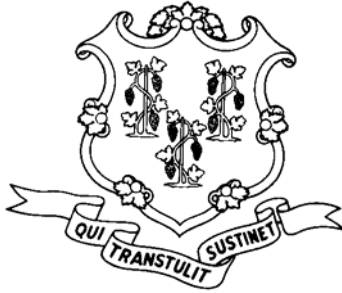


Occupational Disease in Connecticut, 2008



This report covers data for 2006
and was prepared under contract for the
State of Connecticut Workers' Compensation Commission
John A. Mastropietro, Chairman
as part of the Occupational Disease Surveillance Program operated
in cooperation with the Connecticut Department of Labor and the
Connecticut Department of Public Health

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June 2008

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A. Executive Summary

This report focuses on occupational *disease* reports from 2006, 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/osha/occupationinjuries.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, Physicians' Reports under the Occupational Disease Surveillance System (ODSS), and the Bureau of Labor Statistics/Conn-OSHA Annual Survey.

Table A-1: Summary of Diseases Reported by Systems, 2005-6

Type of Disease	BLS/Conn-OSHA		Workers' Comp.	ODSS (Physicians)	
	2005	2006	2006**	2005	2006
Lung & Poisoning	488	273	197	191	154
Lead				463	465
Skin	848	575	133	241	256
MSD	*	*	800	511	751
Other	3515	2939	578	100	119
Total	4,851	3787	1,708**	1,506	1,745

**Incomplete data.

Sources: BLS: Bureau of Labor Statistics/Conn-OSHA; Total differs due to rounding for the survey

WCC: CT Workers' Compensation Commission, First Report of Injury database

ODSS: Occupational Disease Surveillance System, Connecticut Departments of Public Health and Labor

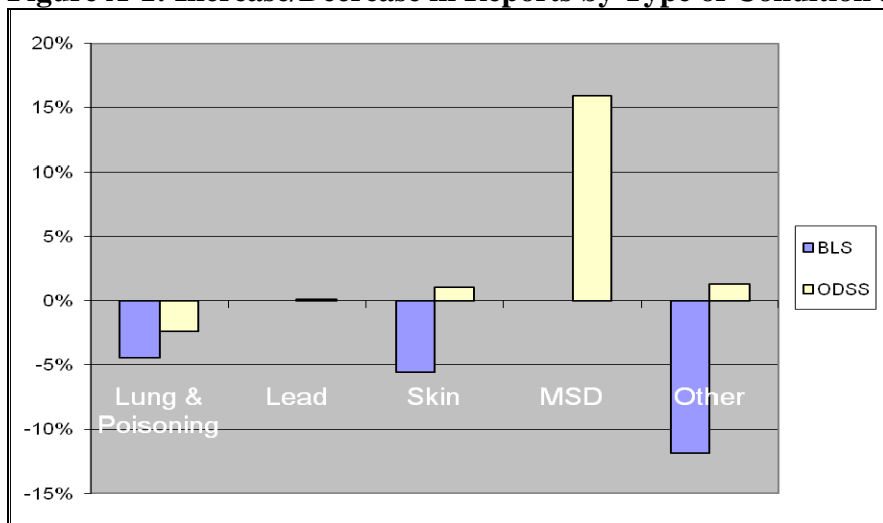
Notes: MSD= Musculoskeletal Disorders; Definitions vary somewhat between systems; ODSS infectious does not include bloodborne; ODSS lead cases are from the lab reporting system.

*MSD is included in "other"

Table A-1 and Figure A-1 summarize the data from the three different sources for 2005 and 2006. Approximately 3,800 cases of occupational diseases were reported under the BLS/Conn-OSHA survey and 1,750 reported by physicians to the ODSS. The Workers' Compensation database was incomplete for 2006 due to a transition to electronic reporting; the actual number of reports is estimated to be a minimum of 65% higher than the 1,708 cases reported here; therefore 2006 reports are not comparable to prior years. Reports from the BLS system decreased by 22% overall in 2006 (and decreased in all categories of disease), but increased by 16% based on physician reports mainly due to increases in musculoskeletal disorders (MSD).

All systems were dominated by reports of **musculoskeletal disorders** (MSDs) such as Carpal Tunnel Syndrome and tendonitis, which accounted for between 59% of physician-reported cases in the ODSS (not including lab-based lead reports in the total) and 47% of cases in Workers' Compensation. MSD has not been broken out by BLS since 2002, and is partially included under "other illness". **Lung diseases** such as acute respiratory conditions and asthma accounted for 7-12% of cases. "Other diseases", which includes infectious diseases, physical hazards such as heat and cold, allergies, cancer, and others, accounted for 9-78% of cases (the number in workers' compensation is due primarily to infectious, and MSD for BLS). **Skin conditions** accounted for 8-20% of the conditions reported. **Lead poisoning** is tracked separately based on laboratory reports to the Connecticut Department of Public Health.

Figure A-1: Increase/Decrease in Reports by Type of Condition and System, 2005-2006



There was an overall illness rate of 28.4 per 10,000 workers based on the BLS survey, a 21% decrease from 2005. The highest rate by far was manufacturing at 63.6, mainly due to “other illnesses” (primarily MSD) and hearing loss. “Education and Health” was tied for the next highest specific sector (40.3 rate), driven by “other illnesses”, respiratory, and skin conditions; the Information sector also had a rate of 40.3, which was due exclusively to “other” conditions including cumulative trauma condition. Both state and local government had rates near 33, driven by “other” and skin conditions.

Overall, 42% of reports were by women, but this varied by type of case, with higher proportions of women for infectious disease, but lower levels for lung, skin, and “other” (ODSS). Of the 813 reports where race was known, 118 (15%) were identified as Black, and 107 (10%) of 1,125 cases (where ethnicity was known) were identified as Hispanic (ODSS). The largest number of cases were in the age range of 40-49 years old (32% of all cases), followed by those in their 50’s (23%), 30’s (20%), and 20’s (16%; ODSS).

Physicians reported that 42% of cases were known to have continuing exposure, and in 21% of the cases it was reported that other workers were likely to be exposed to the same hazard.

The most common MSDs diagnosed by physicians were epicondylitis, Carpal Tunnel Syndrome, and tendonitis (ODSS). The most common causes of MSD were “repetition”, lifting, pushing and pulling, tools and vibration, and computer use (WC). The most common lung diseases reported by physicians were acute respiratory conditions from chemical and fume exposures, asthma/RADS (Reactive Airways Dysfunction Syndrome), and rhinitis/sinusitis. Chemicals (including cleaning chemicals), fumes, indoor air quality, and mold were the most common causes (ODSS). Causes of skin conditions included poison ivy, chemicals, and cleaning products (ODSS). The most common infectious diseases were bloodborne diseases and exposures, Lyme Disease or tick bites, and TB exposures/conversions (WC).

B. Introduction

This report provides an overview of what is known about occupational disease in Connecticut based on 2006 data. It is one of a series of annual reports on occupational disease developed for the Connecticut Workers' Compensation Commission under the Occupational Disease Surveillance System. 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)
- Connecticut Occupational Disease Surveillance System (referred to as Physicians' Reports or ODSS 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 thank especially Joe Weber of the Department of Labor; Bob Artus, and Peter Miecznikowski of the Workers' Compensation Commission; and Thomas St. Louis, Albert Deloreto, and Deborah Pease of the Department of Public Health. Colleagues at the Division of Occupational and Environmental Medicine at the University of Connecticut Health Center have contributed ideas and resolved questions.

Overview of Report

This report covers occupational disease data for calendar year 2006. 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 the Physicians' Reports.

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 (although the database for 2006 was incomplete), but does not include physicians' diagnosis. The Physicians' reporting system has more precise diagnoses, but according to the Department of Public Health, a large number of physicians do not report into the system. Prior studies of cumulative trauma reports in Connecticut have found that there is only a small overlap between the Workers' Compensation Reports and the Physicians' Reports.

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>). This report focuses on illnesses, and includes data from Conn-OSHA that is not published in that report. 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 or reported.

Occupational Illnesses in 2006

There were 3,787 reported cases of occupational illnesses in 2006 (Figure C-1 and Table C-1), a 22% decrease from 2005 for the number of cases. Cases of hearing loss increased by 15%, but this was offset by an decrease of 51% in respiratory cases and 20% in the much larger category of “other illnesses”, which is dominated by repetitive trauma cases. The number of poisonings increased by 375%, but is a very small number of cases.

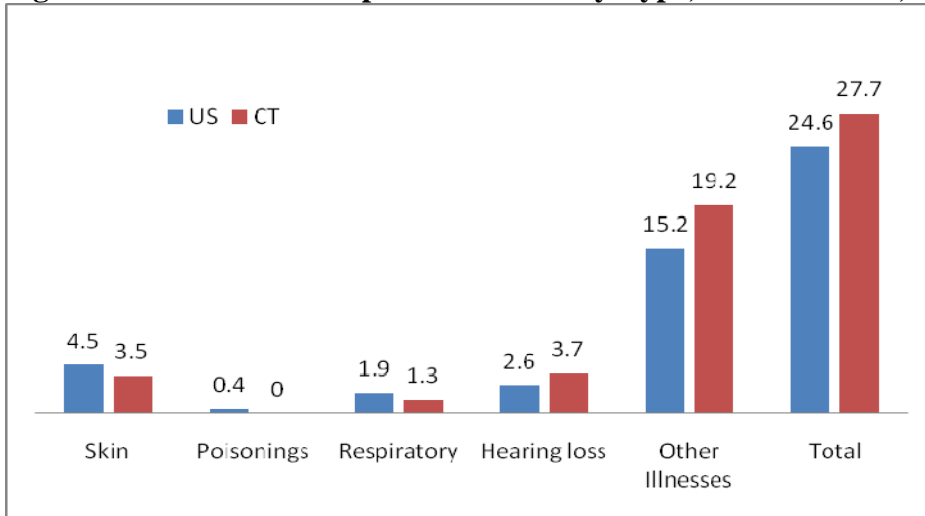
Table C-1: Occupational Disease by Type, 2005 and 2006, BLS/Conn-OSHA

	2005		2006		% Change in Cases
	Cases	Rates	Cases	Rates	
Skin	848	6.3	575	4.3	-32%
Poisonings	8	0.1	38	0.3	375%
Respiratory	480	3.6	235	1.8	-51%
Hearing loss	381	2.8	439	3.3	15%
Other Illnesses	3134	23.3	2500	18.8	-20%
Total	4,851	36	3,787	28.4	-22%

Source: BLS/Conn-OSHA; Rates are per 10,000 workers, not adjusted for hours worked. Total differs due to rounding for the survey. Includes public sector.

Overall rates for the private sector in Connecticut for 2006 are compared to the U.S. rates in Figure C-1 (public sector rates are not available on the national level for comparison). The overall Connecticut rate (27.7) was higher than U.S. rate (24.6). This was driven by higher CT rates for the large categories of hearing loss and “other” (which includes repetitive trauma). There were slightly lower rates in CT for the categories of respiratory conditions, poisonings, and skin disorders. Rates are adjusted for hours worked, and are for the private sector only since government sector statistics are not available for the U.S.

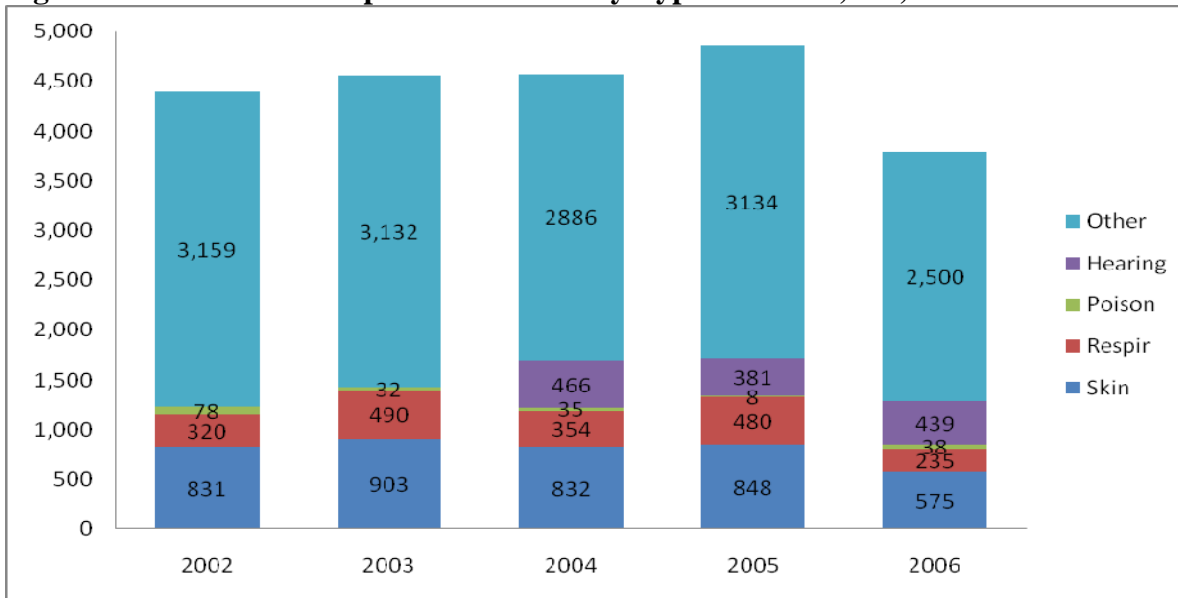
Figure C-1: Rates of Occupational Illness by Type, Private Sector, US and CT, 2006



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

In Connecticut, the number of illnesses dropped by 22% from 4,851 in 2005 to 3,787 in 2006 (Figure C-2), after slight increases from 2002-5.

Figure C-2: Cases of Occupational Disease by Type and Year, CT, 2002-2006



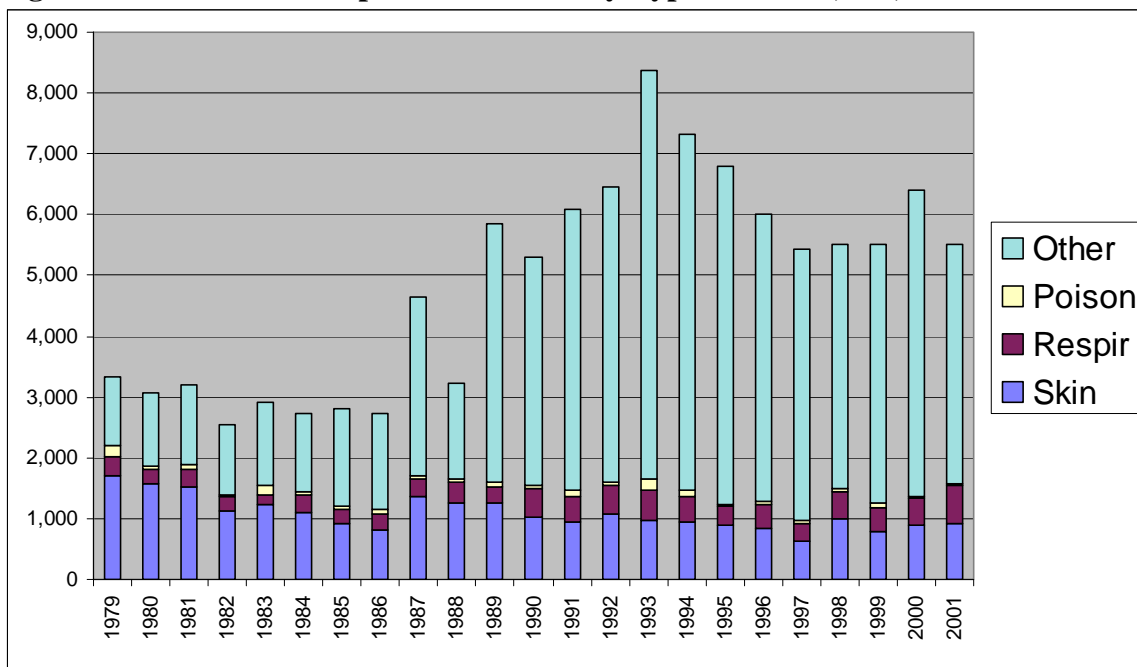
Source: BLS/Conn-OSHA Survey

Earlier Years

Reported cases of illness peaked at 8,369 for Connecticut in 1993, and then in general declined to 5,514 in 2001 (Figure C-3). The BLS survey had a number of changes in 2002 that make it more difficult to compare with previous years, and the BLS has advised that the statistics for 2002 (and following years) are not comparable to prior years as a result of those changes. As part of that new recordkeeping rule, several categories of occupational illness were no longer tracked, including the previously most common category of “repetitive trauma”, as well as “dust diseases of the lung” and “disorders due to physical agents”. In addition, the definition of what must be recorded for illnesses has changed to be the same as for injuries; previous to 2002, all illnesses needed to be recorded,

regardless of lost time status. The newer definitions require recording for only conditions that result in lost time or medical attention beyond first aid. In addition, now only previously-existing conditions that are “significantly” aggravated by work need to be recorded (prior to 2002, the definition did not include “significantly”). The new guidance reinforces the requirement that all fatal heart attacks that occur on the job need to be reported (not only work-related cases if it is later determined that it was solely due to events or exposures outside of work, then it not recordable). There were numerous other changes as well, including hearing loss, needlesticks, TB conversion, and other issues that are likely to affect the data. In general, it is likely that the “occupational illness” category as a whole is substantially smaller than previously due to these changes, but the extent cannot be known. Long-term trend data is therefore broken out into two sets of figures, one for 1991 through 2001, and the other for 2002 - present.

Figure C-3: Cases of Occupational Disease by Type and Year, CT, 1979-2001



Source: BLS/Conn-OSHA Survey

Illnesses by Industry

Numbers and rates by industry sector for 2006 are presented in Table C-2. Overall, the adjusted rate is 28.4 cases of occupational illness per 10,000 CT workers, a 21% decrease from the 2005 rate of 36.0. The overall private sector rate was 27.7 (compared to 32.0 in 2005), with a government rate of 33.1. The government rate is dramatically lower than the 64.3 rate in 2005. “Goods producing” had the highest rate of the large sectors at 51.4, driven by the highest specific industry rate of 63.6 for manufacturing. “Other illnesses”, which are largely cumulative trauma, and hearing loss were the main contributors to the high rate in manufacturing. “Education and Health” was tied for the next highest specific sector (40.3 rate), driven by “other illnesses”, respiratory, and skin conditions; the Information sector also had a rate of 40.3, which was due exclusively to “other” conditions including cumulative trauma condition. Both state and local government had rates near 33, driven by “other” and skin conditions.

Table C-2: Illness Rates per 10,000 Workers by Industry and Type of Illness, CT, 2006

	Total		Skin		Respiratory		Poison		Hearing		Other	
	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.
Total, all industries	28.4	3,800	4.3	600	1.8	200	0.3	*	3.3	400	18.8	2,500
Private Industry only	27.7	3,200	3.5	400	1.3	200	**	**	3.7	400	19.2	2,200
Goods Producing	51.4	1,300	5.8	100	1.7	- ⁶	**	**	16.0	400	27.9	700
Natural resources and mining	**	**	**	**	**	**	**	**	**	**	**	**
Construction	14.2	100	**	**	**	**	**	**	**	**	12.6	100
Manufacturing	63.6	1,200	7.3	100	1.9	*	**	**	21.3	400	33.2	600
Service Providing	21.0	1,900	2.8	300	1.2	100	**	**	0.2	*	16.7	1,500
Trade, transport, utilities	13.9	300	2.1	100	0.7	*	**	**	**	**	10.9	300
Information	40.3	100	**	**	**	**	**	**	**	**	37.7	100
Financial activities	17.2	200	**	**	**	**	**	**	**	**	16.4	200
Professional/business services	15.1	300	2.6	*	**	**	**	**	**	**	12.2	200
Education and health	40.3	800	6.3	100	3.4	100	**	**	**	**	30.2	600
Leisure and hospitality	10.1	100	3.5	*	**	**	**	**	**	**	5.1	*
Other services	11.1	*	**	**	**	**	**	**	**	**	11.1	*
Government total	33.1	600	10.0	200	4.7	100	--	--	**	**	16.0	300
State Government	34.4	200	9.1	100	6.2	*	**	**	**	**	18.7	100
Local Government	32.5	400	10.4	100	3.9	*	--	--	--	--	14.7	200

Source: Conn-OSHA

Rates are adjusted for hours worked, and are per 10,000 full-time workers; Cases are in 1,000's.

*less than 50 cases

**less than 15 cases

Repetitive trauma cases have historically been the highest contributor to occupational illness rates, but this category of illness stopped being collected in 2002. Some of these cases appear as “other illnesses”, but the BLS instructions are not clear on whether they need to be recorded there or not since they do not give specific examples of these conditions (such as Carpal Tunnel Syndrome or tendonitis) in their instructions (although chronic conditions are supposed to be recorded as illnesses). It is likely that these cases are under-recorded in comparison to previous years. Some information is available on lost-time conditions (see below).

Table C-3: Rates by size of employer, BLS/ConnOSHA, 2006

	Cases	Rate	Change from 2005
1-10 employees	55	3.1	-138
11-49 employees	460	14.9	-41
50-249 employees	1,292	31.5	-347
250-999 employees	922	39.7	-522
1,000+ employees	1,059	51.5	-15
Total	3,787	28.4	-1063

Reported rates of occupational illness were the highest for larger workplaces in 2006, with 3.1 cases per 10,000 workers for 10 or fewer employees, 14.9 for 11-49 employees, 31.5 for 50-249 employees, 39.7 with 250-999 employees, and 51.5 for 1,000 employees and over (Table C-3). Number of cases and rates dropped for all size categories in 2006, after rising in almost all categories in 2005, with the

greatest decrease in the 250-999 size category (from a rate of 65.8 in 2005 to 39.7 in 2006, a 40% decline). Studies in Connecticut have shown that the smallest employers tend to under-report, so some of these differences between size categories may be due to variable reporting.

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 2005 and 2006 for conditions that are more chronic in nature (usually classified as occupational illness).

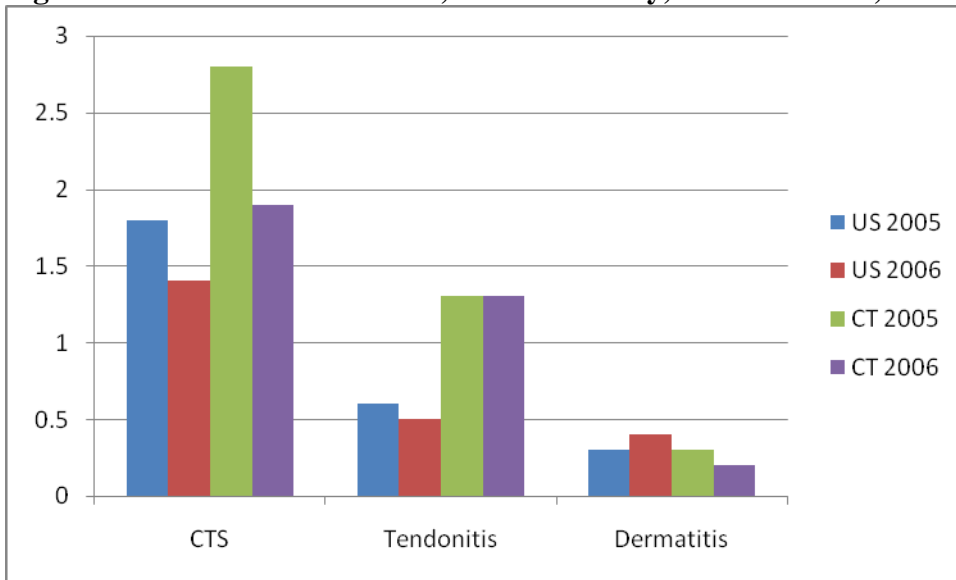
Musculoskeletal Conditions

Private sector musculoskeletal conditions stayed about the same in 2006 with 6,290 cases (54.2 cases per 10,000 workers). The Connecticut rate is 40% higher than the national MSD rate of 38.6. There were an additional 1,240 cases in the public sector, for a total of 7,530 cases for Connecticut. MSD accounted for 33% of the total of 22,880 private and public lost time injuries and illnesses in Connecticut.

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 (approximately 75% of these cases nationally). 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.”

Carpal Tunnel Syndrome (CTS) was the most common specific illness in Connecticut, with a rate dropping from 2.8 per 10,000 workers to 1.9 in 2006 (Figure C-4). **Tendonitis** stayed about the same at 1.3 cases per 10,000. Connecticut was higher than national private-sector rates for both Carpal Tunnel Syndrome and tendonitis, and slightly lower for dermatitis. CTS had a very high number of lost work days, with a median of 27 days of lost time per case (compared to 7 days for all cases of injury and illness) in the U.S.; Connecticut was slightly higher than the U.S. average at 34 days lost per case.

Figure C-4: Rates of Conditions, Lost-time Only, Private Sector, US & CT, 2005-2006



Source: BLS Website <http://www.bls.gov/iif/home.htm>

Rates are cases per 10,000 full time employees

CTS=Carpal Tunnel Syndrome:

Lost time cases coded as “**repetitive trauma**” increased somewhat to 8.2 cases per 10,000 workers in the private sector; this Connecticut rate was double the U.S. rate of 4.1.

Dermatitis lost time cases dropped slightly from 0.3 to 0.2 lost time cases per 10,000 workers.

D. Workers' Compensation First Report of Injury Data

The database for 2006 was not complete due to a transition to electronic data reporting of first reports. This section will provide the raw numbers from the databases, but they are not comparable to prior years. Based on the number of hard copy reports that were not entered into the database, it is estimated that the total number of reports is at least 65% higher than the numbers given below. There was also an unknown number of electronic data (such as State Government) that was not included in the database, so proportions by industry may not be accurate.

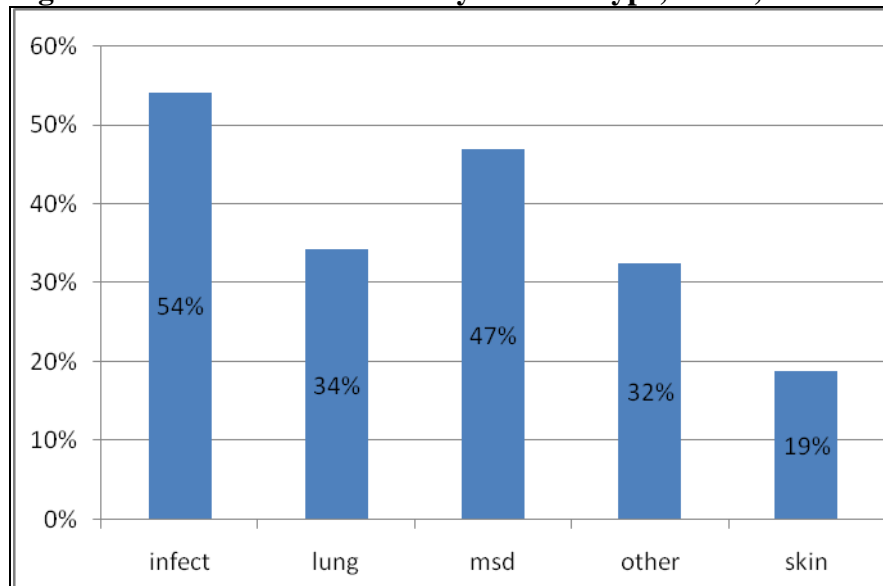
Table D-1: Occupational Disease by Type, WCC, 2006

illness type	Cases	%
Infectious Disease	288	17%
Lung Disorders	197	12%
Musculoskeletal Disorders (MS)	800	47%
Skin Disorders	133	8%
Other Illnesses	290	17%
Total	1,708	100%

Note: The database was incomplete in 2006, so this is only a partial account of reports

There were a total of 1,708 reports in the Workers' Compensation First Report of Injury Database for 2006. Almost half (47%) of reports were due to chronic musculoskeletal disorders (MSD) such as Carpal Tunnel Syndrome and tendonitis. Infectious disease accounted for 17% of the cases, as did "Other Illnesses" (which includes heart conditions, stress cases, noise-induced hearing loss, and other conditions). Lung disorders, including both acute respiratory conditions and chronic conditions such as asthma and asbestos-related illnesses and exposures, accounted for 12% of reports, and skin disorders such as poison ivy and dermatitis accounted for 8% of cases.

Figure D-1: Percent of Women by Disease Type, WCC, 2006



Overall, 42% of reports were by women, but this varied by type of case (Figure D-2), with higher proportions of women for infectious disease, but lower levels for lung, skin, and “other”.

Figure D-2 Occupational Illness Cases by Industry, WC, CT, 2006

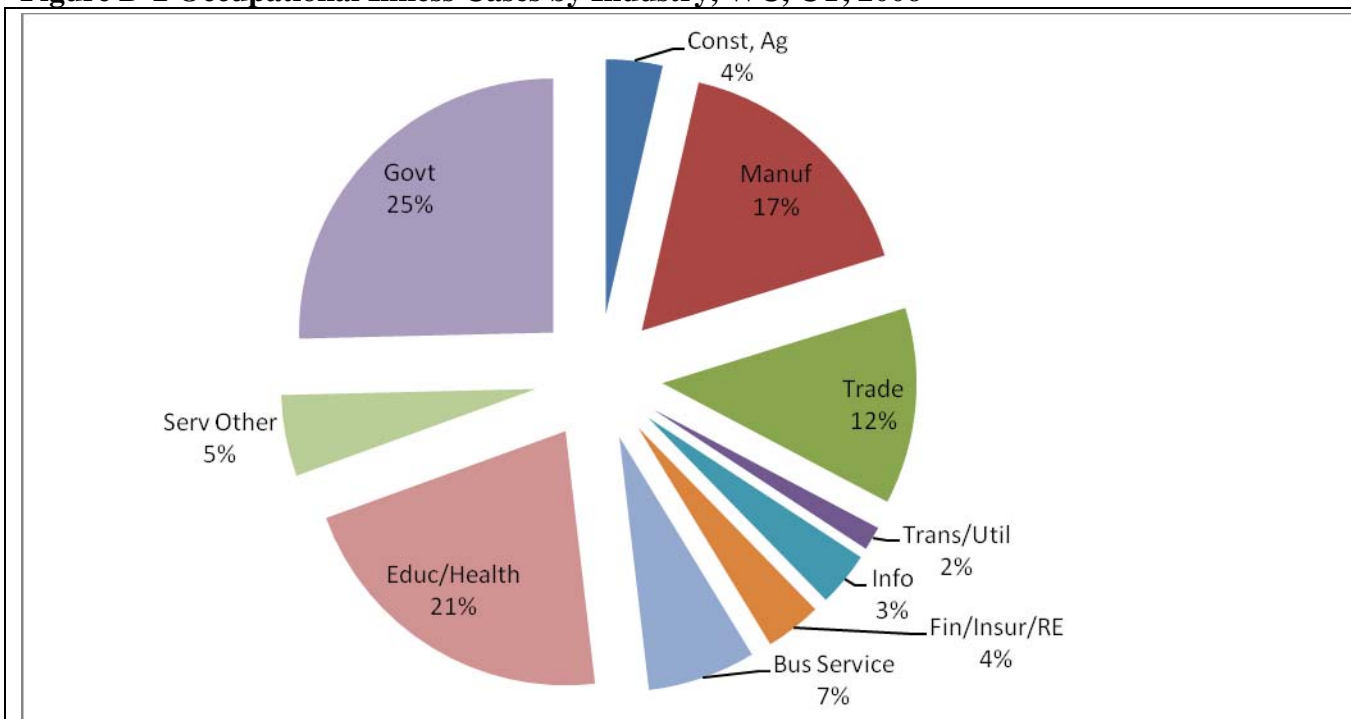


Table D-2: Cases of Occupational Disease by Major Industry Sector, WCC, 2006

NAICS Sector	Cases	%	Employ	% Employment
Construction/Ag/Mine	59	3%	71,700	4%
Manufacturing	274	16%	193,900	12%
Trade	206	12%	258,700	16%
Transport/Utilities	25	1%	48,600	3%
Information Services	57	3%	37,700	2%
Finance/Insurance/RE	59	3%	143,800	9%
Business Services	113	7%	204,400	12%
Education/Health	351	21%	271,300	17%
Leisure/Other Services	85	5%	181,100	11%
Local Government	418	24%	157,000	10%
State Government	*		67,400	4%
Unknown	62	4%		
Total	1709	100%	1,635,700	100%

Notes: Incomplete data for 2006. 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 per 10,000 employees.

*Government illnesses do not include those that are classified under other categories, such as education and health services. Government does not include State of Connecticut employees.

Numbers and rates of occupational illnesses are presented by major NAICS industry sector in Figure D-3 and Table D-2. Ninety six percent (96%) of reported cases were able to be coded for major industry sector. State and local government had the highest percent of all cases (24%), and there are additional government sector cases under Education and Health. State of Connecticut employees were not included in the database, so all government reports were for local government. Education and Health had the next highest percentage of reports (21%), followed by Manufacturing (16%) and Wholesale and Retail Trade (12%).

The percent of illnesses by industry may be compared to the percent of employment to understand which industries are at higher risk. Local government has more than twice the percent of illnesses (24%) compared to employment (10%). Education and Health and Manufacturing also have higher percent of illness than employment.

Table D-3 provides the detail of industry sector by type of condition, breaking out state and local government from the other sectors.

Table D-3: Type of Disease by Industry Sector, WCC, 2006

Industry	Infectious		Lung		MSD		Skin		Other	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Con/Ag/Mine	1	0.3%	8	4.1%	40	5.0%	3	2.3%	7	2.4%
Manufacturing		0.0%	43	21.8%	169	21.1%	13	9.8%	49	16.9%
Trade	2	0.7%	13	6.6%	158	19.8%	8	6.0%	25	8.6%
Transport/Utility	1	0.3%	1	0.5%	18	2.3%		0.0%	5	1.7%
Info	4	1.4%		0.0%	41	5.1%	5	3.8%	7	2.4%
Fin/Insur/RE	2	0.7%	4	2.0%	28	3.5%	9	6.8%	16	5.5%
Business Serv	10	3.5%	14	7.1%	65	8.1%	15	11.3%	9	3.1%
Educ/Health	143	49.7%	37	18.8%	130	16.3%	13	9.8%	28	9.7%
Arts/Food Serv	9	3.1%	15	7.6%	30	3.8%	5	3.8%	26	9.0%
Local Govt	112	38.9%	59	29.9%	91	11.4%	58	43.6%	98	33.8%
State Govt	*	0.0%	*	0.0%	*	0.0%	*	0.0%	*	0.0%
Unknown	4	1.4%	3	1.5%	30	3.8%	4	3.0%	20	6.9%
Total	288	100.0%	197	100.0%	800	100.0%	133	100.0%	290	100.0%

Notes: Incomplete data for 2006.

*State employee data not available

Patterns of illness by industry differed by the type of illness (Table D-3), although Local Government was high in all categories, particularly when including the Education sector. Infectious diseases were concentrated in Health/Education (50%) and Local Government (39%). Lung diseases were concentrated in Local Government (30%) and Manufacturing (22%). Musculoskeletal disorders (MSD) were most prevalent in Manufacturing (21%), followed by Trade (20%), Education/Health (16%), and Local Government (11%). Skin cases were most common in Local Government (44%), Business Services (11%), and Manufacturing (10%). Other Illnesses, which includes heart and hypertension cases as well as other illnesses (see below) were most common in Local Government (34%), and Manufacturing (17%). These figures are based on numbers of cases and not rates, so they are not adjusted for the employment size in the different sectors; data was not available for state government.

Table D-4: Specific Industry Sectors with over 30 Cases of Occupational Disease, WCC, 2006

Specific Industry Sector	NAICS	Cases
Local Government	921	376
Educational Services	611	202
Transportation Equipment Manufacturing	336	130
Administrative and Support Services	561	59
General Merchandise Stores	452	46
Food and Beverage Stores	445	45
Hospitals	622	43
Telecommunications	517	34
Ambulatory Health Care Services	621	33
Nursing and Residential Care Facilities	623	27
Fire Departments	922	27
Merchant Wholesalers, Nondurable Goods	424	24
Specialty Trade Contractors	238	24
Wholesale Electronic Markets and Agents and Brokers	425	23
General Purpose Machinery Manufacturing	333	21
Professional, Scientific, and Technical Services	541	20
Computer and Electronic Product Manufacturing	334	20

*Local government includes cases that may also appear in other specific sectors, such as educational services.

Table D-4 shows those specific industry (3-digit NAICS code) sectors that reported over 20 cases of occupational illness in 2006. The list is ordered by the sectors with the highest rates listed first. Local government had by far the largest number of illnesses at 376 reports; Educational Services (202 reports) also is primarily local government, as is Fire Departments (27 cases).

Transportation Equipment Manufacturing had the next highest number (130 cases), followed by Administrative and Support Services (temporary staffing agencies) with 59 reports, General Merchandise Stores (46), Food and Beverage Stores (45), and Hospitals (43).

Musculoskeletal Disorders (MSDs)

“Musculoskeletal disorders” is the currently-used term for conditions also known as cumulative trauma disorders or repetitive strain injuries. There were 800 MSDs in the FRI database in 2006. MSDs accounted for just under half (47%) of the reported occupational diseases to Workers’ Compensation. MSDs presented here do not include any 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 any acute injury condition from sudden events.

Strains and sprains (which does not include acute strains or sprains) was the most common category of MSD, with 47% of reports (Table D-5). Carpal Tunnel Syndrome (CTS), which is a pinching of the median nerve at the wrist, accounted for 14% of total MSD reports. Other nerve-related problems (with symptoms of numbness or tingling) accounted for an additional 3% of cases. Tendon-related problems included tendonitis and Tenosynovitis (3%), and epicondylitis (“tennis elbow” or “golfer’s elbow”),

ganglion cysts, and trigger finger each with 1% of cases. A large number of cases did not have a specific description other than “inflammation” (5%), “pain” (4%), or no specific description (23%).

Table D-5: Musculoskeletal Disorders (MSDs) by Type, WCC, 2006

MSD Type	2006	%
Strain/sprain	373	47%
Carpal Tunnel Syndrome (CTS)	115	14%
Inflammation	36	5%
Pain	28	4%
Numbness/Tingling	26	3%
Tendonitis	21	3%
Epicondylitis	10	1%
Ganglion/cyst	4	1%
Trigger finger	4	1%
Arthritis/Bursitis	2	0%
Other MSD	181	23%
Total	800	100%

Almost all the cases of MSD were in the upper extremity of the body (note that lower back cases were excluded from these figures). Almost half (40%) of total MSD cases were for the hand, wrist, and lower arm (Table D-6). Other affected parts of the body included 7% elbow and 24% shoulder, neck, and “upper extremity”. Only 8% were for the legs, knees and feet.

Table D-6: Musculoskeletal Disorders by Part of Body, WCC, 2006

Part of body	Cases	Percent
Lower Arm, Wrist, Hand	322	40%
Upper Arm, Shoulder, Upper Extremity	190	24%
Legs, Knees, and Feet	63	8%
Elbow	57	7%
Neck and Upper Back	22	3%
Multiple	134	17%
Other/Unknown	12	2%
Total	800	100%

Causes of conditions were often incomplete and not consistently coded nor described. Approximately two-thirds 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-7). This was followed by lifting (18%), pushing or pulling (11%), tool use, including many references specifically to pneumatic tools or vibration exposure (11%), and computing and clerical tasks that included typing, keying, mouse use, phone use, etc, (9%).

Table D-7: Reported Causes of Musculoskeletal Disorders (MSD), WCC, 2006

Cause of MSD	Reports	Cause of MSD	Reports
Repetitive	138	Driving	7
Lifting	104	Packing	7
Push/Pull	64	Bending	6
Tools/vibration	63	Mopping	6
Computer	50	Cleaning	6
Kneeling	17	Gripping/folding	6
Walking/standing	16	Assembly	5
Machine	14	Other clerical	5
Climbing	10	Patient Care	5
Shoveling	10	Cashier	5
Reaching	9	Selecting/sorting	4
Twisting	8		

Infectious Diseases

There were 288 reports of infectious diseases or exposures in the database for 2006 (Table D-8). Infectious disease reports include both actual disease and exposure to potentially infectious agents. There were 187 reports of exposure to bloodborne pathogens (including reports of exposure to HIV/AIDS and Hepatitis C), accounting for 65% of all infectious disease reports. These included 71 reports of exposures to human bites or urine, 58 needlesticks or cuts from surgical instruments that resulted in blood exposure, and 58 reports of exposure to blood.

There were 38 reports of tick bites, rashes from tick bites, and Lyme Disease attributed to occupational exposures. There were 19 cases of tuberculosis infection (PPD conversion) or exposures to clients with TB. There were also 44 other infectious diseases or exposures reported, including reports relating to rabies exposure (4% of all reports), MRSA (3%), and meningitis (2%).

Table D-8: Infectious Diseases and Exposures by Type, WCC, 2006

Illness	2006	%
Human bite/Urine	71	25%
Blood/body fluids	58	20%
Sharp and needlestick exposures	58	20%
Lyme Disease/Tick bite	38	13%
TB/ppd conversion/exposure	19	7%
Rabies	12	4%
MRSA	10	3%
Meningitis exposure	7	2%
Other infectious	15	5%
Total	288	100%

Recent court decisions have broadened the definition of compensable disease to include exposures, particularly where exposure requires medical treatment such as prophylactic treatments such as for tuberculosis (TB) and AIDS (HIV) exposures. There has recently been considerable attention paid to

Lyme Disease among outdoor workers, resulting in more reports of tick bites. 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 for needlestick and sharps injuries whether the source patient or client was actually infected with any of the known bloodborne diseases. 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 accounted for the vast majority of human bites as well as some of the other bloodborne exposures.

Acute Respiratory Conditions and Poisonings

There were 137 cases of acute respiratory conditions in the database for 2006 and 6 cases of poisonings from carbon monoxide, lead, or swallowing chemicals (see Table D-9). Chemical exposures were the most common cause of illness (36%), followed by exposure to smoke (11%), cleaning products (8%), dust (8%), indoor air quality (IAQ) or mold (6%), and fumes (6%). See the next section below for chronic lung conditions.

Table D-9: Acute Respiratory Conditions and Poisonings by Cause, WCC, 2006

Cause	2006	
Respiratory	Cases	%
Chemical Exposure	51	36%
Smoke, Fire	16	11%
Cleaning	11	8%
Dust	11	8%
IAQ/mold	9	6%
Fumes Exposure	8	6%
Other Respiratory	31	22%
Poisoning		
Carbon monoxide/gas	2	1%
Mercury/lead	2	1%
Chemical ingestion	2	1%
Total	143	100%

Chemical exposures mentioned included acids, heptanes, refrigerant gases, PCB’s, radiator coolant, pine sol cleaner (ingested), styrene (2), acetone, paint fumes, tar fumes, ammonia, thionyl chloride, and plating chemicals.

Chronic Lung Conditions

There were 52 cases of chronic lung conditions in 2006. These included asbestos-related diseases and exposures, occupational asthma, and other chronic lung diseases. Acute lung diseases are classified

under respiratory disease (above). Most allergies, such as those caused by latex or mold, that often include lung effects, are included under “Other occupational diseases” below, although those that are described as having specific lung effects are shown here (under “other lung”).

Asbestos

There were 36 reports of asbestos-related disease or exposures in 2006 (Table D-10). The descriptions of the cases often made it difficult to determine whether the cases were actual disease or only exposure to asbestos, although there was at least one fatality and one mesothelioma case described. 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. Industries for asbestos conditions included shipyards, hospital, construction, telecommunications, and the state.

There were 10 occupational asthma cases reported in 2006. Causes included cleaning gym floor refinishing chemicals, a soap spray mist, mold/indoor air quality, and exercise.

Causes of “Other lung” conditions included a report of a law enforcement officer exposed to heroin dust, fiberglass, and stress.

Table D-10: Chronic Lung Diseases by Type, WCC, 2006

Illness	2006
Asbestos-related	36
Asthma/bronchitis	10
Other lung	6
Total	52

Skin Conditions

There were 132 skin conditions in the database in 2006. There were 84 cases (64% of cases) of contact dermatitis from poison ivy or other plants. There were 7 cases of allergic reactions to latex, gloves, or other clothing. There were 7 cases caused by chemicals (including bleach, epoxy, mastic remover, and a degreaser (Table D-11), and 9 that specifically noted machine oils or coolants.

Table D-11: Skin Diseases by Cause, WCC, 2006

Category	2006	%
Poison Ivy/plants	84	64%
Coolant/Oil/machine	9	7%
Chemical	7	5%
Gloves/Latex/clothing	7	5%
Allergic	6	5%
Dusts/Metals	3	2%
Soap/Cleaning	2	2%
Other/Unknown	14	11%
Total	132	100%

Stress and Heart Conditions

Heart and Hypertension

There were 114 cases involving heart conditions, stroke, chest pain, hypertension, or stress in the database for 2006 (Tables D-12 and D-13). Twelve (12) cases specifically mentioned heart attacks or myocardial infarctions (several noting a fatality) 6 reported strokes or clots, and 33 described symptoms of chest pain, often associated with emergency care at a hospital. There were 21 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).

Though not generally well described, causes of the heart cases included multiple cases due to physical exertion including lifting and unloading, shoveling snow, responding to emergencies or altercations, job stress, and firefighting. Approximately half of the cases involved police or firefighters or municipal employees who are frequently covered under heart and hypertension laws that consider those conditions to be work-related for workers’ compensation purposes.

Table D-12: Heart and Hypertension Conditions by Type, WCC, 2006

Category	2006	%
Heart Attack	12	17%
Chest pain/symptoms	33	46%
Stroke	6	8%
Hypertension	21	29%
Total	72	100%

Mental Stress

There were a total of 42 stress-related claims in the database in 2006.

There were 10 cases which cited reactions to violence or robbery, 7 cases that were attributed to conflicts with supervisors or co-workers. Six cases were described as depression or anxiety. There were 19 that were simply defined as “stress” without further explanation (Table D-13). There were also several stress-related cases that are classified under heart conditions (See Table D-12, above).

Table D-13: Stress Conditions by Source, WCC, 2006

Sources of Stress Conditions	2006
Violence/robbery	10
Supervisor/co-worker conflict/disciplinary action	7
Depression/anxiety	6
Unknown/other	19
Total	42

Other Occupational Diseases

Hearing Loss

There were 44 cases of hearing loss in 2006 (Table D-14). Of these cases, 10 appeared to be caused by acute (single incident) noises or injuries. The rest appeared due to long-term exposure to noise, mostly from manufacturing workplaces, or were noted as being found on routine audiograms.

Table D-14: Other Occupational Illnesses, WCC, 2006

Type of illness	2006	%
Hearing loss	44	25%
Cold/heat related conditions	40	23%
Dizziness/passing out	37	21%
Allergic	12	7%
Cancer	4	2%
Other conditions	39	22%
Total	176	100%

Other Disease Conditions

There were 40 reports of temperature-related problems from heat. There were 37 reports of workers becoming dizzy, fainting, or similar conditions such as seizures.

There were 12 cases of allergic reactions reported in addition to those noted above under lung and skin conditions attributed to foods.

There were 4 cases of cancer reported, two attributed to chemicals/dusts and 1 skin cancer attributed to sun exposure.

There were 39 “other” conditions, some of which were very serious. These included 2 non-specified fatalities, aggravation of a case of multiple sclerosis, sensorimotor polyneuropathy due to exposure to chemicals, reactions to medications or tests related to occupational exposures, and reactions to ingestions of foods or sewage such as salmonella,

E. Occupational Disease Surveillance System (Physicians' Reports)

Physicians are required to report known and suspected occupational disease to the Occupational Disease Surveillance System that is maintained by the Departments of Labor and Public Health. Although all physicians are required to report, most reports are received from the occupational health clinics and industrial medicine programs.

There were 1,280 occupational illness reports received from physicians in 2006, an increase of 23% from 2005 (Table E-1), with an additional 465 reports of lead poisoning cases through the laboratory reporting system. Overall, there was a 19% increase in disease reports, including the lead reports. There were increases of 47% in musculoskeletal disorders (MSD), 6% in skin disorders, and 67% in the much smaller category of infectious diseases (note that bloodborne diseases are not captured in the ODSS system), with a decrease of 19% in lung conditions.

Table E-1: Occupational Disease by Type, ODSS, 1998-2006

Category	1998	1999	2000	2001	2002	2003	2004	2005	2006	% Change 2005-6
MSD	754	823	1174	841	921	624	488	511	751	47%
Skin	237	295	339	274	338	181	194	241	256	6%
Lung	206	139	291	190	283	156	173	191	154	-19%
Other	31	31	74	56	30	20	36	70	69	-1%
Infectious*	13	22	27	68	34	21	33	30	50	67%
Sub-total ODSS	1,241	1,310	1,905	1,429	1,606	1,002	924	1,043	1,280	23%
Lead (Lab)	203	212	616**	530**	476**	400**	342	463	465	1%
Total	1,444	1,522	2,521	1,959	2,082	1,402	1,266	1,506	1,745	16%

*Does not include bloodborne pathogen exposure

** Lead values for 2000 - 2004 include cases in the blood lead level range of 10-19ug/dl that were not included in prior years.

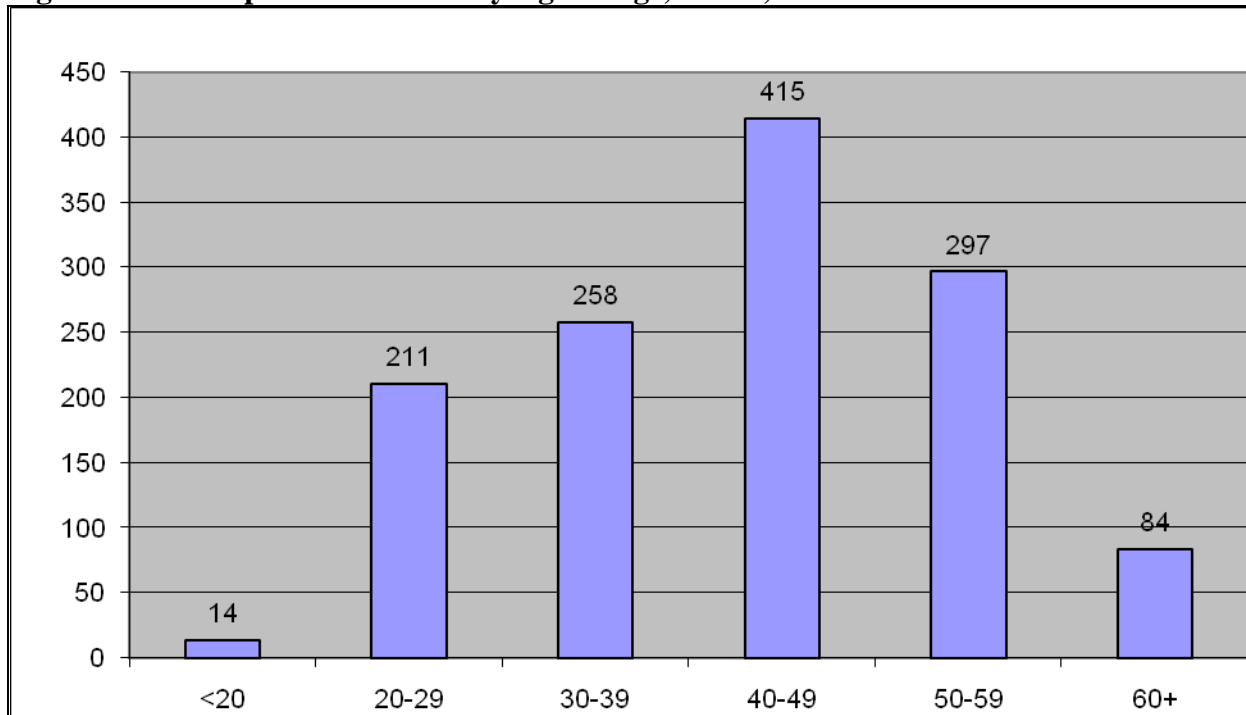
In 2005, 87 physicians from 18 clinics (at 25 locations) reported at least one case into the ODSS system, approximately the same numbers as in previous years. Seven clinics reported 50 or more cases, and contributed 80% of the cases. Although it is a state law that known and suspected occupational diseases diagnosed by any physician in the state must be reported to this system (CGS § 31-40a), the primary reporters are the occupational health clinics and auxiliary occupational health clinics. Therefore, these reports should be viewed as just a small portion of physician-diagnosed occupational diseases in Connecticut.

Physicians only reported whether exposures causing the condition were continuing for approximately 22% of the reports; of these, 42% of cases were known to have continuing exposure. In 21% of the cases it was reported that other workers were likely to be exposed to the same hazard (where this was known). Sixty-five percent (65%) of the cases were classed as “high certainty” for being an occupationally-related disease, 29% were “moderate certainty,” and 6% “low certainty.”

Of the 813 reports where race was known, 118 (15%) were identified as Black, and 107 (10%) of 1,125 cases (where ethnicity was known) were identified as Hispanic.

The largest number of cases were in the age range of 40-49 years old (32% of all cases), followed by those in their 50's (23%), 30's (20%), and 20's (16%; Figure E-1). Only 14 cases were reported in workers less than 20 years of age.

Figure E-1: Occupational Disease by Age Range, ODSS, 2006



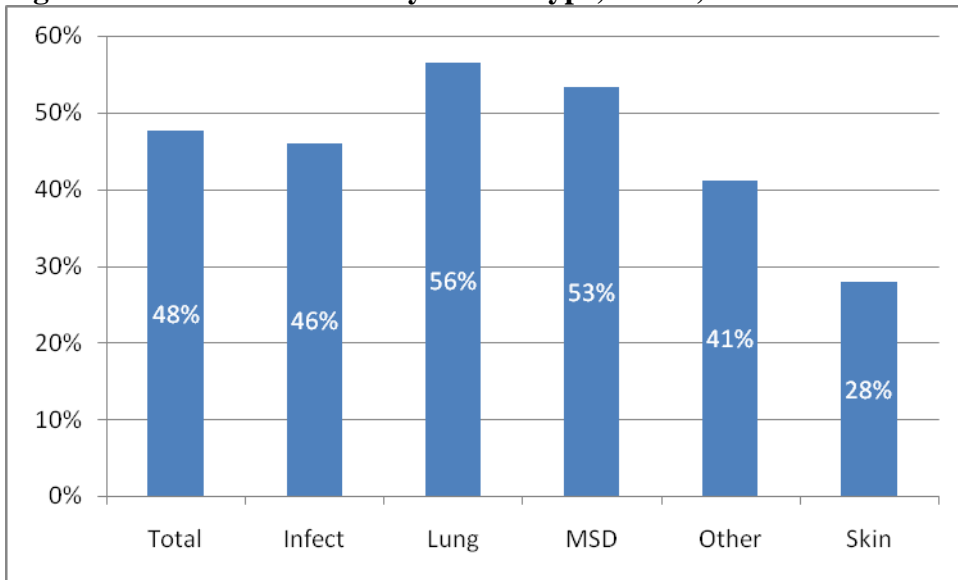
Patterns of age varied for different types of illness (Table E-2). Skin conditions were highest for those in their 20's (32%), MSD and lung diseases for those in their 40's (36% and 38% respectively), and infectious disease highest for those in their 30's (32%).

Table E-2: Occupational Disease Type by Age, 2006

Age	Infectious	Lung	MSD	Other	Skin
<20	0%	1%	1%	0%	4%
20-29	28%	15%	11%	13%	32%
30-39	32%	19%	19%	30%	18%
40-49	16%	38%	36%	25%	24%
50-59	18%	23%	25%	22%	20%
60+	6%	4%	8%	10%	3%
Total Cases	100%	100%	100%	100%	100%

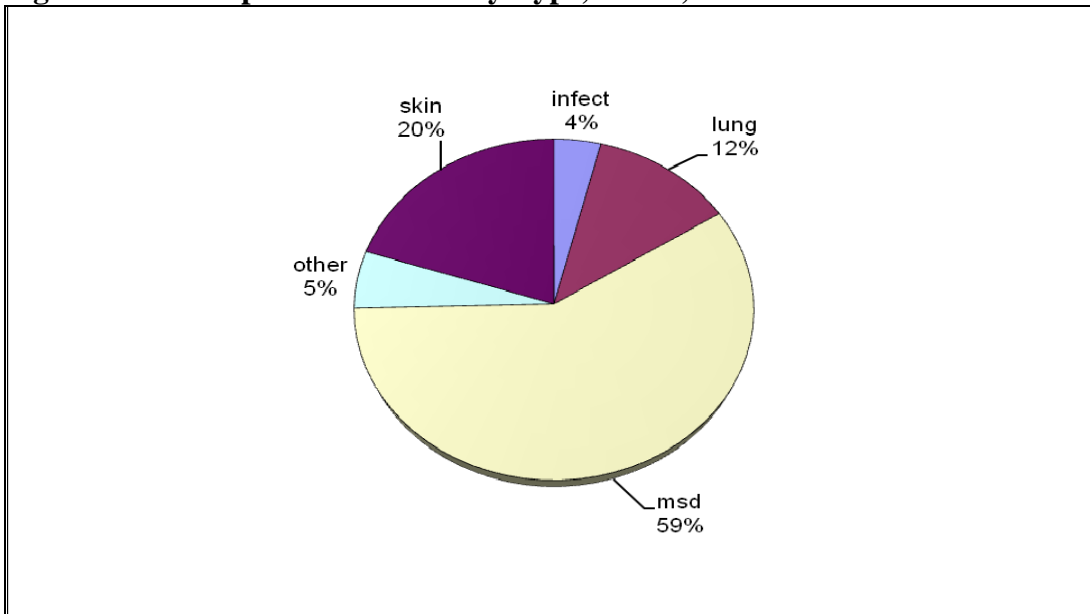
Overall, cases were virtually evenly distributed by gender, with 48% of cases being female. However, this differed somewhat by condition: 56% of lung cases were female and 53% of MSD, but only 28% of skin cases were female, and 41% of "other" (Figure E-2).

Figure E-2: Percent Female by Illness Type, ODSS, 2006



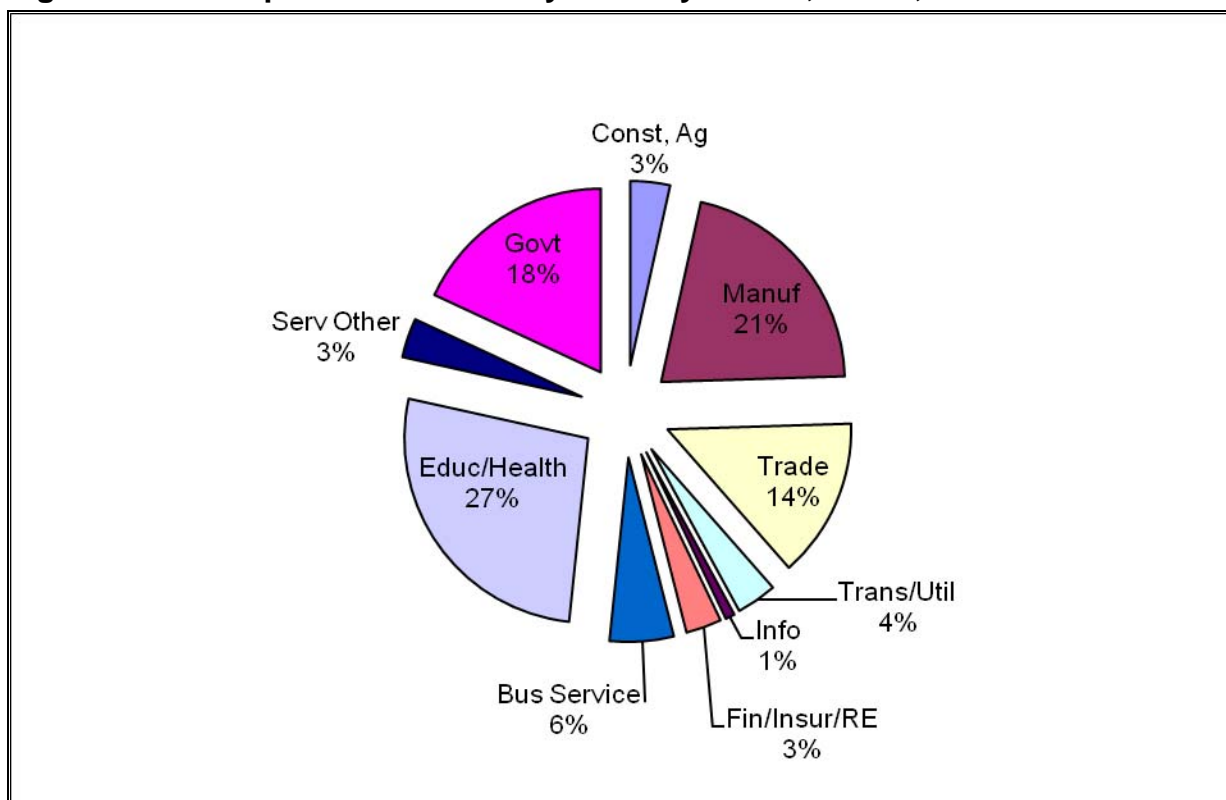
Reports were dominated by musculoskeletal disorders (MSD; 59%), followed by skin (20%), lung/respiratory (12%), infectious (4%), and “other” conditions (see Figure E-3). Lead cases are not included in the figure since they are from a different type of reporting system.

Figure E-3: Occupational Disease by Type, ODSS, 2006



Reported cases were predominately from the Education and Health sector (27%), followed by Manufacturing (21%) and Government (18%; some government workers are accounted for in Education and Health) (Figure E-4).

Figure E-4: Occupational Disease by Industry Sector, ODSS, 2006



However, industry distribution was somewhat different by condition (Table E-3). Overall, the largest numbers of reports were from Education and Health (27%), Manufacturing (21%), and State and Local Government (18%; Education and Health also includes government workers). However, 25% of MSD (Musculoskeletal Disorders) was from Manufacturing, with lower numbers (13%) for Government; Education and Health also had high proportions of infectious and lung conditions.

Table E-3: Type of Illness by Industry Sector (NAICS), 2006

Industry	Infectious	Lung	MSD	Skin	Other	Total
Construction, Agric.	0.0%	2.1%	2.2%	7.2%	9.4%	3.5%
Manufacturing	0.0%	15.1%	24.6%	20.3%	12.5%	21.0%
Trade	6.5%	11.6%	18.2%	5.9%	7.8%	14.0%
Transport/Utility	4.3%	4.8%	4.0%	0.4%	6.3%	3.5%
Information	0.0%	0.0%	1.3%	0.4%	0.0%	0.8%
Fin/Insur/RE	0.0%	0.0%	5.1%	0.4%	0.0%	3.1%
Business Service	4.3%	5.5%	4.7%	9.3%	3.1%	5.6%
Educ/Health	54.3%	37.0%	23.6%	24.9%	26.6%	26.8%
Service Other	2.2%	2.7%	3.3%	5.5%	0.0%	3.5%
Government	28.3%	21.2%	12.8%	25.7%	34.4%	18.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Musculoskeletal Disorders (MSDs)

Musculoskeletal Disorders (MSDs) increased by 48% in 2006, after only a slight increase last year. This figure only includes upper-extremity MSD (does not include MSD 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 and tendonitis, each with 25% of total reports, and Carpal Tunnel Syndrome with 19% (Table E-4; also see descriptions of conditions below). The increase was driven by more than a doubling in the number of reports for epicondylitis, tendonitis, bursitis, and deQuervain's syndrome.

Table E-4: Musculoskeletal Disorders by Type, ODSS, 2005-2006

Illness	2005	2006	Percent	Change
Epicondylitis	64	188	25.0%	194%
Tendonitis	67	187	24.9%	179%
Carpal Tunnel Syndrome (CTS)	135	144	19.2%	7%
Bursitis/Arthritis	16	52	6.9%	225%
deQuervain's	22	51	6.8%	132%
Tenosynovitis	30	39	5.2%	30%
Ganglion	14	25	3.3%	79%
Strain/Sprain	71	21	2.8%	-70%
Trigger Finger	11	16	2.1%	45%
Cubital/Radial Tunnel Syndrome	13	2	0.3%	-85%
Other MSD	66	26	3.5%	-61%
Total	509	751	100.0%	48%

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
- De Quervain’s Syndrome: tendon sheath disorder of side of wrist and base of thumb
- Trigger Finger: a bump on the tendon that catches on the tendon sheath that makes the finger or thumb difficult to move
- Ganglion Cysts: swelling of the tendon sheaths from excess lubricating fluid
- Bursitis: inflammation of the fluid-filled sacs around ligaments and tendons

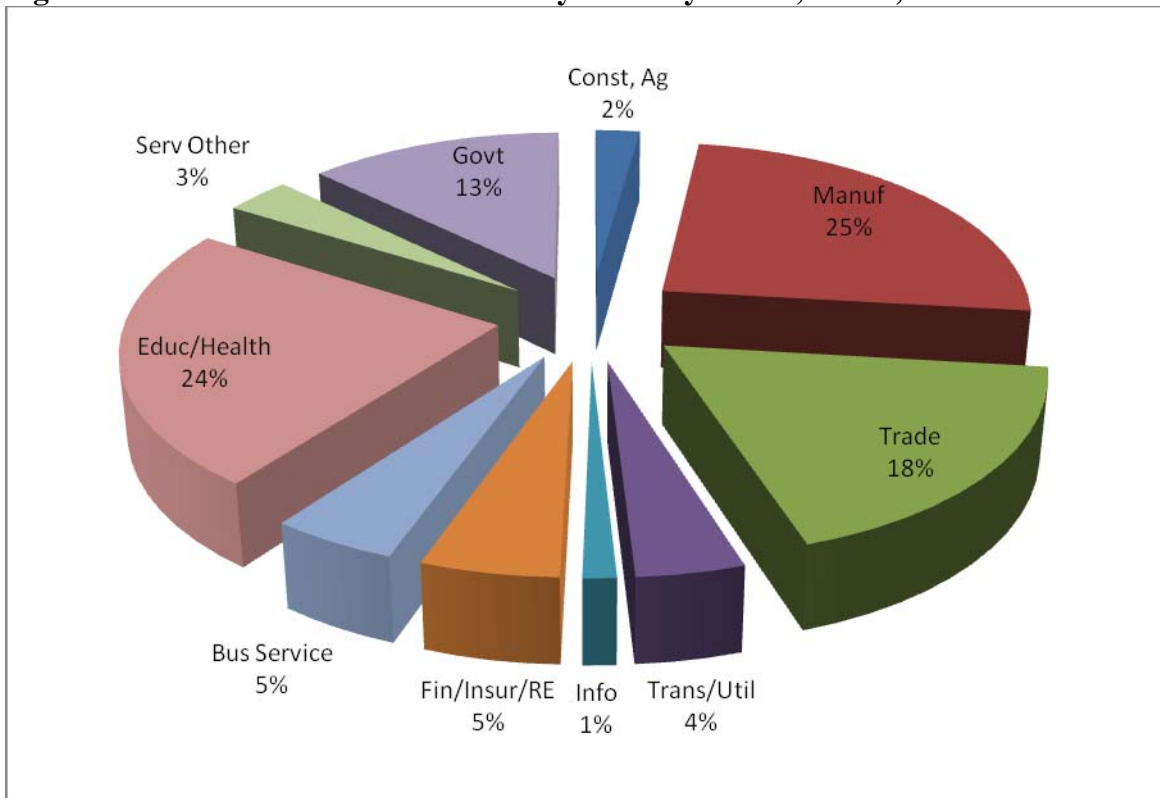
Nerve Disorders

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

Circulatory/Combined/Other

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

Figure E-5: Musculoskeletal Disorders by Industry Sector, ODSS, 2006



The largest number of MSDs was from the Manufacturing (25%), Education and Health (24%), Trade (18%) and Government (13%; public education is included under Education and Health) (Figure E-5).

Specific industries with 10 or more MSDs reported are shown in Table E-5. Fabricated Metal Product Manufacturing, Hospitals, Other government, Nursing and Residential Care Facilities, Merchant Wholesalers, Nondurable Goods, Food and Beverage Stores, Educational Services, and Ambulatory Health Care Services had the highest number of cases, all with 25 or more. It should also be noted that some of these industries have a large number of employees statewide, and so are likely to have more reported cases.

Table E-5: Specific Industries with 10 or more MSDs Reported, ODSS, 2006

Specific Industry	NAICS	2006
Fabricated Metal Product Manufacturing	332	62
Hospitals	622	55
Other government	921	53
Nursing and Residential Care Facilities	623	42
Merchant Wholesalers, Nondurable Goods	424	36
Food and Beverage Stores	445	32
Educational Services	611	31
Ambulatory Health Care Services	621	25
Justice, Public Order, and Safety Activities	922	24
Insurance Carriers and Related Activities	524	23
Transportation Equipment Manufacturing	336	22
Utilities	221	17
General Purpose Machinery Manufacturing	333	16
Professional, Scientific, and Technical Services	541	15
Merchant Wholesalers, Durable Goods	423	14
Business Support Services	561	14
Electrical Equipment, Appliance, and Component Mfg	335	13
Social Assistance	624	12
Rubber and Plastics Mfg	326	11
Restaurants	722	11
Misc. Store Retailers	453	10
Printing	323	

MSD's are grouped by occupational category in Table E-6. The largest numbers were in Production occupations (23% of reports) and office and administrative support (15%).

Table E-6: MSD by Occupation, ODSS, 2006

Occupation	Code	Cases	%
Production	51	130	23%
Office and administrative support	43	84	15%
Construction and extraction	47	58	10%
Transportation and material moving	53	54	10%
Healthcare support	31	39	7%
Healthcare practitioners and technical	29	31	5%
Building and grounds cleaning and maintenance	37	24	4%
Installation, maintenance and repair	49	23	4%
Management	11	22	4%
Protective service	33	22	4%
Food preparation and serving	35	22	4%
Sales and related	41	19	3%

Education, training, and library	25	11	2%
Business and financial	13	8	1%
Community and social service	21	6	1%
Architecture and engineering	17	4	1%
Arts, design, entertainment, sports and media	27	3	1%
Personal care and service	39	3	1%
Computer and math	15	2	0%
Life, physical, and social science	19	2	0%
Legal Occupations	23	1	0%
Total (Known)		568	100%

Causes for MSDs are difficult to classify since they are frequently described differently by the various people recording the case. The most common causes noted for MSDs (Table E-7) were associated with lifting (97 cases). The generic category of “repetitive motion” accounted for 75 reports, followed by computer use and data entry (56) lifting (24), pushing or pulling (42), and tools and vibration (40).

Table E-7: Common causes of MSD, ODSS, 2006

Cause	Cases
Lifting	97
Repetitive	75
Computer	56
Push/pull	42
Tools & Vibration	40
Machine	11
Kneeling	8
Gripping	7

Skin Conditions

Skin condition reports increased 6% to 256 cases in 2006 after a 26% increase last year (Table E-8). The largest category was contact dermatitis (51% of all cases), followed by contact dermatitis caused by poison ivy or other plant exposures (35%) chemical dermatitis (10%), and other skin conditions (4%).

Table E-8: Skin Conditions by Type, ODSS, 2005-2006

Illness	2005	2006	Percent	Change
Contact dermatitis	90	131	51%	46%
Poison ivy & other plants	61	89	35%	46%
Chemical dermatitis	33	26	10%	-21%
Other skin conditions	57	10	4%	-82%
Total	241	256	100%	6%

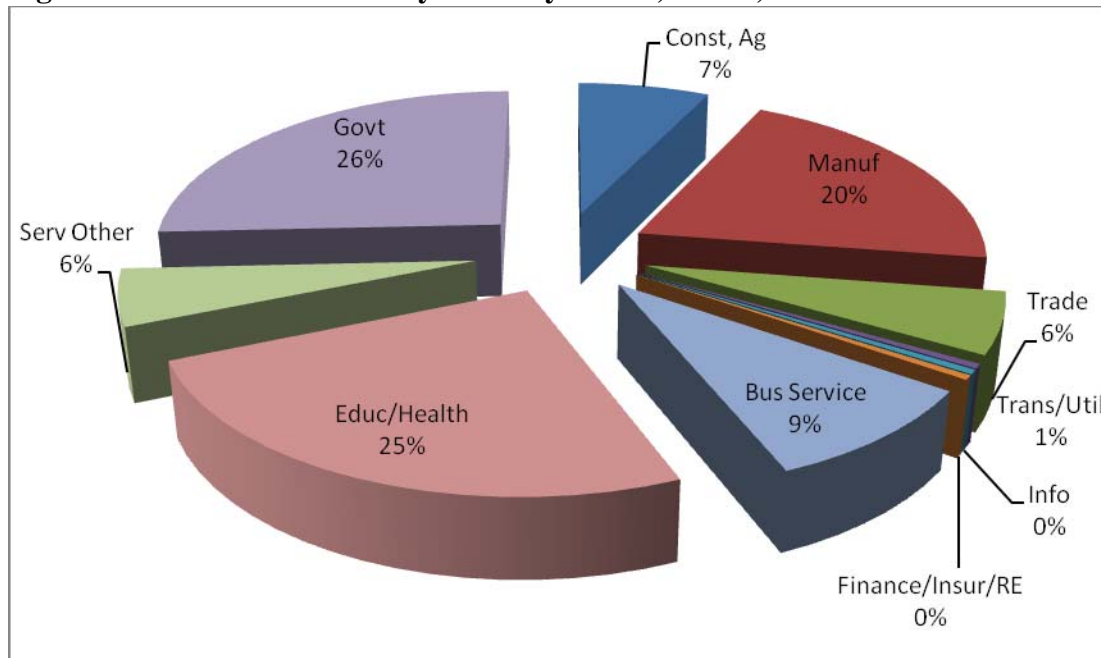
Table E-9: Skin Conditions by Cause, ODSS, 2006

Cause	Cases	%
Poison ivy and other plants	89	35%
Chemical	20	8%
Cleaners and solvents	18	7%
Gloves/latex/clothing	15	6%
Dust and fiberglass	11	4%
Oils	3	1%
Other and unknown	100	39%
Total	256	100%

The most common cause of skin conditions was poison ivy and other plant exposures (89 cases), followed by chemicals (20), cleaners and solvents (18), latex, gloves and clothing (15), dust, (including fiberglass (11) and coolants and oils (3) (Table E-9).

Skin conditions (Figure E-6) occurred most commonly in the state and local government sector (26%) followed by Education and Health (25%), and manufacturing (20%).

Figure E-6: Skin Conditions by Industry Sector, ODSS, 2006



There were 7 specific industries in which at least 10 cases were reported (Table E-10): Government (both under “other government” and “justice, public order and safety”, which includes police and fire) had a total of 46 cases, followed by hospitals (22), business support services, which includes temporary help and landscaping service (17), nursing homes (15), fabricated metal manufacturing (14), Educational services, which also includes a number of local government workers (14), and rubber and plastics manufacturing (10). Municipal cases included a number of Public Works employees coming

into contact with poison ivy or other plants. The hospital and nursing home cases included latex or gloves as well as cleaning products or soaps/detergents.

Table E-10: Clusters of Skin Disease by Specific Industry, ODSS, 2006

Specific Industry	NAICS	Cases
Other government	921	46
Hospitals	622	22
Business Support Services	561	17
Nursing and Residential Care Facilities	623	15
Fabricated Metal Product Manufacturing	332	14
Educational Services	611	14
Rubber and Plastics Mfg	326	10

Specific occupations for which at least 10 cases were reported included construction workers (46 cases, mainly poison ivy), production workers (33, mainly chemicals, oils and coolants, dust, and solvents), transportation and material moving (20, mainly poison ivy, chemicals and solvents), building and grounds maintenance (14, poison ivy, cleaning and other chemicals), food preparation and serving (11, cleaners and solvents), and healthcare support (11, latex/clothing and other).

Lung Diseases and Poisonings

There were 154 cases of lung disease and poisonings reported in 2006, a decrease of 19% from 2005 (following a 10% increase in 2005). Decreases included a 52% reduction in rhinitis/sinusitis reports, 71% decrease in bronchitis, and 26% decrease in asthma/RADS. The most commonly reported condition was acute respiratory disease (56% of cases), typically caused by exposure to chemicals or fumes (Table E-11). Asthma and a similar condition called reactive airways dysfunction syndrome (RADS) was the next most common category (19%). There were 13 cases of rhinitis or sinusitis reported, mainly due to indoor air quality problems. There were 5 cases of bronchitis reported. The 11 poisoning cases were caused by carbon monoxide, mercury, and lead.

Table E-11: Lung Diseases and Poisoning by Type, ODSS, 2005-2006

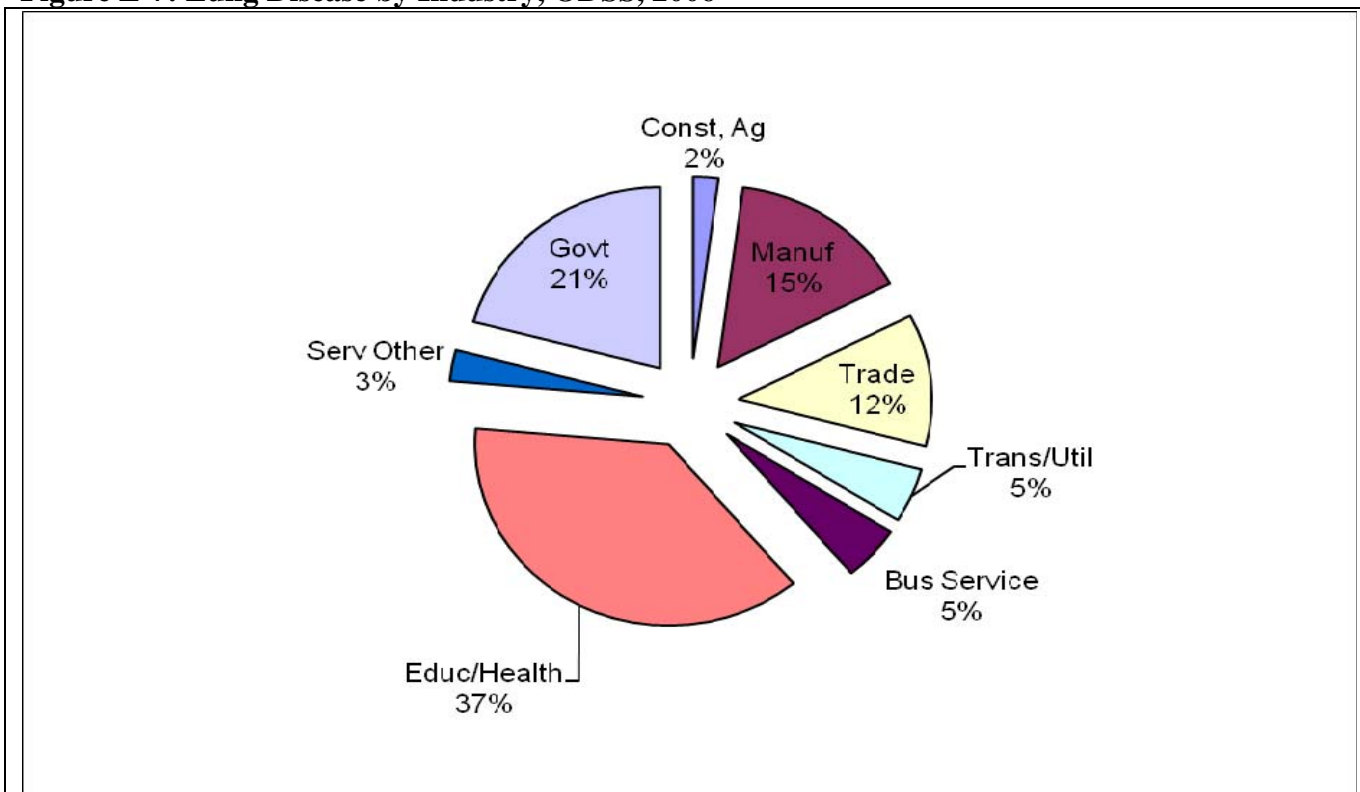
Illness	2005	2006	Percent	Change
Respiratory	85	86	56%	1%
Asthma/RADS	39	29	19%	-26%
Rhinitis/sinusitis	27	13	8%	-52%
Poisoning	2	11	7%	450%
Bronchitis	17	5	3%	-71%
Allergy	1	2	1%	100%
Other Lung	20	8	5%	-60%
Total	191	154	100%	-19%

Table E-12: Causes of Lung and Poisoning Conditions, ODSS, 2006

Cause of Lung Condition	Cases
Chemical	27
Fumes	20
IAQ	18
Mold	13
Dust or construction	10
Cleaning	7
Carbon Monoxide or gas	6
Smoke	5
Solvents	5
Lead/mercury	6
Asbestos	2

Causes of lung problems were highly varied (Table E-12). There were 39 reports of lung conditions due to chemicals, cleaning agents and solvents (including chlorine gas, glue, hydrogen sulfide, sulfuric acid, trichloroethylene, construction adhesive, hexane, and medical adhesive remover), 13 due to mold specifically and 18 due indoor air quality (IAQ) issues, 26 due to fumes, gases, and carbon monoxide, and 10 due to construction or dusts.

Figure E-7: Lung Disease by Industry, ODSS, 2006



Lung disease cases mainly occurred in Education and Health (54 cases, or 38%), followed by Government (21%), Manufacturing (15%) and Trade (12%).

Lead Poisoning (Laboratory Reports)

Lead poisoning reports stayed approximately the same after a 35% increase the previous year based on laboratory reports, with 465 cases in 2006. The lowest level (10-24 ug/dl) of elevated lead levels accounted for 82% of all cases (Table E-13) and rose by 5%. There was a decrease of 36% in the next higher category (25-39), with 42 reported cases. There were also 19 cases of lead reports of 40 or higher.

Connecticut requires laboratories to report all blood lead tests of 10 micrograms per deciliter 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). OSHA medical removal protections apply at the level of 50 micrograms per deciliter of whole blood or above (40 micrograms per deciliter to return to work), although lead can have neurological and other negative effects on health at much lower levels of exposure

Table E-13: Lead Cases by Level of Blood Lead, Lead Surveillance System, 2005-2006

Blood lead level	2005	2006	Percent	Change
10-24	383	404	87%	5%
25-39	66	42	9%	-36%
40-49	9	13	3%	44%
50-59	3	3	1%	0%
>=60	2	3	1%	50%
Total	463	465	100%	0%

*ug/dl of whole blood

Infectious and Other Diseases

Since 1998, bloodborne disease exposures such as needlesticks have not been reported into the ODSS, so this report only includes other infectious diseases. There were 50 reports of infectious diseases in 2006, and increase of 67% from 2005. Reports included 14 tuberculosis (TB) infections or PPD conversions (a test for tuberculosis infection) and 13 cases of Lyme Disease or tick bites (Table E-14). Other infectious diseases reported included shingles, scabies, ringworm, and mumps. Infectious diseases occurred mainly in the health and education sector (25 cases) and government (13 cases).

There were 69 "Other" occupational diseases reported, virtually the same as in 2005. There were 16 cases of stress-related conditions, 15 allergic reactions to food, medication, or other sources, 10 cases of heat related conditions, 6 cases of hearing loss, and 15 other conditions (which included single reports of adenopathy, bradycardia, nasal polyps, and toxic effects from a petroleum product). "Other" conditions occurred primarily in the Government sector (22), Education and Health (17 cases), Manufacturing (8 cases), and construction/agriculture (6).

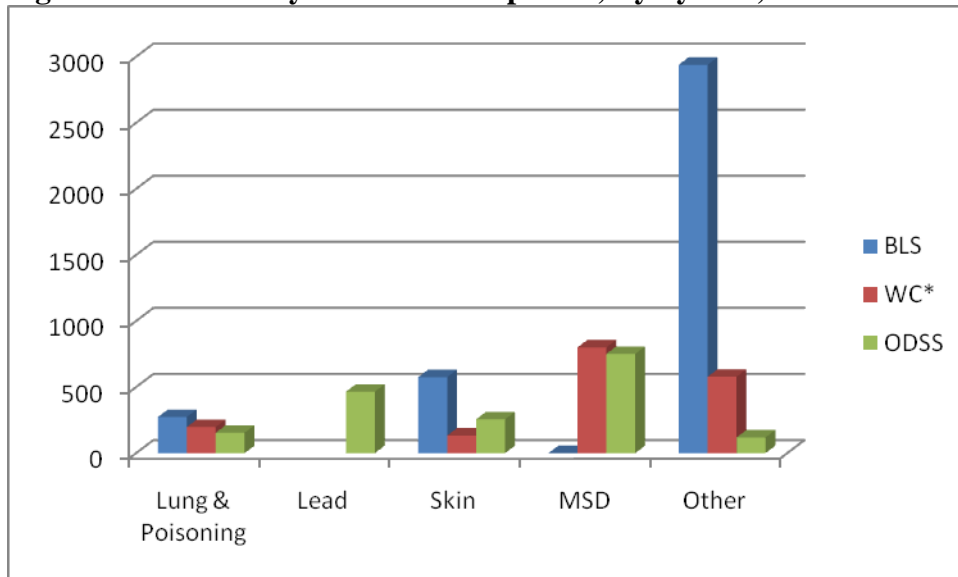
Table E-14: Infectious and Other Occupational Diseases by Type, ODSS, 2006

Illness	Cases
TB/PPD	14
Lyme disease/ tick bite	13
Other infectious	23
Stress	16
Allergic	15
Heat/cold	10
Headache/dizzy	7
Hearing loss	6
Other	15
Total	119

F. Summary of Diseases

Figure F-1 shows the totals by disease category for 2006 for the three reporting systems of the Bureau of Labor Statistics/Conn-OSHA (BLS), Workers' Compensation (WC), and the Occupational Disease Surveillance System (ODSS, 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 small minority does report. Lead reports from the laboratory reporting system are presented separately, since there are very few lead reports in any of the other systems. The BLS/Conn-OSHA system has discontinued collecting "repetitive trauma" as a category beginning in 2002, so MSD has been estimated based on the proportion of "other illness" in the 2001 dataset, which was 82%. Appendix 1 details differences in the data systems. The data for Workers' Compensation was incomplete in the database due to a transition to an electronic reporting system; it is estimated that the complete number of reports is over 65% higher.

Figure F-1: Summary of Diseases Reported, By System, 2006



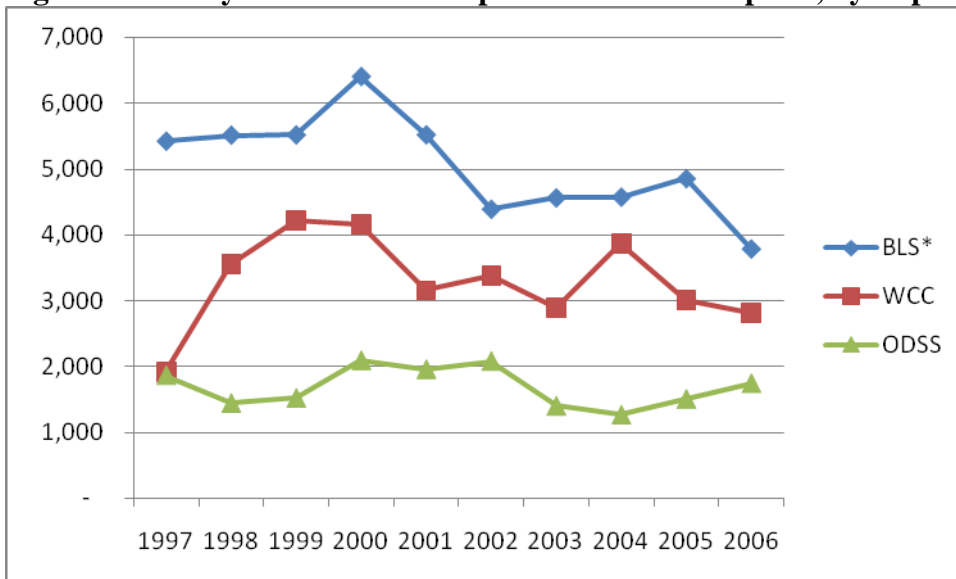
*Incomplete database

Notes: BLS=Bureau of Labor Statistics/ConnOSHA survey; WC=Workers' Compensation First Report of Injury Database; ODSS= Physicians reports from the Occupational Disease Surveillance System. MSD for the BLS database was estimated using prior proportions from "other".

The BLS/Conn-OSHA database showed the highest number of cases, with 3,787 cases reported, followed the Physicians' reporting database with 1,745 cases, and by the Workers' Compensation database with 1,708 cases (estimated to be over 2,800 cases when accounting for missing cases).

Overall, BLS reports decreased 22% from 2005, while ODSS increased 16%. Longer term trends are complex, with BLS trends generally declining, Workers' Compensation showing an early increase, then fluctuated between 3,000 and 4,000 since (it should be noted that the workers' compensation database appeared incomplete in 2003, 2005, and 2006; an estimate was used here for 2006), and physician reports fairly stable but with increases over the past 3 years.

Figure F-2 Ten-year trend in Occupational Disease Reports, by Reporting System



Notes: BLS= Bureau of Labor Statistics/Conn-OSHA survey; WCC= Workers' Compensation First Report of Injury; ODSS= Occupational Disease 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, 2005, and 2006; 2006 figure is an estimate based on 65% more reports than were in the database, based on the known undercount of hard copy reports in the database.

G. Appendix: 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 Connecticut Occupational Disease Surveillance Program, and the Connecticut Adult Blood Level Epidemiology Surveillance Program. The Workers' Compensation and Physicians' Report databases were provided in electronic form from the Workers' Compensation Commission and from the 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 Connecticut Occupational Disease Surveillance System (referred to as Physicians' Reports) were reviewed in depth. A rationale for the data review was developed to differentiate occupational disease 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 determine whether an injury or illness was described. The determination relied most heavily on the injury 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 Lyme Disease concern), 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. References used include Occupational Health, Recognizing and Preventing Work-Related Disease, Fourth Edition; Levy, Barry S. and Wegman, David H.; Little, Brown and Company; 2000 and Chemical Hazards of the Workplace; Proctor, Nick H. and Hughes, James P.; J.P. Lippincott Company; 1978. Physicians at the University of Connecticut Health Center's Division of

Occupational Medicine reviewed specific data records where there were questions about diagnoses..

- 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.

Appendix H: Occupational Disease Detail by Type and Year
Table H-1: Cases of Occupational Disease, by Type, Bureau of Labor
Statistics/Conn-OSHA, 1979-2006

	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	8,369	965	5,526	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		Other
2002	1,602	4,387	831			320	78		3,159
2003	1,605	4,559	903			490	32		3,132
	Employ.*	All Ill	Skin			Respir.	Poison	Hearing	Other
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

Source: BLS/Conn-OSHA. Data collection methods and categories changed in 2002, and are not comparable to prior years.
Employment in thousands

Table H-2: Rate per 10,000 Workers of Occupational Disease, by Type, Bureau of Labor Statistics/Conn-OSHA, 1979-2006

Year	Employed	Skin	MSD	Resp/Lung	Poisoning	Other
1979	1,358,000	12.6	3.5	2.5	1.3	8.2
1980	1,394,000	11.4	3.7	2.2	0.5	8.6
1981	1,409,000	10.7	5	2.3	0.6	9.4
1982	1,400,000	8.1	4.1	1.8	0.2	8.2
1983	1,419,000	8.7	4.7	1.2	1.1	9.7
1984	1,490,000	7.4	4.5	2	0.4	8.6
1985	1,528,000	6.1	4.8	1.8	0.3	10.4
1986	1,567,000	5.2	4.9	2	0.4	10
1987	1,607,000	8.4	8.9	2.1	0.4	18.2
1988	1,637,000	7.7	2.5	2.2	0.3	9.6
1989	1,634,000	7.6	16.1	2	0.5	26
1990	1,593,000	6.5	15.9	3.5	0.3	23.6
1991	1,518,000	6.2	22.8	3.2	0.7	30.4
1992	1,483,000	7.3	26	3.4	0.4	32.7
1993	1,487,000	6.5	37.2	3.8	1.1	45.2
1994	1,501,800	6.4	29.8	3.2	0.6	39
1995	1,520,000	5.8	27.8	2.7	0.2	36.5
1996	1,538,000	5.4	24.1	3	0.2	30.8
1997	1,570,500	3.9	21.2	2	0.4	28.3
1998	1,596,900	6.2	21.3	2.9	0.3	25.2
1999	1,630,100	4.9	20.3	2.5	0.4	26.1
2000	1,653,000	5.4	23.2	3	0.2	30.4
2001	1,571,000	5.8	20.5	4.1	0.2	25.1
2002*	1,602,000	5.2	*	2	0.5	19.7
2003	1,605,000	5.6	*	3.1	0.2	19.5
2004	1,603,100	5.2	*	2.2	0.2	20.9
2005	1,614,100	5.3	*	3	0	21.8
2006	1,635,700	6.3	*	3.6	0	36

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: Internet Resources for Job Safety and Health

Compiled by Tim Morse, Ph.D., at the ErgoCenter at the University of Connecticut Health Center, tmorse@uchc.edu, 860-679-4720. Please send suggestions for additions.

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 a listing of health and safety sites on the internet.

<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.

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

EPA has a number of sites relevant to occupational health on indoor air quality, asbestos, and other topics. www.epa.gov <http://www.epa.gov/iaq/homes/index.html>

The **North Carolina Occupational Safety and Health Education and Research Center** is the new home for the occupational health listserve (formerly based at Duke), 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 Resources (on the top bar), then Internet Directory. <http://www.ccohs.ca>

New Jersey Health Dept. 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 has a database of **material safety data sheets (MSDS)** from a large number of chemical companies. <http://www.siri.org>

Several safety organizations have useful websites:

<http://www.nsc.org>

The National Safety Council

www.aiha.org

The American Industrial Hygiene Association

www.asse.org

American Society of Safety Engineers

www.nfpa.org

National Fire Protection Assoc.

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/safety>, and **NYCOSH** (New York Council for Occupational Safety and Health) covers a lot of news and has a listserv. <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://www.cbia.com/hr/SafetyAndHealth>

The **Environmental Defense Fund** has a scorecard page 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 at <http://www.cal-osha.com>.

There are at least a couple of **blogs that 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, the Pump Handle at <http://thepumphandle.wordpress.com/confined-space-tph> 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 at <http://www.turi.org>. **UMass-Lowell's Center for Sustainable Production** has information on changing chemical policies at <http://www.chemicalspolicy.org/index.shtml>. The **Health and Safety Executive of Great Britain** has extensive information on the new European Union's REACH (Registration, Evaluation, and Authorization of Chemicals) at <http://www.hse.gov.uk/reach/resources.htm>.

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 **ConneCT** website allows access to all state agencies: <http://www.state.ct.us>

The **State Department of Public Health** includes a site for the occupational health program, including versions of the occupational lung disease newsletter, factsheets.

http://www.ct.gov/dph/cwp/view.asp?a=3140&q=387472&dphNav_GID=1828&dphPNavCtr=#47144

The **Connecticut Labor Department** 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 Medicine site known as Thomas <http://thomas.loc.gov>

You can search the medical literature at PubMed at www.pubmed.gov or more general academic searches <http://scholar.google.com/schhp?tab=ws> through Google Scholar

UConn Health Center's Occupational and Environmental Health Center has information and links on job health and safety <http://www.oehc.uchc.edu> and has a center on Healthy Workplaces with UMass Lowell at <http://www.oehc.uchc.edu/healthywork>

Ergonomic Sites and Links

ErgoCenter at UConn Health Center at <http://www.oehc.uchc.edu/ergo.asp>

Ergoweb has a lot of good factsheets, documents, and news. <http://www.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 at <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 at <http://www-personal.umich.edu/~tja> has extensive information, tools, and lectures. **Cornell University's Alan Hedge** has an active ergonomics program, with reports posted on graduate student projects and evaluation of ergonomic products at <http://ergo.human.cornell.edu>. **The University of Virginia** has ergonomics training and resources at <http://keats.admin.virginia.edu/ergo/home.html>.

A download of an interesting ergonomics software program developed by Battelle Labs for the Dept. of Energy called **ErgoEaser** is available for free. The program lets you input measurements of workstations and operators to help analyze computer workstations and lifting. <http://hss.energy.gov/ergoeaser/download.html>

Human Factors and Ergonomics Society is the main professional association in ergonomics. <http://www.hfes.org>

CTD News Monthly Newsletter homepage. <http://www.ctdnews.com>

User and injured workers groups include lots of links and info from injured workers at the **Typing Injury FAQ** at <http://www.tifaq.com>, and **RSI/UK** Information about Repetitive Stress Injuries (RSI) originating from the UK, with information gathered from sources around the globe <http://www.rsi-uk.org.uk>. The **Job Stress Network** web page is dedicated to increasing communication among researchers and others interested in job stress and its impact on health. <http://www.workhealth.org>

Usernomics Ergonomics is a commercial site around disability and usability issues. <http://www.usernomics.com> **IBM's** website on computer ergonomics is at <http://www.pc.ibm.com/ww/healthycomputing/index.html>, **Medical Multimedia Group** has patient education materials with good graphics and explanations. <http://www.medicalmultimedialogroup.com>

J: Who's Who: Resources in Connecticut on Job Safety and Health

Academic Programs and Courses

Central Connecticut State University, School of Technology

Undergraduate program in environmental and occupational safety.

Chairman: George Ku, Ed.D.

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

Phone: (860) 832-1852

Fax: (860) 832-1806

e-mail: Kug@ccsu.edu

Web: http://www.technology.ccsu.edu/programs/information/mcm_ocs_index.html

University of Connecticut Health Center, Department of Community Medicine, MPH Program

Masters in Public Health program with ergonomic/occupational health certificate. A Ph.D. program is in development.

Director: David Gregorio, Ph.D.

Address: Farmington, CT 06030-6325

Phone: (860) 679-5480

Fax: (860) 679-5464

e-mail: gregorio@nso.uhc.edu

Web: http://publichealth.uconn.edu/acprgms_mph_overview.php

University of Connecticut, Center for Public Health and Health Policy, Ph.D. in Public Health with a concentration in Occupational and Environmental Health Sciences

A new (2008) joint program between UConn Health Center and UConn-Storrs.

Co-Directors: Nick Warren, Sc.D., MAT and Larry Silbart, Ph.D.

Address: CPHHP, 99 Ash Street, 2nd Floor, MC 7160, East Hartford, CT 06108

Phone: (860) 679-4023

Fax: (860)-679-1349

e-mail: publichealth@uconn.edu

Web: http://publichealth.uconn.edu/acprgms_phd_survey.php

OSHA

ConnOSHA: ConnOSHA is a state agency that inspects in the public sector, and does consultations in the private sector.

Director: Richard Palo

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

Phone: (860) 263-6900

Fax: (860) 263-6940

e-mail: Palo.richard@dol.gov

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).

Director: Robert W. Kowalski

Address: 1057 Broad Street, 4th Floor

Bridgeport, Connecticut 06604

Phone: (203) 579-5581; National Hotline after hours, etc.: (800) 321-OSHA
Fax: (203) 579-5516
Web: www.osha.gov (national)

OSHA Hartford Office

Director: Bill Freeman

Address: 450 Main St., Room 613, Hartford, CT 06103

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

Fax: (860) 240-3155

Academic Occupational Health Clinics

University of Connecticut Occupational and Environmental Health Center

Clinic Director: Dr. John Meyer

Address: UConn Health Center, 270 Farmington Ave, The Exchange, Suite 262, Farmington, CT 06030-6210

Phone: (860) 679-4947

Fax: (860) 679-1349

e-mail: meyer@uchc.edu

Web: www.oehc.uchc.edu

Yale Occupational and Environmental Medicine Program

Director: Dr. Mark Cullen

Address: Occupational Medicine, 135 College St., New Haven, CT 06510

Phone: (203) 785-4197 Clinic

(203) 785-5885 Office

Fax: (203) 785-7391

Web: www.info.med.yale.edu/intmed/cardio/occmed

Occupational Health Clinics

CorpCare Occupational Health Center (ECHN)

Director: Carol Holman

Address: 1075 Tolland Turnpike, Manchester, CT 06040

Phone: 860-647-4796

Fax: (860) 646-3945

Web: <http://www.echn.org/hospitals/corpcare>

Hartford Medical Group—Occupational Health

Director: Kent Stahl

Address: 1260 Silas Deane Highway, Wethersfield, CT 06109

Phone: (860) 571-7253

Fax: (860) 258-3600

e-mail: jfundoc@harthosp.org

Other Offices: 100 Simsbury Road Suite 203, Avon (860) 284-5111; 265 Ellington Rd., East Hartford, (860) 569-8800; 256 North Main Street Manchester (860) 646-8595; 336 North Main Street West Hartford (860) 232-4891; 445 South Main Street, West Hartford (860) 561-7111, 1060 Day Hill Road Windsor (860) 683-8383

Web: <http://www.hartfordmedicalgroup.com/infocenter.asp?appid=3&catid=2&itemid=12&itemname=Occupational+Medicine>

Occupational Health Plus, St. Raphael Hospital**Director:** Dr. Peter Amato**Address:** 175 Sherman Ave., New Haven, CT 06511**Phone:** (203) 789-3721**Fax:** (203) 867-5455**e-mail:** pamato@srhs.org**Web:** <http://www.srhs.org/occhealth>**Other Offices:** 84 North Main Street, Suite 200, Branford (203) 789-5195; 2080 Whitney Ave., Suite 150 Hamden (203) 789-6240**Concentra****Address:** 701 Main Street, East Hartford, CT 06108**Medical Director:** David Seinstein**Phone:** (860) 289-5561**Fax:** (860) 291-1895**e-mail:** david_seinstein@concentra.com**Web:** www.concentra.com**Other Offices:** 972 A 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; 555 Lordship Blvd, Stratford (203) 380-5945**Eastern Rehabilitation Network, Hartford Hospital****Director:** Subramani Seegharama**Address:** 181 Patricia M Genova Drive, Newington, CT 06111**Phone:** (860) 667-5480-Corporate Office**Fax:** (860) 667-8416**e-mail:** mail@easternrehab.net**Web:** www.easternrehab.net**Other Offices:** 100 Simsbury Road, Avon (860) 674-0255; 10 North Main Street, Bristol (860) 584-1485; 265 Ellington Road, East Hartford (860) 291-2789; 2928 Main Street Glastonbury (860) 657-4723; 18 East Granby Road Granby (860) 653-2301; 85 Seymour Street, Suite 604 Hartford (860) 545-5130; 252 North Main Street Manchester (860) 643-3562; 1064 East Main Street Meriden (203) 235-9622; 445 South Main Street West Hartford (860) 521-8800; 334 North Main Street, West Hartford (860) 236-7771 Blue Back Square, 65 Memorial Road, West Hartford, (860) 231-1707; 1260 Silas Deane Highway Wethersfield (860) 529-3179; 1060 Day Hill Road Windsor (860) 688-0236**Griffin Hospital Occupational Medicine****Address:** 100 Commerce Drive. Shelton, CT 06484**Director:** Dave Maffei**Phone:** (203) 944-3718**Fax:** (203) 929-3068**e-mail:** dmaffei@griffinhealth.org**Web:** <http://www.griffinhealth.org/PatientVisitor/MedicineCenter/>**Middlesex Hospital Occupational Med.****Director:** Thomas J. Danyliw, M.D.**Address:** 534 Saybrook Rd., Middletown, CT 06457**Phone:** (860) 358-2750**Fax:** (860) 348-2757

Web: <http://www.midhosp.org/go/midOccupationalMedicine>
Other Office: 192 Westbrook Road, Essex (860) 358-3840

Johnson Occupational Medicine

Director: Michael Erdil
Coordinator: Kathleen Heim
Address: 3 Weymouth Rd. Enfield, CT 06083-2252
Phone: (860) 763-7668
Fax: (860) 763-7676
e-mail: jomc@jmhosp.org
Web: <http://www.johnsonhealthnetwork.com/jomc.htm>

Lawrence and Memorial Occupational Health Center (Pequot Health Center)

Medical Director: Geraldine Ruffa
Contact: Ruth Moreau
Address: 52 Hazlenut Hill Rd., Groton, CT 06340
Phone: (860) 446-8265 x 7074
Fax: (860) 448-6961
Email: rmoreau@lmhosp.org
Web: http://www.lmhospital.org/patient_services/occupational.html

MedWorks

Contact: Mary Lou Oshana
Address: 975 Farmington Ave. Bristol, CT 06010
Phone: 860-589-0114
Fax: 860-589-1936
e-mail: moshana@brishosp.org
Web: http://www.bristolhospital.org/services_medworks.htm
Other Office: 375 East Cedar St., Newington (860) 667-4418

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

Contact: Elaine Durato
Phone: (860) 714-9434
Fax: (860) 714-8068
e-mail: edurato@stfranciscare.org
Web: <http://www.stfranciscare.org/body.cfm?id=669&action=detail&ref=33>
Offices: Gengras Building, Suite 4302, 114 Woodland Street Hartford: 860-714-4270;
100 Deerfield Road, Windsor, 860-714-9444;
Contact: Jeanine Tibault, Program Director -115 Spencer Street, Winsted, 860-738-5808

St. Mary's Hospital Occ. Health Center

Medical Director: Erica Martinucci
Address: 1320 West Main St., Building 1, Waterbury, CT 06706
Phone: 203 709-4580 or (203) 709-3740 (appointments)
Fax: (203) 709-3741
Web: http://www.stmh.org/patient_services/occupational_health.html

Organizations

American Lung Association, Connecticut

A non-profit association geared towards preventing lung disease, including occupational lung disease.

CEO: Jeff Seyler

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

Phone: (860) 289-5401, (800) 536-4872

Fax: (860) 289-5405

e-mail: alaofct@aol.com

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

Connecticut Safety Council/Safety Roundtable

Associated with the Connecticut Business and Industry Association, 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) 244-1900

Fax: (860) 278-8562

e-mail: soycher@cbia.com

Web: <http://www.cbia.com/hr/SafetyAndHealth>

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

Fax: (860) 953-1038

e-mail: connecticosh@snet.net

Coalition for a Safe and Healthy Connecticut

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: Sarah Uhl

Address: c/o Clean Water Action, 645 Farmington Ave., Fl. 3, Hartford, CT, 06105

Phone: 860-232-6232

Fax: 860-232-6334

e-mail: suhl@cleanwater.org

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

Ergonomic Technology Center (ErgoCenter) and Healthy Workplace Center

The ErgoCenter is a center for prevention of repetitive strain injuries based at UConn Health Center, which does training, research, consulting, and clinical care, and the Healthy Workplace Center is a NIOSH-funded center combining occupational safety and health with health promotion.

Director: Martin Chorniack, MD, MPH

Address: ErgoCenter/Healthy Workplace Center, UCHC, Farmington, CT 06030-6210

Phone: (860) 679-4916

Fax: (860) 679-1349

e-mail: tmorse@nso.uchc.edu

Web: <http://www.oehc.uchc.edu/ergo>

Professional Organizations

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

A professional association for industrial hygienists.

President 2008: Howard J. Cohen, PhD, CIH

Address: University of New Haven, 300 Boston Post Road, West Haven, CT 06511

Phone: (203) 932-7238

Fax: (203) 931-6054

e-mail: hcohen@newhaven.edu

Web: <http://www.aihacriv.org>; <http://www.aiha.org/localsections/html/crv/officers.html>

American Society of Safety Engineers (ASSE): 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: Joe Bongiovanni: joseph.bongiovanni@acadiauw.com

President-elect: Don Gardner

Communications Chair: David Gelpke, CSP

Phone: (203) 639-2440

e-mail: dgelpke@canberra.com

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

Nutmeg Chapter (Southern CT)

Dick Pfeiffer, 203-271-2690 or safety@cyberbury.net

Web: <http://nutmeg.asse.org/index.php>

ASSE Student Section (CCSU)

Contact: Dr. George Ku

Phone: (860) 832-1852

Address: 1615 Stanley St., P. O. Box 4010, New Britain, CT 06050-4010

e-mail: kug@ccsu.edu

Web: <http://clubs.ccsu.edu/asse>

Connecticut Air & Waste Management Association

Forum on environmental/waste issues.

Secretary: Ray Yarmac

Phone: (860) 257-0767 x 215

e-mail: ryarmac@sci-technic.com

Web: http://www.awma-nes.org/connecticut_chapter.htm

Connecticut Trial Lawyers Association, Workers' Compensation Committee

An association of attorneys specializing in workers' compensation, mostly for claimants.

Chairman: Robert Sheldon, Nathan J. Shafner, Co-Chairs

Address: 100 Wells St., Suite 2H, Hartford, CT 06103

Phone: 860-522-4345

Fax: 860-522-1027

Web: www.cttriallawyers.org

CT Bar Association, Workers' Compensation Section

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

Chair: David Morrissey

Phone: (203) 723-6691

e-mail: davidm.law@snet.net

Web: <http://www1.ctbar.org/sectionsandcommittees/sections/WorkersCompensation>

Connecticut Safety Society: A professional association for safety inspectors

President: Denise Cassella

Address: 150 Laurel St., So. Windsor, CT 06074

Phone: (860) 965-6398

e-mail: pres@ctsafety.org

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

Occupational and Environmental Medical Association of CT (OEMAC)- The association for occupational medicine doctors, including many of the physicians working for industry.

Contact: Dianne Plantamura, MSW, Administrative Consultant

Phone: (978)373-5597

e-mail: oemaconn@comcast.net

Web: www.acoem.org

Occupational Health Nurses Association: The association of occupational health nurses, including most of the nurses working in industry.

State President: Marguerite Gildea

e-mail: marguerite.gildea@pw.atc.com

Hartford, member chair: Dorothy Weigold, occrn@stmh.org

Web: www.aaohn.org

State Agencies

Department of Public Health, Occupational Health Unit

Investigates clusters of occupational diseases, with programs for radon, asbestos, AIDS, lead, TB control and infectious diseases also at the DPH.

Director: Tom St. Louis

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

Phone: 860) 509-7740

Fax: (860) 509-7785

Web: http://www.dph.state.ct.us/EOHA/Occupational_Health.htm

Publication: CT Occupational Health e-News

State Office of Emergency Management and Homeland Security

Commissioner: James "Skip" Thomas

Phone: 860-566-3180

Fax: 860-247-0664

e-mail: Comm.demhs@po.state.ct.us

Web: <http://www.ct.gov/hls/site>

State Emergency Response Commission, DEP/ Bureau of Waste Management

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

Administrator: Mark DeCaprio

Address: 79 Elm St., 4th Floor, Hartford, CT 06106-5127

Phone: (860) 424-3024

Fax: (860) 424-4059

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

Connecticut Fire Academy, Commission on Fire Prevention & Control

Safety Training & Standards compliance.

Training Director: Adam Piskura

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

Phone: 860-627-6363 or toll free 877-5CT-FIRE (only in CT)

Fax: 860-654-1889

e-mail: adam.piskura@po.state.ct.us

Web: www.state.ct.us/cfpc

CT Department of Environmental Protection, Radiation Safety Unit

Director: Edward L. Wilds Jr.

Phone: (860) 424-3029; 860-424-3333 24/7 Emergency

Fax: (860) 424-4065

e-mail: edward.wilds@po.state.ct.us

Web: 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**

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

Chairman: John A. Mastropietro

Contact person: Stephanie

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

Phone: (860) 493-1500

Information: (800) 223-WORK

Fax: (860) 247-1361

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

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

Workers' Compensation District Offices

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

The Who's Who is compiled by Tim Morse, Ph.D., UConn Health Center. To update or add a listing, please contact him at tmorse@uchc.edu or 860-679-4720