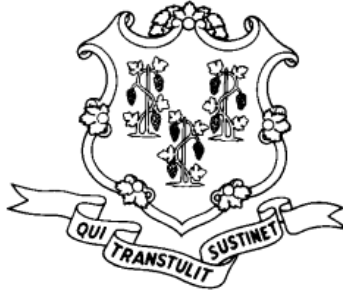


Occupational Disease in Connecticut, 2018



This report covers data for 2016
and was prepared under contract for the
State of Connecticut Workers' Compensation Commission,
Stephen M. Morelli, Chairman,
as part of the Occupational Disease Surveillance Program, operated in
cooperation with the Connecticut Department of Labor and the
Connecticut Department of Public Health

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A. Executive Summary

This report focuses on occupational *disease* reports for 2016 and recent trends in reported cases. It does not address traumatic occupational *injuries*; data for Connecticut injuries can be found at the national Bureau of Labor Statistics at <https://www.bls.gov/iif/oshstate.htm>. Occupational diseases are typically harder to detect than injuries, since they often occur over longer periods of time, and can have multiple (including non-occupational) risks. Therefore, this report uses data from three primary sources as a way of establishing a more complete picture of occupational disease: Workers' Compensation First Report of Injury cases (WCC), physicians' reports under the Occupational Illnesses and Injury Surveillance System (OIIS), and the Bureau of Labor Statistics/Conn-OSHA Annual Survey (BLS).

Table A-1: Summary of Diseases Reported by Systems, 2014-2016

Type of Disease	BLS/Conn-OSHA			WCC			OIIS (Physicians)			Unique Cases*		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Lung & poisonings	200	200	200	520	364	315	171	178	133	660	511	431
Lead **							379	425	330			
Skin	400	400	500	230	178	193	140	166	158	343	310	313
Musculoskeletal***	***	***	***	3,028	2,831	2,916	774	734	633	3,610	3,403	3,430
Infectious				1,287	1,045	1,155	1500	1390	1513	2,572	2,262	2,408
Hearing loss	300	200	300	138	84	105	12	17	12	147	99	115
Other***	1,400	1,500	1,300	765	788	770	172	178	238	925	940	978
Total	2,400	2,300	2,300	5,968	5,290	5,454	3,148	3,088	3,017	8,257	7,525	7,675

Sources: BLS: Bureau of Labor Statistics/Conn-OSHA survey; WCC: CT Workers' Compensation Commission (First Report of Injury) OIIS: Occupational Illnesses and Injury Surveillance System (physician reports)

*Unique cases are the combined total of workers' compensation cases and physician reports, adjusted for cases reported to both systems

**Laboratory reports of adult blood lead levels are from the Connecticut Adult Blood Lead Epidemiology and Surveillance program

*** Musculoskeletal Disorders (MSD) definitions vary somewhat between systems. MSD is included in the "other" category for BLS/Conn-OSHA data

Table A-1 summarizes the data from the three different sources for the last 3 years. The BLS survey rounds to the nearest 100, so the subcategories do not always sum exactly to the total and yearly changes should be viewed with caution. The OIIS draws from physician reports for known or suspected occupational illnesses and are required of all physicians but in practice are mostly from the network of occupational health clinics (and therefore are likely to over-represent illnesses from those hospitals).

Approximately 2,300 cases of occupational diseases were reported under the BLS/Conn-OSHA survey, 5,454 through the workers' compensation first report of injuries and 3,017 for OIIS (including lead reports) for 2016. The number of reports in 2016 stayed the same as 2015 in the BLS system, increased by 3% for workers' compensation, and decreased 2% for physicians' reports. Reports from workers' compensation and physicians combined (adjusting for matching cases reported to both systems) totaled 7,675 unique reports (excluding the 330 lead poisoning cases), an increase of 2% from the previous year. Statistically adjusting for estimated unreported cases produces an estimate of approximately 31,500 cases of occupational illnesses in Connecticut for 2016 (Table B1).

Musculoskeletal disorders (MSD) such as Carpal Tunnel Syndrome and tendonitis dominated the workers' compensation reports, accounting for 53% of reports (21% of the physician reports). MSD has not been broken out by BLS since 2002, but MSD cases are presumed to be the main portion of the "other illness" category, which is by far the largest BLS category. **Respiratory diseases and poisonings**, which include respiratory conditions and lung disease such as asthma, as well as poisonings such as from carbon monoxide and lead, accounted for 6% of cases for workers' compensation and 4% of physician reports. **Infectious diseases**, which

include bloodborne diseases such as HIV and hepatitis, Tb, scabies, Lyme disease (and including exposures as well as diagnosed disease) accounted for 21% in workers' compensation but 50% of physician reports (infectious disease is categorized under "other disease" in BLS; also, needlesticks and other bloodborne exposures with lost time are counted under injuries rather than illness in BLS). "Other diseases", which includes infectious diseases and MSD in BLS, physical hazards such as heat and cold exposures, allergies, cancer, and others in Workers' Compensation and physician reports, accounted for 14% (WC) and 8% (physicians). **Skin conditions** accounted for 4% (WC) and 5% (physicians). **Lead poisoning** is tracked separately and is based on laboratory reports to the Connecticut Department of Public Health; very few of those cases are reported to the other systems.

There was an overall illness rate of 17.4 cases per 10,000 workers based on the BLS survey, 2% lower than the previous year. The CT rate was 6% higher than the average national rate of 16.4. The highest specific sector rate was State Government with 41.8, with the highest rates for skin conditions (17.7) and lung conditions (7.9). Local Government was second with 32.1, and Utilities third highest rate with 31.8.

Overall (based on Workers' Compensation reports), approximately 49% were for **women**, but this varied by type of case, with women accounting for 66% of infectious cases. Based on workers' compensation reports, occupational illnesses occurred more in **older workers**, with almost half involving workers between 40 and 59 years old. Based on physician reports where **race and ethnicity** were known, 16% of cases were black and 8% Hispanic.

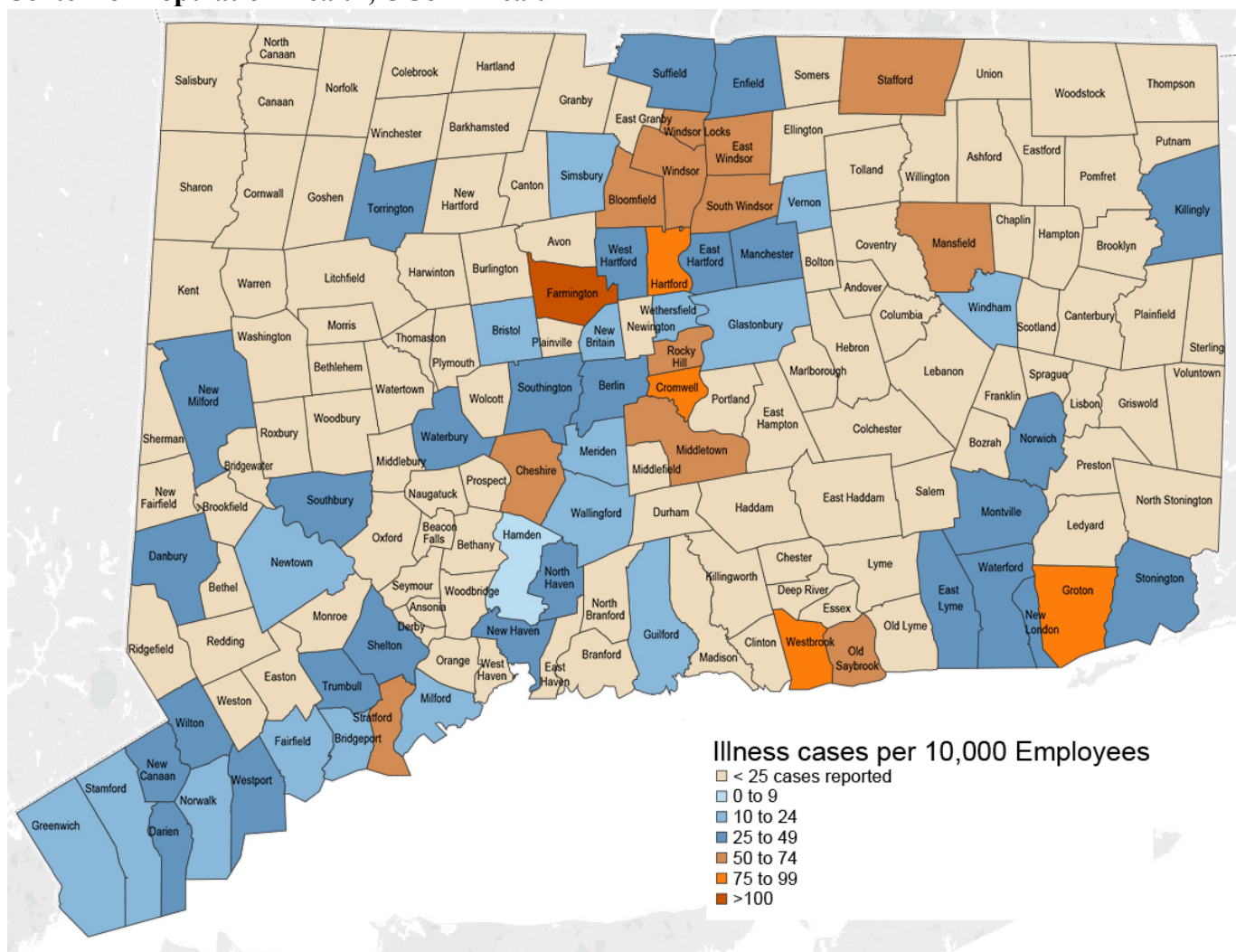
The most common specific **diagnoses for musculoskeletal disorders** reported by physicians were epicondylitis (tennis elbow) with 17% of the cases, tenosynovitis (14%), and carpal tunnel syndrome (12%). The most common specific **causes** (aside from the commonly used terms "repetition" or "cumulative") for MSD in workers' compensation reports were lifting, pushing or pulling, tool use (including references specifically to pneumatic tools or vibration exposure), and computing and clerical tasks.

Nonspecific respiratory illnesses were the most common type of physician-reported **lung condition**, with 53% of reports, followed by asthma or reactive airways dysfunction syndrome (RADS) with 11%. Exposures associated with respiratory conditions included lead fumes, other fumes (including gas or carbon monoxide), chemicals (including solvents, cleaning chemicals, and oil), mold or indoor air quality, and smoke.

Infectious disease and exposures, based on workers' compensation reports, included 872 reports of potential exposure to bloodborne pathogens (including reports of exposure to HIV/AIDS and Hepatitis C), accounting for 75% of all infectious disease reports. There were 75 reports of exposure to meningitis in health care settings. There were 57 reports of tick bites, rashes from tick bites and/or a diagnosis of Lyme disease attributed to occupational exposures. There were 47 cases of tuberculosis infection, usually determined by PPD conversion (which is a skin test based on immune response) or based on exposure to patients or clients with TB.

Rates of illness varied widely by **municipality** based on workers' compensation reports. Often the highest rates appear to be related to having large employers in high rate industries. The overall state mean (average) was 33.3 cases per 10,000 employees. There were 62 towns and cities with at least 25 cases of occupational disease. Of those, Farmington had the highest rate at 126 cases per 10,000 employees, almost 4 times the rate as the state average. Farmington was followed by Hartford (89 cases per 10,000), Cromwell (89), Groton (85), Westbrook (84), Windsor Locks (73), East Windsor (63), Cheshire (61), Stratford (60) and Middletown (58). Figure A-1, a map of the rates by town is below, with rates listed in Table D-6. The map is based on 25 or more cases (prepared by Connie Cox Cantor at the Center for Population Health of UConn Health).

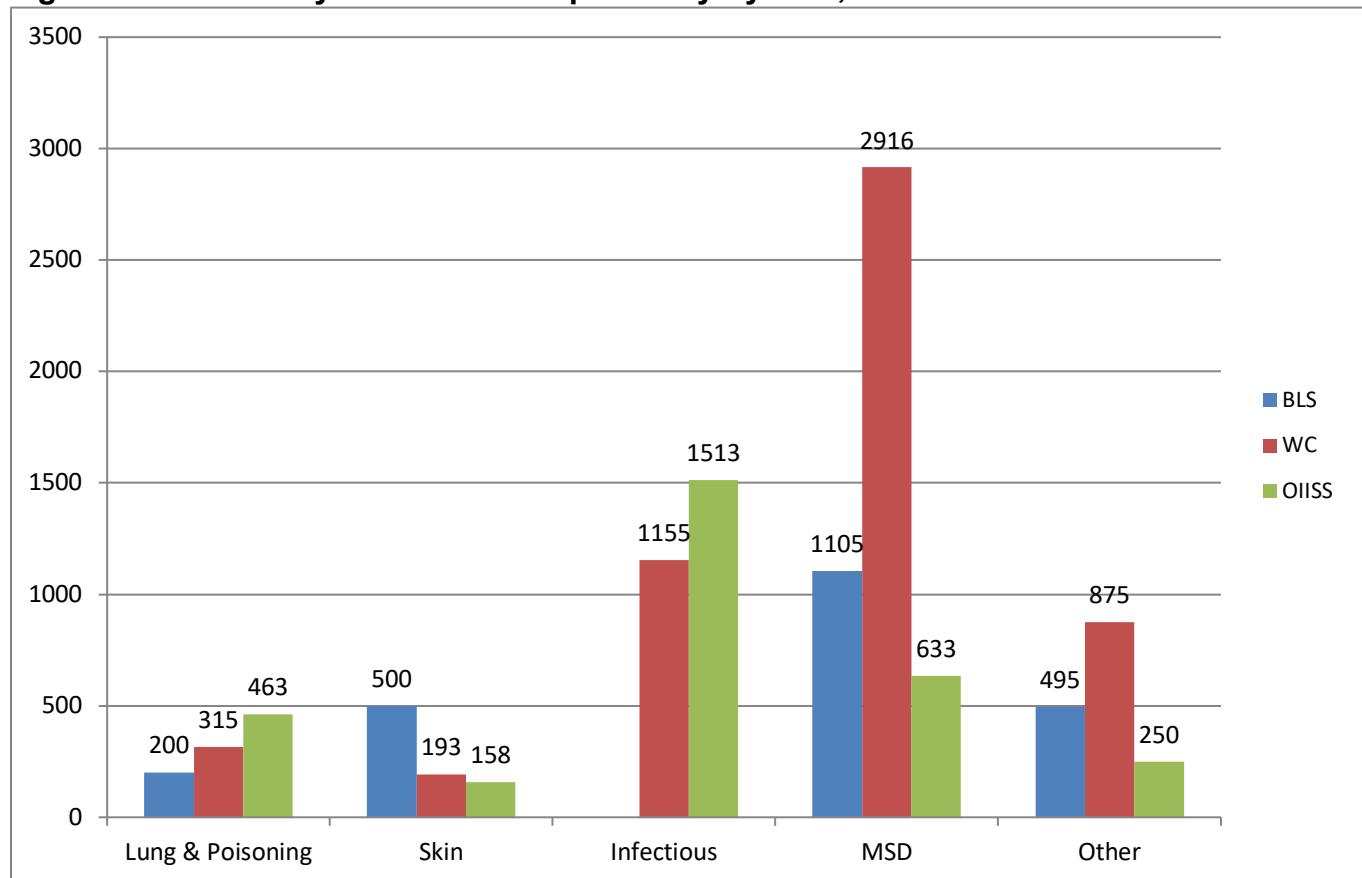
Figure A-1: Map of Occupational Illness Rates by Town, 2016 (map prepared by Connie Cox Cantor, Center for Population Health, UConn Health)



B. Summary of Diseases

Figure B-1 shows the totals by disease category for 2016 for three reporting systems: the Bureau of Labor Statistics/Conn-OSHA (BLS) survey; Workers' Compensation (WC) First Reports of Injury; and the Occupational Illnesses and Injury Surveillance System (OISS) which are physician reports. Categories have been combined to make comparisons as close as possible; however, differences in the three systems' definitions make comparisons incomplete. For example, Workers' Compensation only requires reporting for lost-time or restricted duty cases, while the other two reporting systems require all occupational illnesses to be reported. Although all physicians are legally required to report occupational disease, only a minority report, usually from the occupational health clinic network. Lead reports from the laboratory reporting system are combined into "lung and poisoning" for the OIIS. The BLS/Conn-OSHA system discontinued collecting "repetitive trauma" as a category in 2002, so MSD has been estimated based on the proportion of "other illness" in the 2001 dataset, which was 85%. See Appendix 1 for a complete description of methods.

Figure B-1: Summary of Diseases Reported by System, 2016



Notes: BLS=Bureau of Labor Statistics/ConnOSHA survey; WC=Workers' Compensation First Report of Injury Database; OIIS=Physicians reports from the Occupational Illnesses and Injury Surveillance System combined with laboratory reports of lead poisoning. MSD for the BLS database was estimated using prior proportions from "other" (85%) since they are no longer broken out by BLS.

The Workers' Compensation database showed the highest number of cases, with 5,454 cases reported, followed by the physicians' reporting/laboratory database with 3,109 cases, and by the BLS survey with 2,300. There is a low amount of overlap between these systems, so total cases are higher than these figures might indicate (see section below on case matching estimates).

Longer term trends in number of reports are complex (Figure B2), with BLS trends generally declining; Workers' Compensation data generally slightly declining since 2008 (the Workers' Compensation database appears incomplete in 2003 and 2005-2007); and Physician reports fluctuating but decreasing the last 3 years after 5 years of increases.

Case Matching and Total of Unique and Estimated Cases of Occupational Illness

There is a fairly low number of cases that are reported to both workers' compensation and by physicians. In order to get a better estimate of the total number of cases of occupational illness in Connecticut, cases were matched by name, employer, and type of illness for the WC and OIIS reports (Table B-1). This allows a sum of unique cases that were reported to at least one of the two systems and an estimate of cases that were not reported to either. Individual level BLS/ConnOSHA data from their survey was not available for matching, and lab-based lead reports did not have enough detail to match, so lead reports are not included in Table B-1.

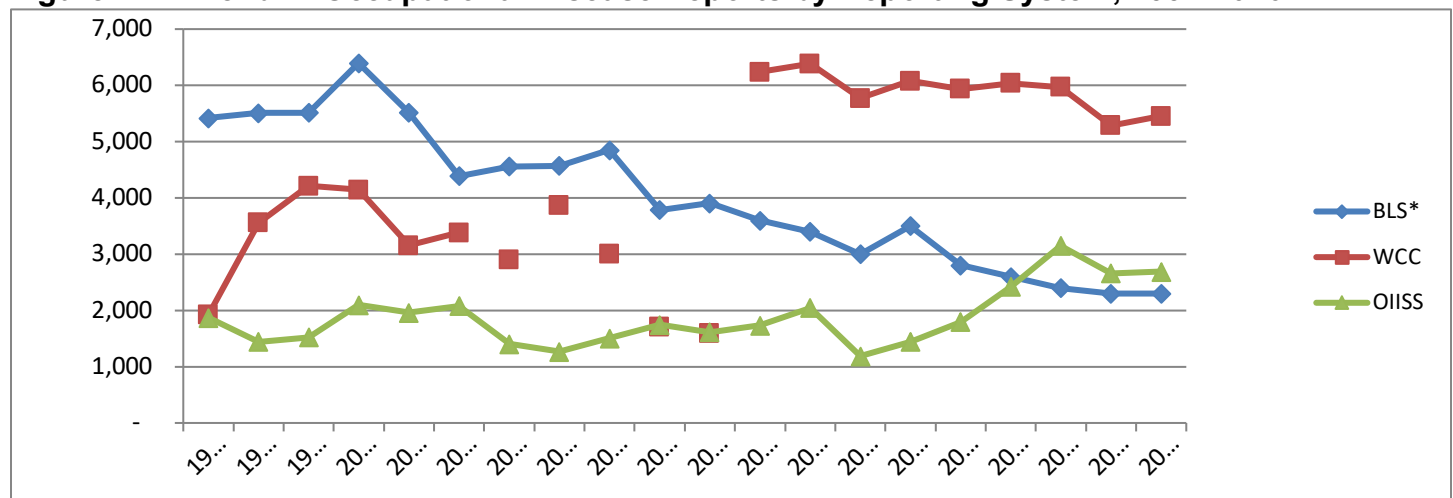
Table B-1: Matched, Unique, and Estimated Total Cases of Occupational Illness, CT, 2016

Illness Type	Matched	OIIS Only	WC Only	Unique Cases	Estimated Unreported	Estimated Total
Infectious	260	1,253	895	2,408	4,313	6,721
Lung	17	116	298	431	2,033	2,464
MSD	119	514	2,797	3,430	12,081	15,511
Other	30	208	740	978	5,131	6,109
Skin	38	120	155	313	489	802
Hearing loss	2	10	103	115	515	630
Total	466	2,221	4,988	7,675	23,773*	31,448

*Total is different than the sum of the categories due to rounding errors

There was a total of 466 cases that were reported to **both** workers' compensation (WC) and by physicians; 2,221 cases were reported only to the physician report system, and an additional 4,988 cases were reported only to the workers' compensation system. This gives a total of 7,675 unique cases that were reported to at least one of the two systems, with approximately 2,400 infectious cases, 400 lung cases, 3,400 musculoskeletal (MSD) cases, 300 skin conditions, 100 hearing loss cases, and 1,000 "other" cases. Using a statistical method called "capture-recapture" analysis, an estimate was made of the unreported cases (cases not reported to either workers' compensation nor by physicians), which was about 24,000 cases. When combined with the unique cases, this provides an estimate of approximately 31,500 occupational illness cases in Connecticut for 2016.

Figure B-2: Trend in Occupational Disease Reports by Reporting System, 1997-2016



Notes: BLS= Bureau of Labor Statistics/Conn-OSHA survey; WCC= Workers' Compensation First Report of Injury; OIIS= Occupational Illness and Injury Surveillance System (physician reports).

***Notes:**

BLS figures starting in 2002 not comparable to prior years due to changes in data collection.

WCC data was not complete for 2003 and 2005-2007.

OIIS was not complete for 2010 and did not include most bloodborne infectious diseases/exposures in 2011.

C. Bureau of Labor Statistics/Connecticut Occupational Safety and Health Administration Surveys

In cooperation with the U.S. Bureau of Labor Statistics (BLS), Conn-OSHA conducts an annual survey of employers for job-related injuries and illnesses; data on injuries in Connecticut can be accessed through the national Bureau of Labor Statistics website at <https://www.bls.gov/iif/oshstate.htm>. Our report focuses on illnesses and includes data from Conn-OSHA that is not published in that report. Since these statistics are based on a survey rather than a census, numbers and rates are estimated and rounded. The Connecticut Department of Labor acknowledges that the BLS/Conn-OSHA survey under-counts occupational diseases, particularly chronic diseases, since these are frequently not recognized nor reported.

Occupational Illnesses in 2016

There were approximately 2,300 reported cases of occupational illnesses in 2016 (Table C-1 and Figure C-1) with an overall rate of 17.4 per 10,000 workers, approximately the same as the prior year.

Table C-1: Occupational Disease by Type, BLS/Conn-OSHA 2015-2016

	2015		2016		% Change in Rate
	Cases	Rates	Cases	Rates	
Respiratory	200	1.5	200	1.3	-13%
Skin	400	3.0	500	3.9	30%
Hearing Loss	200	1.7	300	2.2	29%
Poisonings		0.2			
Other*	1,500	11.3	1,300	10.0	-12%
Total	2,300	17.7	2,300	17.4	-2%

Source: BLS/Conn-OSHA; Rates are per 10,000 workers, adjusted for hours worked. The data includes public sector. Blanks indicate numbers that are too small or unreliable to publish. Total Illnesses may differ from sum due to rounding errors.

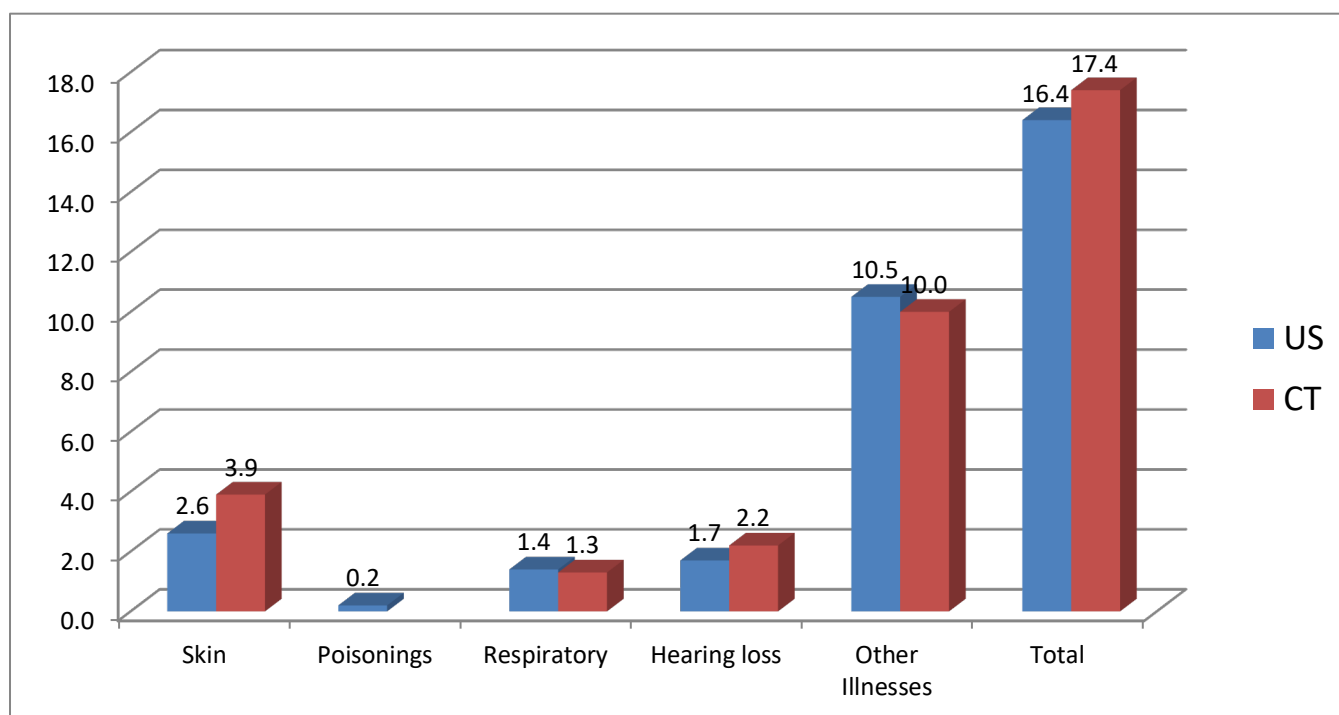
*Musculoskeletal disorders (MSD) is categorized under the "Other" category by BLS.

Overall rates for Connecticut in 2016 were higher than the U.S., driven primarily by higher rates of skin disease and hearing loss (Figure C-1). The overall Connecticut rate (17.4 cases per 10,000 workers) was 6% higher than the U.S. rate of 16.4. Rates decreased in 2016 for both Connecticut and the U.S.

Connecticut's illness rate ranked 15th highest out of 41 states with publishable data (fourteen states had higher rates and 26 had lower rates). Maine had the highest rate of 38.8 and Texas had the lowest at 9.8. Private sector rates for occupational illness were 15.0 in Connecticut and 14.1 nationally. Connecticut's public sector rate was 35.7; the U.S. public sector rate was 31.6.

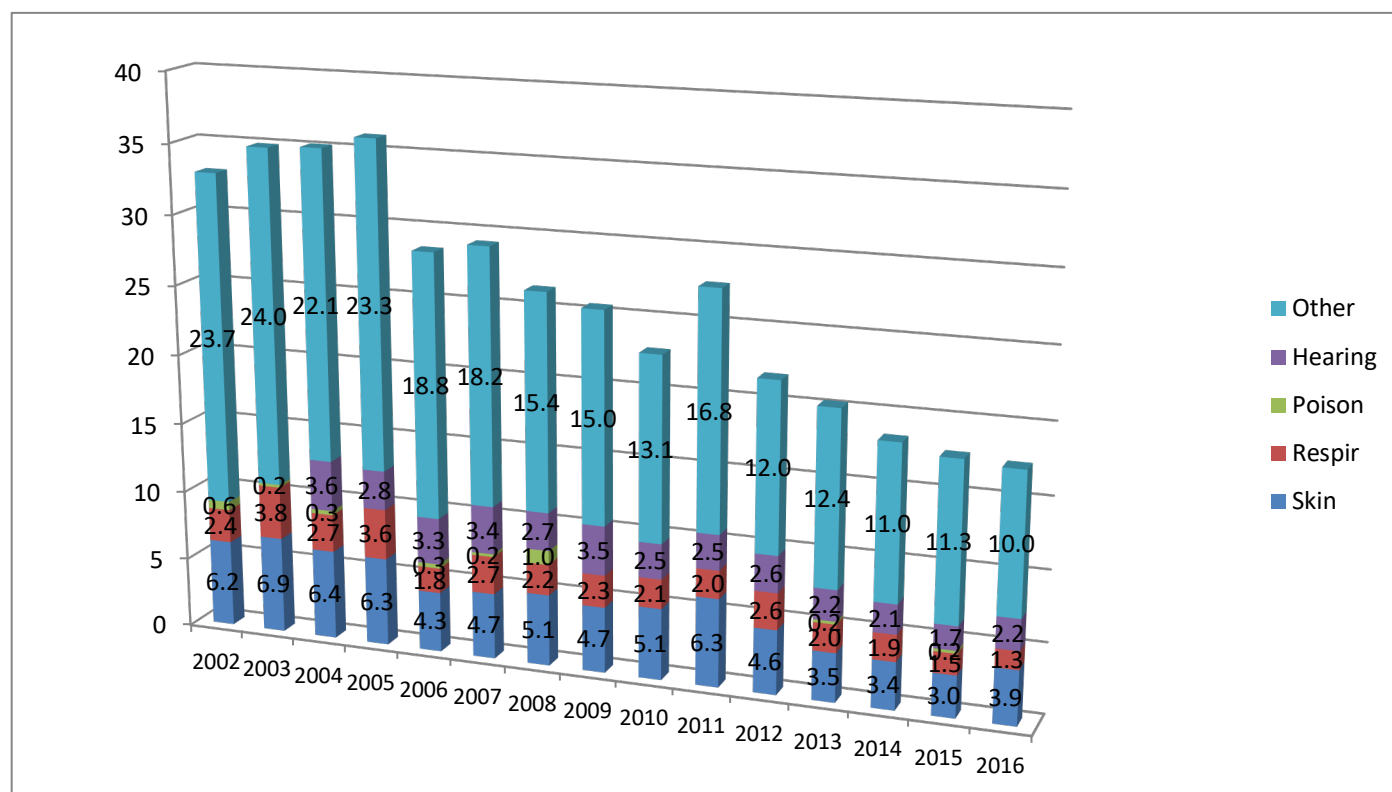
In Connecticut, the rate of illnesses increased slightly from 2002-2005, then generally decreased through 2016 with the exception of 2011 (Figure C-2).

Figure C-1: Rates of Occupational Illness by Type, US and CT, 2016



Source: BLS and Conn-OSHA. Rates per 10,000 workers, adjusted for hours worked.

Figure C-2: Rates of Occupational Disease by Type and Year, CT, 2002-2016



Source: BLS and Conn-OSHA. Rates per 10,000 workers, adjusted for hours worked.

Illnesses by Industry

Numbers and rates by industry sector for 2016 are presented in Table C-2. Overall, the adjusted rate was 17.4 cases of occupational illness per 10,000 CT workers, 2% lower than the 2015 rate of 17.7 (though the number of cases remained even at 2,300, since there was an increase in employment). The overall private sector rate was 15.0, with a government rate of 35.7 (more than double the private sector rate).

Table C-2: Illness Rates per 10,000 Workers by Industry and Type of Illness, CT, 2016

	Total		Skin		Respiratory		Poison		Hearing		Other	
	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.
All industries including state and local government	17.4	2.3	3.9	0.5	1.3	0.2	--	--	2.2	0.3	10.0	1.3
<i>Private industry</i>	15.0	1.7	2.7	0.3	0.8	0.1	--	--	2.4	0.3	9.1	1.1
Goods-producing	24.9	0.5	4.2	0.1	1.0	--	--	--	12.1	0.3	7.7	0.2
Natural resources and mining	--	--	--	--	--	--	--	--	--	--	--	--
Agriculture, forestry, fishing and hunting	--	--	--	--	--	--	--	--	--	--	--	--
Mining, quarrying, and oil and gas extraction	--	--	--	--	--	--	--	--	--	--	--	--
Construction	--	--	--	--	--	--	--	--	--	--	--	--
Manufacturing	31.2	0.5	5.3	0.1	--	--	--	--	16.5	0.3	8.8	0.1
Service-providing	12.7	1.2	2.3	0.2	0.7	0.1	--	--	--	--	9.5	0.9
Trade, transportation, and utilities	11.5	0.3	--	--	--	--	--	--	--	--	9.8	0.2
Wholesale trade	7.5	--	--	--	--	--	--	--	--	--	5.4	--
Retail trade	10.2	0.1	--	--	--	--	--	--	--	--	9.3	0.1
Transportation and warehousing	19.1	0.1	--	--	--	--	--	--	--	--	16.3	0.1
Utilities	31.8	--	--	--	--	--	--	--	--	--	--	--
<i>Information</i>	--	--	--	--	--	--	--	--	--	--	--	--
Finance, insurance, and real estate	2.2	--	--	--	--	--	--	--	--	--	2.0	--
Finance and insurance	--	--	--	--	--	--	--	--	--	--	--	--
Real estate and rental and leasing	--	--	--	--	--	--	--	--	--	--	--	--
Professional and business services	5.5	0.1	1.8	--	--	--	--	--	--	--	3.2	0.1
Management of companies and enterprises	--	--	--	--	--	--	--	--	--	--	--	--
Administrative, support, waste management serv.	6.0	--	5.2	--	--	--	--	--	--	--	--	--
Educational and health services	25.9	0.6	3.0	0.1	1.9	--	--	--	--	--	20.8	0.5
Educational services	6.4	--	--	--	--	--	--	--	--	--	--	--
Health care and social assistance	30.8	0.6	3.6	0.1	1.6	--	--	--	--	--	25.3	0.5
Leisure, entertainment, and hospitality	14.9	0.1	9.3	0.1	--	--	--	--	--	--	--	--
Arts, entertainment, and recreation	10.2	--	--	--	--	--	--	--	--	--	--	--
Accommodation and food services	16.7	0.1	11.0	0.1	--	--	--	--	--	--	--	--
Other services (except public administration)	5.7	--	--	--	--	--	--	--	--	--	--	--
State and local government	35.7	0.5	13.5	0.2	4.9	0.1	--	--	--	--	16.8	0.3
State government	41.8	0.2	17.7	0.1	7.9	--	--	--	--	--	15.8	0.1
Local government	32.1	0.3	11.0	0.1	3.2	--	--	--	--	--	17.4	0.2

Source: Conn-OSHA; Rates are adjusted for hours worked and are per 10,000 full-time workers.

Blanks indicate too little data for reliable estimates.

The highest specific sector rate was State Government with 41.8, with the highest rates for skin conditions (17.7) and lung conditions (7.9). Local Government was second with 32.1, and Utilities third highest rate with 31.8.

Lost-Time Illnesses

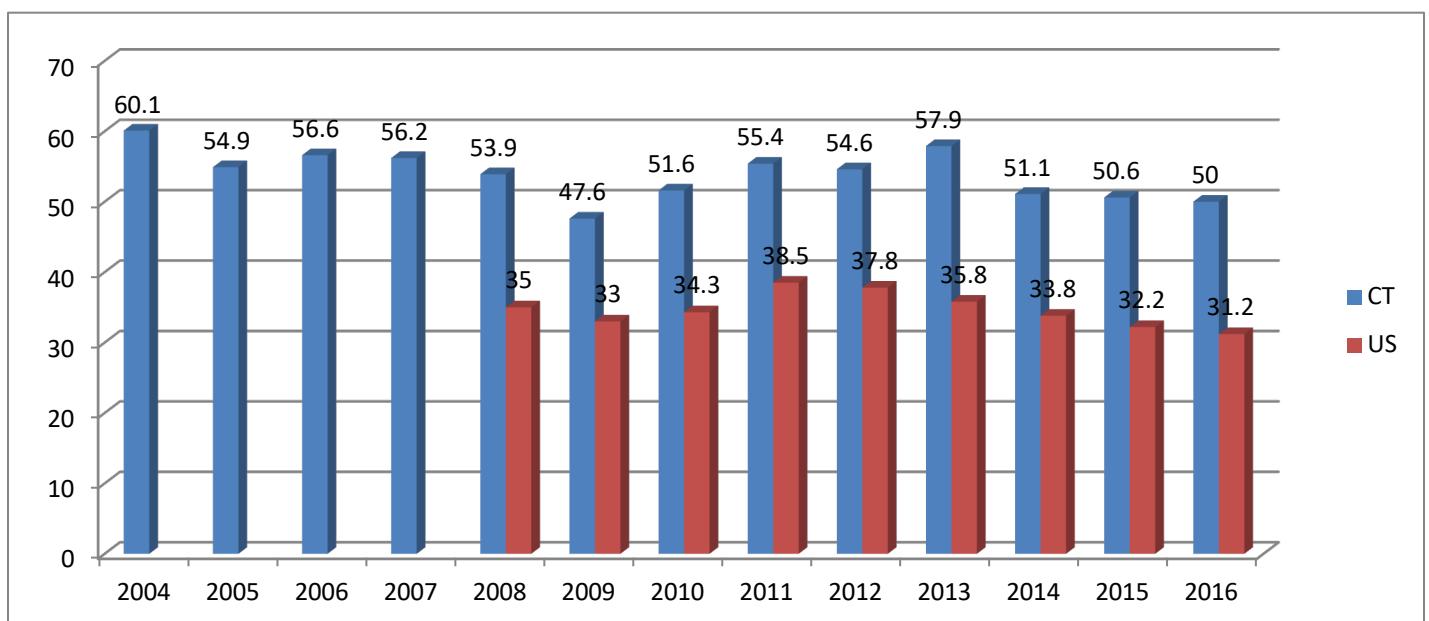
BLS obtains additional data for the subset of cases that result in lost worktime and provides additional detail on specific conditions and causes. The following draws from this data for conditions that are more chronic in nature (usually classified as occupational illness). Restricted work cases are not included in this data, which is about half again the number of lost worktime cases.

Musculoskeletal Conditions

The rate of musculoskeletal disorders (MSD) with lost time was 1% lower than the previous year at 50.0 cases per 10,000 workers (Figure C-3). The Connecticut rate is 60% higher than the national MSD rate of 31.2. MSD rates in Connecticut have generally decreased over the last five years. National rates for all private and public employees have only been available since 2008.

Musculoskeletal conditions are the most common category of specific injury and illness conditions and is a category that includes both chronic conditions and sprains and strains from overexertion. BLS defines this fairly complex category as “includes cases where the nature of the injury or illness is pinched nerve; herniated disc; meniscus tear; sprains, strains, tears; hernia (traumatic and non-traumatic); pain, swelling, and numbness; carpal or tarsal tunnel syndrome; Raynaud's syndrome or phenomenon; musculoskeletal system and connective tissue diseases and disorders, when the event or exposure leading to the injury or illness is overexertion and bodily reaction, unspecified; overexertion involving outside sources; repetitive motion involving microtasks; other and multiple exertions or bodily reactions; and rubbed, abraded, or jarred by vibration.”

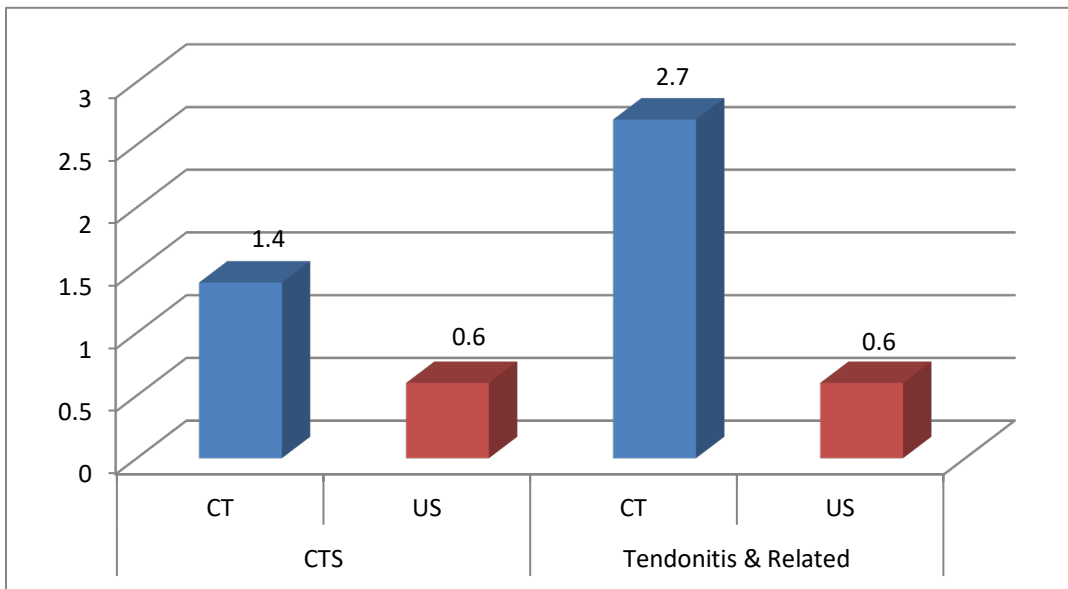
Figure C-3: Rates of Musculoskeletal Disorders, CT and US, 2004-2016



Source: U.S. Bureau of Labor Statistics (Customized Tables); <http://data.bls.gov>
Rates are cases per 10,000 full time employees, public and private

Tendonitis was the most common specific illness in CT, with a rate of 2.7 cases per 10,000 workers in 2016 (Figure C-4), and 1.4 cases per 10,000 of **Carpal Tunnel Syndrome (CTS)**. The rate of tendonitis in CT was 350% higher than the national rate, and 133% higher for CTS. CTS had a very high number of lost work days, with a median of 20 days of lost time per case (compared to 8 days for all cases of injury and illness) in CT. Tendonitis (and related soft-tissue disorders) was also high at 14 days.

Figure C-4: Rates of Lost-time Carpal Tunnel (CTS) and Tendonitis, US & CT, 2016



Source: BLS Website <http://www.bls.gov> customized tables, private and public, cases per 10,000 full time employees.

Connecticut lost time cases coded as “**repetitive motion**” for cause decreased to 3.3 cases per 10,000 workers from 3.9 in the previous year. Computer tasks was the largest specific cause of repetitive motion (Table C-3). The CT rate was 57% higher than the national rate of 2.1. Repetitive motion lost time cases in CT had a median of 18 days away from work.

Table C-3: Illnesses Involving Repetitive Motion by Type, 2015-2016

Repetitive Motion Injuries	2015	2016
Microtasks (unspecified)	0.9	1.1
Typing and computer	1.1	0.7
Tools	0.5	0.4
Grasping, placing, moving	0.6	0.6
Hand use (not tools)	0.4	0.1
Multiple types of repetitive motions	0.1	0.2
Other microtasks	0.3	
All repetitive with microtasks (total)	3.9	3.3

D. Workers' Compensation First Report of Injury Data

There was a total of 5,454 reports in the Workers' Compensation First Report of Injury Database for 2016 (Table D-1), a 3% increase from 2015, with a 11% increase in infectious diseases, an 8% increase in skin disorders, a 13% decrease in lung disorders, and a 3% increase in musculoskeletal disorders (MSD).

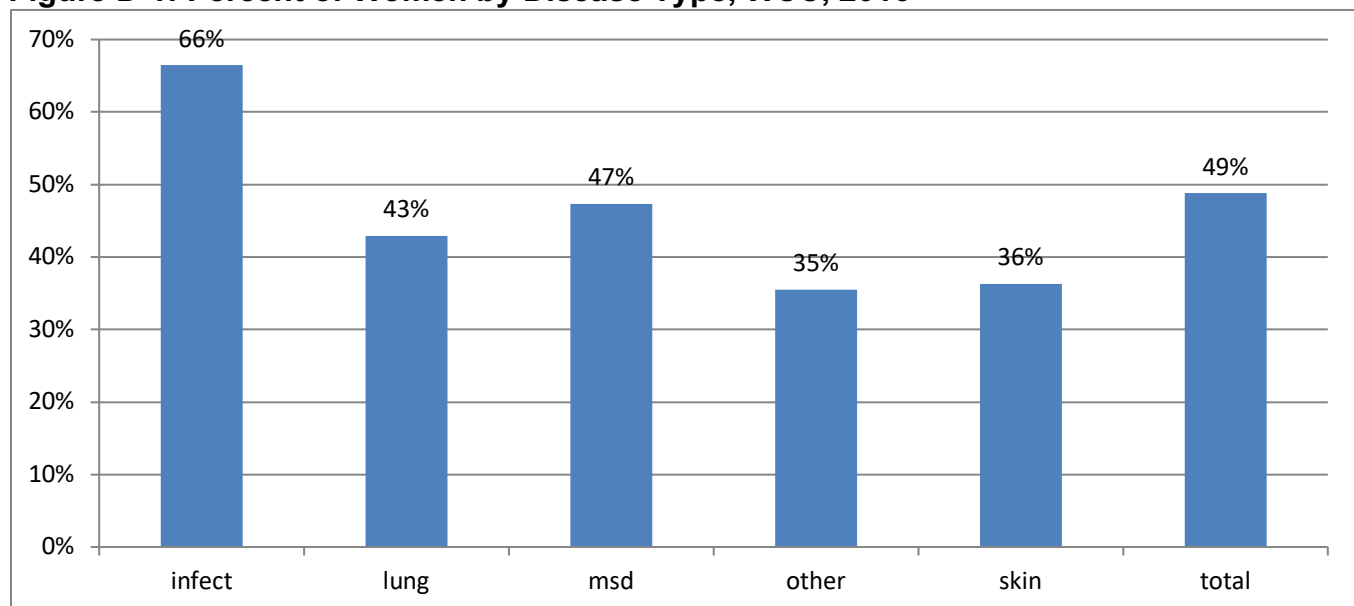
Over half (53%) of reports were due to chronic musculoskeletal disorders (MSD) such as carpal tunnel syndrome and tendonitis. Infectious diseases accounted for 21% of the cases, lung diseases (including nonspecific respiratory illness and chronic lung conditions such as asthma and asbestos-related illnesses and exposures) 6%, skin disorders 4%, and "Other Illnesses" (which includes heart conditions, stress cases, noise-induced hearing loss, and other conditions), 16%.

Table D-1: Occupational Disease by Type, WCC, 2015-2016

	2015	2016		
Illness type	Cases	Cases	% of total	% Change
Musculoskeletal Disorders (MSD)	2,831	2,916	53%	3%
Infectious Disease	1,045	1,155	21%	11%
Lung Disorders	364	315	6%	-13%
Skin Disorders	178	193	4%	8%
Other Illnesses	872	875	16%	0%
Total	5,290	5,454	100%	3%

Overall, 49% of reports were for women, but this varied by type of case, with a higher proportion than average for infectious diseases (66% women) but equal or lower for all other types of illness (Figure D-1).

Figure D-1: Percent of Women by Disease Type, WCC, 2016

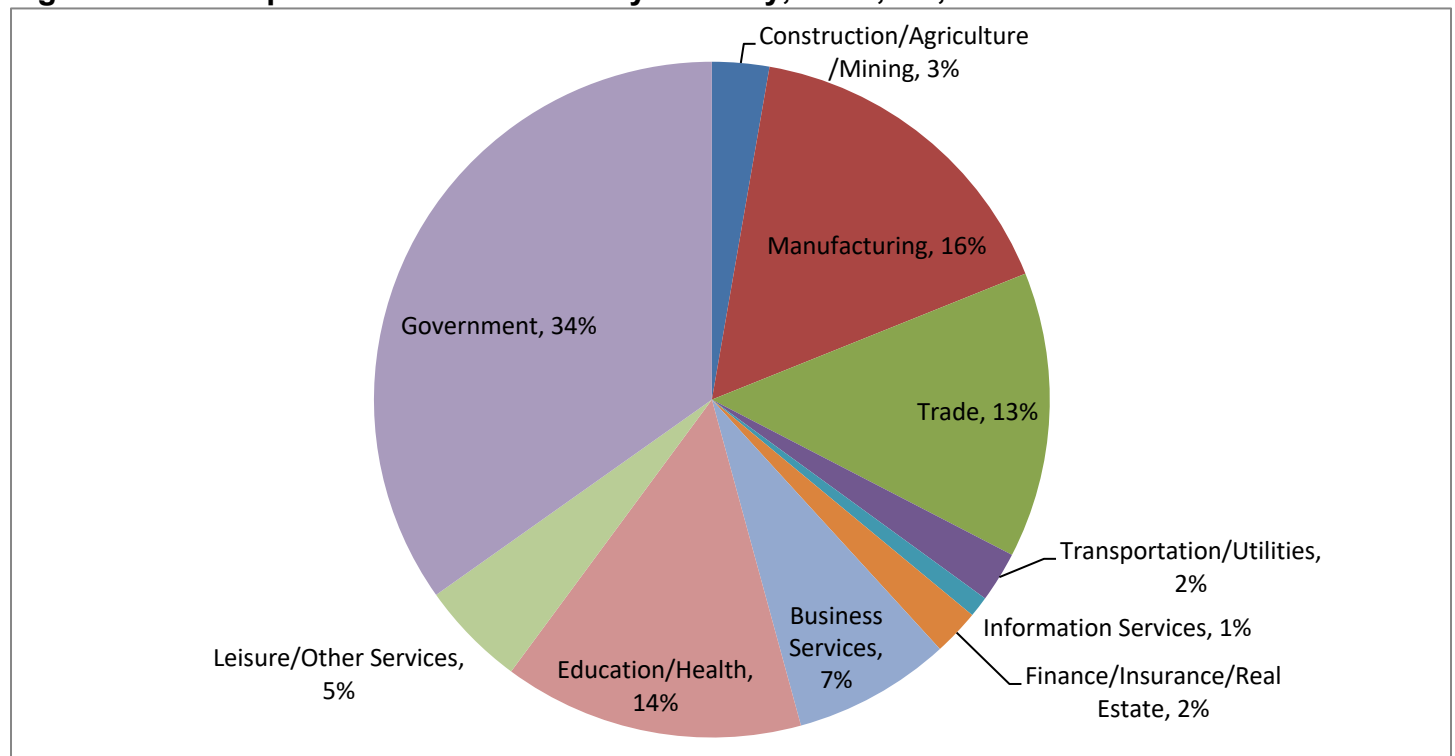


Reported occupational illnesses occurred more in older workers, with almost half involving workers between 40 and 59 years old (Table D-2), with 19% involving workers in their 30's, and 17% in their 20's.

Table D-2: Occupational Illness by Age, 2016

Age Range	Cases	Percent
Under 20	66	1%
20-29	899	17%
30-39	1,048	19%
40-49	1,159	21%
50-59	1,507	28%
60-69	691	13%
70+	76	1%
Total	5,446	100%

Numbers and rates of occupational illnesses by industry sector are presented by major North American Industry Classification System (NAICS) classifications in Figure D-2 and Table D-3. Ninety-eight percent (98%) of reported cases were able to be coded for major industry sector. The largest sectors in terms of overall numbers were Government (34%), Manufacturing (16%), Education/Health (14% of all cases; there are also health and education cases classified under government, such as employees in public schools), and Trade (13%).

Figure D-2: Occupational Illness Cases by Industry, WCC, CT, 2016

The number of illnesses by industry may be compared to the size of employment in those industries to understand which industries are at higher risk for illness. Table D-3 shows these figures, excluding cases where the industry was unknown. Overall, the rate of illness is 32.7 cases per 10,000 workers, an increase of 3% from the 31.8 cases per 10,000 in 2015. The highest rates by industry sector were for Government (80.5, 146% higher than the overall rate) and Manufacturing (54.6 or 67% higher), with other sectors below the average rate.

Table D-3: Cases of Occupational Disease by Major Industry Sector, WCC, 2016

NAICS Sector	Cases	%	Employment	%	Rate
Construction/Agriculture/Mining	146	3%	64,397	4%	22.7
Manufacturing	865	16%	158,431	10%	54.6
Trade	731	13%	247,143	15%	29.6
Transportation/Utilities	129	2%	50,295	3%	25.6
Information Services	53	1%	32,336	2%	16.4
Finance/Insurance/Real Estate	118	2%	127,758	8%	9.2
Business Services	403	7%	218,177	13%	18.5
Education/Health	768	14%	321,743	19%	23.9
Leisure/Other Services	271	5%	216,921	13%	12.5
Government	1,860	34%	231,034	14%	80.5
Unknown	110	2%			
Total	5,454	100%	1,666,580	100%	32.7

Notes: Employment is adjusted for hours worked. A small number of reports that could not be coded for industry are categorized as unknown. Rates are illnesses per 10,000 workers.

*Government sector includes cases that could alternately be classified under health and education.

Table D-4 provides the detail of industry sector by type of condition. Patterns of illness by industry differed by the type of illness, although Government was relatively high in all categories. Table D-4 is based on **numbers** of cases and not **rates**, so they are not adjusted for employment size in the different sectors (rates are shown in Tables D-3 and D-5).

Government dominated in all categories of illnesses. **Infectious diseases** were concentrated in Government (59%) and Education/Health (29%). **Lung diseases** were concentrated in Government (52%) and Manufacturing (13%). **Musculoskeletal disorders** (MSD) were most prevalent in Manufacturing (23%), Government (21%), Trade (19%), and Education/Health (11%). **Skin disorders** were spread across Government (42%), Manufacturing (14%), Business Services (13%), and Education/Health (13%). **“Other” illnesses**, including heart and hypertension, stress, and hearing loss cases (see below) were most common in Government (40%), Manufacturing (15%) and Trade (14%).

Table D-4: Type of Disease by Industry Sector, WCC, 2016

	Other		Lung		Infectious		MSD		Skin		Total	
Construction/Agric/Mining	21	2%	8	3%	4	0%	110	4%	3	2%	146	3%
Manufacturing	130	15%	41	13%	7	1%	661	23%	26	14%	865	16%
Trade	123	14%	29	9%	26	2%	538	19%	15	8%	731	14%
Transport/Utilities	15	2%	4	1%	5	0%	105	4%		0%	129	2%
Information Services	4	0%	3	1%	2	0%	43	2%	1	1%	53	1%
Finance/Insurance/Real Es.	16	2%	8	3%	1	0%	93	3%		0%	118	2%
Business Services	55	6%	19	6%	74	6%	231	8%	24	13%	403	8%
Education/Health	74	9%	25	8%	331	29%	313	11%	25	13%	768	14%
Leisure/Other Services	72	8%	12	4%	16	1%	155	5%	16	8%	271	5%
Government	344	40%	163	52%	679	59%	594	21%	80	42%	1,860	35%
Subtotal	854	100%	312	100%	1,145	100%	2,843	100%	190	100%	5,344	100%
Unknown	21		3		10		73		3		110	
Total	875		315		1,155		2,916		193		5,454	

Table D-5 shows those specific industry (3-digit NAICS code) sectors that reported 25 or more cases of occupational illness in 2016, ordered by the rate of illness. Local Government and State Government do not show detailed sector (such as Education or Health) since the data did not provide reliable detail. The highest rates were in Beverage and Tobacco Product Manufacturing (170 cases per 10,000 workers), Computer and Electronic Product Manufacturing (131), Primary Metal Manufacturing (112), and State government (103). The next highest rates were Local Government (81), Transportation Equipment Manufacturing (59), Electrical Equipment Manufacturing (57), and Miscellaneous Retail Stores (51). Although all of the specific sectors in the table had over 25 cases reported, 18 of them were at or below the average overall rate of 32.7 per 10,000 workers (primarily because they are sectors that employ relatively large numbers of workers).

Table D-5: Specific Industry Sectors with over 25 Cases of Occupational Disease, WCC, 2016

Specific Industry Sector	NAICS Code	Cases	Employt	Rate
Beverage and Tobacco Product Manufacturing	312	29	1,703	170.3
Computer and Electronic Product Manufacturing	334	153	11,644	131.4
Primary Metal Manufacturing	331	41	3,662	112.0
State Government		658	64,029	102.8
Local Government		1,202	149,164	80.6
Transportation Equipment Manufacturing	336	248	41,756	59.4
Electrical Equipment, Appliance, and Component Mfg.	335	47	8,253	56.9
Misc. Retail Stores	453	48	9,380	51.2
Fabricated Metal Product Manufacturing	332	142	29,183	48.7
Hospitals	622	268	58,371	45.9
Food Products	311	35	7,803	44.9
Chemical Manufacturing	325	33	7,597	43.4
Health and Personal Care Stores	446	58	13,384	43.3
Couriers and Messengers	492	28	7,231	38.7
Merchant Wholesalers, Nondurable Goods	424	70	19,624	35.7
Motor Vehicle Dealers	441	74	21,434	34.5
Administrative and Support Services	561	284	82,502	34.4
Merchant Wholesalers, Durable Goods	423	100	29,119	34.3
General Merchandise Stores	452	97	29,010	33.4
Telecommunications	517	29	8,764	33.1
Food and Beverage Stores	445	139	44,025	31.6
Nursing and Residential Care Facilities	623	181	62,686	28.9
General Purpose Machinery Manufacturing	333	39	13,543	28.8
Accommodation	721	33	11,660	28.3
Transit and Ground Passenger Transport	485	36	14,601	24.7
Non-residential Construction	236	27	11,143	24.2
Physician Offices	621	204	88,681	23.0
Specialty Trade Contractors	238	91	41,501	21.9

Membership Associations and Organizations	813	32	15,083	21.2
Clothing and clothing accessories	448	35	17,650	19.8
Credit Intermediation and Related Activities (Banks)	522	36	24,888	14.5
Amusement, Gambling, and Recreation Industries	713	29	20,932	13.9
Personal and Laundry Services	812	26	21,576	12.1
Educational Services	611	59	56,912	10.4
Professional, Scientific, and Technical Services	541	99	96,911	10.2
Food Services and Drinking Places	722	112	114,876	9.7
Social Assistance	624	53	55,093	9.6
Insurance Carriers and Related Activities	524	32	56,813	5.6

Illnesses by Town/Municipality

Occupational illnesses were coded by the town where the illness occurred (typically the town where the employer is located). Table D-6 and Figure D-3 shows the rates of illness per 10,000 employees per town (based on total employment by town of employment, provided by the CT Labor Department) for all towns and municipalities with at least 25 cases of occupational illness reported in 2016; the table is ordered by rates. The lower the rank, the higher the rate of illness. Rates of illness varied widely by municipality; often these appear to be related to large employers in high rate industries. The overall state mean (average) was 32.7 cases per 10,000 employees. For towns with at least 25 cases, Farmington had the highest rate at 126 cases per 10,000 employees, almost four times the average rate. Farmington was followed by Hartford (89), Cromwell (89), Groton (85), Westbrook (84), Windsor Locks (73), East Windsor (63), Cheshire (61), Stratford (60), and Middletown (58).

Table D-6: Illnesses by Town/Municipality, 25 or more cases, WCC, 2016

Town	Employment	Cases	Rate per 10,000	Rank
Connecticut	1,666,580	5,544	33.3	State Average
Farmington	13,531	171	126.4	1
Hartford	48,474	433	89.3	2
Cromwell	7,559	67	88.6	3
Groton	17,571	150	85.4	4
Westbrook	3,461	29	83.8	5
Windsor Locks	7,007	51	72.8	6
East Windsor	6,176	39	63.1	7
Cheshire	14,993	91	60.7	8
Stratford	26,022	156	59.9	9
Middletown	24,668	143	58.0	10
South Windsor	13,405	76	56.7	11
Mansfield	11,972	65	54.3	12
Rocky Hill	10,943	58	53.0	13
Stafford	6,423	34	52.9	14
Bloomfield	10,767	56	52.0	15
Old Saybrook	4,858	25	51.5	16
Windsor	15,670	79	50.4	17
Killingly	8,996	42	46.7	18
Westport	12,257	53	43.2	19
North Haven	12,752	55	43.1	20
New London	11,148	47	42.2	21
Berlin	11,182	47	42.0	22
New Haven	59,934	249	41.5	23

Montville	8,833	36	40.8	24
Southbury	8,364	32	38.3	25
Darien	8,310	30	36.1	26
Suffield	7,214	26	36.0	27
Waterford	9,674	33	34.1	28
Stonington	9,201	31	33.7	29
Shelton	21,086	71	33.7	30
East Lyme	8,389	28	33.4	31
Wilton	8,225	27	32.8	32
Southington	23,242	76	32.7	33
Danbury	45,470	148	32.5	34
New Canaan	8,101	26	32.1	35
East Hartford	25,487	79	31.0	36
Enfield	21,860	67	30.6	37
Norwich	19,031	58	30.5	38
Manchester	30,976	94	30.3	39
Trumbull	17,422	52	29.8	40
Torrington	18,261	54	29.6	41
New Milford	14,751	39	26.4	42
West Hartford	32,789	86	26.2	43
Waterbury	46,545	122	26.2	44
Windham	11,544	28	24.3	45
Bristol	30,944	75	24.2	46
Greenwich	27,845	67	24.1	47
Guilford	12,406	29	23.4	48
Glastonbury	18,171	42	23.1	49
Milford	28,612	65	22.7	50
Wethersfield	13,336	30	22.5	51
Wallingford	24,996	56	22.4	52
Vernon	16,138	36	22.3	53
Newtown	13,728	29	21.1	54
Meriden	30,019	63	21.0	55
New Britain	33,844	70	20.7	56
Norwalk	48,484	99	20.4	57
Bridgeport	65,505	130	19.8	58
Simsbury	12,697	25	19.7	59
Stamford	67,069	82	12.2	60
Fairfield	28,018	34	12.1	61
Hamden	33,428	29	8.7	62

*Lower rank indicates higher rates of illness (i.e. the town ranked first has the highest rate of illness). Ranks are based on the towns with at least 25 cases of illness reported in either year. Employment figures are based on the town of employment.

Musculoskeletal Disorders (MSD)

“Musculoskeletal disorders” is the currently-used term for conditions also known as cumulative trauma disorders or repetitive strain injuries. There were 2,916 cases of MSD reported to Workers’ Compensation in 2016, a 3% increase from 2015 (Table D-7). MSD accounted for just over half (53%) of the reported occupational diseases to Workers’ Compensation. MSD do not include cases for conditions determined to be injuries caused from sudden events. Most cases for the lower back are not included, unless they specifically noted that they were due to repetitive exposures (since the descriptions of back conditions are typically insufficient to be able to distinguish between acute injuries and cumulative back injuries that result in disease).

Strains and sprains (which does not include acute strains or sprains such as those from single events/accidents) was the most common category of MSD, with 73% of reports (Table D-7) coded for that general category. Carpal Tunnel Syndrome (CTS), which is a very debilitating pinching of the median nerve at the wrist, accounted for 9% of total MSD reports. Other nerve-related problems (with descriptions of numbness or tingling) accounted for an additional 4% of cases. Tendon-related problems included tendonitis and tenosynovitis, epicondylitis (“tennis elbow” or “golfer’s elbow”), trigger finger, and rotator cuff, combining for 4% of cases. A large number of cases did not have a specific description other than inflammation, swelling, pain or no specific description.

Table D-7: Musculoskeletal Disorders (MSD) by Type, WCC, 2015-2016

	2015	2016		
MSD Type	Cases	Cases	%	Change
Sprain/strain	2,070	2,140	73%	3%
Carpal Tunnel Syndrome	347	260	9%	-25%
Numbness	98	112	4%	14%
Tendonitis/tenosynovitis	40	38	1%	-5%
Trigger finger	20	29	1%	45%
Ganglion cyst	12	17	1%	42%
Epicondylitis	20	16	1%	-20%
Rotator cuff	22	11	0%	-50%
Arthritis/bursitis	10	6	0%	-40%
Other/Unknown	192	287	10%	49%
Total	2,831	2,916	100%	3%

Table D-8: Musculoskeletal Disorders by Part of Body, WCC, 2016

Part of body	Cases	Percent
Lower Arm, Wrist, Hand	1,179	40%
Upper Arm, Shoulder, Upper Extremity	616	21%
Legs, Knees, and Feet	430	15%
Elbow	230	8%
Neck and Upper Back	125	4%
Trunk	84	3%
Multiple	237	8%
Other/Unknown	15	1%
	2,916	100%

Over two-thirds (69%) of the cases of MSD were in the upper limbs of the body such as hands, arms, elbows, and shoulders (Table D-8). Another 15% were for the lower extremity (legs, knees and feet), and 7% for the

neck, upper back, and torso (note that lower back cases were excluded from these figures unless they explicitly indicated they were due to cumulative exposures).

Causes of conditions were often incomplete, overlapping, and not consistently coded nor described. Approximately 80% of MSD cases had enough description to show some cause. Of the MSD that could be classified (Table D-9), the most frequently mentioned cause was the broad category of “repetitive” (26% of cases). This term is often used as a general description to describe any chronic musculoskeletal problem. Repetitive cause was followed by lifting and carrying (20%), pushing or pulling (14%), tool use (including references specifically to pneumatic tools or vibration exposure; 9%), and computing and clerical tasks (8%).

Table D-9: Musculoskeletal Disorders (MSD) with Identified Cause, WCC, 2016

Cause of MSD	Reports	%
Repetitive	604	25.8%
Lifting/carrying	467	19.9%
Push/Pull	330	14.1%
Tools/vibration	207	8.8%
Computer/clerical	176	7.5%
Reaching	95	4.1%
Twisting	55	2.3%
Bending/kneeling/crawling	53	2.3%
Patient care	41	1.8%
Walking/running/moving	42	1.8%
Cleaning/mopping/sweeping	41	1.8%
Driving	40	1.7%
Assembly	33	1.4%
Sitting/standing	33	1.4%
Grasping/gripping/squeezing	30	1.3%
Climbing	29	1.2%
Machine	28	1.2%
Shoveling	14	0.6%
Overhead	10	0.4%
Selecting/sorting/inspecting/packing	8	0.3%
Scanning/cashier	5	0.2%
Sub-Total	2,341	100.0%
Unknown/other	575	
Total	2,916	

Infectious Diseases

There were 1,155 reports of infectious diseases or exposures in the database for 2016 (Table D-10), a 10% increase from the previous year. Infectious disease reports include both actual disease and exposure to infectious agents. There were 872 reports of exposure to bloodborne pathogens (including reports of exposure to HIV/AIDS and Hepatitis C), accounting for 75% of all infectious disease reports. These included 290 needlestick injuries or cuts from sharps or surgical instruments that may have resulted in exposure to a patient’s blood, 406 reports of exposures to human bites (cases were excluded if they specifically indicated the skin was not broken), and 176 reports of skin or eye exposure to blood or bodily fluids. There were additional reports of exposure to “spit” or “sputum” that are not reported here, since risks tend to be extremely low from such

exposures. Diseases that can be contracted through blood and body fluid exposures include hepatitis B, C and HIV. Human bites are considered to be relatively low risk exposures in terms of bloodborne disease transmission. Exposure to blood and fluids are somewhat higher risk (especially if the worker has open wounds or sores). Sharps (i.e. scalpels) and needlesticks are considered the highest risk (especially if they are deep cuts or injections). Incidents concerning prisoners or clients (including special needs students) accounted for the vast majority of human bites as well as some of the other bloodborne exposures. The data does not have consistent information on whether the source patient is known to be infected with a bloodborne illness such as HIV or hepatitis, so many of these reported incidents will have little or no actual risk of disease transmission. However, preventive efforts focus on universal precautions, so it is important to reduce these incidents regardless of whether patients/clients are known to be infected.

Table D-10: Infectious Diseases and Exposures by Type, WCC, 2015-2016

Illness	2015		2016		Change
	Cases	%	Cases	%	
Bloodborne: Human bite	365	35%	406	35%	11%
Bloodborne: Sharp and needlestick exposures	316	30%	290	25%	-8%
Bloodborne: Blood/body fluids	155	15%	176	15%	14%
Meningitis exposure	17	2%	75	6%	341%
Lyme Disease/Tick bite	75	7%	57	5%	-24%
TB/ppd conversion/exposure	37	4%	47	4%	27%
Scabies/lice	22	2%	20	2%	-9%
MRSA/staph/strep	4	0%	20	2%	400%
Rabies	3	0%	12	1%	300%
Chicken pox, measles, whooping cough	7	1%	7	1%	0%
Other infectious	46	4%	45	4%	-2%
Total	1,047	100%	1,155	100%	10%

There were 75 reports of meningitis exposure or illness, a large increase from 2015. There were 57 reports of tick bites, rashes from tick bites and/or a diagnosis of Lyme disease attributed to occupational exposures. There were 47 cases of tuberculosis infection, usually determined by PPD conversion (which is a skin test based on immune response) or based on exposure to clients with TB. This was an increase of 27% from 2015. In addition, there were 20 cases of scabies or lice exposures/illnesses, 20 reports of exposure or cases of MRSA (Methicillin-resistant *Staphylococcus aureus*, or staph infection that responds poorly to antibiotics) or other staph or strep infections, 12 cases of exposure to rabies, and 7 cases of chicken pox, measles or whooping cough.

Court decisions have broadened the definition of compensable disease under Workers' Compensation to include exposures, particularly where exposure requires medical treatment such as prophylactic treatments for tuberculosis (TB) and AIDS (HIV) exposures. It is often difficult to determine whether the first report of injury was actual disease or only exposure (for example, actual Lyme disease or only a report of a tick bite).

Respiratory Illness and Poisonings

Chronic lung disease such as asbestos-related illnesses, asthma, and lung cancer are addressed in the following section. In addition to these chronic conditions, there were 159 cases of respiratory illnesses (mostly nonspecific respiratory illness from relatively acute chemical or biological exposures) for 2016 (Table D-11), a 30% decrease from 2015. There were 21 cases of poisonings from carbon monoxide, other gases, mercury, or lead, roughly the same as the previous year.

Chemical exposures were the most common cause of respiratory illness, (42% of cases) followed by smoke or fire (23%), general indoor air quality (IAQ) or mold (13%), and dust or fumes (9%). There were 17 cases of poisoning from exposure to carbon monoxide or other gases and fumes, and no Workers' Compensation reports of lead or mercury poisoning or exposure in 2016.

In addition to the more general categories of smoke and mold, specific substances were reported as connected to the respiratory cases: Carpet removal (2), glaze carpet freshener, battery acid, toner dust, PCB's (2), oven cleaner, sewage fumes, laminator, fire extinguisher (3), isocyanates, spor-klenz, bio-solv, cut-thru cleaner, bug spray fogger (2), paint, varnish, magna may lacquer, epoxy (2), butyl acetate, disinfectant (2), dishwasher disinfectant, bleach (2), chlorine (2), Lysol wipes, metal fumes, pesticides, and acetone.

Table D-11: Respiratory Conditions and Poisonings by Cause, WCC, 2015-2016

Cause	2015		2016		
Respiratory	Cases	%	Cases	%	Change
Chemical Exposure	79	35%	66	42%	-16%
Smoke, Fire	56	25%	37	23%	-34%
IAQ/mold/odor	41	18%	21	13%	-49%
Dust/fumes	27	12%	14	9%	-48%
Other Respiratory	23	10%	21	13%	-9%
Respiratory subtotal	226	100%	159	100%	-30%
Poisoning					
Carbon monoxide/gas	14	70%	17	81%	21%
Lead	1	5%	0	0%	
Other Poisoning	5	25%	4	19%	-20%
Poisoning Subtotal	20	100%	21	100%	5%
Total Respiratory and Poisoning	246	100%	180	100%	-27%

Chronic Lung Conditions

There were 143 cases of chronic lung conditions in 2016, a 13% increase from the previous year (Table D-12). These included asbestos-related diseases and exposures, occupational asthma, and other chronic lung diseases. Acute respiratory illnesses are classified under respiratory conditions and poisonings (above).

Asbestos

There were 33 reports of asbestos-related disease or exposures in 2016. The descriptions of the cases often make it difficult to determine whether the cases are actual disease or current exposure to asbestos; the notations may be either describing historic exposures that contributed to current disease, or current exposures that raise the risk of future disease. Cancers, including those caused by asbestos, are noted below (under "other illnesses").

Asbestos exposure is known to increase the risk of lung disease and cancer. If disease occurs as a result, it often appears between 10-40 years after exposure. Asbestos disease may be under-reported by traditional surveillance sources such as Workers' Compensation. The main industry for asbestos conditions was transportation equipment manufacturing (10 cases).

Table D-12: Chronic Lung Diseases by Type, WCC, 2015-16

Illness	2015	2016	Change
Asthma/bronchitis	32	33	3%
Asbestos-related	30	33	10%
Allergies	14	13	-7%
Other chronic lung	43	56	30%
Total	119	135	13%

Other Chronic Lung Conditions

There were 33 occupational asthma cases reported in 2016 (essentially unchanged from the prior year), 13 lung-related allergies, and 56 other chronic lung conditions. The causes mentioned for asthma and other chronic lung conditions were mold, pigeon droppings, rubble, cat dander, perfume (3), wallpaper removal, peanuts, kerosene, dog dander, coolant, diesel fumes, ammonia bicarbonate, floor stripping chemicals, Ben-gay, adhesive remover, latex, bleach, painting (2), fire extinguishers, and disinfectant.

Skin Conditions

There were 193 skin conditions in the database in 2016 (Table D-13), an increase of 8% over the previous year. These included 70 cases of contact dermatitis from poison ivy or other plants (36% of all skin cases). There were 30 cases of skin conditions caused by chemicals, as well as 15 additional cases attributed specifically to cleaning chemicals. There were 9 cases caused by allergic reactions to clothing, gloves, or latex, and 13 other allergic skin conditions. There were 56 cases of poorly defined skin conditions, frequently just described as rashes.

In addition to cleaning chemicals and latex, specific substances associated with skin conditions included Loctite (2), dish cleaner, dishwasher chemicals, de-burring and grinding fluids (2), coolant (2), fiberglass, a grease stripping agent, bleach, paint thinner (2), boxes, soap and hand cleaners (4), oven cleaner, brush cleaner, hair coloring, plating chemicals, glue, ceiling tile dust, medical files, oils, and “Primer C”.

Table D-13: Skin Diseases by Cause, WCC, 2015-2016

Category	2015	2016	%	Change
Poison Ivy/plants	78	70	36%	-10%
Chemical	28	30	16%	7%
Soap/Cleaning	19	15	8%	-21%
Allergic	10	13	7%	30%
Gloves/Latex/clothing	10	9	5%	-10%
Rash/Other/Unknown	34	56	29%	65%
Total	179	193	100%	8%

Stress and Heart Conditions

Heart and Hypertension

There were 263 cases involving heart conditions, stroke, chest pain, hypertension, or stress in the database for 2016 (Table D-14), a 9% decrease from the previous year. Reports noted 144 cases of heart attacks, myocardial infarctions or acute heart events and 12 reported strokes or blood clots, often associated with emergency care at a hospital. There were 17 cases that described the condition as hypertension or “heart and hypertension” (the usual legal term for heart or hypertension cases that are covered under workers’ compensation for police and fire fighters).

Approximately one-half of the heart cases appeared to involve police or firefighters or other municipal and state employees who are frequently covered under heart and hypertension laws that consider those conditions to be work-related for Workers' Compensation purposes. Though not generally well described, causes of the heart cases included exertion (including shoveling, lifting or custodial work, 14 cases), firefighting, live fire training, or smoke (4), a car accident, raccoon attack, driving (3), working with a customer/client (6), police/EMT response (5), stress (2), monitoring students (3), and working out (2)

Table D-14: Heart and Hypertension Conditions by Type, WCC, 2015-2016

Category	2015	2016	%	Change
Heart attack/severe symptoms	139	144	55%	4%
Hypertension	20	17	6%	-15%
Stroke/clots	15	12	5%	-20%
Stress/anxiety/depression	116	90	34%	-22%
Total	290	263	100%	-9%

Mental Stress

There was a total of 90 stress-related claims in the database in 2016, a 22% decrease over the previous year. Approximately one third (34%) of the cases where cause was noted referred to violence or post-traumatic stress disorders after violence (Table D-15), and 9 cited either harassment or a hostile work environment.

Table D-15: Stress Conditions by Cause, WCC, 2016

Sources of Stress Conditions	2016	%
Violence/robbery/trauma	31	34%
Harassment/hostile environment	9	10%
Supervisor/co-worker	5	6%
Excessive work demands	5	6%
Motor vehicle accident	4	4%
Unknown/other	36	40%
Total	90	100%

Stress cases included a observing a student dying in the cafeteria, a police dispatcher in contact with a police shooting, a driver who injured a technician trying to repair the vehicle, a clinician who was stressed from counseling students who were victims of trauma, trying to revive a person who was choking but who died (2 people), a co-worker having an affair with the worker's spouse, changes at the workplace, occupational title changes, hitting a pedestrian with a bus, breaking up arguments between students (2 cases), sexual assault at work, an auto accident, a patient's sexual exhibitionism, physical and verbal abuse by a violent student, being stalked by a patient's ex-boyfriend, a witness to a suicide with a failed attempt to revive the person, a dismissal from the workplace, a panic attack after a phone conversation (2 cases), a first responder to a fatal car accident involving a 4-year old child, verbal threats from a student, physical assault by a client (2 cases), job demands as a police officer, an investigator on an officer-involved shooting, PTSD from a car accident (2 cases), a robbery where the worker had a gun placed against his neck, rescuing a teenager from the railing of a bridge where the teenager was about to commit suicide, a police officer who shot an emotionally disturbed person, verbal abuse and harassment, sexual harassment and retaliation, an unexpected loud noise, an argument with supervisor during termination, a student threatening to shoot the worker, a robbery with a suspect stating he had a knife and came behind counter, discovering a supervisor had attempted suicide in the worker's office, having a rifle blow up while testing the gun, and verbal confrontation with a customer.

Stress-related claims that are not also associated with a physical injury are typically not compensable under the Workers' Compensation statute, so it is likely that there are additional unreported (non-compensable) cases. It should be noted that this report is based on First Reports of Injury for compensation, and the number of cases that were ultimately awarded compensation was not determined.

Other Occupational Diseases

Hearing Loss

There were 105 reports of hearing loss in 2016 (Table D-16), 25% more than the previous year. Of these cases, 24 appeared to be caused by acute (single incident) noises or injuries such as an air horn, loss of hearing protection while shooting guns at a range, a phone slammed in employee's ear, firing a cannon, dive training, fast loss of air pressure, batteries exploding, a nearby fire alarm, a patient screaming in employee's ear, an unexpected trombone sound near the ear, and sudden air from a vacuum cleaner. Of all the hearing loss cases, most were from manufacturing (61 cases), in particular transportation equipment manufacturing (53 cases), as well as schools/police/firefighting/government (17 cases).

Table D-16: Other Occupational Illnesses, WCC, 2015-2016

Type of illness	2015	2016	%	Change
Dizziness/passing out/seizure	80	122	20%	53%
Hearing loss	84	105	17%	25%
Chemicals in eye	99	97	16%	-2%
Cold/heat related conditions	79	65	11%	-18%
Allergic	63	47	8%	-25%
Cancer	9	10	2%	11%
Other conditions	171	163	27%	-5%
Total	585	609	100%	4%

Other Disease Conditions

There were 122 reports of workers becoming dizzy, fainting, or similar conditions such as seizures, a 53% increase. There were 97 reports of eye exposures to chemicals (this does not include other physical acute eye injuries such as particles or dust), a 25% increase. Some of these are likely from pre-existing conditions that occurred while at work (such as epilepsy or diabetes) and some of which were accompanied by an injury from a fall; some may reflect more serious conditions such as heart attacks but are just described based on initial symptoms. There were 65 reports of temperature-related problems from heat or cold, an 18% decrease from the previous year.

There were 47 cases of allergic reactions reported in addition to those noted above under respiratory and skin conditions, a 25% decrease. There were 10 cases of cancer reported, which included asbestos-related cancers. There were 163 "other" conditions that were difficult to classify, usually due to incomplete information.

E. Occupational Illnesses and Injury Surveillance System (OIISS)

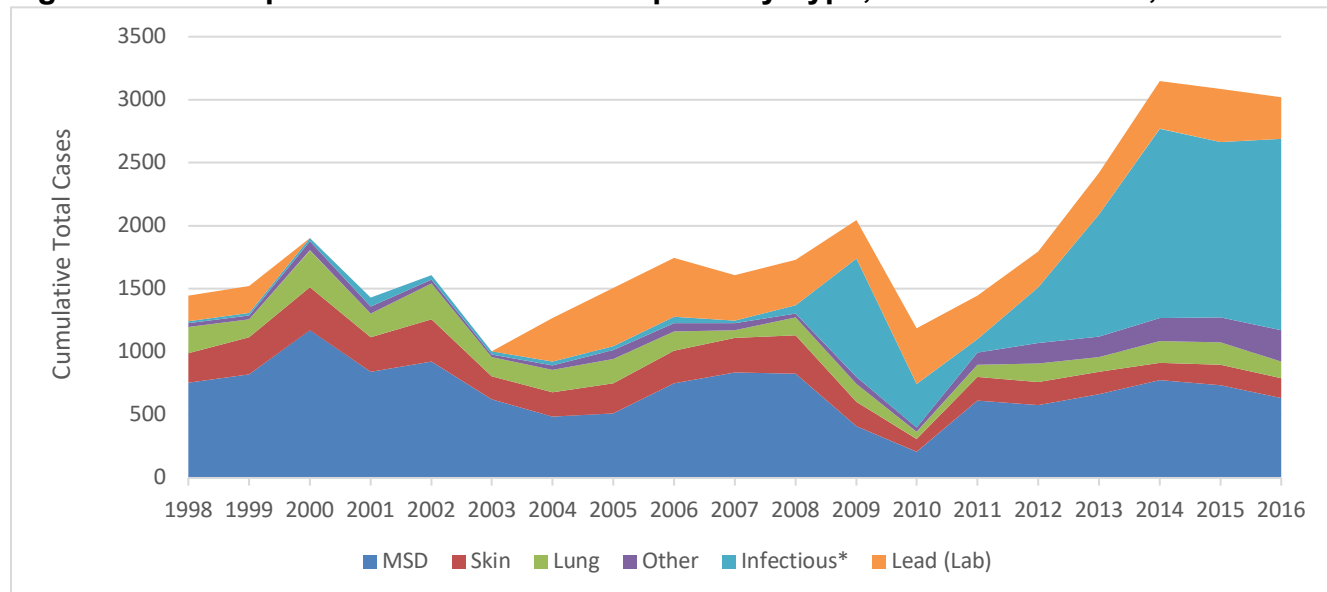
Physicians are required to report known and suspected occupational disease to the Occupational Illnesses and Injury Surveillance System (OIISS) that is maintained by the Department of Public Health. Although all physicians are required to report, most reports are received from Connecticut's occupational health clinics and industrial medicine programs. Information on blood lead level laboratory reports are taken from the Connecticut Adult Blood Lead Epidemiology and Surveillance (ABLES) program. Data for lead and infectious diseases were incomplete for certain years prior to 2012 (as noted for the table and figure below), so comparisons for total disease with earlier years should be made cautiously.

Table E-1: Occupational Disease Case Reports by Type, OIISS and ABLES, 2007-2016

Category	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	% change 2015-16
MSD	838	827	411	208	616	580	666	774	734	633	-14%
Skin	273	302	193	102	183	180	174	140	166	158	-5%
Lung	59	142	140	56	101	146	120	171	178	133	-25%
Other	58	31	59	33	96	164	159	184	195	250	28%
Infectious*	20	66	939	347	103	443	973	1500	1,390	1,513	9%
Sub-total	1,248	1,368	1,742	746	1,099	1,513	2,092	2,769	2,663	2,687	1%
Lead (Lab)	363	364	304	443	345	283	327	379	425	330	-22%
Total	1,611	1,732	2,046	1,189	1,444	1,796	2,419	3,148	3,088	3,017	-2%

*Infectious did not include most bloodborne pathogen exposures up to 2008, and again in 2011

Figure E-1: Occupational Disease Case Reports by Type, OIISS and ABLES, 1998-2016



*Infectious category did not include most bloodborne pathogen exposures up to 2008, and again in 2011.

** Lead values for 1998-99 did not include cases in the blood lead level range of 10-19 micrograms per deciliter (ug/dl).

There were 2,687 occupational illness reports received from physicians for 2016 (Table E-1). Physician reports increased slightly (1%) in 2016 compared to the year before. Infectious disease (such as bloodborne diseases and exposure) was the largest category of reports, accounting for 56% of the reports, followed by

musculoskeletal conditions (MSD) such as tendonitis and carpal tunnel syndrome (24%). Skin disorders (including poison ivy and chemicals as causes), lung conditions (including respiratory conditions, asthma, and other lung diseases) comprised 5% of physician reports. “Other” conditions (including heart disease, stress, noise-induced hearing loss) accounted for 9%. There were 330 reports of blood lead levels in adults of 10 micrograms per deciliter (ug/dl) or greater (a 22% decrease) from laboratory reports, giving a total of 3,017 occupational illnesses reported by physicians or laboratories in 2016.

In 2016, 108 physicians from 16 clinics (at 23 locations) reported at least one case to the OIIS. Twenty-nine of the physicians reported 20 or more cases and accounted for 86% of the reports; six reported 100 or more cases and accounted for 35% of reports. Eight clinic networks reported 100 or more cases and contributed 94% of the cases.

Many workers with occupationally-related illness seek care from their primary care providers. Although it is a state law that known and suspected occupational diseases diagnosed by any physician in the state must be reported to CT Departments of Labor and Public Health (CGS § 31-40a), the majority of reporters are from the academic occupational health clinics and auxiliary occupational health clinics that are funded under the state occupational disease surveillance network. Therefore, these reports should be viewed as a small portion of physician-diagnosed occupational diseases in Connecticut.

Eighty-seven percent (87%) of the cases were classed as “high certainty” for being an occupationally-related disease, 9% were “moderate certainty,” and 3% “low certainty”, where certainty was reported. There was a fairly low amount of reporting on whether exposure was continuing or if others are likely to be exposed, but 12% of those reported that the exposure that caused the illness was continuing, and 7% reported other workers were likely to be exposed to the same hazard.

Of the 1,738 reports where race was known, 273 (16%) were identified as black, and 188 (of 2,496 or 8%) were identified as Hispanic (where ethnicity was known).

Figure E-2: Occupational Disease by Age, OIIS, 2016

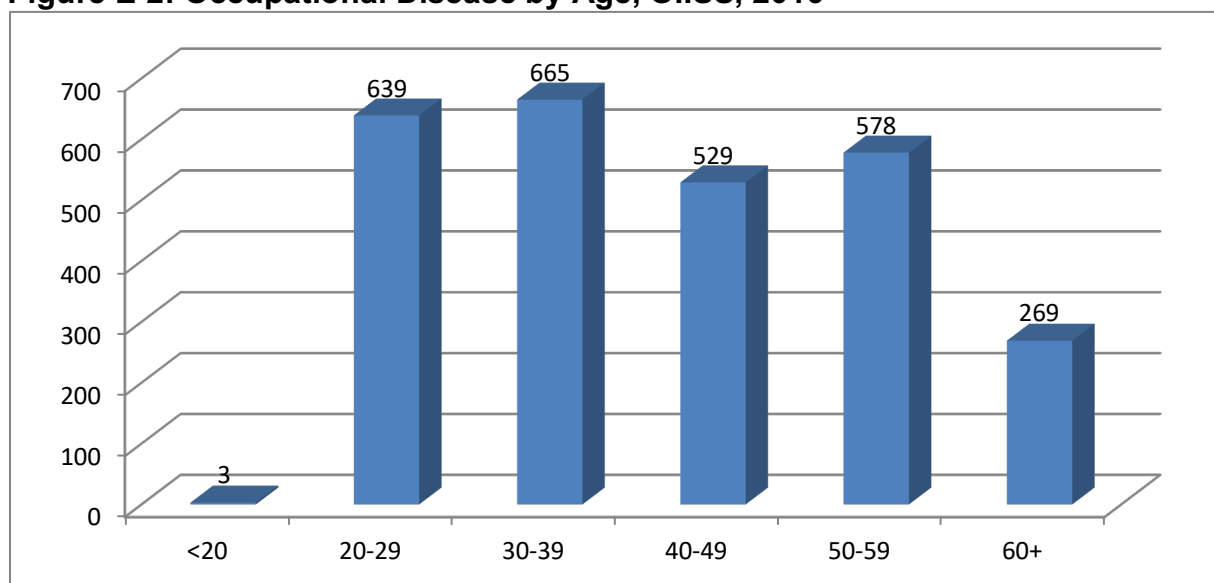
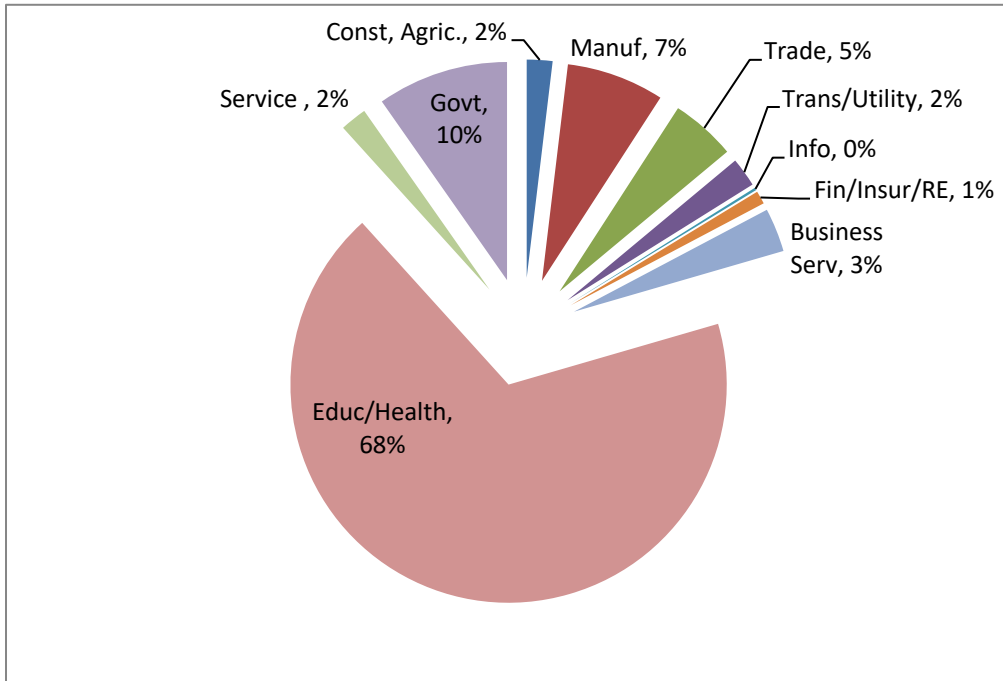


Figure E-2 shows the age distribution of reported cases (where data was available). There were similar proportions (between 20%-25%) for workers in their 20's, 30's, 40's and 50's. Only 10% were 60 or older, and only 4 cases were reported in workers less than 20 years of age.

The Education and Health sector had the most cases (68%), followed by Government (10%), Manufacturing (7%), and Trade (5%); see Figure E-3 and Table E-2. It should be noted that the Education and Health sector also includes many government workers, such as teachers and nurses who work for government (the workers' compensation data includes most of these under the government sector, so the two numbers aren't exactly comparable).

Figure E-3: Occupational Disease by Industry Sector, OIIS, 2016



Industry distribution was somewhat different by condition (Table E-2), although Education and Health led all the categories of illness. Infectious disease was highly concentrated in Education and Health (88%), with Government contributing another 6%. MSD were primarily from Education and Health (40%), Manufacturing (18%), Trade (12%), and Government (10%). Dermatitis (skin disorders) was primarily from Education and Health (42%), Government (18%), and Manufacturing (15%). Respiratory cases ("Lung") were primarily from Education and Health (47%) and Government (23%).

Table E-2: Type of Illness by Industry Sector (NAICS*), OIIS, 2016

Industry	All		Infectious		Lung		MSD		Other		Skin	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Construction/ Agriculture	52	2%	7	0%	7	5%	21	3%	10	4%	7	4%
Manufacturing	194	7%	5	0%	10	8%	116	18%	39	16%	24	15%
Trade	129	5%	12	1%	6	5%	79	12%	27	11%	5	3%
Transport/Utilities	58	2%	6	0%	5	4%	40	6%	3	1%	4	3%
Information Services	5	0%		0%		0%	4	1%	1	0%		0%
Finance/Insur/Real Estate	26	1%	13	1%	2	2%	6	1%	2	1%	3	2%
Business Service	87	3%	30	2%	4	3%	29	5%	11	4%	13	8%
Education/Health	1,818	68%	1,333	88%	63	47%	255	40%	101	40%	66	42%
Other Services	53	2%	12	1%	4	3%	20	3%	10	4%	7	4%
Government	260	10%	93	6%	31	23%	62	10%	45	18%	29	18%
Unknown	5	0%	2	0%	1	1%	1	0%	1	0%		0%
Total	2,687	100%	1,513	100%	133	100%	633	100%	250	100%	158	100%

*The North American Industry Classification System

Musculoskeletal Disorders (MSD)

There was a total of 633 reports of musculoskeletal disorders (MSD) in 2016, a decrease of 14% from the previous year (Table E-3). This table excludes lower back diagnoses unless specifically defined as caused by cumulative strain and does not include MSD caused by acute incidents such as falls or individual lifts. The most common specific diagnoses for musculoskeletal disorders were epicondylitis (tennis elbow) with 17% of the cases, tenosynovitis (14%), and carpal tunnel syndrome (12%).

Table E-3: Musculoskeletal Disorders (MSD) by Type, OIISS, 2015-2016

Illness	2015	2016	Percent	Change
Epicondylitis	143	108	17%	-24%
Tenosynovitis	114	89	14%	-22%
Carpal Tunnel Syndrome (CTS)	87	76	12%	-13%
Tendonitis	64	47	7%	-27%
Bursitis/Arthritis	69	46	7%	-33%
Other Neuropathy (nerve disorder)	43	37	6%	-14%
Trigger Finger	27	18	3%	-33%
Ganglion	14	15	2%	7%
Strain/Sprain	105	13	2%	-88%
Plantar fasciitis	20	10	2%	-50%
Rotator Cuff	24	5	1%	-79%
Other MSD	24	169	27%	604%
Total	734	633	100%	-14%

Musculoskeletal disorders (also referred to as cumulative trauma disorders or repetitive strain injuries) include tendon-related conditions, nerve problems, circulatory, as well as combined conditions.

Tendon Disorders

- Tendonitis: swelling of the tendons
- Epicondylitis: tendon irritation in the elbow area, including “golfer’s elbow” and “tennis elbow”
- Rotator Cuff Syndrome: tendonitis in the shoulder area
- Tenosynovitis: inflammation of the tendon sheaths, lubricated covers that surround the tendons, particularly in the hand
- DeQuervain’s Syndrome: tendon sheath disorder of side of wrist and base of thumb
- Trigger Finger: a bump on the tendon that catches on the tendon sheath that makes the finger or thumb difficult to move
- Ganglion Cysts: swelling of the tendon sheaths from excess lubricating fluid
- Bursitis: inflammation of the fluid-filled sacs around ligaments and tendons

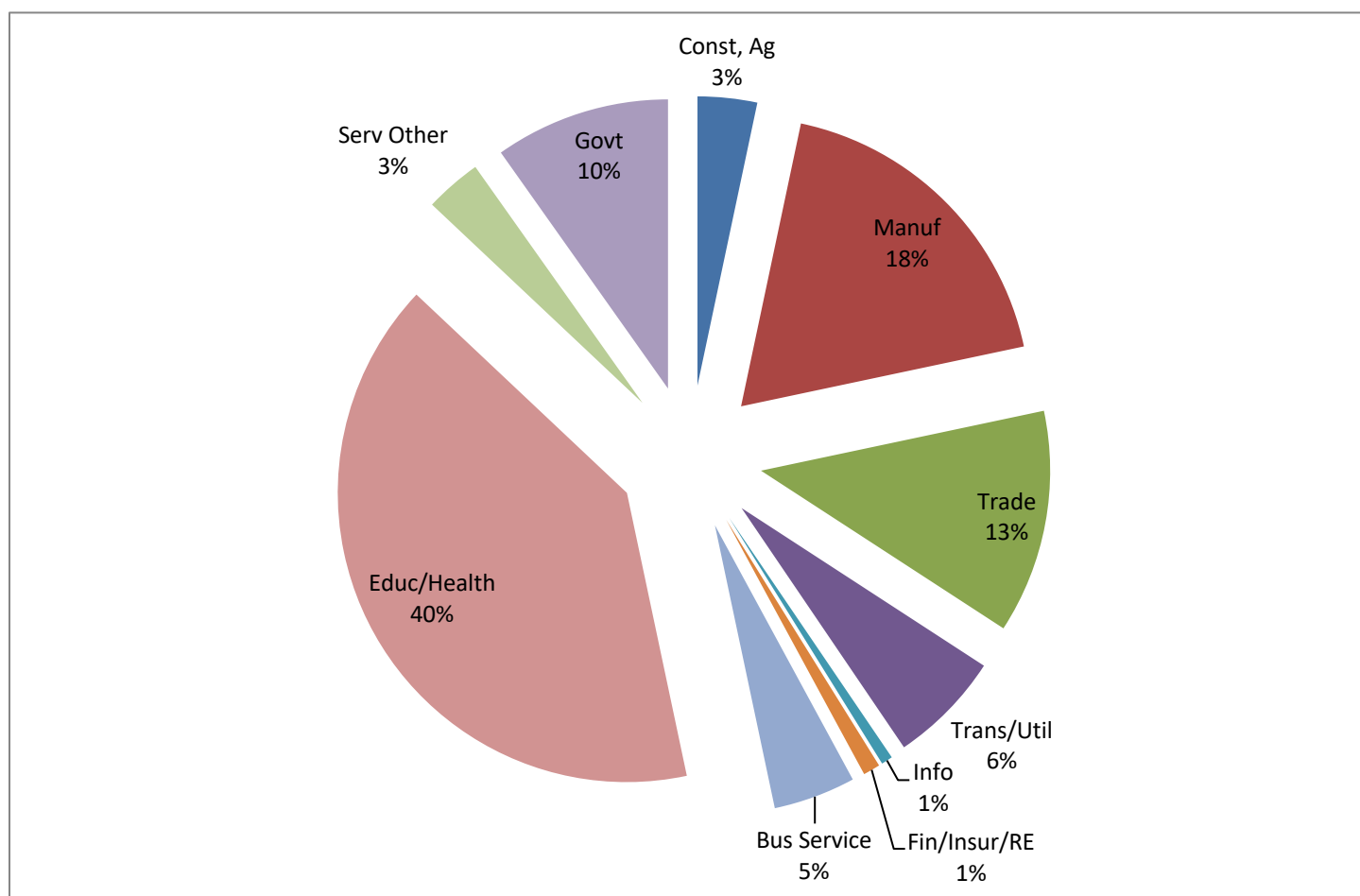
Nerve Disorders

- Carpal Tunnel Syndrome: pinching of the median nerve in the wrist, usually by swollen tendons that pass through the carpal tunnel (the median nerve can also be pinched in the elbow, shoulder, or neck areas)

Circulatory/Combined/Other

- Thoracic Outlet Syndrome: pinching of the nerves and blood vessels in the neck/ shoulder area

Figure E-4: Musculoskeletal Disorders by Industry Sector, OIIS, 2016



The largest number of MSD's were in Education and Health (255 cases), followed by Manufacturing (116), Trade (79), and Government (62); see Figure E-4 and Table E-2.

Table E-4: Common causes of MSD, OIIS, 2016

Cause	Cases
Lifting	78
Repetitive	53
Push/pull	49
Tools & Vibration	27
Computer/clerical	25
Gripping/grasping	17
Patient-related	14
Standing/walking/running	14
Assembly	9
Kneeling	6
Climbing	3
Other	25

Causes for MSD are difficult to classify since they are frequently described differently by the various people recording the case, and most case reports do not describe cause. The most common specific cause noted for MSD (Table E-4) was lifting (78 cases) and followed by pushing or pulling (49), tools and/or vibration (27), and computer use and data entry (25). An additional 53 cases were attributed to the general description of “repetitive”.

Skin Conditions

There were 158 reports of skin disorders in 2016 (Table E-5), a 5% decrease from the previous year. The largest single cause was poison ivy or other plant exposures (34% of all cases). Other causes included chemicals (28 cases), latex or clothing (12 cases), and cleaning or cleaning chemicals (7 cases).

Table E-5: Skin Conditions by Type, OIIS, 2015-2016

Illness	2015	2016	Percent	Change
Dermatitis	116	86	54%	-26%
Poison ivy & other plants	40	54	34%	35%
Other skin conditions	10	18	11%	80%
Total	166	158	100%	-5%

Skin conditions (Figure E-5) occurred most commonly in Education and Health (42%), State and Local Government (18%), and Manufacturing (15%).

Lung/Respiratory Diseases and Poisonings

There were 133 cases of respiratory and other lung diseases and poisonings reported by physicians in 2016 (Table E-6), a decrease of 25% from the previous year. Nonspecific respiratory illnesses were the most common type of condition, with 53% of reports, followed by poisoning (such as carbon monoxide or metals) with 18%, and asthma or reactive airways dysfunction syndrome (RADS) with 11%. In addition to asbestos (some of the asbestos cases appeared to be reports of asbestos *exposures* rather than asbestos-related *disease*) noted in Table E-6, exposures associated with respiratory conditions included lead fumes (23 cases), other fumes (including gas or carbon monoxide) (16 cases), chemicals (including solvents, cleaning chemicals, and oil; 27 cases), mold or indoor air quality (7 cases), and smoke (5 cases).

Table E-6: Respiratory Diseases and Poisoning by Type, OIIS, 2015-2016

Illness	2015	2016	Percent	Change
Respiratory	72	71	53%	-1%
Poisoning	10	24	18%	140%
Asthma/RADS	25	14	11%	-44%
Rhinitis	15	4	3%	-73%
Asbestos exposure/disease	3	4	3%	33%
Bronchitis	10		0%	
Other Lung	43	16	12%	-63%
Total	178	133	100%	-25%

Respiratory disease and poisoning cases mainly occurred in Education and Health (47% of cases) and Government (23%).

Lead Poisoning (Laboratory Reports)

Connecticut requires laboratories to report all blood lead tests of 10 micrograms per deciliter (ug/dl) of whole blood or greater to the Connecticut Department of Public Health (CGS § 19a-110). These cases are classified into childhood (less than 16 years of age) and adult cases (only adult cases are reported here), with the majority of adult cases being attributed to an individual's occupation (although some cases occur in individuals engaged in hobbies such as home improvement or target shooting). Up to a third or more of cases in recent years are related to the use of gun firing ranges. The numbers are based on the highest level measured for each individual during the calendar year; they do not include multiple tests on the same individual. OSHA medical removal protections apply at the level of 50 ug/dl of whole blood or above (and require a reduction to 40 ug/dl to return to work). Lead can have neurological and other negative effects on health at much lower levels of exposure.

The total number of lead poisoning reports in 2016 (330 cases) decreased 22% from the previous year. The lowest category (10-24 ug/dl) of recorded elevated lead levels accounted for 78% of all cases (Table E-7). There was a decrease in all categories of lead levels except the 50-59 micrograms per deciliter group. Almost all of the reported lead poisoning cases (94% of cases where gender was known) occurred in men; there were only 20 reports for women. Thirty-eight percent (38%) were under 40 years old and 25% were age 60 or older.

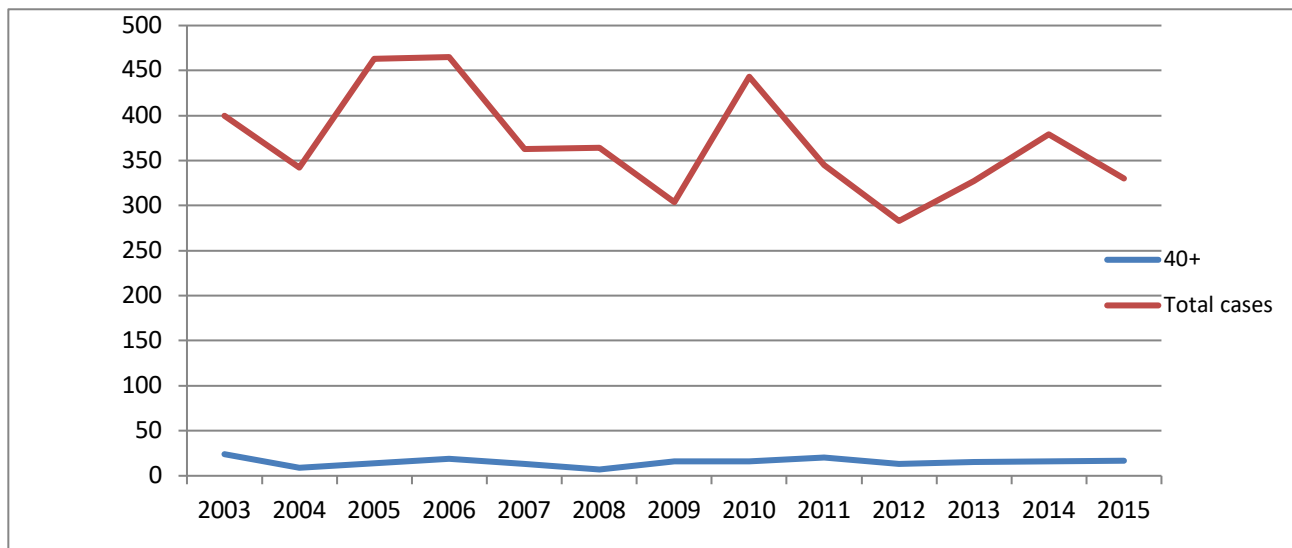
Table E-7: Lead Cases by Level of Blood Lead, CT ABLES, 2015-2016

Blood lead level*	2015	2016	Percent	Change
10-24	351	257	78%	-27%
25-39	57	56	17%	-2%
40-49	12	9	3%	-25%
50-59	2	7	2%	250%
>=60	3	1	0%	-67%
Total	425	330	100%	-22%

Source: Connecticut Adult Blood Lead Epidemiology and Surveillance (ABLES program)

* micrograms per deciliter (ug/dl) of whole blood. Number of individuals with elevated lead levels (multiple tests for individuals were eliminated.)

Figure E-5: Lead Cases 2003-2016



Overall, lead cases have fluctuated over the previous 12 years, from 400 in 2003 to 330 in 2016, with a high of 465 cases in 2006 and a low of 283 cases in 2012. Cases at or above the OSHA level of 40 ug/dl have stayed

relatively constant at 15 to 20 cases since 2004 (Figure E-7). Fluctuations in the past have been observed due to lead screening programs and special bridge maintenance projects involving the removal of lead paint.

Infectious and Other Diseases

Infectious diseases increased 9% to 1,513 cases in 2016. Bloodborne pathogen exposures (to needlesticks, blood, body fluids or human bites) or diseases (such as HIV or Hepatitis) were the most common infectious diseases reported, with 1,226 reports in 2016, a 7% increase over 2015. Bloodborne exposures are of most concern when there is a needlestick or other sharp injury, particularly if there is an injection of blood into the caregiver's body. These reports do not generally specify whether the source patient/client was infected with a bloodborne illness such as HIV or Hepatitis B or C. Of the bloodborne exposures where cause was noted, 50% were due to a needlestick or sharps injury, despite OSHA regulations that require safe needle devices where available. Thirty-four percent (34%) of the reports were due to blood or body fluid exposures. Exposure to saliva is not included in these numbers, since the risk of disease transmission is very low in those cases. Finally, 17% were from a human bite; often there is not a description on whether these bites penetrated the skin.

There was an increase in reports of potential exposure to tuberculosis (TB) or positive PPD tests for Tb, with 63 cases in 2016 compared to 28 cases reported in 2015. In addition to bloodborne disease/exposures and TB exposures, there were 93 reports related to meningitis, 41 cases of scabies, 21 cases of Lyme disease or tick bites, and 15 cases of Brucella (not specifically tracked in the prior year) reported. Most of the "Other Infectious" cases were not well-defined in the database and may include some of the more common reports (such as bloodborne or Tb).

Table E-8: Infectious and Other Illnesses, 2015-2016

Illness	2015	2016	% Change
Bloodborne	1,144	1,226	7%
Meningitis	52	93	79%
TB/PPD	28	63	125%
Scabies	22	41	86%
Lyme/tick bite	7	21	200%
Brucella		15	
Measles/chickenpox	5	4	-20%
Rabies	7	5	-29%
MRSA	0	2	
Conjunctivitis	46	0	
Other infectious	79	43	-46%
Subtotal: Infectious	1,390	1,513	9%
Chemicals in eyes	33	75	127%
Headache/dizzy	36	25	-31%
Allergic	7	22	214%
Stress/heart	11	18	64%
Hearing loss	17	12	-29%
Heat/cold	4	10	150%
Other	87	88	1%
Subtotal: Other	195	250	28%
Total	1,585	1,763	11%

In addition to the infectious diseases, there were 250 other occupational illnesses reported by physicians in 2016 (Table E-8), an increase of 28%. This included 75 cases of chemical exposures to the eyes, 25 cases of headache, dizziness, or similar symptoms, 22 cases of allergic reactions to substances or foods, 18 cases of either heart or stress-related conditions, 12 cases of hearing loss and 10 cases of over-exposures to heat or cold.

F. Appendix 1: Databases and Methods

Determining the incidence of occupational illness in Connecticut is difficult. The problem is two-fold: 1) occupationally-related illness is not consistently recognized as work-related; and 2) the cases reported to either the Department of Labor and/or the Occupational Health Surveillance Division of the Department of Public Health are not complete. Consequently, this assessment of occupational disease reviews a number of sources of information: the Workers' Compensation Commission's First Report of Injury database, the Bureau of Labor Statistics/Connecticut Occupational Safety and Health Administration Survey of Occupational Injuries and Illnesses, the Occupational Illnesses and Injury Surveillance System, and the Connecticut Adult Blood Level Epidemiology Surveillance Program. The Workers' Compensation database was provided in electronic form from the CT Workers' Compensation Commission and the physicians' reports from the CT Department of Public Health. The BLS/Conn-OSHA survey data was provided in table form from the Connecticut Department of Labor.

Assumptions and Conventions

The Workers' Compensation Commission's First Reports of Injury database and the Occupational Illnesses and Injury Surveillance System (OIIS, referred to as Physicians' Reports) were reviewed in depth. A rationale for the data review was developed to differentiate occupational illnesses from injuries and to classify the workplace reports by nature and cause of the illness. Each entry was reviewed for internal consistency and reasonableness. Specifically, the process employed the following steps:

- 1) **Clear acute injuries were eliminated.** In assessing the Workers' Compensation First Reports of Injury, a line by line review of injury descriptions, nature descriptions and codes, listed causes, and part of body were used to differentiate whether an injury or illness was described. The determination relied most heavily on the text description and then on the other data fields in the order listed above.

The Physicians' Reports are organized differently. Numerical "Nature of Injury or Illness" codes from the Bureau of Labor Statistics Occupational Injury and Illness Classification System (ANSI Z16.2-1995, American National Standard for Information Management for Occupational Safety and Health) were used as the primary indicator to evaluate the records. Cause, certainty, diagnosis, ICD codes, suspected agent and symptom fields were also reviewed in determining illness or injury. Categories that were eliminated included all burns, eye problems such as conjunctivitis or chemical exposures, lower back problems (including sciatica), hernias, infected wounds or burns, insect and animal bites (with the exception of tick bites because of the relationship with Lyme disease), and electrical shocks.
- 2) **Validity of remaining records was determined.** Records were reviewed to be sure that the coding of types of disease was consistent with other information in the record. In addition, diseases were categorized by type of disease.
- 3) **Fields were either revised or added to the databases:** *Illness Type* and *Nature of Illness*. The *Nature of Illness* was based on the information in the databases, research, and general information about the illnesses. Then each entry was categorized by *Illness Type*. The specific nature categories were grouped into broader categories to support graphic representation. For the Workers' Compensation database, the description of injury was used as the key description of the illness if it disagreed with the coding for other variables.
- 4) **Employers were coded for industry** utilizing a comprehensive list of Connecticut employers from the CT Department of Labor and coded based on the NAICS (North American Industry

Classification System) for the BLS and workers' compensation data. Rates were calculated using employment figures from the Occupational Safety and Health Statistics Division of the CT Labor Dept.

- 5) **Data was cleaned, tabulated and put into presentation form** using Microsoft Access, Excel, and Word software.
- 6) **The report is reviewed** by the Connecticut Workers' Compensation Commission prior to publication.

G. Appendix 2: Occupational Disease Detail by Type and Year

**Table G-1: Cases of Occupational Disease, by Type,
Bureau of Labor Statistics/Conn-OSHA, 1979 – 2016**

	Employ.*	All Ill	Skin	MSD	Lung-dust	Respir.	Poison	Physical	Other
1979	1,358	3,322	1,716	471	25	317	175	250	368
1980	1,394	3,066	1,586	513	88	214	66	199	400
1981	1,409	3,214	1,509	701	38	290	89	192	395
1982	1,400	2,549	1,130	580	31	223	31	216	323
1983	1,419	2,930	1,236	665	20	154	152	176	519
1984	1,490	2,735	1,109	665	24	273	65	162	432
1985	1,528	2,809	928	727	44	233	51	130	693
1986	1,567	2,719	808	761	39	274	65	235	538
1987	1,607	4,643	1,352	1,430	31	300	62	704	754
1988	1,637	4,364	1,257	405	35	332	56	405	733
1989	1,634	5,844	1,248	2,629	57	277	74	468	1,087
1990	1,593	5,307	1,032	2,535	93	457	54	496	641
1991	1,518	6,094	946	3,454	62	422	113	501	591
1992	1,483	6,458	1,084	3,852	37	471	53	349	612
1993	1,487	8369	965	5526	52	512	166	346	802
1994	1,502	7,319	957	4,482	74	410	97	313	986
1995	1,520	6,787	884	4,220	80	323	35	349	896
1996	1,538	6,021	827	3,711	40	418	34	235	756
1997	1,570	5,419	620	3,335	21	287	70	150	936
1998	1,597	5,510	989	3,398	10	459	45	92	517
1999	1,630	5,513	793	3,306	20	386	71	265	671
2000	1,653	6,396	897	3,827	65	438	29	137	1,003
2001	1,572	5,514	916	3,220	10	630	29	118	591
	Employ.*	All Ill	Skin			Respir.	Poison	Hearing	Other
2002	1,602	4,387	831			320	78		3,159
2003	1,605	4,559	903			490	32		3,132
2004	1,603	4,572	832			354	35	466	2,886
2005	1,614	4,850	848			480	8	381	3,134
2006	1,636	3,787	575			235	38	439	2,500
2007	1,667	3,904	624			358	22	457	2,443
2008	1,675	3,562	690			293	130	360	2,088
2009	1,629	3,400	600			300	--	500	2,000
2010	1,629	3,000	700			300	--	300	1,700
2011	1,578	3,500	800			300	--	300	2,100
2012	1,628	2,800	600			300	--	300	1,500
2013	1,640	2,600	500			300	--	300	1,600
2014	1,653	2,400	400			200	--	300	1,400
2015	1,663	2,300	400			200	--	200	1,500
2016		2,300	500			200	--	300	1,300

Source: BLS/Conn-OSHA. Data collection methods and categories changed in 2002 and are not comparable to prior years. Employment in thousands. Since this data is based on a weighted survey, some of these numbers (particularly the smaller numbers) are not reliable.

Table G-2: Rate per 10,000 Workers of Occupational Disease, by Type, Bureau of Labor Statistics/Conn-OSHA, 1979-2016

Year	Employed	Skin	MSD	Resp/Lung	Poisoning	Other	Hearing	Total
1979	1,358,000	12.6	3.5	2.5	1.3	8.2		24.5
1980	1,394,000	11.4	3.7	2.2	0.5	8.6		22
1981	1,409,000	10.7	5	2.3	0.6	9.4		22.8
1982	1,400,000	8.1	4.1	1.8	0.2	8.2		18.2
1983	1,419,000	8.7	4.7	1.2	1.1	9.7		20.6
1984	1,490,000	7.4	4.5	2	0.4	8.6		18.4
1985	1,528,000	6.1	4.8	1.8	0.3	10.4		18.4
1986	1,567,000	5.2	4.9	2	0.4	10		17.4
1987	1,607,000	8.4	8.9	2.1	0.4	18.2		28.9
1988	1,637,000	7.7	2.5	2.2	0.3	9.6		26.7
1989	1,634,000	7.6	16.1	2	0.5	26		35.8
1990	1,593,000	6.5	15.9	3.5	0.3	23.6		33.3
1991	1,518,000	6.2	22.8	3.2	0.7	30.4		40.1
1992	1,483,000	7.3	26	3.4	0.4	32.7		43.5
1993	1,487,000	6.5	37.2	3.8	1.1	45.2		56.3
1994	1,501,800	6.4	29.8	3.2	0.6	39		48.7
1995	1,520,000	5.8	27.8	2.7	0.2	36.5		44.7
1996	1,538,000	5.4	24.1	3	0.2	30.8		39.1
1997	1,570,500	3.9	21.2	2	0.4	28.3		34.5
1998	1,596,900	6.2	21.3	2.9	0.3	25.2		34.5
1999	1,630,100	4.9	20.3	2.5	0.4	26.1		33.8
2000	1,653,000	5.4	23.2	3	0.2	30.4		38.7
2001	1,571,000	5.8	20.5	4.1	0.2	25.1		35.1
Year	Employ	Skin		Respiratory	Poison	Other	Hearing	Total
2002*	1,602,000	6.2	*	2.4	0.6	23.7	*	32.9
2003	1,605,000	6.9	*	3.8	0.2	24	*	34.9
2004	1,603,100	6.4	*	2.7	0.3	22.1	3.6	34.9
2005	1,614,100	6.3	*	3.6	*	23.3	2.8	36
2006	1,635,700	4.3	*	1.8	0.3	18.8	3.3	28.4
2007	1,666,600	4.7	*	2.7	0.2	18.2	3.4	29.2
2008	1,666,600	4.7	*	2.7	0.2	18.2	3.4	29.2
2009	1,675,000	5.1	*	2.2	1	15.4	2.7	26.3
2010	1,639,300	5.1	*	2.1	*	13.1	2.5	23.1
2011	1,578.20	6.3	*	2	*	16.8	2.5	27.8
2012	1628028	4.6	*	2.6	*	12	2.6	21.9
2013	1,640,223	3.5	*	2	0.2	12.4	2.2	20.3
2014	1,653,547	3.4	*	1.9	*	11.0	2.1	18.7
2015	1,662,822	3	*	1.5	0.2	11.3	1.7	17.7
2016		3.9		1.3		10.0	2.2	17.4

Source: BLS/Conn-OSHA; "Other" includes the pre-2002 categories of MSD, Physical, Lung-dust, and Other.

*Data collection methods and categories changed in 2002 and are not comparable to prior years.

H. Appendix 3: Internet Resources for Job Safety and Health; 2016

General Health and Safety Sites

One of the best sources of information for job health and safety on the internet is the **OSHA (Occupational Safety and Health Administration)** homepage, which includes an ergonomics homepage, a searchable index of standards, and many other resources.

<http://www.osha.gov>

To look up **OSHA citations** by company or industry: <http://www.osha.gov/pls/imis/establishment.html>

The Bureau of Labor Statistics tracks occupational injuries and illnesses <https://www.bls.gov/iif/>

NIOSH (the National Institute for Occupational Safety and Health) is another good general source. A searchable section on diseases and injuries briefly describes conditions with updates on current research and guidance on prevention.

<http://www.cdc.gov/niosh/homepage.html>

<http://www.cdc.gov/niosh/topics/diseases.html>

EPA (the Environmental Protection Agency) has a number of sites relevant to occupational health on indoor air quality, office and school environments, and other topics.

www.epa.gov

www.epa.gov/iaq/

The **North Carolina Occupational Safety and Health Education and Research Center** is the home for the occupational health forum (formerly based at Duke), directed particularly to health care professionals, with a good set of technical links to other occupational health resources.

<http://www.occhealthnews.net>

The **Canadian Centre for Occupational Health and Safety** has hundreds of resources on their health and safety internet resource list. Start at their home page, then choose “Free Resources” (on the side bar).

<http://www.ccohs.ca>

New Jersey Department of Health has 1,600 excellent **chemical hazard factsheets** that are free, independently researched, and clearly written (900 in Spanish) on hundreds of substances.

<http://web.doh.state.nj.us/rtkhsfs/indexfs.aspx>

Vermont Safety Information Resources, Inc. has a database of **material safety data sheets (MSDS)** from a large number of chemical companies.

<http://hazard.com>

Several safety organizations have useful websites:

www.nsc.org

The National Safety Council

www.aiha.org

The American Industrial Hygiene Association

www.asse.org

American Society of Safety Engineers

www.nfpa.org

National Fire Protection Association

www.safetycentral.org

International Safety Equipment Association

For a labor perspective, the **national AFL-CIO** includes a health and safety page.

<http://www.aflcio.org/Issues/Job-Safety>,

COSH (Coalitions for Occupational Safety and Health) are labor-oriented nonprofit groups based in many states, with information on a variety of hazards. They can all be accessed through the National Coalition for Occupational Safety and Health <http://www.coshnetwork.org>

The **Connecticut Business and Industry Association** has a health and safety page that helps businesses understand what OSHA laws apply to them and provides information on upcoming conferences and events.
<https://www.cbia.com/resources/category/hr-safety>

The **Environmental Defense Fund** has a “pollution information site” called Scorecard with information about 11,200 chemicals and their recognized and suspected health effects. The site offers information with an interactive data based on the 2002 Toxics Release Inventory and is currently working on providing an update.
<http://www.scorecard.org/>

The Cal-OSHA Reporter carries current stories on job health and safety.
<http://www.cal-osha.com>.

Some **blogs carry job health and safety news and commentary.**

Jordan Barab has a labor perspective on OSHA and job health and safety
<http://jordanbarab.com/confinedspace>

The USMWF United Support and Memorial for Workplace Fatalities posts current stories about workers who have been killed on the job and their families <https://www.facebook.com/USMWF> or www.usmwf.org

The Pump Handle connects to Facebook and Twitter, written by Celeste Monforton
<http://scienceblogs.com/thepumphandle/>.

Workers’ compensation issues are covered at <http://workerscompinsider.com>.

The **Toxic Use Reduction Institute** at UMass Lowell has extensive resources on safer alternatives to toxic substances, including a database on alternatives to solvents.
<http://www.turi.org>.

UMass-Lowell’s Center for Sustainable Production has information on changing chemical policies.
<http://www.sustainableproduction.org/>

The **Health and Safety Executive of Great Britain** has extensive information on the new European Union’s REACH (Registration, Evaluation, and Authorization of Chemicals).
<http://www.hse.gov.uk/reach/index.htm> <http://www.hse.gov.uk/index.htm>

OSHA has a discussion of the US program that responds to the International Globally Harmonized System for Hazard Communication.
<http://www.osha.gov/dsg/hazcom/global.html>.

State of Connecticut and Select Other Resources

The **Connecticut Workers’ Compensation Commission** has an excellent website, including information on the locations of offices, a searchable version of the workers’ compensation statutes, new decisions, and other information.
<http://wcc.state.ct.us>

The **Connecticut (CT)** website allows access to all branches of state government including agencies.
<http://www.state.ct.us>

The **CT Department of Public Health** includes a site for the occupational health program, including Occupational Health Fast Facts, Health Alerts and Fact Sheets.

<http://www.ct.gov/dph/occupationalhealth>

The **CT Department of Labor** includes an occupational health services site, which includes information on their free consultation program and a great set of links to other health and safety sites. CONN-OSHA offers a variety of consulting services to both public and private employers in Connecticut, available at no charge.

<http://www.ctdol.state.ct.us/osha/osha.htm> <http://www.ctdol.state.ct.us/osha/consulti.htm>

The **Connecticut General Assembly** website lets you search for any bill being considered or get information about relevant committees such as Labor and Public Employees or Public Health.

<http://www.cga.ct.gov>

You can track national bills on the **National Library of Congress** site.

<https://www.congress.gov/>

You can search the medical literature at **US National Library of Medicine PubMed**.

<http://www.ncbi.nlm.nih.gov/pubmed/>

You can search general academic literature through **Google Scholar**.

<http://scholar.google.com/schhp?tab=ws> .

UConn Health's Division of Occupational and Environmental Medicine has information and links on job health and safety.

<http://health.uconn.edu/occupational-environmental>

The **Center for the Promotion of Health in the New England Workplace (CPH-NEW)** is a research-to-practice initiative led by investigators from the UMASS Lowell and UCONN HEALTH.

<http://health.uconn.edu/occupational-environmental/academics-and-research/cph-new/>

The **UCONN HEALTH's Center for Indoor Environments and Health** provides guidance on environmental exposures in indoor settings including schools and office buildings

<http://health.uconn.edu/occupational-environmental/consultation-and-outreach/cieh/>

Ergonomic Sites and Links

Ergoweb has good factsheets, documents, and news.

<https://ergoweb.com/>

Tom Bernard's website at **University of South Florida** has many of the standards and excellent free electronic ergonomic analysis tools such as the NIOSH lifting equation.

<http://personal.health.usf.edu/tbernard/ergotools/index.html>.

Tom Armstrong at the **University of Michigan** runs one of the most respected university training programs for ergonomics, and has extensive information, tools, and lectures.

<http://www-personal.umich.edu/~tja>

Cornell University's Alan Hedge has an active ergonomics program, with reports posted on graduate student projects and evaluation of ergonomic products. <http://ergo.human.cornell.edu>

The University of Virginia has ergonomics training and resources. <http://ehs.virginia.edu/Ergonomics.html>

Human Factors and Ergonomics Society is the main professional association in ergonomics.

<http://www.hfes.org>

Since 1994, the **National Ergonomics Conference & Ergo Expo** has provided a forum on ergonomics, safety and wellness programs.

<http://www.ergoexpo.com>

The **Typing Injury FAQ** has links and information on repetitive strain injuries from user and injured workers groups. <http://www.tifaq.org>

The National Health Service/UK has information about repetitive strain injuries/RSI

<http://www.nhs.uk/conditions/Repetitive-strain-injury/Pages/Introduction.aspx>

Paul Landsbergis has a good website on job stress. <http://unhealthywork.org/about-us/team/paul-a-landsbergis>

The **European Agency for Health and Safety at Work's Job Stress Network** web page is dedicated to increasing communication among researchers and others interested in job stress and its impact on health

<https://osha.europa.eu/data/links/795>

Internet Resources for Job Safety and Health is compiled by Tim Morse, Ph.D., at UConn Health. To update or add a listing, please contact Tim at tmorse@uchc.edu.

I. Appendix 4: Who's Who: Resources in Connecticut on Job Safety and Health

Academic Programs and Courses

Central Connecticut State University, School of Technology

Type of Degree: Certificate Program in Environmental and Occupational Safety

Faculty contact: Ravindra Thamma, Department Chair

Address: Copernicus Hall - Room 2120900, CCSU, 1615 Stanley Rd., New Britain, CT 06050

Phone: 860-832-3516

e-mail: thammarav@ccsu.edu

Web: <http://www.ccsu.edu/mcm/environmentalOccupationalSafetyOCP.html>

UConn College of Agriculture, Health and Natural Resources, Department of Allied Health Sciences

Type of Degree and Program: Bachelor in Allied Health Sciences with an Occupational and Environmental Health and Safety Concentration; and an Online Occupational Safety and Health Post-Baccalaureate Certificate Program

Faculty contact: Paul Bureau, MS MS CIH

Address: Koons Hall Room 100-G, 358 Mansfield Road, Unit 1101, Storrs, CT 06269-1101

Phone: (860) 486-0040

e-mail: paul.bureau@uconn.edu

Web: <http://www.alliedhealth.uconn.edu/majors/oshConcentration.php> and <http://osh.uconn.edu>

UConn Health, Department of Community Medicine

Type of Degree: Masters in Public Health program with ergonomic/occupational health courses

Director: David Gregorio, PhD

Address: UCONN Health, 263 Farmington Ave., Farmington, CT 06030-6325

Phone: (860) 679-5480

Fax: (860) 679-1581

e-mail: gregorio@nso.uchc.edu

Web: <http://commed.uchc.edu/education/mph/index.html>

UConn Health, Department of Community Medicine

Type of Degree: Ph.D. in Public Health with courses in Occupational and Environmental Health Sciences

Faculty Contact: Helen Swede, Ph.D.

Address: UCONN Health, 263 Farmington Ave., Farmington, CT 06030-6210

Phone: (860) 679-5568

Fax: (860) 679-5463

e-mail: swede@uchc.edu

Web: <http://health.uconn.edu/community-medicine/ph-d-in-public-health>

OSHA

Connecticut Department of Labor's Division of Occupational Safety and Health/CONN-OSHA: CONN-OSHA enforces state occupational safety and health regulations as they apply to state and municipal employees, and offers free consultations to public agencies, school districts and private companies.

Director: Kenneth C. Tucker III

Address: 38 Wolcott Hill Rd., Wethersfield, CT 06109

Phone: (860) 263-6900

Fax: (860) 263-6940

Web: <http://www.ctdol.state.ct.us/osha/osha.htm>

Publications: ConnOSHA Quarterly <https://www.ctdol.state.ct.us/osha/Quarterly/coqtrly.htm>

OSHA (Occupational Safety and Health Administration): Federal OSHA inspects workplaces in the private sector for violations of standards, and also has information and pamphlets.

National Website: <https://www.osha.gov>

OSHA Bridgeport Office (Fairfield, New Haven, and Middlesex counties).

Area Director (Acting until August 2017): Steve Biasi

Address: 915 Lafayette Blvd, Room 309, Bridgeport, Connecticut 06604

Phone: (203) 579-5581; National Hotline after hours, etc.: (800) 321-OSHA (6742)

Fax: (203) 579-5516

OSHA Hartford Office

Director: Dale Varney

Address: 135 High Street, Suite 361, Hartford, CT 06103

Phone: (860) 240-3152; National Hotline after hours, etc.: (800) 321-OSHA (6742)

Fax: (860) 240-3155

Academic Occupational Health Clinics

UConn Occupational and Environmental Medicine Clinic

Clinic Director: George W. Moore, M.D., M.Sc., FACPM, FACOEM

Address: UCONN Health, 263 Farmington Ave, Farmington, CT 06032-8077

Clinic address: UCONN Main Building (Hospital Entrance), Room CG228

Phone: (860) 679-2893

Fax: (860) 679-4587

e-mail: occmedehs@uchc.edu

Web: <http://health.uconn.edu/occupational-environmental/clinical-services/>

Yale Occupational and Environmental Medicine Program

Director: Carrie A Redlich, MD, MPH

Address: 367 Cedar Street, ESHA 2nd Floor, New Haven, CT 06510

Clinic address: 135 College St. Rm. 366, New Haven, CT 06510

Phone: (203) 785-4197

Fax: (203) 785-7391

e-mail: Carrie.Redlich@yale.edu

Web: <http://medicine.yale.edu/intmed/occmed/>

Occupational Health Clinics

Concentra

Medical Director: David Feinstein, MD

Address: 701 Main Street, East Hartford, CT 06108

Phone: (860) 289-5561

Fax: (860) 291-1895

e-mail: david_feinstein@concentra.com

Web: <http://www.concentra.com/employers/occupational-health/>

Other Offices:

972 West Main Street, New Britain (860) 827-0745

1080 Day Hill Road, Windsor (860) 298-8442

8 South Commons Rd, Waterbury (203) 759-1229

333 Kennedy Drive, Torrington (860) 482-4552

900 Northrup Rd, Wallingford (203) 949-1534

370 James Street, New Haven (203) 503-0482

60 Watson Blvd, Stratford (203) 380-5945

15 Commerce Road, 3rd Floor, Stamford, (203) 324-9100

10 Connecticut Avenue, Norwich, (860) 859-5100

Connecticut Occupational Medicine Partners, St. Francis Hospital and Medical Center

President, CEO and Administrative Director: Derrick Amato

Address (corporate): 675 Tower Avenue, Suite 404B, Hartford, CT 06112

Phone: (860) 714-6188

Fax: (860) 714-2775

Web: <http://compllc.org/>

Clinics: St Francis; 1000 Asylum Ave, Ste 4320, Hartford, 860-714-4270; 1598 East Main St, Torrington, (860) 482- 3467; 100 Deerfield Road, Windsor, 860-714-9444

ECHN Corporate Care; 2800 Tamarack Ave., Suite 001, South Windsor, CT 06074, (860) 647-4796

MedWorks of Bristol Hospital; 975 Farmington Ave. Bristol (860) 589-0114

MedWorks; 375 East Cedar St., Newington (860) 667-4418

Johnson Memorial Medical Center: Director, Clinical Services: Kathy Heim, RN, MSN 155 Hazard Ave., Suite 6. Enfield, CT 06082, (860) 763-7668

Griffin Hospital Occupational Medicine Center

Director: Myra Odenwaelder, DPT

Address: 10 Progress Drive. Shelton, CT 06484

Phone: (203) 944-3718

Fax: (203) 929-3068

e-mail: Modenwaelder@griffinhealth.org

Web: <http://www.griffinhealth.org/locations/shelton/griffin-hospital-occupational-medicine-center>

Hartford Medical Group—Occupational Medicine

Business Development Director: Peter Kowalski

Address: 1025 Silas Deane Highway, Wethersfield, CT 06109

Phone: (800) 557-8389

e-mail: Peter.Kowalski@hhchealth.org

Web: <https://hartfordhealthcaremedicalgroup.org/specialties/primary-care/occupational-medicine>

Other Offices: 324 Flanders Rd, East Lyme, CT 06333 (860) 739-6953; 80 Norwich-New London Tnpk, Montville, 06353, (860) 898-1297; 440 New Britain Ave, Plainville 06062 (860) 747-944; 445 South Main Street, West Hartford, (860) 696-2200.

Middlesex Hospital Occupational Medicine

Director: Matthew Lundquist, MD, MPH

Address: 534 Saybrook Rd., Middletown, CT 06457

Phone: (860) 358-2750

Fax: (860) 348-2757

e-mail: <mailto:matthew.lundquist@midhosp.org>

Web: <http://middlesexhospital.org/occmed>

Other Office: Essex Medical Building, 252 Westbrook Road, Essex (860) 358-3840

St. Mary's Hospital Occupational Health and Diagnostic Center

Medical Director: Erica Martinucci, MD

Address: 1312 West Main Street, Waterbury, CT

Phone: (203) 709-3740

Fax: (203) 709-3741

Email: occhealth@stmh.org

Web: <http://www.stmh.org/occupational-medicine-2892>

Yale-New Haven Health Systems

Manager for Clinical Operations (St. Raphael campus): Andrea Santerre, RN

Address: 175 Sherman Avenue, New Haven, CT 06511

Phone: (203) 789-6216

Fax: (203) 789-5174

e-mail: andrea.santerre@ynhh.org

Web: <https://www.ynhh.org/services/occupational-health.aspx>

Other Offices:

2080 Whitney Ave., Suite 150, Hamden (203) 789-6242

Greenwich Hospital, 5 Perry Ridge Rd, (203) 863-3483

Bridgeport Hospital, (203) 988-2551

20 York St., New Haven, 203-688-4242

Lawrence and Memorial Occupational Health Center

Medical Director: Saima Khalid, MD

Address: 52 Hazelnut Hill Rd., Groton, CT 06340

Phone: (860) 446-8265 x7074

Fax: (860) 448-6961

Web: <https://www.lmhospital.org/services/occupational-health.aspx>

Organizations

American Lung Association (ALA) in Connecticut

The ALA is a non-profit association geared towards preventing lung disease, including occupational lung disease.

Director, Health Promotions: Michelle Caul

Connecticut Address: 45 Ash St., East Hartford, CT 06108

Phone: (860)838.4370

e-mail: Michelle.Caul@lung.org

Web: Lung.org

Coalition for a Safe and Healthy Connecticut

This is a community-based coalition of environmental, public health, and labor organizations providing resources and advocacy for reducing the use of toxic chemicals through substitution of safer alternatives.

Coordinator: Anne B. Hulick, RN MS JD

Address: c/o Clean Water Action, 2074 Park Street, Suite 308, Hartford, CT, 06106

Phone: (860) 232-6232

Fax: (860) 232-6334

e-mail: ahulick@cleanwater.org

Web: <https://safehealthyct.wordpress.com>

Connecticut Safety Council/Safety Roundtable

The Safety Council is associated with the Connecticut Business and Industry Association and offers seminars, training courses, consulting, and policy discussions on safety and regulations.

Contact: Phillip Montgomery

Address: 350 Church St. Hartford, CT 06103-1126

Phone: (860) 244-1900

e-mail: phillip.montgomery@cbia.com

Web: <https://www.cbia.com/resources/hr-safety/hr-safety-councils/safety-health-roundtable>

ConnectiCOSH (The Connecticut Council for Occupational Safety and Health)

CTCOSH is a union-based non-profit organization for education and political action on job safety and health. They have conferences, fact sheets, and speakers.

Director: Mike Fitts

Address: 683 No. Mountain Rd, Newington, CT 06111

Phone: (860) 953-COSH (2674)

Fax: (860) 953-1038

e-mail: mike.ctcosh@snet.net

Web: <http://connecticosh.org>

The Center for the Promotion of Health in the New England Workplace (CPH-NEW)

CPH-NEW is a NIOSH-funded center for scientific research and education, based in participatory action research, integrating occupational health and safety with worksite health that is administered jointly by UMASS Lowell and UCONN Health.

Director: Martin Cherniack, MD, MPH

Address: 263 Farmington Ave, Farmington, CT 06030-8077

Phone: (860) 679-4916

Fax: (860) 679-1349

e-mail: cherniack@uchc.edu

Web: <http://health.uconn.edu/occupational-environmental/academics-and-research/cph-new/>

The Ergonomic Technology Center (ErgoCenter) at UCONN Health

The ErgoCenter is a center for prevention of repetitive strain injuries based at UCONN Health, which does training, research, consulting, and clinical care.

Contact: Jennifer Garza, ScD, Ergonomist

Address: 263 Farmington Ave, Farmington, CT 06030-8077

Phone: (860) 679-4916

Fax: (860) 679-1349

Phone: 860-679-5418

Email: garza@uchc.edu

Web: <https://health.uconn.edu/occupational-environmental/consultation-and-outreach/ergonomics-consultation/>

UConn Health- Center for Indoor Environments and Health (CIEH)

The CIEH at the University of Connecticut Health Center works with public health agencies, companies, clinics and individuals to promote indoor environments which protect the health of building occupants and provide productive, creative spaces for learning and work. The website on hurricane health (below) provides educational materials on protecting workers from exposures when addressing flooded buildings after severe wet weather.

Director: Paula Schenck, MPH

Address: 263 Farmington Ave, Farmington, CT 06030-8077,

Phone: (860) 679-2368

Fax: (860) 679-1349

e-mail: schenck@uchc.edu

Web: <http://health.uconn.edu/occupational-environmental/consultation-and-outreach/cieh/>

<http://hurricane-weather-health.doem.uconn.edu>

Professional Associations

American Industrial Hygiene Association (AIHA), Connecticut River Valley Section

AIHA is a professional association for industrial hygienists.

Contact: Brian Bethel, CIH

Phone: (203) 232-9993

e-mail: brian.bethel@keene.edu

Web: <http://www.crvaiha.wildapricot.org>

Connecticut Safety Society

This society is a professional association for safety inspectors

President: Larry French

Phone: (910) 322-5092

e-mail: info@ctsafety.org

Web: <http://www.ctsafety.org>

American Society of Safety Engineers (ASSE)

ASSE is a non-profit association for enhancing the competence and knowledge of the safety profession.

Connecticut Valley Chapter (Northern CT)

Address: Box 106, 1131-0 Tolland Turnpike, Manchester, CT 06040

President: Maryanne Steele

e-mail: president@ctvalley.assp.org

Web: <http://ctvalley.asse.org>

Air & Waste Management Association (AWMA), Connecticut Chapter

AWMA provides training, information, and networking opportunities to environmental professionals. The Connecticut Chapter, New England Section, provides periodic forums for discussion and sponsors an annual student scholarship.

Chair: David Krochko

Phone: (888) 265-8969

e-mail: dkrochko@woodardcurran.com

Web: http://www.awmanewengland.org/connecticut_chapter.htm

Connecticut Trial Lawyers Association, Workers' Compensation Committee

This is an association of attorneys specializing in workers' compensation, mostly for claimants.

Executive Director: Joan D. Maloney

Workers' Compensation Section Chair: Lukas Watson

Address: 150 Trumbull Street, 2nd Floor, Hartford, CT 06103

Phone: (860) 522-4345

Fax: (860) 522-1027

e-mail: jmaloney@cttriallawyers.org

Web: <https://www.cttriallawyers.org>

Connecticut Bar Association, Workers' Compensation Section

This is a professional association of attorneys who concentrate in workers' compensation.

Chair: Francis "Bud" Drapeau

Phone: (860) 875-7000

E-mail: bdrapeau@ctinjurylawyers.com

Web: <http://ctinjurylawyers.com/>

New England College of Occupational and Environmental Medicine/NECOEM

NECOEM is an association for occupational medicine doctors.

Executive Director: Dianne Plantamura, MSW

Address: 22 Mill Street, Groveland, MA 01834

Phone: (978) 373-5597

e-mail: necoem@comcast.net

Web: <http://www.necoem.org/>

Northeast Association of Occupational Health Nurses /NEAOHN

NEAOHN is an association of occupational health nurses, including most of the nurses working in industry.

CT Director: Richard Sandrib, BSN, MS, APRN

e-mail: richard.sandrib@bms.com

Address: 5 Research Pkwy, Wallingford, CT 06492

Phone: (203) 677-6441

Web: <http://www.neaohn.org/>

Connecticut State Agencies

Department of Public Health (DPH), Occupational Health Unit

This unit investigates clusters of occupational diseases. Programs for radon, asbestos, AIDS, lead, asthma, CT Schools Environmental Resource Team, TB control and infectious disease are also at the DPH.

Director: Thomas St. Louis, MSPH

Address: DPH/ OHP, 410 Capitol Ave, MS #11EOH, PO Box 340308, Hartford, CT 06134-0308

Phone: (860) 509-7740

Fax: (860) 509-7785

e-mail: Thomas.st.louis@ct.gov

Web: http://www.ct.gov/dph/cwp/view.asp?a=3140&q=387472&dphNav_GID=1828

State Department of Emergency Services and Public Protection

Public Information Officer: Scott Devico

Phone: (860) 685-8230; (203) 525-6959 (cell)

Fax: (860) 685-8902

e-mail: scott.devico@ct.gov

Web: <http://www.ct.gov/demhs/site/default.asp>

State Emergency Response Commission, Department of Energy and Environmental Protection

This commission oversees plans for response to chemical accidents and collects chemical information for the public under Community Right to Know.

Chairman: Gerard P. Goudreau

Address: 79 Elm St, Hartford, CT 06106-5127

Phone: (860) 424-3373

Fax: (860) 424-4062

e-mail: deep.ctepcra@ct.gov

Web: <http://www.ct.gov/serc>

Connecticut Fire Academy, Commission on Fire Prevention & Control

Safety training & standards compliance.

Training Director: Bill Higgins

Address: 34 Perimeter Road, Windsor Locks, CT 06096-1069

Phone: 860-264-9272 or toll free (877) 5CT-FIRE (only in CT)

Fax: (860) 654-1889

Email: william.higgins@ct.gov

Web: <http://www.ct.gov/cfpc/site/default.asp>

Connecticut Department of Environmental Protection, Radiation Safety Unit

Director: Jeff Semancik

Phone: (860) 424-4190; (860) 424-3333 24/7 Emergency

Fax: (860) 706-5339

e-mail: jeffrey.semancik@ct.gov

Web: http://www.ct.gov/deep/cwp/view.asp?a=2713&q=324824&deepNav_GID=1639

Workers' Compensation Commission

Chairman's Office and Compensation Review Board

The Workers' Compensation Commission (WCC) administers the workers' compensation laws of the State of Connecticut with the ultimate goal of ensuring that workers injured on the job receive prompt payment of lost work time benefits and attendant medical expenses. To this end, the Commission holds hearings on disputed matters, facilitates voluntary agreements, makes findings and awards, hears and rules on appeals, and closes out cases through full and final stipulated settlements.

The WCC Safety & Health Services unit assists employers with implementation of the workers' compensation regulations regarding "Establishment and Administration of Safety and Health Committees at Work Sites."

Chairman: Stephen M. Morelli

Address: 21 Oak St., 4th Floor, Hartford, CT 06106-8011

Phone: (860) 493-1500

Information: (800) 223-WORK (9675)

Fax: (860) 247-1361

e-mail: wcc.chairmansoffice@po.state.ct.us

Web: <http://wcc.state.ct.us/>

Workers' Compensation District Offices

1. 999 Asylum Ave., Hartford, CT 06105; (860) 566-4154; Fax: (860) 566-6137
2. 55 Main St., Norwich, CT 06360; (860) 823-3900; Fax: (860) 823-1725
3. 700 State St., New Haven, CT 06511; (203) 789-7512; Fax: (203) 789-7168
4. 350 Fairfield Ave., 2nd Floor, Bridgeport, CT 06604; (203) 382-5600; Fax: (203) 335-8760
5. 55 West Main St., Waterbury, CT 06702; (203) 596-4207; Fax: (203) 805-6501
6. 233 Main St., New Britain, CT 06051; (860) 827-7180; Fax: (860) 827-7913
7. 111 High Ridge Rd., Stamford, CT 06905-5111; (203) 325-3881; Fax: (203) 967-7264
8. 90 Court St., Middletown, CT 06457; (860) 344-7453; Fax: (860) 344-7487

The Who's Who is compiled by Tim Morse, Ph.D., at UConn Health. To update or add a listing, please contact Tim at tmorse@uchc.edu.