tenderers, except precision	852,992	2.2	1.2 – 3.3	196,545	3.3	0.9 – 5.6	431,808	3.1	1.3 – 4.9
Freight, stock and material handlers	525,591	2.1	0.9 – 3.3	90,544	2.5	0.0 – 5.0	296,607	2.9	1.2 – 4.6
Private household	431,023	1.8	0.6 – 2.9	104,321	6.9	1.6 – 12.2	117,937	5.7	0.0 – 11.5
Farm operators and managers	100,037	1.0	0.0 – 3.0	26,660	5.9	0.0 – 13.8	28,396	4.6	0.0 – 11.1
Material moving equipment operators	29,822	1.0	0.0 – 2.9	13,351	4.4	0.0 – 12.9	32,397	3.8	0.0 – 9.5
Construction laborers	10,386	-	-	2,396	-	-	13,780	12.4	0.0 – 30.5
Other transportation, except motor vehicles	1,572	-	-	648	-	-	2,080	11.2	0.0 – 33.9
Forestry and fishing	2,648	-	-	1,869	-	-	821	-	-
Military	2,844	-	-	1,586	-	-	1,971	-	-
Refused, not ascertained, don't know	1,428,577	2.0	1.4 – 2.7	238,781	5.3	2.8 – 7.7	333,188	3.7	1.8 – 5.5
TOTAL	**36,791,650**	**4.1**	**3.9 – 4.3**	**10,443,887**	**5.5**	**5.1 – 6.0**	**13,492,003**	**4.6**	**4.2 – 4.9**

- No estimates due to no asthma cases or no respondents.
NOTE: See appendices for source description, methods, and ICD codes.
SOURCE: National Center for Health Statistics National Health Interview Survey.