

# Occupational Disease in Connecticut, 2015



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State of Connecticut Workers' Compensation Commission,  
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## A. Executive Summary

This report focuses on occupational *disease* reports for 2013 and recent trends in reported cases. It does not address traumatic occupational *injuries*, which are addressed in the annual report on occupational injuries and illnesses by the Connecticut Department of Labor (<http://www.ctdol.state.ct.us/osh/shstats.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 (OISS), and the Bureau of Labor Statistics/Conn-OSHA Annual Survey (BLS).

**Table A-1: Summary of Diseases Reported by Systems, 2011-2013**

Type of Disease	BLS/Conn-OSHA			WCC			OISS (Physicians)			Unique Cases*		
	2011	2012	2013	2011	2012	2013	2011	2012	2013	2011	2012	2013
Respiratory & poisonings	300	300	300	451	469	429	101	146	120	528	585	521
Lead **							345	283	327			
Skin	800	600	500	237	286	259	183	180	174	383	434	393
Musculoskeletal	***	***	***	3718	3110	3232	616	580	666	4,180	3,525	3,741
Infectious				839	1024	1199	103	443	973		1,401	1,975
Hearing loss	300	300	300	168	122	131	13	8	11			140
Other***	2,100	1,500	1,600	667	923	778	83	156	148	1,829	1,184	899
<b>Total</b>	<b>3,500</b>	<b>2,700</b>	<b>2,600</b>	<b>6,080</b>	<b>5,934</b>	<b>6,028</b>	<b>1,444</b>	<b>1,796</b>	<b>2,419</b>	<b>6,920</b>	<b>7,129</b>	<b>7,669</b>

**Sources:** BLS: Bureau of Labor Statistics/Conn-OSHA; WCC: CT Workers' Compensation Commission, First Report of Injury database  
OISS: Occupational Illnesses and Injury Surveillance System

**Notes:** Musculoskeletal Disorders (MSD) definitions vary somewhat between systems

\*Unique cases are the combined total of Workers' Compensation cases and Physicians Reports, adjusted for cases reported to both systems

\*\*Laboratory reports on lead are from the Connecticut Adult Blood Lead Epidemiology and Surveillance program.

\*\*\*MSD is included in the "other" category for BLS/Conn-OSHA data

Infectious diseases, physical hazards, allergies, and cancer are included in the "other" category for the Workers' Compensation data

Infectious diseases are included in the "other" for the OISS data; 2011 OISS infectious category does not include bloodborne infections

Table A-1 summarizes the data from the three different sources for the last 3 years. Approximately 2,600 cases of occupational diseases were reported under the BLS/Conn-OSHA survey, 6,028 through the workers' compensation first report of injuries and 2,419 for OISS for 2013. The number of reports in 2013 decreased by 4% in the BLS system, increased 2% for workers compensation, and increased 38% for physicians' reports. Reports from workers' compensation and physicians combined (adjusting for cases reported to both systems) totaled 7,669 unique reports, an increase of 8% from the previous year.

**Musculoskeletal disorders (MSDs)** such as Carpal Tunnel Syndrome and tendonitis dominated the workers' compensation reports, accounting for 54% of reports (32% of the physicians 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**, which include respiratory conditions and lung disease such as asthma accounted for 7-18% of cases. **Infectious diseases**, such as bloodborne diseases such as HIV and hepatitis, Tb, scabies, Lyme Disease (and including exposures as well as diagnosed disease) accounted for 20-40% of cases (infectious disease is categorized under "other disease in BLS). "Other diseases", which includes infectious diseases and MSD in BLS, physical hazards such as heat and cold exposures, allergies, cancer, and others, accounted for 7-21% of cases. **Skin conditions** accounted for 4-19% of the illnesses reported. **Lead poisoning** is tracked separately and is based on laboratory reports to the Connecticut Department of Public Health.

There was an overall illness rate of 20.3 cases per 10,000 workers based on the BLS survey, a 7% decrease in the rate from the previous year. The CT rate was 8% higher than the average national rate. The highest specific sector rate based on the BLS survey was the small Natural Resources and Mining sector (which includes farming) at 81.6. State government was second highest overall at 44.3, with high rates for “other” at 24.8 and skin disorders (14.5). Manufacturing was third highest at 42.7, with the highest rate of hearing loss (14.3) and the third highest rate for “other” conditions. Local Government was fourth highest overall at 40.8, which included the highest rate for respiratory conditions (6.6), second-highest rate for skin disorders (7.8) and lung illness (5.4) and the second-highest rate of “other illnesses” (24.6).

Overall, 48% of reports were for women, but this varied by type of disease, with higher proportions than average for infectious disease (63% women), but lower levels for skin conditions (30%), heart and hypertension (28%), and “other illness” (36%). Age distributions were fairly even across age ranges; there were between 21%-24% each for workers in their 20’s, 30’s, 40’s and 50’s. Based on physician reports where race and ethnicity were known, 16% of cases were black and 10% Hispanic.

The most common specific physician diagnoses for musculoskeletal disorders were epicondylitis (tennis elbow) with 17% of the cases, tenosynovitis (16%), and carpal tunnel syndrome (12%). The most common specific causes for MSD in workers compensation reports were pushing or pulling (15%), lifting (15%), tool use (including references specifically to pneumatic tools or vibration exposure; 10%), and computing and clerical tasks (9%).

Nonspecific respiratory illnesses were the most common type of physician diagnoses of lung diseases, with 52% of reports, followed by asthma and Reactive Airway Dysfunction Syndrome (RADS) at 13%, and poisonings such as lead and mercury (14%). In addition to lead/mercury and asbestos (some of the asbestos cases appeared to be reports of exposures rather than asbestos-related disease), exposures associated with respiratory conditions included chemicals (including fire extinguishers, ammonia, PCB’s, anesthetic gases, solvents), mold and indoor air quality, dust, and pesticides..

Infectious disease and exposures were reported primarily through workers’ compensation. There were 820 reports of potential exposure to bloodborne pathogens (including reports of exposure to HIV/AIDS and Hepatitis C), accounting for 68% of all infectious disease reports. There were 149 cases of tuberculosis infection (PPD conversion) or exposures to clients with TB (over a tripling from the previous year, with approximately half from a single hospital). There were 66 reports of tick bites, rashes from tick bites and/or Lyme disease attributed to occupational exposures, 55 cases of scabies or lice exposures/illnesses, 30 cases of meningitis exposure, 24 cases of exposure to rabies, and 23 reports of exposure or cases of MRSA (Methicillin-resistant *Staphylococcus aureus*, or staph infection that responds poorly to antibiotics) or other staph infection.

Thirty-seven (37) towns and municipalities had at least 50 cases of occupational illnesses based on workers’ compensation reports. Rates of illness varied widely by municipality; often these appear to be related to large employers in high rate industries. The highest rate was for Farmington at 163 cases per 10,000 workers (the overall state average is 31), followed by Groton (118), Norwich (110). Westbrook (95), and Pomfret (77). A map of the rates by town follows, with rates listed in Appendix 3.



## **B. Introduction**

This report provides an overview of what is known about occupational disease in Connecticut based on 2013 data. It is one of a series of annual reports on occupational disease developed for the Connecticut Workers' Compensation Commission under the Occupational Illnesses and Injury Surveillance System (OISS). By monitoring trends, this system helps prevent occupational disease by targeting prevention activities such as education, encouraging effective safety and health committees and programs, and investigating of clusters of disease. The system is a cooperative venture by the Department of Public Health, Department of Labor, Workers' Compensation Commission, and a number of occupational health clinics (Connecticut General Statutes 31-396 to 31-402). Physicians are required to report occupational disease under Connecticut General Statute 31-399.

This report combines available data from a number of systems:

- Bureau of Labor Statistics/Connecticut Occupational Safety and Health Administration (BLS/Conn-OSHA) Survey of Occupational Injuries and Illnesses
- Connecticut Adult Blood Lead Epidemiology Surveillance System (ABLES)
- Occupational Illnesses and Injury Surveillance System (referred to as Physicians' Reports or OISS in this report).
- Connecticut Workers' Compensation Employer First Reports of Injury (referred to as Workers' Compensation or WCC in this report)

### **Acknowledgements**

Several people have contributed data and other help to this report. We would like to especially thank Erin Wilkins of the Connecticut Department of Labor; Bob Artus and Peter Miecznikowski of the Workers' Compensation Commission; and Albert Deloreto and Thomas St. Louis of the Department of Public Health. Special thanks to Paula Schenck at the Division of Occupational and Environmental Medicine at UCONN Health for her editing and other contributions to the report. The map of the rates of occupational illness by town was created by Kevin Evringham at the University of Connecticut.

### **Overview of Report**

This report covers occupational disease data for calendar year 2013. It is divided into three primary sections based on the data source. It begins with the BLS/Conn-OSHA time trends, followed by data from the Workers' Compensation First Reports of Injury, followed by data from physicians' reports (OISS). A final main section combines the data from Workers' Compensation and Physicians reports to determine a total of unique reported cases; individual level data from the BLS/Conn-OSHA survey is not available for matching for this purpose.

There are several appendices which provide additional details, including

- Trends over time
- A map of occupational illness rates in Connecticut.
- A "Who's Who" in occupational health in Connecticut with contact information for state agencies, occupational health clinics, and professional associations, and
- A resource sheet on useful websites for additional information on occupational health.

All three data sources provide somewhat different information. For example, the BLS/Conn-OSHA provides comparisons to U.S. data, but is based on a survey, rather than all reports. Workers' Compensation data includes all lost-time cases for all employers, but does not include physicians' diagnosis. The physicians' reporting system has more precise diagnoses, but a large number of physicians do not report into the system. Prior studies have found that there is only a small overlap between the Workers' Compensation Reports and physicians' reports, indicating that total numbers are higher than the individual system totals; the current figures for overlap and for unique cases based on both databases are contained in the Executive Summary.



## 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. Conn-OSHA issues an annual report that provides data on injuries (available at <http://www.ctdol.state.ct.us/osha/shstats.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 2013

There were approximately 2,600 reported cases of occupational illnesses in 2013 (Figure C-1 and Table C-1) with an overall rate of 20.3 per 10,000 workers, approximately a 7% decrease from the prior year. While data for poisonings in Connecticut did not meet publication standards for last year, the rate in 2013 was 0.2.

**Table C-1: Occupational Disease by Type, BLS/Conn-OSHA 2012-13**

	2012		2013		% Change in Rate
	Cases	Rates	Cases	Rates	
Respiratory	300	2.6	300	2.0	-23%
Skin	600	4.6	500	3.5	-24%
Hearing Loss	300	2.6	300	2.2	-15%
Poisonings				0.2	
Other***	1,500	12	1,600	12.4	3%
<b>Total</b>	<b>2,800</b>	<b>21.9</b>	<b>2,600</b>	<b>20.3</b>	<b>-7%</b>

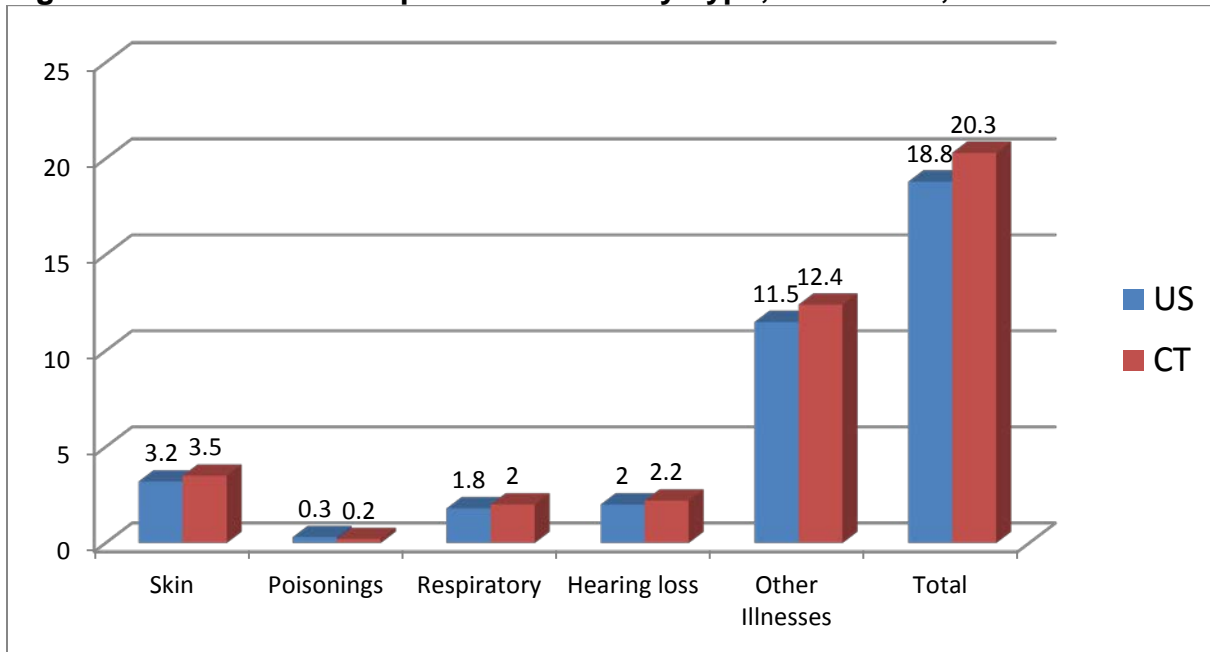
Source: BLS/Conn-OSHA; Rates are per 10,000 workers, adjusted for hours worked. Total differs from individual sum due to rounding for the survey. Includes public sector. Blanks indicate numbers too small or unreliable to publish. MSD is included in the "Other" category

Overall rates for Connecticut in 2013 were higher than the U.S. rates for all types of illness except poisonings (Figure C-1). The overall Connecticut rate (20.3 cases per 10,000 workers) was 8% higher than the U.S. rate of 18.8. Rates decreased in 2013 for both Connecticut and the U.S.

Connecticut's occupational illness rate was approximately in the middle of all states for overall rate of occupational illness for 2013, with 19 states having a higher rate and 25 states having a lower rate. In Connecticut, overall illness rates were 17.5 for the private sector and 42.1 for the public sector compared to U.S. average rates of 16.6 and 47.1, respectively.

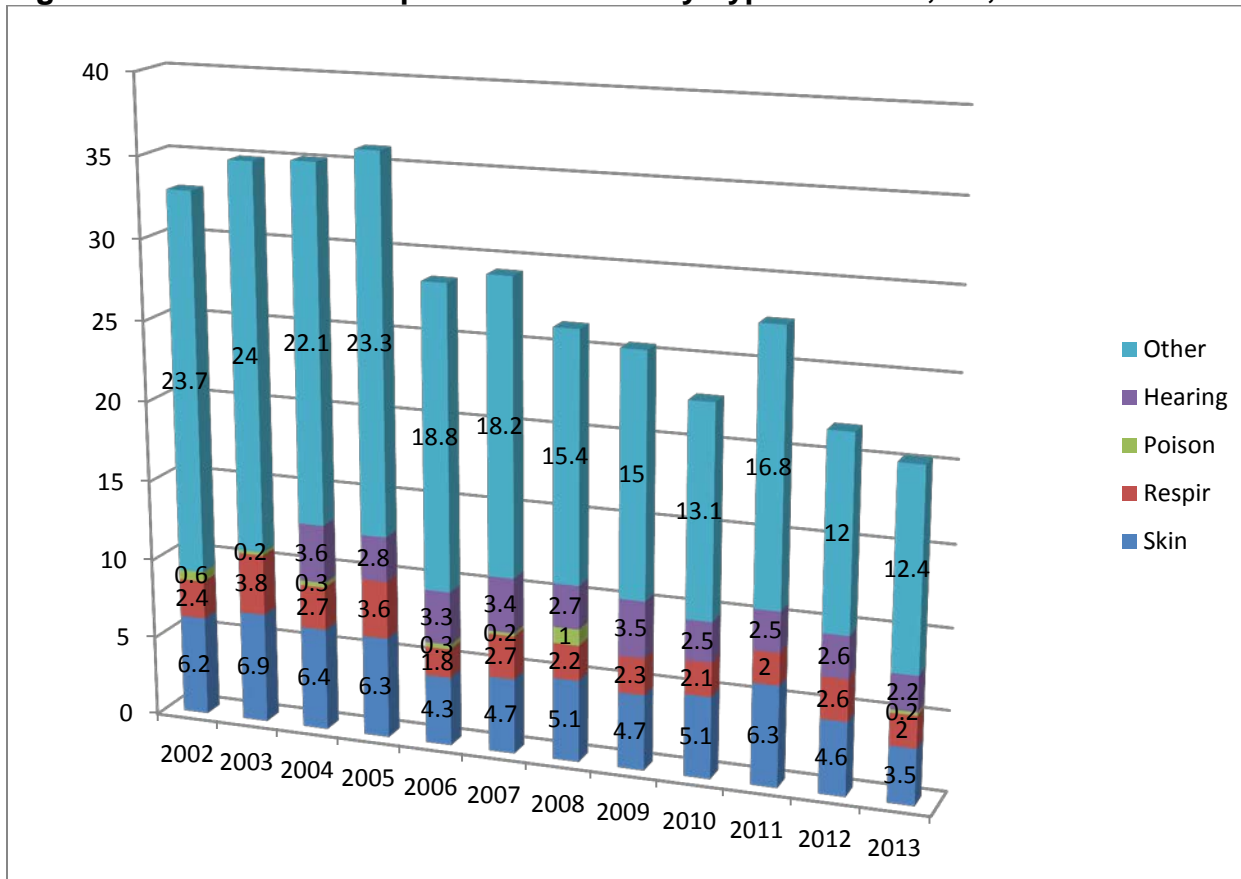
In Connecticut, the rate of illnesses increased slightly from 2002-2005, then generally decreased through 2013 with the exception of 2011 (Figure C-2).

**Figure C-1: Rates of Occupational Illness by Type, US and CT, 2013**



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, 2002-2013**



Source: BLS/Conn-OSHA Survey; Rates are cases per 10,000 workers

## Illnesses by Industry

Numbers and rates by industry sector for 2013 are presented in Table C-2. Overall, the adjusted rate was 20.3 cases of occupational illness per 10,000 CT workers, 7% lower than the 2012 rate of 21.9. The overall private sector rate was 17.5 (compared to 19.8 in 2012), with a government rate of 42.1 (almost triple the private sector rate).

**Table C-2: Illness Rates per 10,000 Workers by Industry and Type of Illness, CT, 2013**

	Total		Skin		Respiratory		Poison		Hearing		Other	
	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.
<b>Total, all industries</b>	20.3	2,600	3.5	500	2.0	300	0.2		2.2	300	12.4	1,600
<b>Private Industry only</b>	17.5	2,000	2.6	300	1.5	200	0.2		2.4	300.0	10.8	1,200
<b>Goods Producing</b>	35.9	800	3.7	100	1.2				11.1	200	19.2	400
Natural resources and mining	81.6											
Construction	6.5										4.3	
Manufacturing	42.7	700	3.5	100	1.5				14.3	200	23.4	400
<b>Service Providing</b>	13.1	1,200	2.4	200	1.6	100			0.3		8.8	800
Trade, transport, utilities	10.0	200	0.8		1.1						7.9	200
Information	21.3	100									17.6	
Financial activities	2.6										2.5	
Professional/business services	5.9	100									4.1	100
Education and health	29.9	700	6.2	100	3.4	100					19.6	500
Leisure and hospitality	8.4	100	3.8								1.9	
Other services												
<b>Government total</b>	42.1	600	10.3	200	6.0	100					24.7	400
State Government	44.3	200	14.5	100							24.8	100
Local Government	40.8	400	7.8	100	6.6	100					24.6	200

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 the small Natural Resources and Mining sector (which includes farming) at 81.6. State government was second highest overall at 44.3, with high rates for “other” at 24.8 and skin disorders (14.5). Manufacturing was third highest at 42.7, with the highest rate of hearing loss (14.3) and the third highest rate for “other” conditions. Local Government was fourth highest overall at 40.8, which included the highest rate for respiratory conditions (6.6), second-highest rate for skin disorders (7.8) and lung illness (5.4) and the second-highest rate of “other illnesses” (24.6).

## Lost-Time Illnesses

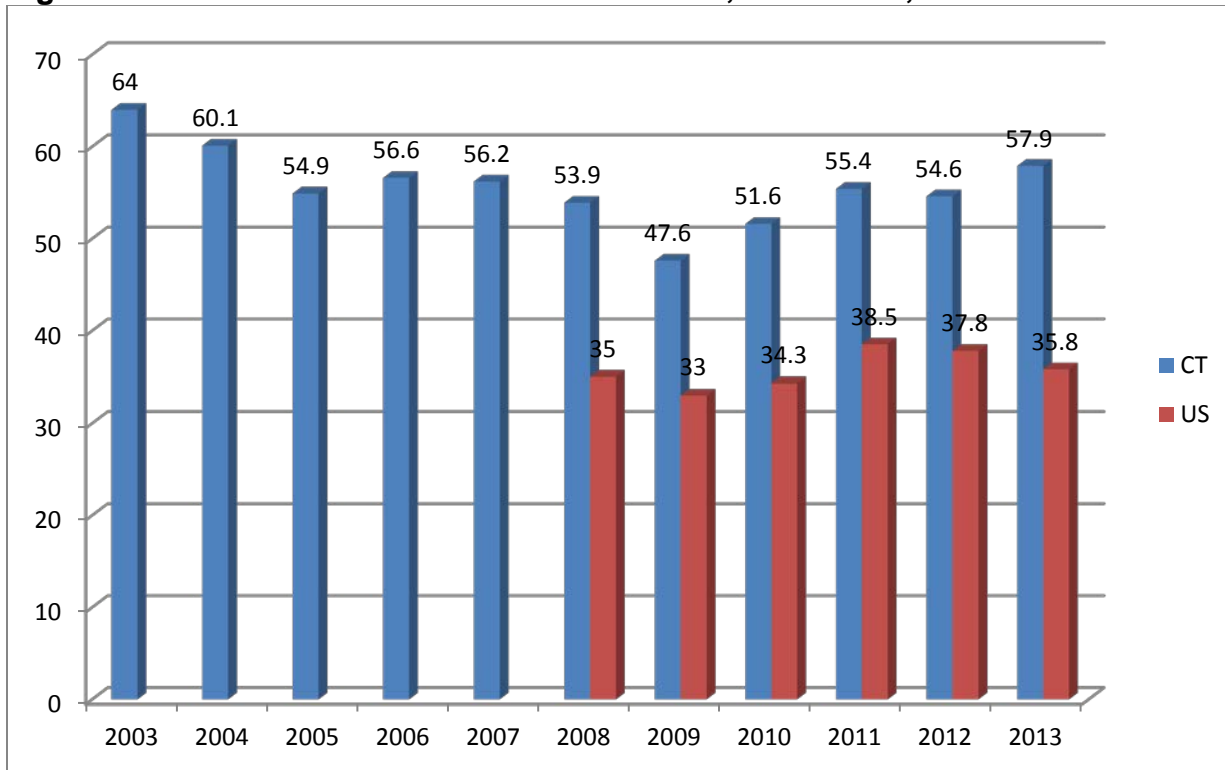
BLS obtains additional data for the subset of cases that result in lost worktime (restricted work cases are not included in this section, which is about half again the number of lost worktime cases), that provide additional detail on specific conditions and causes. We are presenting here this data for conditions that are more chronic in nature (usually classified as occupational illness).

### Musculoskeletal Conditions

Musculoskeletal conditions with lost time was 13% lower than last year at 6,090 cases (57.9 cases per 10,000 workers), (Figure C-3). The Connecticut rate is 62% higher than the national MSD rate of 35.8. MSD accounted for 32% of the total of 18,860 lost time injuries and illnesses in Connecticut. Rates in Connecticut been generally increasing over the past five years and are now approaching the rates from 10 years ago. National rates for all private and public employees have only been available since 2008.

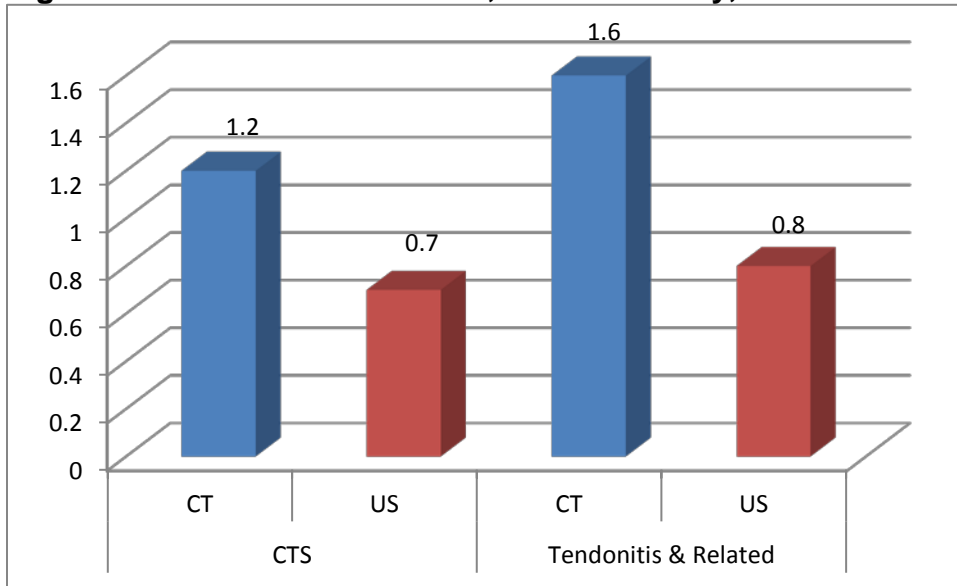
Musculoskeletal conditions are the most common category of specific injury and illness conditions, and is a category that includes both chronic conditions and sprains and strains from overexertion. BLS defines this fairly complex category as “Includes cases where the nature of injury is: sprains, strains, tears; back pain, hurt back; soreness, pain, hurt, except back; carpal tunnel syndrome; hernia; or musculoskeletal system and connective tissue diseases and disorders and when the event or exposure leading to the injury or illness is: bodily reaction/bending, climbing, crawling, reaching, twisting; overexertion; or repetition. Cases of Raynaud's phenomenon, tarsal tunnel syndrome, and herniated spinal discs are not included.”

**Figure C-3: Rates of Musculoskeletal Disorders, CT and US, 2003-2013**



Source: BLS Website <http://data.bls.gov/cgi-bin/dsrv?ch>  
 Rates are cases per 10,000 full time employees.

**Figure C-4: Rates of Conditions, Lost-time Only, Private Sector, US & CT, 2013**



Source: BLS Website <http://www.bls.gov/iif/data.htm>.  
 Rates are cases per 10,000 full time employees; CTS=Carpal Tunnel Syndrome

**Tendonitis** was the most common specific illness in Connecticut, with a rate of 1.6 cases per 10,000 workers in 2013 (Figure C-4), and there were 1.2 cases per 10,000 of **Carpal Tunnel Syndrome (CTS)**. Connecticut was 71% higher than the national rates for Carpal Tunnel Syndrome, and 100% higher for tendonitis. CTS had a very high number of lost work days, with a median of 28 days of lost time per case (compared to 11 days for all cases of injury and illness) in Connecticut, and tendonitis (and related soft-tissue disorders) was a median of 20 days.

Connecticut lost time cases coded as “**repetitive motion**” for cause declined to 4.5 cases per 10,000 workers from 4.7 in the previous year. Computer tasks and Repetitive Hand Use (not tools) were the largest two specific categories of repetitive motion (Table C-3). The Connecticut rate was 67% higher than the U.S. rate of 2.7. Repetitive motion lost time cases had a median of 22 days away from work.

**Table C-3: Injuries Involving Repetitive Motion by Type, 2013**

Repetitive Motion Injuries	
Microtasks (unspecified)	1.7
Typing and computer	0.7
Tools	0.5
Grasping, placing, moving	0.4
Hand use (not tools)	0.7
Multiple types of repetitive motions	0.4
Other microtasks	0.2
All repetitive with microtasks (total)	4.5

## D. Workers' Compensation First Report of Injury Data

There were a total of 6,038 reports in the Workers' Compensation First Report of Injury Database for 2013 (Table D-1), a 2% increase from 2012, driven by an 17% increase in infectious disease and a 4% increase in MSD; there were decreases in all other categories of illness (lung, skin, and other illnesses).

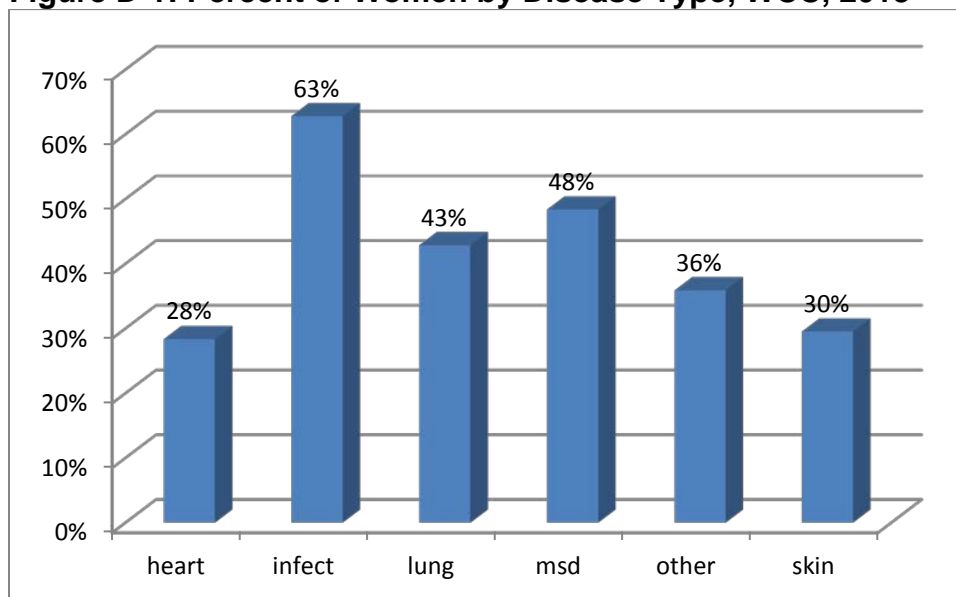
Over half (54%) of reports were due to chronic musculoskeletal disorders (MSD) such as Carpal Tunnel Syndrome and tendonitis. Infectious disease accounted for 20% of the cases, respiratory diseases (including nonspecific respiratory illness and chronic lung conditions such as asthma and asbestos-related illnesses and exposures) 7%, skin diseases 4%, and "Other Illnesses" (which includes heart conditions, stress cases, noise-induced hearing loss, and other conditions) 15%.

**Table D-1: Occupational Disease by Type, WCC, 2012-2013**

Illness type	2012	2013		% Change
	Cases	Cases	% of total	
Musculoskeletal Disorders (MS)	3,110	3,232	54%	4%
Infectious Disease	1024	1199	20%	17%
Lung Disorders	469	429	7%	-9%
Skin Disorders	286	259	4%	-9%
Other Illnesses	1045	919	15%	-12%
<b>Total</b>	<b>5,934</b>	<b>6,038</b>	<b>100%</b>	<b>2%</b>

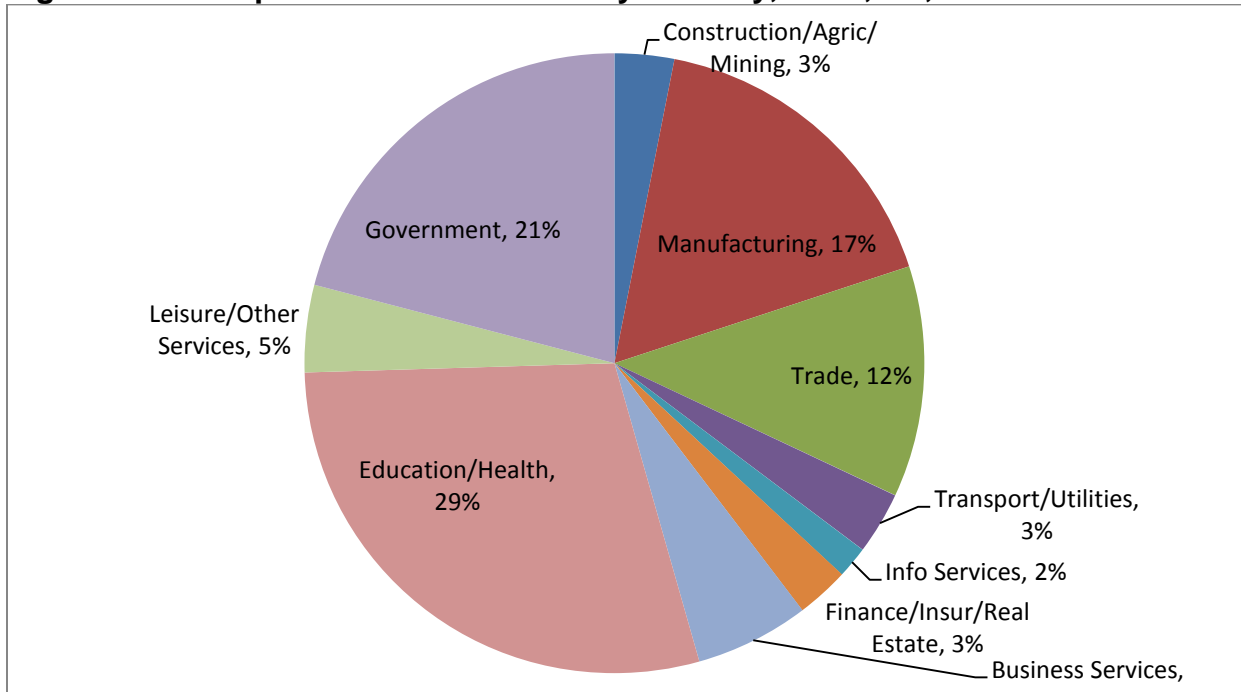
Overall, 48% of reports were for women, but this varied by type of case (Figure D-1), with higher proportions than average for infectious disease (63% women) but lower for all other types of illness.

**Figure D-1: Percent of Women by Disease Type, WCC, 2013**



Numbers and rates of occupational illnesses by industry sector are presented by major North American Industry Classification System (NAICS) classifications in Figure D-3 and Table D-2. 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 Education/Health (29% of all cases), Government (21%), Manufacturing (17%), and Trade (12%). Additional government cases are counted in the Education and Health care sector, such as for public schools and public hospitals.

**Figure D-2 Occupational Illness Cases by Industry, WCC, CT, 2013**



**Table D-2: Cases of Occupational Disease by Major Industry Sector, WCC, 2013**

NAICS Sector	Cases	%	Employment	%	Rate
Construction/Agric/Mining	184	3%	59,417	4%	3.1
Manufacturing	999	17%	163,828	10%	6.1
Trade	714	12%	246,741	15%	2.9
Transport/Utilities	193	3%	47,104	3%	4.1
Info Services	98	2%	32,029	2%	3.1
Finance/Insur/Real Estate	162	3%	129,721	8%	1.2
Business Services	352	6%	206,038	13%	1.7
Education/Health	1715	29%	313,595	19%	5.5
Leisure/Other Services	270	5%	206,173	13%	1.3
Government	1241	21%	235,130	14%	5.3
Unknown	110				
<b>Total</b>	<b>6,038</b>		<b>1,640,223</b>	<b>100%</b>	<b>3.7</b>

Notes: Employment is adjusted for hours worked. Rows do not add up to total due to reports that could not be coded for industry. Rates are illnesses per 1,000 workers

\*Government illnesses do not include some cases that are classified under other categories, such as education and health services.

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-2 shows these figures, excluding cases where the industry was unknown. Overall, the rate of illness is approximately 3.7 cases per 1,000 workers. The highest rate was for Manufacturing (6.1 cases per 1,000, or 66% higher than the overall rate) followed by Education/Health care (5.5 or 49% higher) and Government (5.3, 43% higher); the actual government rate is even higher because some government worker cases are classified under Education and Other sectors). Table D-3 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, particularly when including those counted as part of the Education and Health sector. Infectious diseases were concentrated in Education/Health (63%) and Government (28%). Lung diseases were concentrated in Education/Health (29%), Government (27%), and Manufacturing (17%). Musculoskeletal disorders (MSD) were most prevalent in Manufacturing (24%), Education/Health (20%), Trade (17%), and Government (13%). Skin cases were most common in Government (33%), Education/Health (20%), and Manufacturing (15%). Other illnesses, which include heart and hypertension, stress, and hearing loss cases (see below) were most common in Government (33%), Education/Health (19%), Manufacturing (15%), and Trade (11%). These figures are based on numbers of cases and not rates, so they are not adjusted for the employment size in the different sectors (rates are noted in Tables D-2 and D-4 for comparison).

**Table D-3: Type of Disease by Industry Sector, WCC, 2013**

	Other		Lung		Infectious		MSD		Skin		Total	
Construction/Agric/Mining	21	2%	22	5%	1	0%	131	4%	9	4%	184	3%
Manufacturing	134	15%	71	17%	6	1%	749	24%	39	15%	999	17%
Trade	101	11%	35	8%	19	2%	536	17%	23	9%	714	12%
Transport/Utilities	23	3%	6	1%	9	1%	148	5%	7	3%	193	3%
Information Services	12	1%	5	1%	5	0%	73	2%	3	1%	98	2%
Finance/Insurance/RE	24	3%	11	3%	8	1%	116	4%	3	1%	162	3%
Business Services	61	7%	20	5%	40	3%	213	7%	18	7%	352	6%
Education/Health	168	19%	120	29%	747	63%	628	20%	52	20%	1,715	29%
Leisure/Other Services	56	6%	16	4%	16	1%	164	5%	18	7%	270	5%
Government	298	33%	114	27%	337	28%	408	13%	84	33%	1,241	21%
<b>Subtotal</b>	<b>898</b>	<b>100%</b>	<b>420</b>	<b>100%</b>	<b>1188</b>	<b>100%</b>	<b>3,166</b>	<b>100%</b>	<b>256</b>	<b>100%</b>	<b>5,928</b>	<b>100%</b>
Unknown	21		9		11		66		3		110	
<b>Total</b>	<b>919</b>		<b>429</b>		<b>1199</b>		<b>3,232</b>		<b>259</b>		<b>6,038</b>	



**Table D-4: Specific Industry Sectors with over 50 Cases of Occupational Disease, WCC, 2013**

Specific Industry Sector	NAICS	Cases	Employt	Rate	2012	Change
Other Local Government*	921	753	42,939	17.5		
Other State Government*	923	224	14,281	15.7		
Educational Services	611	680	55,890	12.2	624	9%
Electric Power Generation	221	72	6,035	11.9	70	3%
Computer and Electronic Product Mfg	334	111	12,803	8.7	61	82%
Transportation Equipment Mfg	336	345	41,359	8.3	399	-14%
Police and fire	922	229	30,134	7.6	241	-5%
Administrative and Support Services	561	211	30,657	6.9	200	6%
Hospitals	622	406	61,542	6.6	234	74%
Telecommunications	517	53	9,197	5.8	50	6%
Fabricated Metal Product Mfg	332	170	30,011	5.7	137	24%
General Purpose Machinery Mfg	333	57	14,161	4.0	64	-11%
Nursing and Residential Care Facilities	623	236	61,850	3.8	176	34%
Merchant Wholesalers, Nondurable Goods	424	74	20,426	3.6	80	-8%
Ambulatory Health Care Services	621	306	84,860	3.6	239	28%
General Merchandise Stores	452	93	28,373	3.3	77	21%
Specialty Trade Contractors	238	116	37,218	3.1	102	14%
Food and Beverage Stores	445	123	43,984	2.8	184	-33%
Social Assistance	624	87	49,454	1.8	123	-29%

Other Local and State Government is a new subcategory this year that excludes cases found in other sectors such as education, health and police and fire.

Table D-4 shows those specific industry (3-digit NAICS code) sectors that reported 50 or more cases of occupational illness. The list is ordered by the sectors with the highest rates of cases listed first. Other State Government and Other Local Government had the highest rates of 17.5 and 15.7 per 1,000 workers. This category excludes state and local government workers who are listed under other categories such as fire, police, education and health; however, it is frequently difficult to distinguish the specific department where government workers work, so these rates are imprecise. These were followed Educational Services (680 reports, 12.2 rate), Electric Power Generation (72 cases, 11.9 rate), Computer and Electronic Product Manufacturing (111 cases, 8.7 rate), Transportation Equipment Manufacturing (345 cases, 8.3 rate), and Police and Fire (229 cases, 7.6 rate). It should be noted that although all of these specific sectors had over 50 cases reported, 6 of them were below the average rate of 3.7 per 1,000 workers (primarily because they are sectors that employ relatively large numbers of workers).

### **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-5 shows the rates of illness per 1,000 employees per town (based on total employment by town of residence, provided by the CT Labor Department) for all towns and municipalities with at least 50 cases of occupational illness reported in 2013; the table is alphabetical by town; a longer table for towns with at least 10 cases is located in the Appendix.

**Table D-5: Illnesses by Town/Municipality, WCC, 2012-13**

Town	Workforce	# Cases 2012	# Cases 2013	Rate	Rank*	% Change
Bloomfield	10,492	60	62	59.1	6	3%
Bridgeport	64,237	115	100	15.6	36	-13%
Bristol	30,367	76	78	25.7	32	3%
Cheshire	14,564	69	64	43.9	15	-7%
Danbury	44,038	140	165	37.5	20	18%
East Hartford	25,166	112	77	30.6	25	-31%
East Lyme	8,025		52	64.8	5	
Enfield	21,404	66	72	33.6	21	9%
Fairfield	27,175	47	52	19.1	35	11%
Farmington	13,207	185	216	163.5	1	17%
Greenwich	27,126	77	81	29.9	27	5%
Groton	17,435	177	206	118.2	2	16%
Hartford	47,895	290	278	58	8	-4%
Manchester	30,471	111	123	40.4	17	11%
Mansfield	11,597		53	45.7	14	
Meriden	29,612	63	89	30.1	26	41%
Middletown	24,459	208	177	72.4	4	-15%
Milford	27,925	66	67	24	33	2%
New Britain	33,222	99	104	31.3	24	5%
New Haven	58,871	353	334	56.7	10	-5%
Newington	16,213	50	65	40.1	18	30%
North Haven	12,509		72	57.6	9	
Norwalk	47,113	129	91	19.3	34	-29%
Norwich	18,869	63	207	109.7	3	229%
Rocky Hill	10,676	55	63	59	7	15%
Shelton	20,580	69	66	32.1	23	-4%
South Windsor	13,153	46	54	41.1	16	17%
Southington	22,660	90	64	28.2	30	-29%
Stamford	64,440	78	81	12.6	37	4%
Stratford	25,356	146	140	55.2	11	-4%
Torrington	18,401	88	73	39.7	19	-17%
Trumbull	17,108	54	90	52.6	12	67%
Vernon	15,906		53	33.3	22	
Wallingford	24,601	68	70	28.5	29	3%
Waterbury	46,051	135	137	29.7	28	1%
West Hartford	32,212	77	90	27.9	31	17%
Windsor	15,404	80	73	47.4	13	-9%

\*Low ranks indicate higher rates of illness (i.e. the town ranked first has the highest rate of illness); Ranks are based on the 36 towns with at least 50 cases of illness reported. Median rate for the 98 towns with at least 10 cases was 31.3 cases per 10,000 employees. Employment figures are based on the town of residence of employees for 2014.

Rates of illness varied widely by municipality; often these appear to be related to large employers in high rate industries. The state median (average) for towns with at least 10 reports was 31 cases per 10,000 employees. The highest rate was for Farmington, over 10 times as high as the median at 163 cases per 10,000 workers, followed by Groton (118), Norwich (110), Middletown (72), East Lyme (65), Bloomfield (59), Rocky Hill (59), Hartford (58), New Haven (57), Stratford (55), and Trumbull (52).

### Musculoskeletal Disorders (MSDs)

“Musculoskeletal disorders” is the currently-used term for conditions also known as cumulative trauma disorders or repetitive strain injuries. There were 3,232 MSDs reported to workers’ compensation in 2013, an 4% increase from 2012 (Table D-6). MSDs accounted for just over half (54%) of the reported occupational diseases to Workers’ Compensation. MSDs presented here do not include most cases for the lower back (since the descriptions of back conditions are typically not sufficient to be able to distinguish between acute and cumulative back injuries), nor do MSDs include acute injury conditions from sudden events where they can be distinguished.

Strains and sprains (which does not include acute strains or sprains) was the most common category of MSD, with 63% of reports (Table D-6). Carpal Tunnel Syndrome (CTS), which is a pinching of the median nerve at the wrist, accounted for 12% of total MSD reports. Other nerve-related problems (with symptoms of numbness or tingling) accounted for an additional 5% 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” or swelling, “pain”, or no specific description.

**Table D-6: Musculoskeletal Disorders (MSDs) by Type, WCC, 2012-2013**

MSD Type	2012	2013		Change
	Cases	Cases	%	
Sprain/strain	2,076	2,042	63%	-2%
Carpal Tunnel Syndrome	388	389	12%	0%
Inflammation/Pain	100	194	6%	94%
Numbness	161	159	5%	-1%
Tendonitis/tenosynovitis	62	47	1%	-24%
Trigger finger	29	32	1%	10%
Epicondylitis	38	30	1%	-21%
Rotator cuff	19	19	1%	0%
Ganglion cyst	17	13	0.4%	-24%
Arthritis/bursitis	11	12	0.4%	9%
Other/Unknown	209	295	9%	41%
<b>Total</b>	<b>3,110</b>	<b>3,232</b>	<b>100%</b>	<b>4%</b>

Approximately 2/3 of the cases of MSD were in the upper limbs of the body such as hands, arms and shoulders (note that lower back cases were excluded from these figures). Almost half (44%) of total MSD cases were for the hand, wrist, and lower arm (Table D-7). Other affected parts of the body included 8% elbow, 20% for shoulder, neck, upper back and “upper extremity”, and 13% for the lower extremity (legs, knees and feet).

**Table D-7: Musculoskeletal Disorders by Part of Body, WCC, 2013**

Part of body	Cases	Percent
Lower Arm, Wrist, Hand	1,412	44%
Upper Arm, Shoulder, Upper Extremity	594	19%
Legs, Knees, and Feet	413	13%
Elbow	261	8%
Neck and Upper Back	148	5%
Multiple	331	10%
Other/Unknown	50	2%
	<b>3,209</b>	<b>100%</b>

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 MSDs that could be classified, the most frequently mentioned cause was the broad category of “repetition” (24% of cases), although this was frequently just from a general description, and often used to describe any chronic musculoskeletal problem (see Table D-8). This was followed by pushing or pulling (15%), lifting (15%), tool use (including references specifically to pneumatic tools or vibration exposure) (10%), and computing and clerical tasks (9%).

**Table D-8: Reported Causes of Musculoskeletal Disorders (MSD), WCC, 2013**

Cause of MSD	Reports	%
Repetitive	638	24%
Push/Pull	403	15%
Lifting	396	15%
Tools/vibration	274	10%
Computer/clerical	235	9%
Reaching	109	4%
Twisting	65	2%
Grasping/gripping/squeezing	65	2%
Assembly	64	2%
Patient care	57	2%
Shoveling/sweeping/mopping	53	2%
Walking/running/moving	51	2%
Bending/kneeling/crawling	47	2%
Driving	37	1%
Machine	36	1%
Climbing	28	1%
Cleaning	27	1%
Selecting/sorting/inspecting/packing	23	1%
Sitting/standing	19	1%
Scanning/cashier	12	0%
<b>Sub-Total</b>	<b>2,639</b>	<b>100%</b>
<b>Unknown/other</b>	<b>570</b>	
<b>Total</b>	<b>3,209</b>	

## Infectious Diseases

There were 1,199 reports of infectious diseases or exposures in the database for 2013 (Table D-9), a 17% increase from the previous year. Infectious disease reports include both actual disease and exposure to infectious agents. There were 802 reports of exposure to bloodborne pathogens (including reports of exposure to HIV/AIDS and Hepatitis C), accounting for 67% of all infectious disease reports. These included 312 reports of exposures to human bites, 208 reports of skin exposure to blood, and 282 needlesticks or cuts from surgical instruments that resulted in blood exposure.

**Table D-9: Infectious Diseases and Exposures by Type, WCC, 2012-2013**

<b>Illness</b>	<b>Cases</b>	<b>%</b>	<b>Cases</b>	<b>%</b>	<b>Change</b>
Bloodborne: Human bite	292	29%	312	26%	7%
Bloodborne: Sharp and needlestick exposures	237	23%	282	24%	19%
Bloodborne: Blood/body fluids	201	20%	208	17%	3%
TB/ppd conversion/exposure	40	4%	149	12%	273%
Lyme Disease/Tick bite	78	8%	66	6%	-15%
Scabies/lice	21	2%	55	5%	162%
Other infectious	85	8%	48	4%	-44%
Meningitis exposure	14	1%	30	3%	114%
Rabies	15	1%	24	2%	60%
MRSA/staph	31	3%	23	2%	-26%
Chicken pox, measles, whooping cough	10	1%	2	0%	-80%
<b>Total</b>	<b>1024</b>	<b>100%</b>	<b>1199</b>	<b>100%</b>	<b>17%</b>

There were 149 cases of tuberculosis infection (PPD conversion) or exposures to clients with TB (over a tripling from the previous year, with 77 cases coming from a single hospital), 66 reports of tick bites, rashes from tick bites and/or Lyme disease attributed to occupational exposures, 55 cases of scabies or lice exposures/illnesses, 30 cases of meningitis exposure, 24 cases of exposure to rabies, and 23 reports of exposure or cases of MRSA (Methicillin-resistant Staphylococcus aureus, or staph infection that responds poorly to antibiotics) or other staph infection.

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 such as 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). Similarly, it is usually not clear in the reports of needlestick and sharps injuries whether the source patient or client was actually infected with any of the known bloodborne diseases (although cases where it was noted that it was due to a clean needle or sharp were excluded). There were additional reports of exposure to "spit" or "sputum" that are not reported here, since risks tend to be very low from such exposures. Diseases that can be contracted through blood and body fluid exposures include hepatitis B, C and HIV. Human bites or exposures to body fluids such as urine are also related to bloodborne diseases. Transmission is much less likely when a worker is exposed to urine or a human bite than transmission occurring from blood, particularly for HIV. Blood to blood exposure is the highest risk, such as from needlesticks or sharps injuries. Altercations or arrests with prisoners or clients (including special needs students) accounted for the vast majority of human bites as well as some of the other bloodborne exposures.

## Respiratory Illness and Poisonings

Chronic lung disease such as asbestos-related, asthma, and lung cancer are addressed in the following section. In addition to these chronic conditions, there were 290 cases of respiratory illnesses (mostly nonspecific respiratory illness from relatively acute chemical exposures) in the database for 2013, and 33 cases of poisonings from carbon monoxide, other gases, mercury, or lead (Table D-10), an overall decrease of 2% from the previous year.

Chemical exposures were the most common cause of respiratory illness (40%), followed by smoke or fire (21%), dust or fumes (18%), and general indoor air quality (IAQ) or mold (15%). There were 20 cases of poisoning from exposure to carbon monoxide or other gases and fumes, and 10 reports of lead poisoning or exposure.

In addition to the general category of smoke, specific chemical exposures mentioned included cleaning chemicals, bleach and disinfectants (22 cases), paint (7), creasol (5), fire extinguishers (4), pesticides (4), solvents (4), battery fumes (2), acid (2), Freon, pepper spray, glue, formalin, hexavalent chromium, talcum powder, fabric protector, roofing chemicals, and caulking.

**Table D-10: Respiratory Conditions and Poisonings by Cause, WCC, 2012-2013**

Cause	2012		2013		Change
	Cases	%	Cases	%	
<b>Respiratory</b>					
Chemical Exposure	80	26%	105	36%	31%
Dust/fumes	62	20%	48	17%	-23%
Smoke, Fire	81	27%	56	19%	-31%
IAQ/mold/odor	28	9%	49	17%	75%
Other Respiratory	54	18%	32	11%	-41%
<b>Respiratory subtotal</b>	<b>305</b>	<b>100%</b>	<b>290</b>	<b>100%</b>	<b>-5%</b>
<b>Poisoning</b>					
Carbon monoxide/gas	14	61%	20	61%	43%
Mercury	4	17%	1	3%	-75%
Lead	0	0%	11	33%	
Other Poisoning	5	22%	1	3%	-80%
<b>Poisoning Subtotal</b>	<b>23</b>	<b>100%</b>	<b>33</b>	<b>100%</b>	<b>43%</b>
<b>Total Respiratory and Poisoning</b>	<b>328</b>	<b>100%</b>	<b>323</b>	<b>100%</b>	<b>-2%</b>

## Chronic Lung Conditions

There were 116 cases of chronic lung conditions in 2013, a decrease of 18% from the previous year (Table D-11). 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 25 reports of asbestos-related disease or exposures in 2013. The descriptions of the cases often made it difficult to determine whether the cases were actual disease or only exposure to asbestos since it is difficult to know whether they are describing historic exposures that contributed to current disease, or current exposures that raise the risk of future disease), although there were 10 cases of cancer or mesothelioma noted in the reports.

**Table D-11: Chronic Lung Diseases by Type, WCC, 2012-13**

Illness	2012	2013	Change
Asbestos-related	40	25	-38%
Asthma/bronchitis	48	31	-35%
Allergies	27	23	-15%
Cancer	6	10	67%
Other chronic lung	20	27	35%
<b>Total</b>	<b>141</b>	<b>116</b>	<b>-18%</b>

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 (17 cases).

### *Other Chronic Lung Conditions*

There were 31 occupational asthma cases reported in 2013 (a 35% decrease over the prior year), 23 lung-related allergies, 10 cases of lung cancer (not specifically noted as related to asbestos), and 27 other chronic lung conditions. The most common causes mentioned for asthma and other lung conditions were indoor air quality or mold (6), dust/fumes (6), and chemicals and cleaners (5 cases).

## Skin Conditions

There were 259 skin conditions in the database in 2013 (Table D-12), an decrease of 9% over the previous year. There were 83 cases of contact dermatitis from poison ivy or other plants (32% of all skin cases). There were 53 cases of skin conditions caused by chemicals, as well as 16 cases attributed to cleaning chemicals. There were 12 cases caused by allergic reactions to clothing, gloves, or latex, and 11 other allergic skin conditions.

In addition to cleaning chemicals and latex, substances associated with skin conditions included pepper spray (2), solvent, glue (2), dimethyl sulfate, paint thinner, fire extinguisher chemicals, a pesticide, a chemotherapeutic agent, Oxy-Bright, methyl ethyl ketone, caulk, degreaser, a chemical agent in a heroin test kit, Big Orange, Chlorogard, and resin solution.

**Table D-12: Skin Diseases by Cause, WCC, 2012-2013**

Category	2012	2013	%	Change
Poison Ivy/plants	112	83	32%	-26%
Chemical	73	53	20%	-27%
Soap/Cleaning	8	16	6%	100%
Gloves/Latex/clothing	13	12	5%	-8%
Allergic	14	11	4%	-21%
Rash/Other/Unknown	66	84	32%	27%
<b>Total</b>	<b>286</b>	<b>259</b>	<b>100%</b>	<b>-9%</b>

## Stress and Heart Conditions

### *Heart and Hypertension*

There were 312 cases involving heart conditions, stroke, chest pain, hypertension, or stress in the database for 2013 (Tables D-13 and D-14), a 35% decrease from the previous year. Over 135 cases mentioned heart attacks or myocardial infarctions or acute heart events, 9 reported strokes or blood clots, and 33 mentioned angina, 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 for police and fire fighters).

**Table D-13: Heart and Hypertension Conditions by Type, WCC, 2012-2013**

Category	2012	2013	%	Change
Heart attack/severe symptoms	163	135	43%	-17%
Angina	89	33	11%	-63%
Hypertension	11	17	5%	55%
Stroke/clots	13	9	3%	-31%
Stress/anxiety/depression	207	118	38%	-43%
<b>Total</b>	<b>483</b>	<b>312</b>	<b>100%</b>	<b>-35%</b>

Though not generally well described, causes of the heart cases included multiple cases attributed to stress (14 cases), walking/running (2), exertion (including shoveling: 9), violent situations, carbon monoxide/fumes (2), chemicals, and heat. Approximately half of the heart cases involved police or firefighters or other municipal employees who are frequently covered under heart and hypertension laws that consider those conditions to be work-related for workers’ compensation purposes.

### *Mental Stress*

There were a total of 118 stress-related claims in the database in 2013, a 43% decrease over the previous year. Over half of the cases referred to violence or post-traumatic stress disorders after violence (Table D-14). These include stress after being threatened or witnessing gun violence (or in some cases related to police, participating in the shooting of a suspect, 6 cases), being threatened by a knife during a robbery, receiving a death threat at work, assaults by clients (such as in mental health settings), being isolated during a campus lockdown, being assaulted by inmates or suspects, and witnessing a client suicide (3 cases). Other cases involved observing a person exposing himself, being bullied by a supervisor, being patted down by security after not having an employee ID that day, receiving inappropriate emails, a stressful conversation with a union representative, anxiety from a workplace mouse infestation (3 cases), an attempted suicide at work, seeing blood at work, the impact of reporting for the media on a funeral, and PTSD after motor vehicle accidents (4 cases).



Stress-related claims not associated with a physical injury are typically not compensable under the workers' compensation statute, so it is likely that there are many unreported 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.

**Table D-14: Stress Conditions by Source, WCC, 2013**

Sources of Stress Conditions	2013	%
Violence/robbery/trauma	38	54%
Harassment/hostile environment	15	21%
Supervisor/co-worker	10	14%
Unknown/other	7	10%
<b>Total</b>	<b>70</b>	<b>100%</b>

## Other Occupational Diseases

### *Hearing Loss*

There were 131 reports of hearing loss in 2013 (Table D-15), 7% more than the previous year. Of these cases, 29 appeared to be caused by acute (single incident) noises or injuries such as sudden machine or tool sounds such as hammering or compressed air (8 cases), explosions (8 cases, including several cases from a cable exploding in a manhole), a cracking whip, air pressure changes (2 cases), fireworks, close proximity to sirens or alarms (2 cases), a book thrown on the floor, a child screaming in ear (3), or gunshots (5 cases). The rest (74 cases) appeared due to long-term exposure to noise, or were noted as being found on routine audiograms. Most cases were from manufacturing (69 cases), in particular transportation equipment manufacturing (62 cases), and firefighting/government (26 cases).

### *Other Disease Conditions*

There were 80 reports of temperature-related problems from heat or cold, a 10% increase from the previous year. There were 106 reports of workers becoming dizzy, fainting, or similar conditions such as seizures, a 13% decrease. 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.

There were 49 cases of allergic reactions reported in addition to those noted above under respiratory and skin conditions, a 44% decrease. There were 16 cases of cancer reported (in addition to those under lung conditions above). There were 141 "other" conditions that were difficult to classify, often due to incomplete information.

**Table D-15: Other Occupational Illnesses, WCC, 2012-2013**

Type of illness	2012	2013	%	Change
Hearing loss	122	131	22%	7%
Dizziness/passing out/seizure	122	106	18%	-13%
Cold/heat related conditions	73	80	13%	10%
Allergic	88	49	8%	-44%
Cancer	5	16	3%	220%
Chemicals in eye	*	74	12%	*
Other conditions	147	141	24%	-4%
<b>Total</b>	<b>557</b>	<b>597</b>	<b>100%</b>	<b>7%</b>

## E. Occupational Disease Surveillance System: Physicians' Reports

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. Data for 2011 in the table below appears to be incomplete for infectious disease (in particular bloodborne diseases), so direct comparisons cannot be made to other years. Information on blood lead level laboratory reports are taken from the Connecticut Adult Blood Lead Epidemiology and Surveillance (ABLES) program.

**Table E-1: Occupational Disease Case Reports by Type, OIISS and ABLES, 1998-2013**

Category	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	% change 12-13
MSD	754	823	1174	841	921	624	488	511	751	838	827	411	208	616	580	666	15%
Skin	237	295	339	274	338	181	194	241	256	273	302	193	102	183	180	174	-3%
Lung	206	139	291	190	283	156	173	191	154	59	142	140	56	101	146	120	-18%
Other	31	31	74	56	30	20	36	70	69	58	31	59	33	96	164	159	-3%
Infectious*	13	22	27	68	34	21	33	30	50	20	66	939	347	103	443	973	120%
Sub-total	1,241	1,310	1,905	1,429	1,606	1,002	924	1,043	1,280	1,248	1,368	1,742	746	1,099	1,513	2,092	38%
Lead (Lab)	203	212	616**	530**	476**	400**	342	463	465	363	364	304	443	345	283	327	16%
Total	1,444	1,522	2,521	1,959	2,082	1,402	1,266	1,506	1,745	1,611	1,732	2,046	1,189	1,444	1,796	2,419	35%

\*Infectious did not include most bloodborne pathogen exposures between 1998 and 2008, and again in 2011

\*\* Lead values for 1998-99 did not include cases in the blood lead level range of 10-19 ug/dl

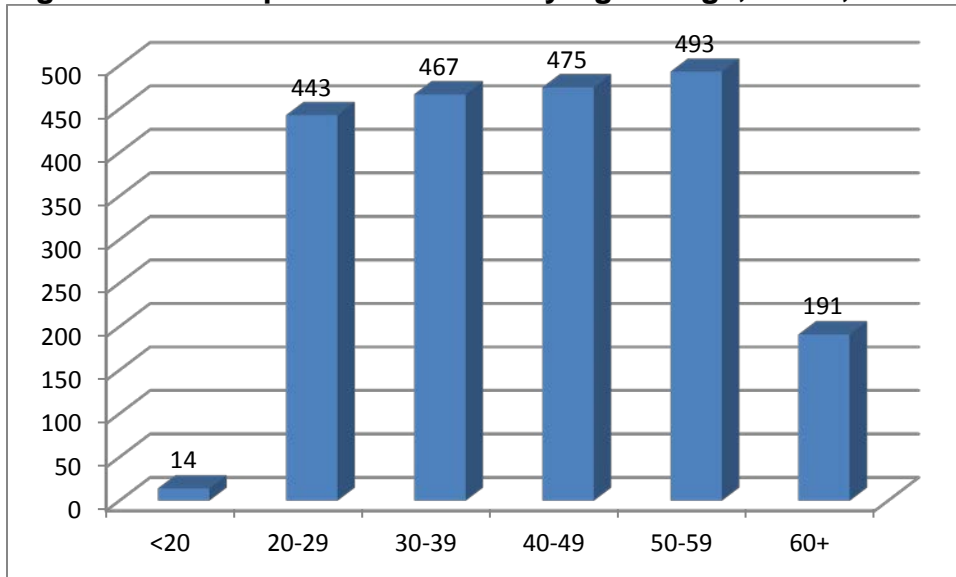
There were 2,092 occupational illness reports received from physicians for 2013 (Table E-1). Physician reports rose sharply (38%) in 2013, driven by a large increase in Infectious Disease. Infectious Disease (such as bloodborne diseases and exposure) was the largest category of reports, accounting for 47% of the reports, followed by Musculoskeletal conditions (MSD) such as Carpal Tunnel Syndrome (32%). Skin disorders (8% of reports), Lung (including respiratory conditions, asthma, and other lung diseases; 6%), and "Other Conditions (including heart disease, stress, noise-induced hearing loss; 8%) were all substantially lower. There were 327 reports of blood lead levels in adults of 10 micrograms per deciliter (ug/dl) or more, giving a total of 2,420 occupational illnesses reported by physicians or laboratories in 2013.

In 2013, 125 physicians from 16 clinics (at 21 locations) reported at least one case into the OIISS. Eight clinic networks reported 100 or more cases, and contributed 69% of the cases. Twenty-eight of the physicians reported 20 or more cases, and accounted for 80% of the reports.

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. Therefore, these reports should be viewed as a small portion of physician-diagnosed occupational diseases in Connecticut.

Eighty-six percent (86%) of the cases were classed as “high certainty” for being an occupationally-related disease, 11% 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 19% of those reported that the exposure that caused the illness was continuing, and 9% reported others were likely to be exposed to the same hazard.

**Figure E-1: Occupational Disease by Age Range, OIIS, 2013**

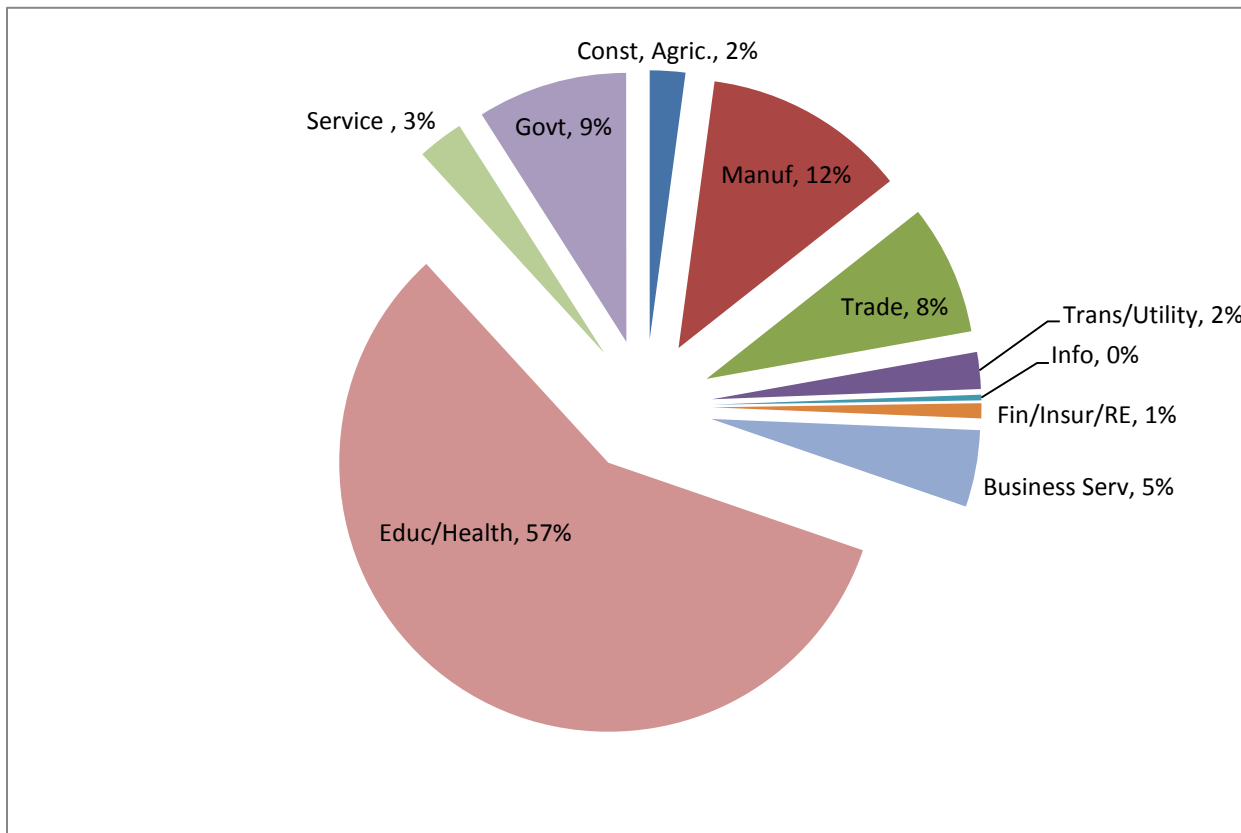


Of the 1,231 reports where race was known, 192 (16%) were identified as black, and 155 (10%) of 1,581 (where ethnicity was known) were identified as Hispanic.

Figure E-1 shows the age distribution of reported cases. There were similar proportions (between 21%-24%) for workers in their 20’s, 30’s, 40’s and 50’s. Only 13% were 60 or older, and only 14 cases were reported in workers less than 20 years of age.

The Education and Health sector had the most cases (57%), followed by Manufacturing (12%), Government (9%; the Education and Health sector also includes some government workers), Trade (8%) and Business Services (5%); see Figure E-2 and Table E-2).

**Figure E-2: Occupational Disease by Industry Sector, OIIS, 2013**



However, industry distribution was somewhat different by condition (Table E-2). Infectious disease was highly concentrated in Education and Health (83%). MSD's were primarily from Education and Health (33%), Manufacturing (28%), Trade (14%), and Government (9%). Dermatitis (skin disorders) was primarily from Education and Health (31%), Manufacturing (20%), Government (13%), Construction/Agriculture (11%), and Business Services (10%). Respiratory cases ("Lung") were primarily from Education and Health (43%), Manufacturing (14%), Government (13%), and Trade (12%).

**Table E-2: Type of Illness by Industry Sector (NAICS\*), OIIS, 2013**

Industry	All	Infectious	Lung	MSD	Other	Skin
Construction/ Agric	44	1	5	12	6	20
Manufacturing	252	3	17	183	15	34
Trade	160	25	14	94	19	8
Transport/Utilities	46	5	2	27	6	6
Information Services	7		2	5		
Finance/Insur/Real Estate	19	3		10	4	2
Business Service	95	27	6	33	12	17
Educ/Health	1193	805	52	213	69	54
Other Services	57	11	3	22	11	10
Government	186	77	16	56	15	22
Unknown	33	16	3	11	2	1
<b>Total</b>	<b>2092</b>	<b>973</b>	<b>120</b>	<b>666</b>	<b>159</b>	<b>174</b>

\*The North American Industry Classification System

## Musculoskeletal Disorders (MSDs)

There were a total of 666 reports of musculoskeletal disorders (MSDs) in 2013, an increase of 15% from the previous year (Table E-3). This table only includes upper-extremity MSDs (does not include MSDs caused by acute incidents such as falls or individual lifts), and excludes lower back diagnoses, even if caused by cumulative strain. The most common specific diagnoses for musculoskeletal disorders were epicondylitis (tennis elbow) with 17% of the cases, tenosynovitis (16%), strain/sprain (13%) and carpal tunnel syndrome (12%).

**Table E-3: Musculoskeletal Disorders (MSD) by Type, OIIS, 2012-2013**

Illness	2012	2013	Percent	Change
Epicondylitis	128	111	17%	-13%
Tenosynovitis	37	108	16%	192%
Strain/Sprain	69	88	13%	28%
Carpal Tunnel Syndrome (CTS)	83	79	12%	-5%
Tendonitis	35	47	7%	34%
Other Neuropathy (nerve disorder)	39	46	7%	18%
Rotator Cuff	23	32	5%	39%
Bursitis/Arthritis	28	29	4%	4%
Ganglion	18	22	3%	22%
Trigger Finger	21	20	3%	-5%
Plantar fasciitis	11	7	1%	-36%
DeQuervains	29	2	0%	-93%
Other MSD	59	75	11%	27%
<b>Total</b>	<b>580</b>	<b>666</b>	<b>100%</b>	<b>15%</b>

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. Specific descriptions of these disorders include:

### *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*

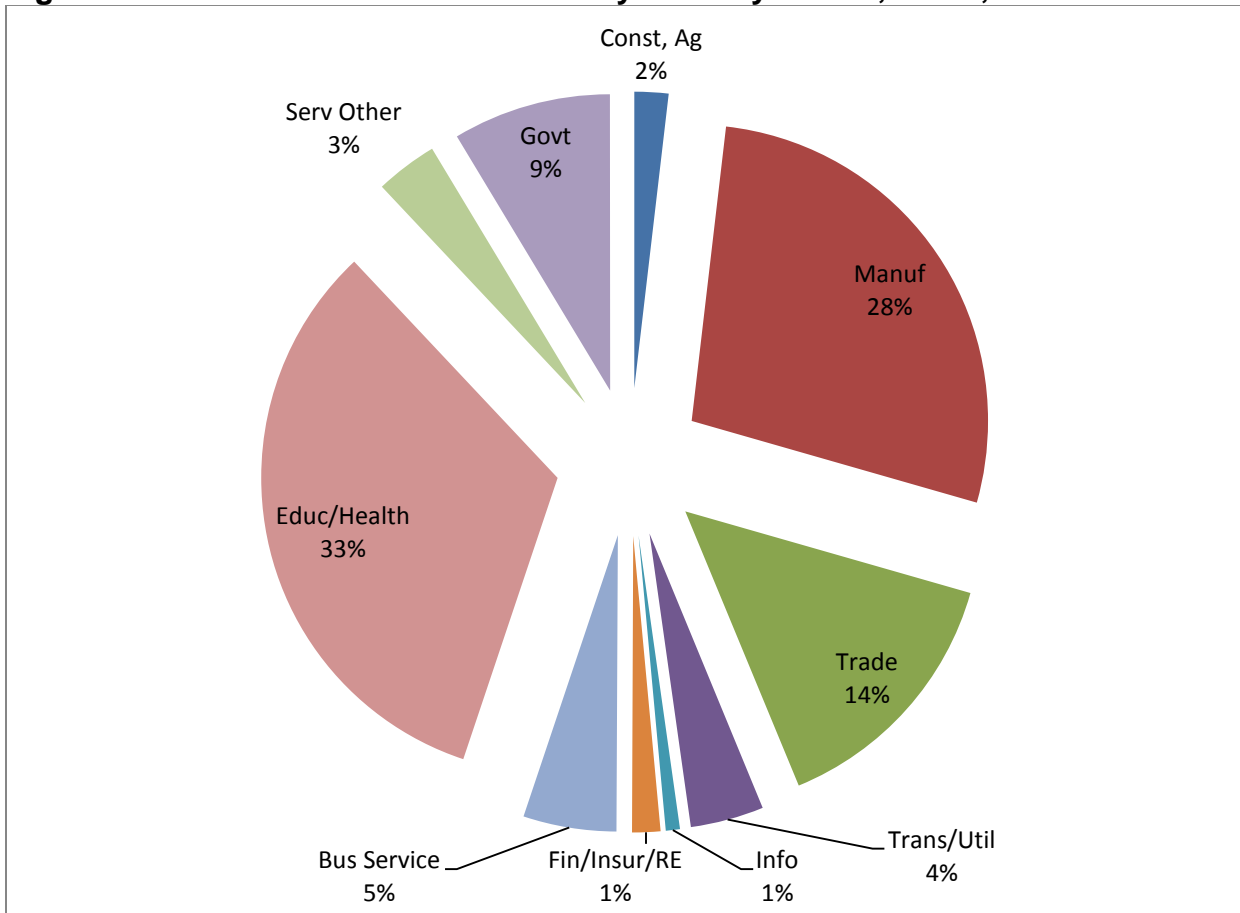
- Carpal Tunnel Syndrome: pinching of the median nerve in the wrist, usually by swollen tendons that pass through the carpal tunnel (the median nerve can also be pinched in the elbow, shoulder, or neck areas)

*Circulatory/Combined/Other*

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

The largest number of MSDs was from Education and health (213), followed by Manufacturing (179), Trade (93) and Government (56; public education is included under Education and Health) (Figure E-3).

**Figure E-3: Musculoskeletal Disorders by Industry Sector, OIIS, 2013**



**Table E-4: Common causes of MSD, OIIS, 2013**

Cause	Cases
Repetitive	73
Lifting	66
Push/pull	37
Computer/clerical	22
Tools & Vibration	17
Patient-related	11
Gripping/grasping	7
Machine	7
Assembly	4
Other	22

Causes for MSDs are difficult to classify since they are frequently described differently by the various people recording the case, and were not available for most cases. The most common specific cause noted for MSDs (Table E-4) was lifting (66 cases), followed by pushing or pulling (37 cases), computer use and data entry (22), tools and vibration (17 cases), and patient related causes (such as turning or moving patients; 11 cases). Seventy-three (73) cases were attributed to the general description of “repetitive”, and 22 cases had varied specific causes.

### Skin Conditions

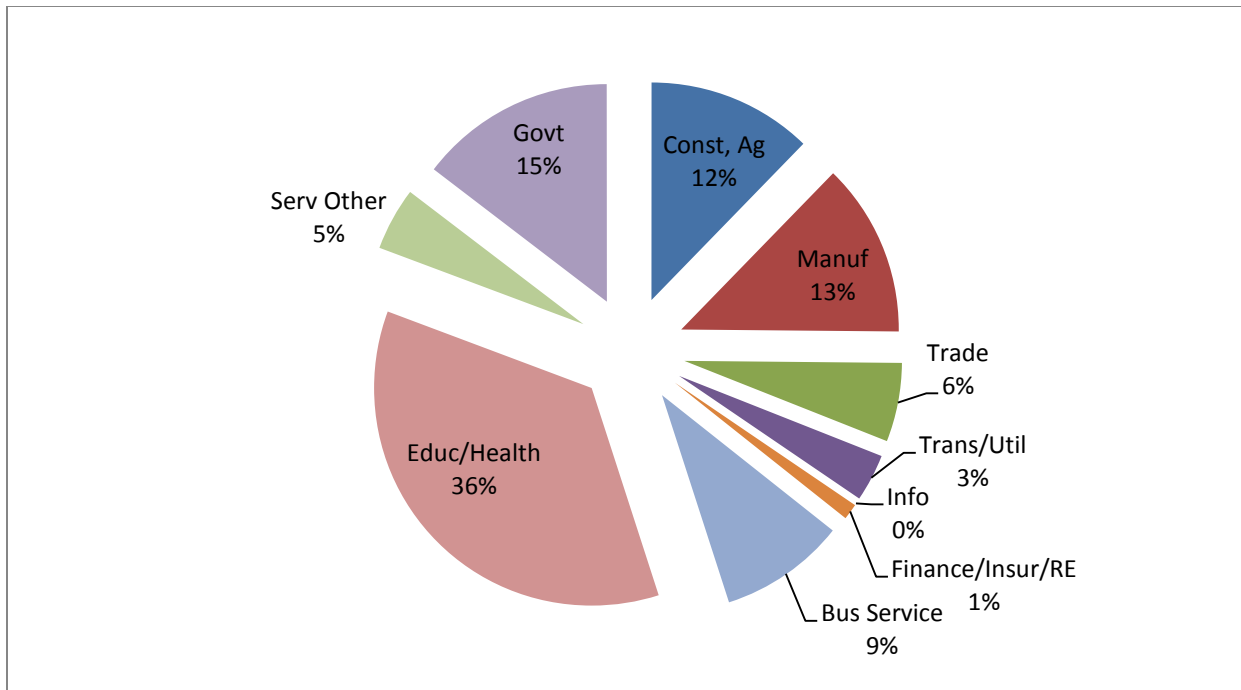
There were 174 reports of skin disorders in 2013 (Table E-5), almost the same as the previous year. The largest single cause was poison ivy or other plant exposures (40% of all cases). Other causes chemicals (21 cases), latex or other types of gloves or clothing (9 cases), coolant/oil (7) and cleaning chemicals (5).

**Table E-5: Skin Conditions by Type, OIIS, 2012-2013**

Illness	2012	2013	Percent	Change
Poison ivy & other plants	85	70	40%	-18%
Dermatitis	82	89	51%	9%
Other skin conditions	13	15	9%	15%
<b>Total</b>	<b>180</b>	<b>174</b>	<b>100%</b>	<b>-3%</b>

Skin conditions (Figure E-4) occurred most commonly in Education and Health (61 cases), State and Local Government (25), Manufacturing (22), and Construction/Agriculture (21).

**Figure E-4: Skin Conditions by Industry Sector, OIIS, 2013**



### **Lung/Respiratory Diseases and Poisonings**

There were 120 cases of respiratory disease and poisonings reported by physicians in 2013 (Table E-6), a decrease of 18% from the previous year. Nonspecific respiratory illnesses were the most common type of condition, with 52% of reports, followed by poisonings such as lead and mercury (14%), and asthma and Reactive Airway Dysfunction Syndrome (RADS) at 13%. In addition to lead/mercury/carbon monoxide and asbestos (some of the asbestos cases appeared to be reports of exposures rather than asbestos-related disease) noted in Table E-6, exposures associated with respiratory conditions included chemicals (30 cases, including fire extinguishers, ammonia, PCB's, anesthetic gases, solvents), mold and indoor air quality (7), dust (3), and pesticides.

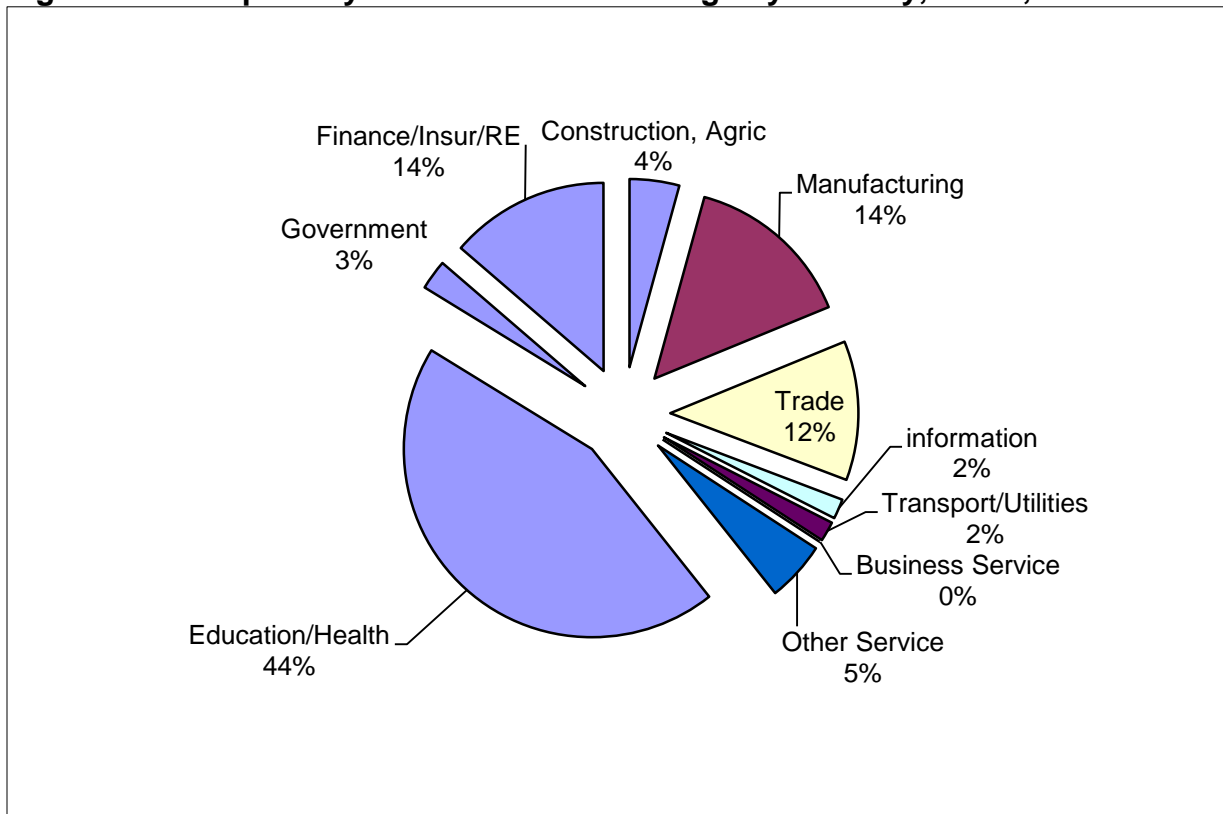
Respiratory disease and poisoning cases mainly occurred in Education and Health (52 cases), Manufacturing (17), Finance/Insurance/Real Estate (16), and Trade (14; Figure E-5).

**Table E-6: Respiratory Diseases and Poisoning by Type, OIIS, 2012-2013**

<b>Illness</b>	<b>2012</b>	<b>2013</b>	<b>Percent</b>	<b>Change</b>
Respiratory	70	62	52%	-11%
Asthma/RADS	29	15	13%	-48%
Poisoning	25	17	14%	-32%
Asbestos exposure/disease	6	7	6%	17%
Bronchitis		3	3%	
Other Lung	16	16	13%	0%
<b>Total</b>	<b>146</b>	<b>120</b>	<b>100%</b>	<b>-18%</b>



**Figure E-5: Respiratory Disease and Poisonings by Industry, OIIS, 2013**



### **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 the latter 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). 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 (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 2013 (327 cases) increased 16% from the previous year. The lowest category (10-24 ug/dl) of recorded elevated lead levels accounted for 82% of all cases (Table E-7). There was a decrease in all categories of lead levels. Almost all of the reported lead poisoning cases (94% of cases where gender was known) occurred in men; there were only 19 reports for women. Thirty-one percent (31%) were under 40 years old and 18% were age 60 or older.

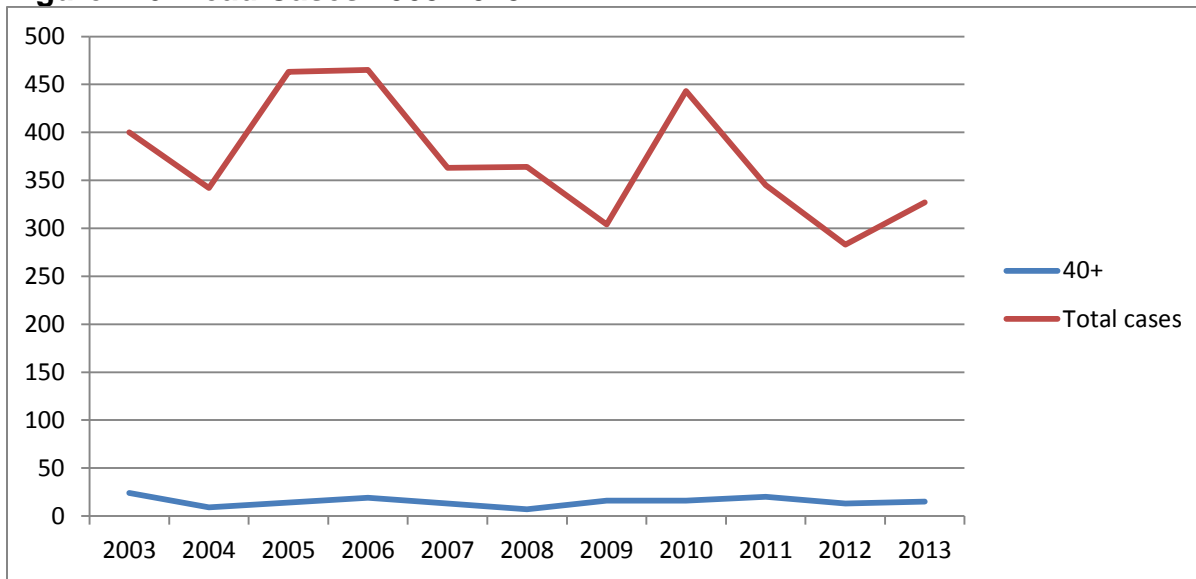
Overall lead cases have generally declined over the previous 10 years, from 400 in 2003 to 327 in 2013, but cases at or above the OSHA level of 40 ug/dl have stayed relatively constant since 2004 (Figure E-6).

**Table E-7: Lead Cases by Level of Blood Lead, CT ABLES, 2012-2013**

Blood lead level*	2012	2013	Percent	Change
10-24	229	267	82%	17%
25-39	41	45	14%	10%
40-49	7	9	3%	29%
50-59	4	3	1%	-25%
>=60	2	3	1%	50%
<b>Total</b>	<b>283</b>	<b>327</b>	<b>100%</b>	<b>16%</b>

Source: Connecticut Adult Blood Lead Epidemiology and Surveillance (ABLES program)  
 \* micrograms per deciliter (ug/dl) of whole blood

**Figure E-6: Lead Cases 2003-2013**



### Infectious and Other Diseases

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 840 reports in 2013, a 140% increase from the previous year. There were 58 exposures or cases of scabies, 36 reports of TB exposures or TB positive tests, 7 cases of rabies or exposures, 4 exposures to Meningitis, and 4 cases of Lyme Disease or tick bites.

In addition to the infectious diseases, there were 159 other occupational illnesses reported by physicians in 2013 (Table E-8). This included 66 cases of chemical exposures to the eyes (not tracked in previous years), 21 cases of headache, dizziness, or similar symptoms, 14 allergic reactions, 12 over-exposures to heat or cold, 11 cases of hearing loss, and 1 report of stress-related or heart symptoms.

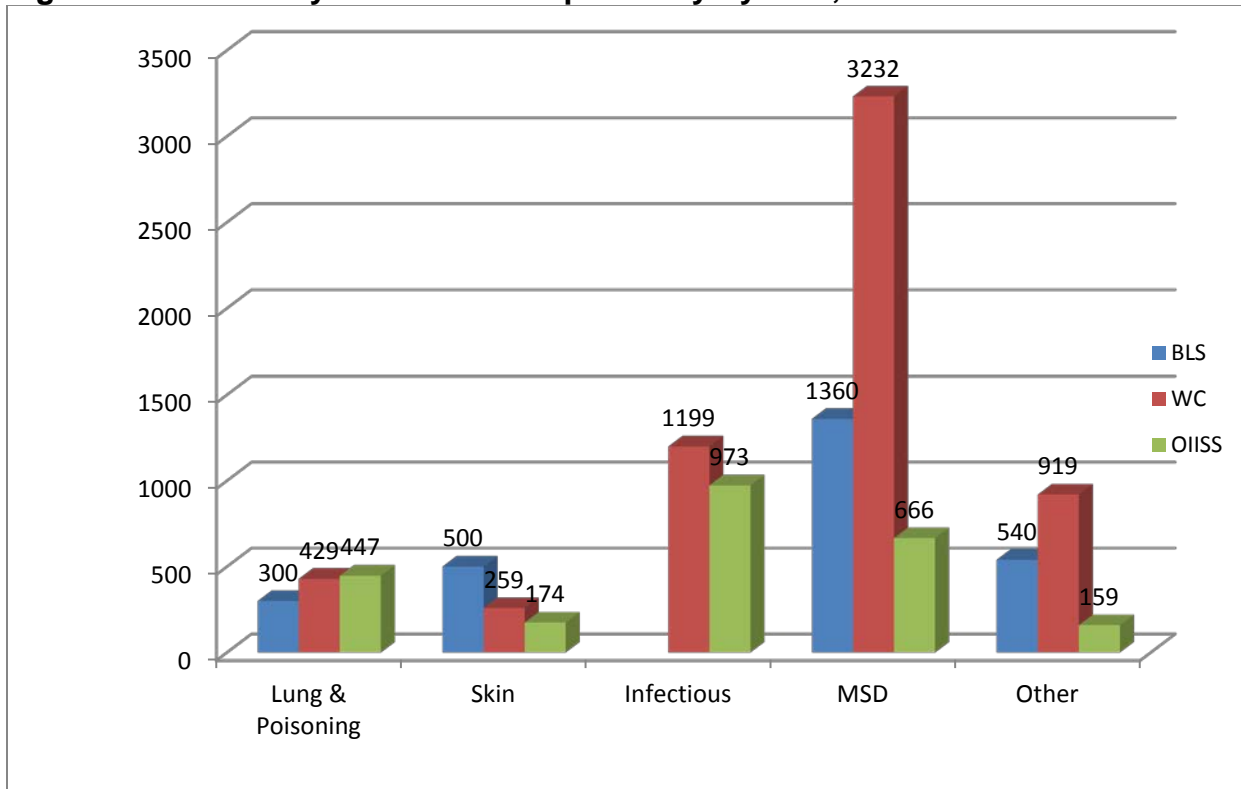
**Table E-8: Infectious and Other Illnesses, 2012-2013**

<b>Illness</b>	<b>2012</b>	<b>2013</b>	<b>% Change</b>
Bloodborne	352	844	140%
Scabies	15	58	287%
TB/PPD	21	36	71%
Rabies	3	7	133%
Meningitis	21	4	-81%
Lyme/tick bite	16	4	-75%
Other infectious	15	20	33%
<b>Subtotal: Infectious</b>	<b>443</b>	<b>973</b>	<b>120%</b>
Chemicals in eyes	50	66	32%
Headache/dizzy	16	21	31%
Allergic	20	14	-30%
Heat/cold	6	12	100%
Hearing loss	8	11	38%
Stress/heart	11	1	-91%
Other	53	34	-36%
<b>Subtotal: Other</b>	<b>164</b>	<b>159</b>	<b>-3%</b>
<b>Total</b>	<b>607</b>	<b>1,132</b>	<b>86%</b>

## F. Summary of Diseases

Figure F-1 shows the totals by disease category for 2013 for three reporting systems: the Bureau of Labor Statistics/Conn-OSHA (BLS); Workers' Compensation (WCC); and the Occupational Illnesses and Injury Surveillance System (OISS, 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. According to the Department of Public Health, although all physicians are legally required to report occupational disease, only a minority report. Lead reports from the laboratory reporting system are combined into "lung and poisoning" under the OISS. 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%. Appendix 1 details differences in the data systems.

**Figure F-1: Summary of Diseases Reported by System, 2013**



Notes: BLS=Bureau of Labor Statistics/ConnOSHA survey; WC=Workers' Compensation First Report of Injury Database; OISS= 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%).

The Workers' Compensation database showed the highest number of cases, with 6,038 cases reported, followed by the BLS survey with 2,600, and the physicians' reporting/laboratory database with 2,408 cases. There is a low amount of overlap between these systems, so total cases are higher than these figures might indicate.

The number of reports in 2013 decreased 6% from 2012 in the BLS system and 2%, but increased by 2% for workers compensation and 35% for physicians' reports. Longer term trends in number of reports are complex, with BLS trends generally declining; Workers' Compensation data showing an early increase, a decline from 2004 to 2007, and then a dramatic increase in 2008 and staying level at the higher numbers through 2013 (however, the Workers' Compensation database appears incomplete in 2003 and 2005-2007). Physician reports remaining fairly stable throughout the period, but with a modest increase over the past 4 years.

## 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 Workers Compensation and Physician Reporting system (Table F-1). This allows a tabulation of unique cases that were reported to at least one of the two systems, as well as an estimate of cases that were not reported to either system. The individual level BLS/ConnOSHA data from their survey was not available for matching.

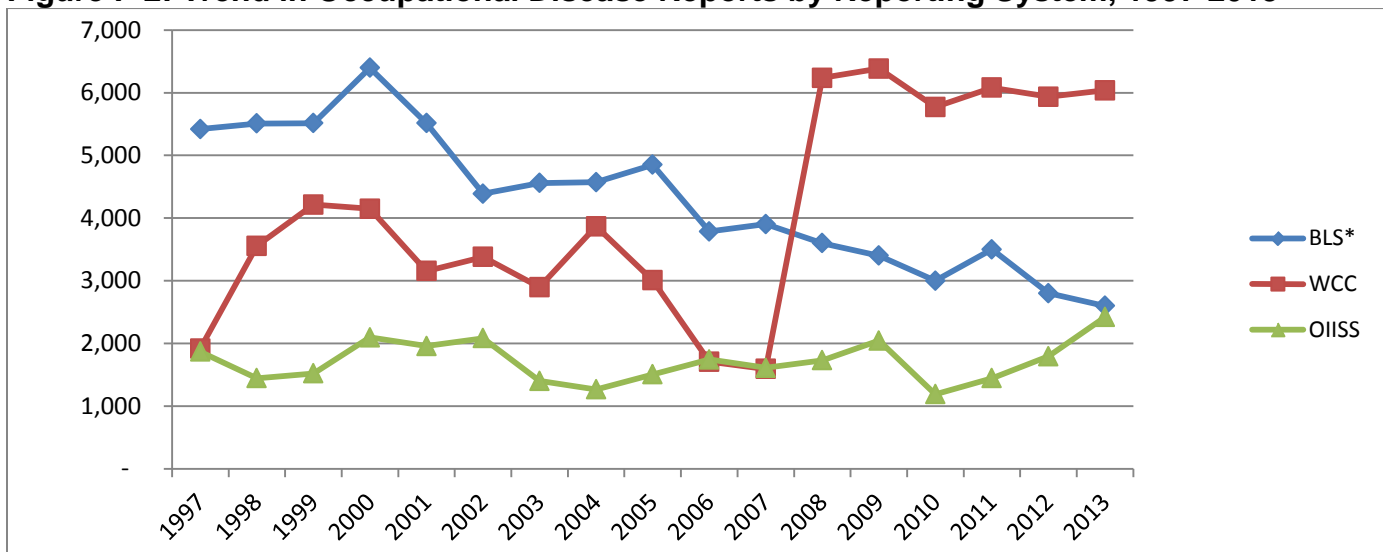
**Table F-1: Matched, Unique, and Estimated Total Cases of Occupational Illness, CT, 2013**

Illness Type	Matched	ODSS Only	WC Only	Unique	Estimated Unreported	Estimated Total
Infectious	196	777	1002	1,975	3,972	5,947
Lung	28	92	401	521	1,318	1,839
MSD	164	502	3076	3,741	9,413	13,154
Other	33	126	880	1,039	3,360	4,399
Skin	40	134	219	393	734	1,127
<b>Total</b>	<b>461</b>	<b>1,631</b>	<b>5,578</b>	<b>7,669</b>	<b>19,731</b>	<b>27,400</b>

There were a total of 4610 cases that were reported to both workers compensation (WC) and by physicians (ODSS system). This gives a total of 7,669 cases that were reported to at least one of the systems, with almost 2,000 infectious cases, over 500 lung cases, over 3,500 musculoskeletal (MSD) cases, almost 400 skin conditions, and over 1,000 other cases.

Using a statistical method called “capture-recapture” analysis, an estimate was made of the unreported cases, which was about 20,000 cases; when combined with the unique cases, that provides an estimate of approximated 27,000 occupational illness cases in Connecticut for 2013.

**Figure F-2: Trend in Occupational Disease Reports by Reporting System, 1997-2013**



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).

\*Note: BLS figures in 2002 not comparable to prior years due to changes in data collection. WCC data may not be complete for 2003 and 2005-2007. OIIS was not complete for 2010, and did not include most bloodborne infectious diseases/exposures in 2011.

## G. 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' report 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** (approximately 90% of the Workers' Compensation database, and 30% of the Physicians Reports). 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. Prior to 2003, this coding utilized the SIC (Standard Industry Classification), but beginning in 2003 this was changed to the NAICS (North American Industry Classification System) for the BLS and workers' compensation data in response to the national change to that system for BLS 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 SPSS for Windows, Microsoft Access, Excel, and Word software.
- 6) **The report is reviewed** by the Connecticut Workers' Compensation Commission prior to publication.

## H. Appendix 2: Occupational Disease Detail by Type and Year

**Table H-1: Cases of Occupational Disease, by Type, Bureau of Labor Statistics/Conn-OSHA, 1979 – 2013**

	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

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 H-2: Rate per 10,000 Workers of Occupational Disease, by Type, Bureau of Labor Statistics/Conn-OSHA, 1979-2013**

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	1,578,200	6.3	*	2	*	16.8	2.5	27.8
2012	1,628,028	4.6	*	2.6	*	12.0	2.6	21.9
2013	1,640,223	3.5	*	2.0	0.2	12.4	2.2	20.3

Source: BLS/Conn-OSHA

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

"Other" includes the pre-2002 categories of MSD, Physical, Lung-dust, and Other.

# I. Appendix 3: Occupational Illness Rates by Town/Municipality

Map developed by Kevin Evringham of UCONN (based on 50 or more cases)

**Table I-1 Occupational Illness Rates by Town/Municipality: 2013**

Town	Workforce	Illnesses	Rate	Rank
Ansonia	8,660	10	11.5	96
Avon	8,791	38	43.2	27
Berlin	10,957	39	35.6	42
Bloomfield	10,492	62	59.1	12
Bolton	2,969	10	33.7	45
Branford	14,837	32	21.6	76
Bridgeport	64,237	100	15.6	85
Bristol	30,367	78	25.7	68
Brookfield	8,708	22	25.3	69
Cheshire	14,564	64	43.9	26
Chester	2,230	16	71.7	8
Colchester	8,829	13	14.7	89
Columbia	3,028	12	39.6	35
Cromwell	7,474	27	36.1	40
Danbury	44,038	165	37.5	38
Darien	7,977	22	27.6	63
Derby	6,366	15	23.6	73
Durham	4,084	25	61.2	11
East Granby	2,881	10	34.7	44
East Hampton	7,170	11	15.3	87
East Hartford	25,166	77	30.6	54
East Haven	14,623	24	16.4	83
East Lyme	8,025	52	64.8	9
East Windsor	5,993	31	51.7	20
Ellington	8,525	12	14.1	90
Enfield	21,404	72	33.6	46
Fairfield	27,175	52	19.1	81
Farmington	13,207	216	163.5	1
Glastonbury	17,780	49	27.6	64
Greenwich	27,126	81	29.9	56
Griswold	5,877	12	20.4	79
Groton	17,435	206	118.2	2
Guilford	12,122	29	23.9	72
Hamden	32,947	44	13.4	92
Hartford	47,895	278	58.0	14
Killingly	8,788	25	28.4	59
Lebanon	3,811	10	26.2	67

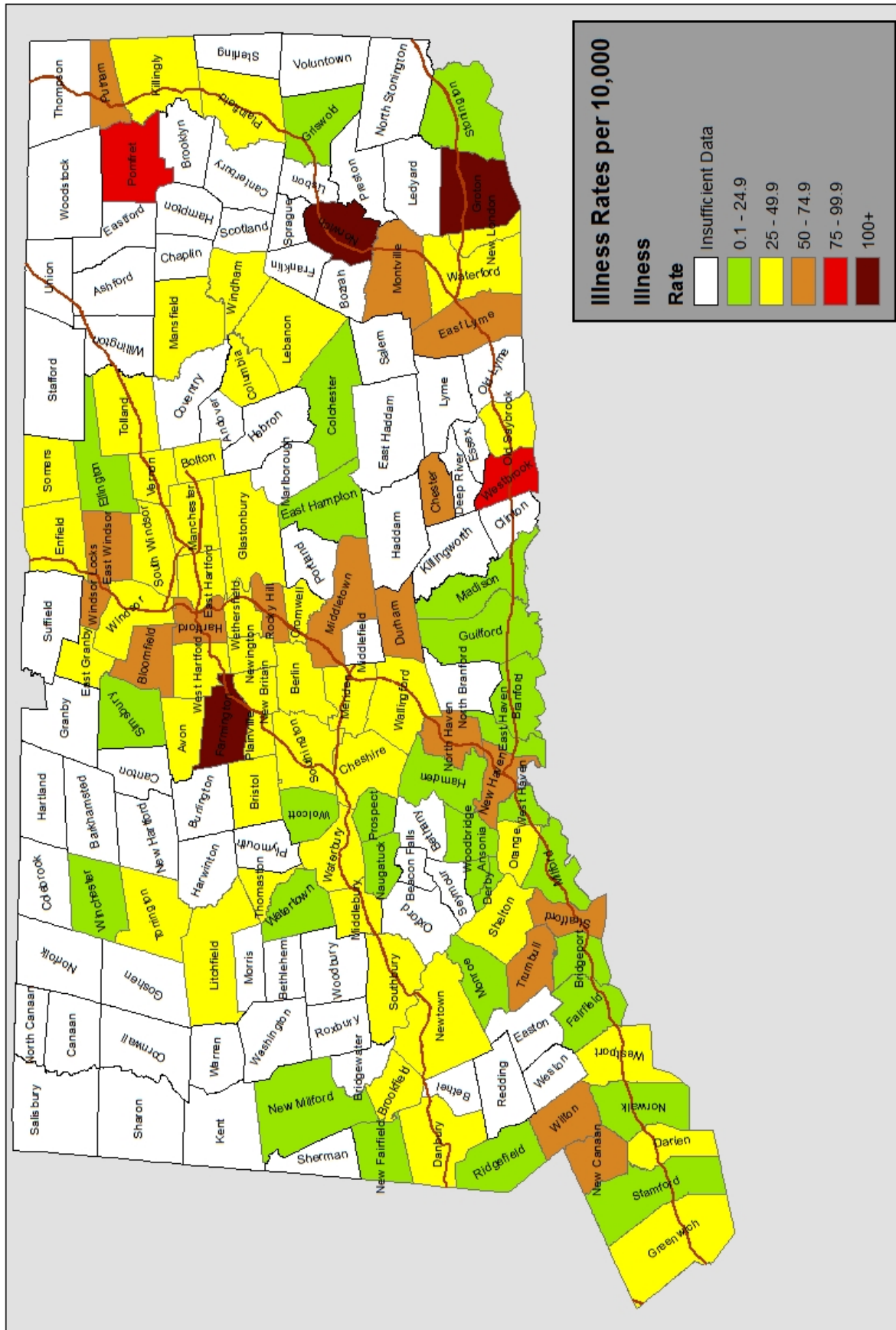
Litchfield	4,526	14	30.9	53
Madison	8,521	13	15.3	88
Manchester	30,471	123	40.4	32
Mansfield	11,597	53	45.7	25
Meriden	29,612	89	30.1	55
Middlebury	3,590	14	39.0	36
Middletown	24,459	177	72.4	7
Milford	27,925	67	24.0	71
Monroe	9,606	11	11.5	97
Montville	8,814	45	51.1	21
Naugatuck	16,049	39	24.3	70
New Britain	33,222	104	31.3	51
New Canaan	7,871	40	50.8	22
New Fairfield	6,830	11	16.1	84
New Haven	58,871	334	56.7	16
New London	11,066	46	41.6	28
New Milford	14,752	34	23.0	74
Newington	16,213	65	40.1	33
Newtown	13,518	47	34.8	43
North Haven	12,509	72	57.6	15
Norwalk	47,113	91	19.3	80
Norwich	18,869	207	109.7	3
Old Saybrook	4,779	18	37.7	37
Orange	6,791	28	41.2	30
Plainfield	7,954	33	41.5	29
Plainville	9,721	32	32.9	48
Pomfret	2,333	18	77.2	5
Prospect	5,185	11	21.2	78
Putnam	4,459	33	74.0	6
Ridgefield	11,207	20	17.8	82
Rocky Hill	10,676	63	59.0	13
Shelton	20,580	66	32.1	49
Simsbury	12,133	16	13.2	93
Somers	4,826	15	31.1	52
South Windsor	13,153	54	41.1	31
Southbury	8,293	26	31.4	50
Southington	22,660	64	28.2	60
Stamford	64,440	81	12.6	94
Stonington	9,036	14	15.5	86
Stratford	25,356	140	55.2	17
Thomaston	4,458	12	26.9	65
Tolland	8,086	29	35.9	41
Torrington	18,401	73	39.7	34
Trumbull	17,108	90	52.6	18

Vernon	15,906	53	33.3	47
Wallingford	24,601	70	28.5	58
Waterbury	46,051	137	29.7	57
Waterford	9,575	45	47.0	24
Watertown	12,318	17	13.8	91
West Hartford	32,212	90	27.9	62
West Haven	27,704	27	9.7	98
Westbrook	3,374	32	94.8	4
Westport	11,708	33	28.2	61
Wethersfield	13,133	35	26.7	66
Wilton	8,049	42	52.2	19
Winchester	5,847	13	22.2	75
Windham	11,492	42	36.5	39
Windsor	15,404	73	47.4	23
Windsor Locks	6,823	43	63.0	10
Wolcott	9,248	11	11.9	95
Woodbridge	4,652	10	21.5	77

\*Ranking: #1 is the highest rate of illness; #98 is the lowest;

Only towns with at least 10 cases appear. Rates are based on workers' compensation reports based on the town of illness (employer location); workforce by town is based on town of residence.

Figure I-1: Occupational Illness Rates per 10,000 Employees by Town, 2013



## J. Appendix 4: Internet Resources for Job Safety and Health

### 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>

**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, asbestos, and other topics.

[www.epa.gov](http://www.epa.gov)

[www.epa.gov/iaq/](http://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 (650 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://www.siri.org> <http://www.siri.org/msds/index.php>

**Several safety organizations have useful websites:**

[www.nsc.org](http://www.nsc.org)

The National Safety Council

[www.aiha.org](http://www.aiha.org)

The American Industrial Hygiene Association

[www.asse.org](http://www.asse.org)

American Society of Safety Engineers

[www.nfpa.org](http://www.nfpa.org)

National Fire Protection Association

[www.safetycentral.org](http://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>,

**NYCOSH** (New York Council for Occupational Safety and Health) covers a lot of news and has a sign-up for email updates.

<http://www.nycosh.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.

<http://www5.cbia.com/hr/osha/>      <http://www5.cbia.com/hr/?s=health+and+safety>

The **Environmental Defense Fund** has a “pollution information site” called Scorecard with information about the health effects of chemical emissions from 17,000 industrial facilities and the testing of chemicals, with maps and interactive databases.

<http://www.scorecard.org/>

The Cal-OSHA Reporter carries current stories on job health and safety.

<http://www.cal-osh.com>.

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

<http://weeklytoll.blogspot.com> which includes a listing of those who have been killed on the job in the past week,

<http://scienceblogs.com/thepumphandle/>, the Pump Handle which continues the legacy of Jordan Barab’s blog, and

<http://workerscompinsider.com> which covers workers’ compensation issues.

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>.

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 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.

<http://www.ctdol.state.ct.us/osha/osha.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://www.oehc.uchc.edu>

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://www.oehc.uchc.edu/healthywork>

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

[http://doem.uchc.edu/consultation\\_outreach/indoor\\_environments/](http://doem.uchc.edu/consultation_outreach/indoor_environments/)

## **Ergonomic Sites and Links**

Information on ergonomic consultations and musculoskeletal disease is accessible at the **UCONN HEALTH Division of Occupational and Environmental Medicine** site.

[http://doem.uchc.edu/consultation\\_outreach/ergonomics.html](http://doem.uchc.edu/consultation_outreach/ergonomics.html)

**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/ehs/ehs.ergo/ergo.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 info from user and injured workers groups.

<http://www.tifaq.org/>

**The National Health Service/UK** has information about Repetitive Stress Injuries/RSI

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

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>

**Interface Analysis / Usernomics** is a commercial site around disability and usability issues.

<http://www.usernomics.com>

**Medical Multimedia Group** has patient education materials about musculoskeletal systems with good graphics and explanations.

<http://www.medicalmultimedialogroup.com>

*Internet Resources for Job Safety and Health is compiled by Tim Morse, Ph.D., and Paula Schenck, MPH at the UCONN HEALTH. To update or add a listing, please contact them at [tmorse@uchc.edu](mailto:tmorse@uchc.edu), [schenck@uchc.edu](mailto:schenck@uchc.edu).*

## **K. Appendix 5: 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:** Bachelor of Science in Industrial Technology with a Specialization in Environmental and Occupational Safety

**Faculty contact:** Paul J. Resetarits, PhD

**Address:** Copernicus Hall Rm. 2121000, CCSU, 1615 Stanley Rd., New Britain, CT 06050

**Phone:** (860) 832-1834

**e-mail:** [Resetarits@mail.ccsu.edu](mailto:Resetarits@mail.ccsu.edu)

**Web:** <http://web.ccsu.edu/set/academics/programs/manufacturingconstruction/environmental.asp>

#### **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 Environmental Health Sciences Concentration; and an Online Occupational Safety and Health Post-Baccalaureate Certificate Program

**Faculty contact:** Paul Bureau, MS MS CIH

**Address:** Koons Hall Room 306, 358 Mansfield Road, Unit 1101, Storrs, CT 06269-1101

**Phone:** (860) 486-0040

**e-mail:** : [paul.bureau@uconn.edu](mailto:paul.bureau@uconn.edu)

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

#### **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](mailto:gregorio@nso.uchc.edu)

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

#### **UCONN HEALTH, Department of Medicine**

**Type of Degree:** Ph.D. in Public Health with a concentration in Occupational and Environmental Health Sciences

**Faculty Contact:** Jennifer Cavallari, ScD, CIH

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

**Phone:** (860) 679-4720

**Fax:** (860)-679-1349

**e-mail:** [cavallari@uchc.edu](mailto:cavallari@uchc.edu)

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

## 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:** 200 Folly Brook Boulevard, Wethersfield, CT 06109

**Phone:** (860) 263-6900

**Fax:** (860) 263-6940

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

**Publications:** ConnOSHA Quarterly

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

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

**Area Director: Robert W. Kowalski**

**Address:** 915 Lafayette Blvd

Bridgeport, Connecticut 06604

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

**Fax:** (203) 579-5516

**Web:** [www.osha.gov](http://www.osha.gov) (national)

**OSHA Hartford Office**

**Director:** Warren Simpson

**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:** Marc Croteau, MD MPH

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

**Phone:** (860) 679-3744

**Fax:** (860) 679-1349

**e-mail:** [croteau@uchc.edu](mailto:croteau@uchc.edu)

**Web:** <http://doem.uchc.edu/>

### Yale Occupational and Environmental Medicine Program

**Director:** Carrie A Redlich, MD, MPH

**Address:** Occupational and Environmental Medicine, 135 College St. Rm. 366, New Haven, CT 06510

**Phone:** (203) 785-4197

**Fax:** (203) 785-7391

**e-mail:** [Carrie.Redlich@yale.edu](mailto:Carrie.Redlich@yale.edu)

**Web:** <http://medicine.yale.edu/intmed/occmcd/>

## Occupational Health Clinics

### Concentra

**Address:** 701 Main Street, East Hartford, CT 06108

**Medical Director:** David Feinstein, MD

**Phone:** (860) 289-5561

**Fax:** (860) 291-1895

**e-mail:** [david\\_feinstein@concentra.com](mailto: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, LLC, St. Francis Hospital and Medical Center

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

**Phone:** (860) 714-4270

**Fax:** (860) 714-8068

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

**Other sites:** 114 Woodland Street Hartford: 860-714-4270; 1598 East Main St, Torrington, (860) 482-3467; 100 Deerfield Road, Windsor, 860-714-9444

**Affiliates:** ECHN Corporate Care, 2800 Tamarack Ave., Suite 001, South Windsor, CT 06074, 860.647-4796

**MedWorks of Bristol Hospital,** 539 Farmington Ave. Bristol (860) 589-0114

**MedWorks, LLC,** 375 East Cedar St., Newington (860) 667-4418 [prusso@bristolhospital.org](mailto:prusso@bristolhospital.org)

**ECHN CorpCare Occupational Health****Business Development Director:** P Jones**Address:** 1075 Tolland Turnpike, Manchester, CT 06040**Phone:** (860) 533-6558**Fax:** (860) 646-3945**e-mail:** [pjones@echn.org](mailto:pjones@echn.org).**Web:** <http://www.echn.org/Locations/CorpCare-Occupational-Health.aspx>**Griffin Hospital Occupational Medicine****Address:** 100 Commerce Drive, Shelton, CT 06484**Director:** Dave Maffei, PA-C**Phone:** (203) 944-3718**Fax:** (203) 929-3068**e-mail:** [dmaffei@griffinhealth.org](mailto:dmaffei@griffinhealth.org)**Web:** <http://www.griffinhealth.org/Occupational-Medicine-Center.aspx>**Hartford HealthCare Rehabilitation Network****Executive Director:** Eric Smullen, PT**Address:** 181 Patricia M Genova Drive, Newington, CT 06111**Phone:** (860) 696-2500**Fax:** (860) 696-2525**Web:** <https://hartfordhealthcare.org/locations-partners/hartford-healthcare-rehabilitation-network>**Other Offices:** <https://hartfordhealthcare.org/File%20Library/Services/PDFs/HHC-RN-Programs-and-Services.pdf>**Hartford Medical Group—Occupational Health****Medical Director:** Kent Stahl, MD ..**Address:** 1025 Silas Deane Highway, Wethersfield, CT 06109 **Phone:** (860) 696-2400**Web:** [http://www.hartfordmedicalgroup.com/specialties\\_occupational\\_medicine.php](http://www.hartfordmedicalgroup.com/specialties_occupational_medicine.php)Business Development Director: Peter Kowalski (800.557.8389 / [pkowalski@harthosp.org](mailto:pkowalski@harthosp.org))**Other Offices:** 339 West Main Street Avon, (860) 696-2150; 256 North Main Street, Manchester, (860)-696.2300; 445 South Main Street, West Hartford, (860) 696-2200 1060 Day Hill Road, Windsor (860) 696-2450.**Johnson Memorial Medical Center, Occupational Medicine****Director, Clinical Services:** Kathy Heim, RN, MSN**Address:** 140 Hazard Ave., Suite 101, Enfield, CT 06082**Phone:** (860) 763-7668**Fax:** (860) 763-7676**Web:** <http://www.jmmc.com/jmmc/services/OccupationalMedicine/>**Lawrence and Memorial Occupational Health Center****Medical Director:** Geraldine Ruffa, MS, MPH, MD (860) 446-8265 x 7074**Director, Occupational Health Services:** Ruth E. Moreau, RN, MS, COHN-S**Address:** 52 Hazelnut Hill Rd., Groton, CT 06340**Phone:** (860) 446-8265 x7082**Fax:** (860) 448-6961**Email:** [rmoreau@lmhosp.org](mailto:rmoreau@lmhosp.org)**Web:** <http://www.lmhospital.org/services/occupational-health-center.aspx>**Other site:** 40 Boston Post Road, Waterford, CT 06385, (860) 271-4900

**Middlesex Hospital Occupational Medicine****Director:** Thomas J. Danyliw, MD**Address:** 534 Saybrook Rd., Middletown, CT 06457**Phone:** (860) 358-2750**Fax:** (860) 348-2757**e-mail:** [tom\\_danyliw\\_md@midhosp.org](mailto:tom_danyliw_md@midhosp.org)**Web:** <http://middlesexhospital.org/our-services/hospital-services/occupational-medicine/overview/occupational-medicine-at-middlesex-hospital>**Other Office:** 192 Westbrook Road, Essex (860) 358-3840**St. Mary's Hospital Occupational Health and Diagnostic Center****Medical Director:** Erica Martinucci, MD**Address:** 146 Highland Avenue, Waterbury, CT 06708**Phone:** (203) 709-3740**Fax:** (203) 709-3741**Web:** <http://www.stmh.org/services/occupational-medicine>**Yale-New Haven Hospital St. Raphael Campus Occupational Health Plus****Manager for Clinical Operations:** Andrea Santerre, RN**Address:** 175 Sherman Ave., New Haven, CT 06511**Phone:** (203) 789-6216**Fax:** (203) 789-5174**e-mail:** [andrea.santerre@ynhh.org](mailto:andrea.santerre@ynhh.org)**General Contact:** Debbie Hunter- [deborah.hunter@ynhh.org](mailto:deborah.hunter@ynhh.org) 2039882551**Web:** [http://www.ynhh.org/medical-services/worker\\_health\\_solutions.aspx](http://www.ynhh.org/medical-services/worker_health_solutions.aspx)**Other Offices:** 84 North Main Street, Suite 200, Branford (203) 789-5195; 2080 Whitney Ave., Suite 150 Hamden (203) 789-6240**Connecticut Occupational Medicine Partners, LLC, St. Francis Hospital and Medical Center****Address (corporate):** 675 Tower Avenue, Suite 404B, Hartford, CT 06112**Phone:** (860) 714-4270**Fax:** (860) 714-8068**Web:** <http://compllc.org/>**Other sites:** 114 Woodland Street Hartford: 860-714-4270; 1598 East Main St, Torrington, (860) 482-3467; 100 Deerfield Road, Windsor, 860-714-9444**Affiliates:****ECHN Corporate Care**, 2800 Tamarack Ave., Suite 001, South Windsor, CT 06074, 860.647.4796**MedWorks of Bristol Hospital**, 539 Farmington Ave. Bristol, CT 06010, (860) 589-0114**MedWorks, LLC**, 375 East Cedar St., Newington (860) 667- 4418 [prusso@bristolhospital.org](mailto:prusso@bristolhospital.org)

## Organizations

### **American Lung Association (ALA) of Northeast, Connecticut**

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

**Director Medical and Scientific Branch:** Michelle Caul

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

**Phone:** (860) 838-4379

**e-mail:** [info@lungne.org](mailto:info@lungne.org)

**Web:** <http://www.lung.org/associations/charters/northeast/> <http://www.lung.org/associations/states/connecticut/>

### **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:** [ahulickl@cleanwater.org](mailto:ahulickl@cleanwater.org)

**Web:** <http://www.safehealthyct.org>

### **Connecticut Safety Council/Safety Roundtable**

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

**Contact:** Mark Soycher

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

**Phone:** (860) 244-1138

**Fax:** (860) 278-8562

**e-mail:** [Mark.Soycher@cbia.com](mailto:Mark.Soycher@cbia.com)

**Web:** <http://www5.cbia.com/hr/?s=Ct+Safety+Council>

### **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](mailto:mike.ctcosh@snet.net)

**Web:** <http://connecticosh.org>

## **The Center for the Promotion of Health in the New England Workplace (CPH-NEW) and the Ergonomic Technology Center (ErgoCenter)**

CPH-NEW is a NIOSH-funded center combining occupational safety and health with health promotion administered jointly by UMASS Lowell and 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.

**Director:** Martin Cherniack, MD, MPH

**Address:** 263 Farmington Ave, Farmington, CT 06030-8777

**Phone:** (860) 679-4916

**Fax:** (860) 679-1349

**e-mail:** [cherniack@nso.uhc.edu](mailto:cherniack@nso.uhc.edu)

**Web:** [http://doem.uhc.edu/academics\\_research/cph\\_new/index.html](http://doem.uhc.edu/academics_research/cph_new/index.html)

[http://doem.uhc.edu/consultation\\_outreach/ergonomics.html](http://doem.uhc.edu/consultation_outreach/ergonomics.html)

## **UCONN 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.

**Asst. Director:** Paula Schenck, MPH

**Address:** 263 Farmington Ave, Farmington, CT 06030-8777,

**Phone:** (860) 679-2368

**Fax:** (860) 679-1349

**e-mail:** [schenck@uhc.edu](mailto:schenck@uhc.edu)

**Web:** [http://doem.uhc.edu/consultation\\_outreach/indoor\\_environments/](http://doem.uhc.edu/consultation_outreach/indoor_environments/)

## **Professional Associations**

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

AIHA is a professional association for industrial hygienists.

**President 2014:** Brian Bethel, CIH (Sikorsky Aircraft)

**Address:** 61 Knoll St., Waterbury, CT 06705

81 Wyman St., Waltham, MA 02451

**Phone:** (203) 232-9993

**e-mail:** [Brian.Bethel@sikorsky.com](mailto:Brian.Bethel@sikorsky.com)

**Web:** <http://www.aiha.org/localsections/html/crv/crv.html>

### **Connecticut Safety Society**

This society is a professional association for safety inspectors

**President:** James Benway

Wallingford, CT 06492

**Phone:** (203) 260-3444

**e-mail:** [president@ctsafety.org](mailto:president@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:** Marc Nettleton

**e-mail:** mnetteleton@themdc.com

**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.

**Secretary:** David Krochko

**Phone:** (888) 265-8969

**e-mail:** dkrochko@woodardcurran.com

**Web:** [http://www.awmanewengland.org/connecticut\\_chapter.htm](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:** Neil Ferstand

**Address:** 150 Trumbull Street, 2<sup>nd</sup> Floor, Hartford, CT 06103

**Phone:** (860) 522-4345

**Fax:** (860) 522-1027

**Web:** [www.cttriallawyers.org](http://www.cttriallawyers.org)

**Connecticut Bar Association, Workers' Compensation Section**

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

**Chair:** Lawrence Morizio, ESQ

**Phone:** (203)386-1433

**e-mail:** [lmorizio@cdm-lawfirm.com](mailto:lmorizio@cdm-lawfirm.com)

**Web:** <http://www.ctbar.org/?page=WorkersCompensation>

**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](mailto:necoem@comcast.net)

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

**Northeast Association of Occupational Health Nurses /NEAOHN, CT Chapter**

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

**President:** Meg Gildea, APRN,MSN

**e-mail:** [marguerite.gildea@pw.utc.com](mailto:marguerite.gildea@pw.utc.com)

**Web:** <http://ct.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

**Email:** [Thomas.st.louis@ct.gov](mailto:Thomas.st.louis@ct.gov)

**Web:** [http://www.ct.gov/dph/cwp/view.asp?a=3140&q=387472&dphNav\\_GID=1828](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) 685-8246

**Fax:** (860) 685-8354

**e-mail:** [scott.devico@ct.gov](mailto: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](mailto: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](mailto: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](mailto:jeffrey.semancik@ct.gov)

**Web:** [http://www.ct.gov/dep/cwp/view.asp?a=2713&q=324824&depNav\\_GID=1639&depNav=](http://www.ct.gov/dep/cwp/view.asp?a=2713&q=324824&depNav_GID=1639&depNav=)

**Workers' Compensation Commission  
Chairman's Office and Review Board**

This Board oversees Workers' Compensation benefits, provides educational services on occupational safety and health, safety and health committees, and provides rehabilitation services for workers injured on the job.

**Chairman:** John A. Mastropietro

**Address:** 21 Oak St., 4<sup>th</sup> 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](mailto: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., and Paula Schenck, MPH at the UConn Health Center. To update or add a listing, please contact them at [tmorse@uchc.edu](mailto:tmorse@uchc.edu), [schenck@uchc.edu](mailto:schenck@uchc.edu).*