



**COMMONWEALTH  
OF MASSACHUSETTS**

**Deval L. Patrick, Governor**

**Rachel Kaprielian, Secretary  
Executive Office of Labor and  
Workforce Development**

**Compiled by:**

Executive Office of Labor and  
Workforce Development's  
Department of Labor Standards

Executive Office for  
Administration and Finance's  
Human Resources Division

Massachusetts Employee Safety  
and Health Advisory Committee

# Executive Order 511

*Establishing the Massachusetts Employee  
Safety and Health Advisory Committee*

## *State Employee Health and Safety Achievements and Recommendations*



*March 2014*

# Table of Contents

1. Executive Summary .....	1
2. Introduction.....	6
3. Fiscal Considerations.....	9
4. Work-related Injury and Illness Statistics.....	10
5. Provisions of the Executive Order .....	25
Establish Secretariat Safety and Health Coordinators.....	25
Record Incidents .....	27
Participate in National Survey.....	29
Establish the Governor’s Advisory Committee .....	29
Establish Joint Labor-Management Health and Safety Committees.....	31
6. Health and Safety Committee Member Formal Interviews.....	37
7. Information and Resource Sharing .....	39
8. Advisory Committee Recommendations.....	40
Appendix A: Executive Order Number 511 .....	43
Appendix B: Secretariat Safety and Health Coordinators .....	44
Appendix C: Fact Sheet on EO 511.....	45
Appendix D: 2010 Public Sector (State Government) SOII Report .....	46
Appendix E: Letter to State Units Selected for Participation in BLS SOII.....	47
Appendix F: Letter to State University and Community College Presidents and Chancellors .....	48
Appendix G: Training Presentations .....	49
Appendix H: Hazard Assessment Tools.....	50
Appendix I: Gap Analysis Tools and Guidance.....	51

# 1. Executive Summary

On April 27, 2009, Governor Deval Patrick enacted Executive Order #511 (EO 511), the first comprehensive, formal action taken since 1970 to address worker health and safety for employees of the Commonwealth. This is an important and significant step forward to create the commitment and structure needed to take on this complex, challenging issue.

## BACKGROUND

The goal of Executive Order #511 (EO 511) is to reduce the significant financial and human costs associated with preventable work-related injuries and illnesses experienced by employees of the Commonwealth. The Commonwealth spends approximately \$31 million every year paying the direct medical and workers' compensation wage costs associated with these injuries and illnesses in the Executive Branch, and approximately \$48 million across all branches of state government. Adding in the other direct costs such as lump sum settlements and rehabilitation, and indirect costs such as lost time, replacement worker costs, reduced productivity, and claims administration time, these losses to the state are, at a minimum, doubled to \$62 million for executive branch agencies and \$96 million across all branches.

By reducing these occurrences of work-related injuries and illnesses, the Commonwealth can save significant money, and, at the same time, reduce the loss of life or loss of quality of life these incidents cause to our employees. This is an achievable goal that can be accomplished through fostering comprehensive, successful, and cost-effective health and safety management. The methods being implemented through EO 511 are designed to help the Executive Branch Secretariats and their agencies identify and implement sustainable pathways of strategic, practical, and manageable steps forward to attain these incidence reductions. We are creating a new, stronger foundation for proactive, systems-based management of worker health and safety, and shifting the existing health and safety culture towards injury and illness prevention.

Comprehensive and effective worker health and safety management saves money. This fact has been well-documented in the private sector. The Commonwealth is self-insured, and currently expends significant resources on costs associated with preventable on-the-job accidents, as outlined above. While available financial resources are limited, making improvements to worker health and safety can offset the significant financial losses incurred by not taking action. In addition, through assessment mechanisms, a risk-based approach, information and resource sharing, and access to technical guidance being developed through EO 511, the maximum reduction in risk can be achieved from every dollar spent on health and safety.

There is a clear need for full use of the technical worker protection standards, such as the OSHA standards, as well as a health and safety management system. Both are needed in concert to protect the Commonwealth's workforce from preventable injuries and illnesses. Based on reported claims from Executive Branch agencies, more than 3,000 state workers experienced job-related injuries serious enough to require time off from work (lost time) and four workers lost their lives during the period FY10 through FY12. The hazards causing the greatest number of these injuries included violent

assaults, falls from height, and lifting injuries. These are among the many serious hazards faced by state workers on the job every day, which is discussed in more detail below. For many of these injured workers, their lives are changed forever. Some will experience pain for the rest of their lives; some will be unable to do the same type of work ever again, and most will have issues and concerns in their daily lives.

## **INJURIES AND HAZARDOUS EXPOSURES**

The Executive Office of Health and Human Services (EOHHS), the Massachusetts Department of Transportation (MassDOT), and the Executive Office of Public Safety and Security (EOPSS) were the top three secretariats for highest rates of lost time claims, which is consistent with the significant level of hazard associated with many of the jobs workers perform for these agencies. For example, in EOHHS, nurses and nurse assistants, and in developmental services, mental health and youth services workers are at high risk for assaults by patients/clients, and for ergonomic injuries from lifting/moving patients or clients. Within EOPSS, correction officers are also at high risk for assault by inmates. MassDOT employees and state police officers are at high risk of being struck by motor vehicles while working in active roadways. Maintenance personnel and equipment operators at MassDOT have many serious risks including electrocution, falls from height, and usage of heavy equipment. There are also serious hazards associated with jobs in other secretariats. For example, custodial/maintenance personnel working in all secretariats are exposed to many hazards including: chemical hazards, confined spaces, electrical hazards, falls from height, trenches, and dangerous tools and machinery.

## **ACCOMPLISHMENTS**

EO 511 required seven broad action items on the part of Executive Branch agencies. Significant accomplishments have been made in not only implementing the requirements but ensuring the sustainability of each of the actions. These accomplishments include:

Creation of a centralized, connected infrastructure for health and safety, including:

- The formation of the Governor's Massachusetts Employee Safety and Health Advisory Committee and implementation of a quarterly meeting schedule.
- Appointment of a Health and Safety Coordinator for each Secretariat.
- Creation of 90 joint labor-management health and safety committees, designed to ensure that all employees in the Executive Branch are covered by a committee. (Note that approximately 20 of these committees already existed or were formed out of an existing committee).

An assessment of health and safety management systems through evaluation of current practices for serious hazards

- More than 100 occupational health and safety trainings were conducted showing a proactive, systems-based, prevention approach to health and safety management to prepare committees for the assessment.
- The majority of committees completed the assessment process which included:
  - o hazard assessment questionnaires to evaluate the current status of health and safety management for a defined set of serious worker hazards: chemical hazards, confined space entry, driving safety, emergency action planning, electrical hazards, fall from height, life (fire) safety, lockout/tagout, trench safety, workplace and domestic violence, work zone safety, and patient lifting/handling (for EOHHS only).
  - o a gap analysis to compare what is currently in place for protection against each serious hazard (as answered on the hazard assessment questionnaire) to the relevant worker protection standard, as well as health and safety management ideals.
- Interviews with 24 health and safety committee members were conducted on their experience with the committee assessment process to build a more complete understanding of the progress, successes, barriers and challenges.

#### **Implementation of an annual secretariat/agency health and safety management planning and review process**

The ultimate goal of EO 511 is to assist secretariats and their agencies develop the full capacity to comprehensively, effectively, and sustainably manage worker health and safety. Creating a management framework to accomplish this is a critical step in achieving this goal, and this framework will be built through a guided process based on an evaluation and planning tool, coupled with specific injury and illness statistics, which were recently provided to each secretariat. The foundational elements of the health and safety management framework include health and safety roles and responsibilities, risk-based fiscal management of health and safety, use of technical worker protection standards, and effective communication and accountability. The development and implementation of the secretariat/agency health and safety management plans will have a profound effect on shifting away from reactive management of health and safety to a proactive, prioritized, cost-effective approach.

#### **Improved collection and use of injury and illness statistics**

The following actions have been successfully implemented:

- Significant improvements to the Human Resources Department (HRD) Workers' Compensation Database and training for users, to ensure that work-related injury and illness data collected for state workers is comparable to the OSHA requirements for private sector employers.
- Required participation for agencies selected by the Bureau of Labor Statistics' annual Survey of Occupational Injuries and Illnesses to increase the quantity and value of public sector information.

- Creation of comprehensive injury and illness reports to present to Secretariat and Agency senior management to aid them in understanding the scope of fiscal losses due to work-related injuries and illnesses, to aid in effective fiscal planning for health and safety, and to aid in risk-based prioritization of prevention efforts towards certain hazards.
- Creation of a template for providing detailed injury and illness reports/statistics to agency health and safety committees.

### **Information and resource sharing**

The following actions have been successfully implemented:

Creation of a wiki site on CommonWiki for use by Commonwealth employees which contains:

- o Model health and safety policies and procedures developed by state agencies
- o Model health and safety policies and procedures from expert sources
- o Links to comprehensive expert sources of health and safety information
- o A training calendar so agencies can share open spots in training courses
- o A discussion forum to post questions or share ideas with peers in other agencies

### **IMPACT**

The implementation of EO511 has already begun to have an enormous impact on worker health and safety. Information gathered will provide direction on key areas needing improvement in current health and safety management practices.

- Many committees conducted immediate correction of identified gaps in health and safety practices, where feasible, and conducted planning for future corrections where more complex response or fiscal planning is needed. Identifying further needed corrections and coordinating with management on prioritization and implementation is the core of the next phase of EO 511 project work.
- The new, connected health and safety infrastructure has led to a great deal of informal sharing of ideas, information, and resources
- From the central level, it is now feasible to identify within each agency, the person(s) to whom important health and safety information, updates, training, and resources should be provided.

## RECOMMENDATIONS

The Advisory Committee offers its highest commendation to Governor Patrick for his leadership in enacting this important initiative. The Advisory Committee makes the following recommendations with a goal of reducing injuries and illnesses through creating comprehensive, effective, and sustainable/institutionalized worker health and safety management in our state agencies:

- Institute a centralized policy that all secretariats/agencies are to use the nationally-recognized worker protection standards, including the OSHA standards, as the basis for worker injury and illness prevention programs.
- Establish through legislation, an OSHA-type program of training, technical assistance, and enforcement for state government using these standards, and allocate sufficient resources for necessary staff and equipment and other prevention measures to implement this program. Ensure that design and implementation of this program is risk-focused so that highest risk issues are given the highest priority.
- Conduct comprehensive guided health and safety management review and planning efforts on an annual basis at the secretariat/agency senior management level.
- Formalize the role of health and safety committees and provide continual training and technical support to build the capacity of the committees within each agency.
- Conduct a central review of the health and safety needs/corrective actions lists from all committees and identify and implement what can be provided at the central level. This may include loans and/or other sources of funding, training, model written health and safety policies and procedures.
- Identify a time frame and means of funding for implementing the remaining health and safety corrections identified by the committees at the secretariat/agency senior management level.
- Provide funding at the central level for the necessary staff to conduct and support meaningful injury and illness data collection and evaluation, and also technical staff to support agencies/committees in implementing and sustaining injury and illness prevention programs.
- Have monies saved through prevention efforts retained within the agency to be spent only on safety and health issues, instead of going back into the General Fund.
- Continue to share best practices across agencies, as well as resources (training, equipment –where possible).
- Encourage sharing of the tools and resources developed under EO 511 with public sector entities not within the Executive Branch, including authorities, state colleges and universities, and municipalities.



## 2. Introduction

### History

In 1970, the federal Occupational Safety and Health Act was passed, which created comprehensive worker protection standards of practice and the federal oversight agency the Occupational Safety and Health Administration (OSHA). All private sector (non-governmental) employers in the U.S. were automatically covered by these new requirements. For public sector (governmental employees), each state had the right to choose whether or not to cover their employees under these new standards, either through creating an OSHA-approved state program (with on-going partial funding and oversight by OSHA), or independently adopting OSHA standards into state law for the public sector. Massachusetts did not choose either of these options at the time the OSHA law was passed. Therefore, state employees are not covered by the same worker protection standards in place for the private sector.



Executive Order #511 (EO 511), signed by Governor Deval Patrick on April 27, 2009, is the first comprehensive, formal action taken since 1970 to address worker health and safety for employees of the Commonwealth. This is an important and significant step forward to create the commitment and structure needed to take on this complex, challenging issue. In a recent interview about EO 511 a Commonwealth employee and member of one of the health and safety committees formed as part of EO 511, stated that it was a "...blessing that Governor Patrick issued Executive Order #511".

### Why was an Executive Order Needed?

The Commonwealth, a self-insured entity, spends approximately \$31 million every year paying the direct medical and workers compensation wage costs associated with work-related injuries and illnesses among the Executive Branch agencies, and approximately \$48 million across all branches of state government. Adding in the other direct costs such as lump sum settlements and rehabilitation, and indirect costs such as lost time, replacement worker costs, reduced productivity, repair and replacement of damaged equipment and property, and claims administrative time, these losses to the state are, at a minimum, doubled to \$62 million for executive branch agencies and \$96 million across all branches.

With little external oversight or support, injury prevention is left up to each state agency. Agencies have made strong efforts to rise to this challenge; however, this has been a difficult process for a number of reasons. Worker health and safety is not the primary focus of these agencies, so it often becomes secondary to the agency mission. Health and safety is a complicated, multi-faceted issue that also requires a great deal of technical expertise. Having each agency create its own health and safety policies and procedures and keep up-to-date on current standards and guidelines is a massive duplication of effort across 150 state agencies. Instead, with a connected infrastructure, these efforts



conducted by one can be shared across dozens of agencies. For these reasons and more, centralized technical assistance, support, and oversight of health and safety are necessary to help agencies achieve injury and illness reductions, and EO 511 is designed to fulfill these needs.

## EO 511 Strategy

EO 511 combines the two key elements necessary to achieve significant reductions in work-related injuries and illnesses:

1. Use of the nationally-recognized worker protection standards and guidelines, as the basis for worker safety and health prevention actions. These include the OSHA standards and standards from other sources. Worker protection standards such as OSHA standards are research-based and the outlined protective actions must be proven to be effective in reducing the risk of harm to employees before they are adopted. Selecting effective protective actions or equipment can be complex, requiring a high level of technical knowledge and understanding. This information does not need to be developed by each agency, but already exists in the form of these standards.

In the initial assessment conducted by health and safety committees, a gap analysis comparison was made between current practices for a set of serious worker hazards and the requirements of the OSHA (and other) standards. This created a clear understanding of what is missing, and a road map to fully effective management of these hazards. It has been recommended to all Secretariats and Agencies that these standards should serve as the basis of their prevention programs, and the Advisory Committee recommends formalizing this as a requirement (see the *Recommendations Section* of this report), and implementing a method of accountability.

2. Implementation of a comprehensive health and safety management program focused on prevention. This includes elements such as management leadership, health and safety committees, and other forms of employee involvement, training, use of hazard controls (such as safety equipment or procedures), accountability for use of controls, and on-going program evaluation and improvement.

All of the training, assessment and planning tools, and guidance developed for agencies as part of EO 511 are based on a health and safety management system approach. Details on trainings and tools are provided in subsequent sections of this report. The gap analysis conducted by the health and safety committees also included a comparison of current practices against health and safety management ideals.

## Effectiveness of the EO 511 Approach

Implementation of worker protection standards of practice is highly effective. Since the OSHA law was passed, the number of workplace fatalities has been reduced by more than 65 percent, from about 38 worker deaths a day in 1970, to 13 a day in 2011. At the same time, U.S. employment has almost doubled. Worker injuries and illnesses have also been reduced by 67 percent, from 10.9 incidents per 100 workers in 1972, to fewer than 4 per 100 in 2010.<sup>1</sup>

Implementation of a comprehensive health and safety management program focused on prevention, even for entities subject to enforcement by OSHA, has shown to add further reductions in worker injuries and illnesses. A January 2012 OSHA white paper, *"Injury and Illness Prevention Programs,"*<sup>2</sup> reports the finding that an OSHA examination of states that required a program or provided incentives or requirements through its workers' compensation programs lowered injury and illness instances by between 9 and 60 percent. In addition, fatality rates in California, Hawaii, and Washington, with mandatory injury and illness prevention program requirements, had workplace fatality rates as much as 31 percent below the national average in 2009.

In the public sector arena, the state of New Hampshire implemented an Executive Order in 1998 relative to its state worker health and safety, which included establishing health and safety policies, training, and regular inspections and accident investigations. Comparing published injury rates for 1999 and 2011<sup>3</sup>, the New Hampshire Department of Transportation reduced work-related injuries by 58% through implementing its safety and health management program, titled an Injury Reduction Plan.

---

1 OSHA website, <http://www.osha.gov/oshstats/commonstats.html>

2 OSHA website, <http://www.osha.gov/dsg/topics/safetyhealth/OSHAwhite-paper-january2012sm.pdf>

3 New Hampshire DOT bulletin "Optimize Employee Health and Safety, Employee Development 2011"  
[http://www.nh.gov/dot/org/commissioner/balanced-scorecard/department/documents/bs\\_performance\\_incidentrate.pdf](http://www.nh.gov/dot/org/commissioner/balanced-scorecard/department/documents/bs_performance_incidentrate.pdf)

## 3. Fiscal Considerations

Comprehensive and effective worker health and safety management saves money. This fact has been well-documented in the private sector<sup>4</sup>. The Commonwealth is self-insured, and currently expends significant resources on costs associated with preventable on-the-job accidents. These include medical costs, workers' compensation wages, compensated absences (lost time), lost productivity, replacement worker costs, administrative time for paperwork and accident follow-up, and clean-up and repair of damaged equipment and property. While available financial resources are limited, making improvements to worker health and safety can offset the significant financial losses incurred by not taking action.

As outlined in Section 4 of this report, the Massachusetts Employee Safety and Health Advisory Committee (Advisory Committee) has developed reports to present to secretariat and agency management summarizing work-related injuries and illnesses for their workforces. These data will also include fiscal losses associated with these injuries, which will allow management to identify opportunities to shift some of these lost funds towards prevention efforts, resulting in continuing overall cost reductions.

Since EO 511 was initiated during some of the most difficult economic circumstances in the Commonwealth's history, the reality of fiscal limitations was an important consideration in the project's strategy. The hard economic realities also serve as a driver to evaluate current fiscal management of health and safety and identify methods to achieve greater benefit from use of limited fiscal resources currently expended on health and safety. This includes:

- Prioritization of expenditures by looking at the most frequent causes of on-the-job accidents, as well as what is presenting the highest risk (most severe outcomes such as a fatality), so that any funds spent provide the greatest feasible health and safety benefit.
- Ensuring that purchased safety equipment, training, and health and safety procedures reflect the correct and most effective technical solution to the hazard (based on nationally-recognized standards of practice for worker protection).
- Ensuring that existing health and safety resources are fully used, including:
  - o Guiding agencies in methods to ensure that employees consistently use existing safety equipment and procedures.
  - o Sharing safety equipment across agencies.
  - o Sharing open spots in training courses across agencies.

While it is not possible to implement every identified worker protection needed right away, through EO 511, agencies are conducting a critical assessment of what these needs are, eventually leading to a needs list, and are provided with a means to plan for the most strategic and rapid implementation possible.

---

4 OSHA website, <http://www.osha.gov/Publications/safety-health-addvalue.html>

## 4. Work-related Injury and Illness Statistics

This section of the report provides descriptive statistics on the extent, distribution, and costs of work-related injuries and illnesses among state agency employees that can help focus prevention efforts and serve as a baseline for monitoring progress in meeting prevention goals over time. The data contained herein are provided by the Human Resource Division (HRD), which is responsible for administering the Commonwealth's workers' compensation program for injured state employees. The data originate from information submitted to HRD by state agencies via a central online injury/accident reporting system for when state workers file claims for work-related injuries or illnesses.

HRD manages the workers' compensation claims process and ensures injured employees receive eligible benefits: coverage for all medical treatment related to the work injury and lost time compensation/wage-replacement for time away from work. Injured employees are eligible for wage replacement benefits if they miss five or more days of work as a result of their injury. They are eligible for medical benefits regardless of lost time. Because the state is self-insured, and all agencies are ultimately responsible for the workers' compensation costs of their employees, all claims benefits paid out by HRD are ultimately charged-back to the employer agency's budget.

The state's workers' compensation program is essentially a post-injury management program that helps state agencies and employees deal with work-related injuries and illnesses after they occur. As described, EO 511 encourages collaboration between management and labor to create an injury-prevention focused centralized health and safety infrastructure across state agencies to improve working conditions of Commonwealth employees. Section 4 of EO 511 directs HRD to share claims data, to the extent permitted by law, with key partner agencies and the Advisory Committee, to aid in identifying and developing needed workplace safety measures.

### 4.1 Methods

The injury and illness statistics presented here are based on analysis of new workers' compensation claims filed by employees of state Executive Department agencies during fiscal years 2010, 2011, and 2012. (See Table 1 for a listing of Executive Departments also referred to as Secretariats.) Information is presented on all work incidents reported (also referred to as claims filed) and paid claims – the subset of claims filed that are paid and consisting of either paid medical or paid lost time claims. Paid lost time claims is the subset of paid claims that go on to become lost time because the injured employee is unable to perform normal job duties and is missing time from work (>5 days) due to the work injury. Paid medical only claims are those where the employee does not miss significant time from work (<5 days) and only medical costs are incurred. Lost time claims generally reflect the more serious injuries, and consequently, the bulk of workers' compensation expenditures incurred, although other factors such as the availability of modified duty and return to work practices can also influence the number of work days lost. For the purposes of this report, we focus on incidents filed and lost time claims paid.

### ***Incident Rate Defined***

The annual incident rate is defined as the number of all new claims filed per year divided by the average number of full time equivalent (FTEs) workers.<sup>5</sup> The annual lost time rate is the average number of new lost time claims paid per year likewise divided by the average number of FTEs. For both formulas, the numerator is the number of new claims per year and the denominator is the employee population at risk.

### ***Costs Components Defined***

For the three-year period FY10-FY12, the Commonwealth spent nearly \$144 million on workers' compensation direct claims costs for all state agencies across all branches of government, and of that, approximately \$94M was for Executive Branch agencies. This averages out to annual costs of nearly \$48 million for all state agencies, and of that, greater than \$30 million for Executive Branch agencies. This amount pertains to claims that were filed during the selected period FY10-FY12 and also to claims that were reported in earlier fiscal years and are still financially active. It is important to note that the majority of costs paid out each fiscal year reflect trailing costs from injuries that occurred in previous fiscal years.

The workers' compensation costs detailed in this section of the report are a subsection of the costs described above, and in order to provide a clear understanding of the new workers' compensation claims incurred on average each year, they are limited to certain direct costs for claims filed and paid during FY10-FY12 for Executive Departments. They do not include dollars paid out by agencies during this time period for claims filed in earlier years. Nor do they include future costs of claims during FY10-FY12 that may be paid in subsequent years. Below is a description of the major cost components that make up the direct claims costs described.

The costs presented are divided into two categories: medical and compensation. **Medical** costs are the dollars paid to cover the cost of medical treatment and care provided to injured state workers due to their work-related injuries and illnesses. **Compensation** costs are primarily associated with the cash benefits paid to injured workers for lost wages when employees lose time away from work due to their work injury. Also captured is the litigation expense associated with pursuing either/both benefits for employees' claims that may not be deemed initially eligible by HRD and end up in dispute resolution at the Department of Industrial Accidents.<sup>6</sup> The terms "compensation" and "lost wages" are used interchangeably in this report and have the same meaning as defined above. Note that two other claims-specific direct costs such as **lump sum settlement** amounts or **rehabilitation/investigation** expenses are not included, as these components are secondary and dependent to the primary cost drivers: the medical and compensation aspects of the industrial accident claim.<sup>7</sup>

---

5 Information on FTE counts was obtained online from the Administration and Finance's FTE Tracking Tool website <http://www.anf.state.ma.us/ftetrack09/>. An FTE in the Commonwealth is computed based on a 37.5 hour work week for 50 weeks per year, or 1,875 hours per year.

6 The Department of Industrial Accidents (DIA) is the administrative court system responsible for adjudicating disputed workers' compensation claims between employees, employers and insurers.

7 Lump sum settlements are DIA approved agreements between the injured employee and insurer that result in the worker getting money upfront in exchange for waiving future cash benefits. Rehabilitation/investigation expenses are ancillary costs that are used in claims management efforts.

## Executive Order 511 Annual Report March 2014

In addition to the direct costs included in this section, there are significant additional indirect costs associated with a worker injury that are not included in the tables presented. These include:

- Replacement worker costs
- Lost time (compensated absences)
- Wages paid to injured workers not covered by workers' compensation
- Administrative time by supervisors and others in paperwork and incident follow-up
- Training costs for replacement worker
- Lost productivity related to work rescheduling, new employee learning curves, and accommodation of injured employees; and
- Clean-up, repair, and replacement costs of damaged material, machinery, and property.

OSHA's *Safety Pays* tool for estimating the indirect costs outlined above uses an indirect to direct cost ratio which ranges from 4.5:1 to 1.1:1 with 4.5 for the least costly to 1.1 for the most costly injuries. An American Society for Safety Engineers (ASSE) review of research studies indicates that the ratio of indirect to direct losses can range from 1:1 to as high as 20:1. A common estimated ratio used for total indirect to direct costs is 4:1. Therefore, you can assume that by including indirect costs, the total losses due to industrial accident claims will at a minimum be double the direct losses presented in the tables that follow, and will more typically be higher than double.

### ***FTEs per Secretariat***

In this report, both the annual incident rate and the annual lost time rate are calculated using the average number of full time equivalent workers (FTEs) as the denominator in both formulas. Below please find the average number of FTEs during the three-year period FY10 through FY12 for Executive Departments/ Secretariats, as well as the percentage of FTEs among the eight Secretariats for this period.

<b>Average FTEs per Secretariat FY10-FY12</b>		
<b>Secretariat/Executive Department</b>	<b>% of total FTEs</b>	<b>Number of FTEs</b>
Administration and Finance (EOANF)	5%	3,144
Education (EOE)	37%	24,520
Energy and Environmental Affairs (EOEEA)	4%	2,731
Health and Human Services (EOHHS)	32%	21,233
Housing and Economic Development (EOHED)	1%	811
Labor and Workforce Development (EOLWD)	2%	1,605
Public Safety and Security (EOPSS)	13%	8,591
Transportation (MassDOT)	6%	4,146
<b>TOTAL</b>	<b>100%</b>	<b>66,781</b>

Source: Information on FTE counts was obtained online from the Administration and Finance's FTE Tracking Tool website: <http://www.anf.state.ma.us/ftetrack09/ftetrack.asp?Line=748&funds=allapp&funds1=allFTEs&view=fte&mode=all&id=&bParents=False>

## 4.2 Findings

During FY10-FY12, a total of 15,210 new claims were filed for work-related incidents by employees of state agencies, an average of 5,070 claims filed per year. Over this three-year period, a total of 7,763 (51%) claims incurred costs, and of these, 3,211 (21%) became paid lost time claims. Over 98% of all incidents filed, claims incurring costs, and lost time claims, occurred in five Executive Departments (Table 1).

<b>Table 1. Distribution of Workers' Compensation Incidents Filed, Claims Incurring Cost and Lost Time Claims by Executive Department for Fiscal Years 2010-2012</b>						
<b>Executive Department</b>	<b>Incidents (all claims filed)<sup>A</sup></b>		<b>Claims Incurring Cost<sup>B</sup></b>		<b>Lost Time Claims<sup>C</sup></b>	
	<b>Count</b>	<b>Percent</b>	<b>Count</b>	<b>Percent</b>	<b>Count</b>	<b>Percent</b>
Executive Office of Health and Human Services (EOHHS)	6,884	45%	3,115	40%	1,769	55%
Executive Office of Education (EOE)	4,582	30%	2,406	31%	614	19%
Executive Office of Public Safety and Security (EOPSS)	1,650	11%	1,037	13%	432	13%
Mass Department of Transportation (MassDOT)	1,042	7%	664	9%	255	8%
Executive Office of Energy and Environmental Affairs (EOEEA)	798	5%	438	6%	106	3%
Executive Office of Administration and Finance (EOANF)	160	1%	47	1%	16	0%
Executive Office of Labor and Workforce Development (EOLWD)	66	0%	44	1%	15	0%
Executive Office of Housing and Economic Development (EOHED)	28	0%	12	0%	4	0%
<b>All Executive Departments</b>	<b>15,210</b>	<b>100%</b>	<b>7,763</b>	<b>100%</b>	<b>3,211</b>	<b>100%</b>

<sup>A</sup> Incidents is the largest set of claims records and includes subsets B and C  
<sup>B</sup> Claims Incurring Costs (paid claims) is a subset of all claims  
<sup>C</sup> Lost time claims are a subset of claims incurring cost

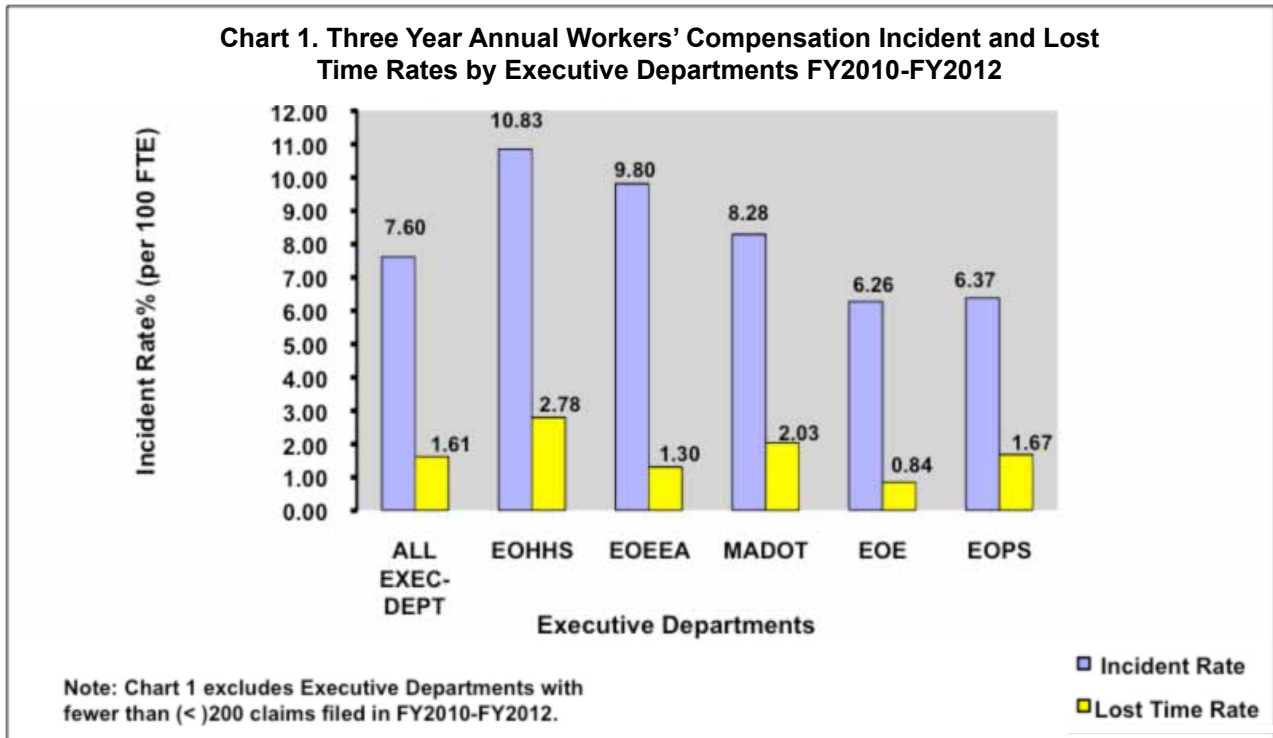
The overall annual incident rate for all eight Executive Departments combined was 7.6 claims per 100 FTE or 1 claim for every 13.2 FTE. The overall annual lost time rate was 1.61/100 FTE or 1 lost time claim for every 62.1 FTE.

Three Executive Departments had incident rates above the overall rate: EOHHS (10.8/100 FTE), EOEEA (9.8/100 FTE) and MassDOT (8.3/FTE). Next EOPSS and EOE follow with incident rates greater than 6/100 FTE but below the overall rate (Chart 1). The remaining three secretariats combined represent only 6% of the overall FTE base and fewer than 2% of all claims filed. All three had incident rates fewer than 2/100 FTE.

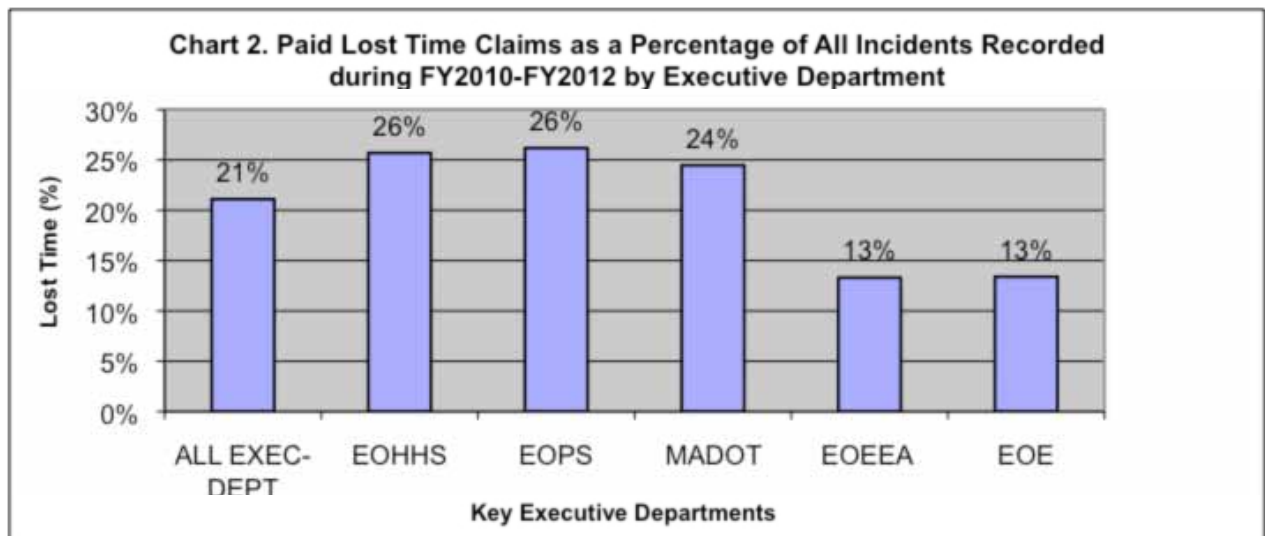
Three Executive Departments had annual lost time rates above the overall lost time rate: EOHHS (2.78/100 FTE), MassDOT (2.03/100 FTE) and EOPSS (1.67/100 FTE). Next is EOEEA at 1.30/100 FTE and EOE at 0.8/100 FTE (Chart 1.) The remaining three secretariats had annual lost time rates fewer than 0.3/100 FTE.



**Executive Order 511**  
**Annual Report March 2014**



As reported above, the proportion of all claims filed during FY2010-12 that became lost time claims paid (lost time claims /all claims filed) for all Executive Departments combined was 21%. As shown in Chart 2, this proportion varied by agency. Three Executive Departments had paid lost time claims counts that exceeded 21% of all claims: EOHHS (25.7%), EOPSS (26.1%) and MassDOT (24.6%). Following is EOEEA and EOE both with 13% of all claims filed becoming time away from work claims. EOLWD had a small number of overall claims (n=66) but 23% became lost time claims. For the remaining two Secretariats with relatively small number of claims filed overall, EOANF, and EOHED, fewer than 15% of the claims filed became lost time claims.



## Costs by Executive Department

Table 2 below summarizes by Executive Department, the number of claims that incurred medical/compensation related costs (paid claims). Note that not all incidents reported result in incurred costs.

<b>Table 2. Medical and Lost Wage Costs of Workers' Compensation Claims Filed by Employees of State Agencies during Fiscal Years 2010-2012 by Executive Department</b>				
<b>Executive Department</b>	<b>Claims Incurring Cost</b>	<b>Medical</b>	<b>Compensation</b>	<b>TOTAL</b>
Executive Office of Health and Human Services (EOHHS)	3,115	\$5,374,869	\$10,893,053	\$16,267,923
Executive Office of Education (EOE)	2,406	\$3,473,786	\$4,606,870	\$8,080,655
Executive Office of Public Safety and Security (EOPSS)	1,037	\$1,791,055	\$5,371,969	\$7,163,025
Mass Department of Transportation (MassDOT)	664	\$2,742,918	\$4,075,973	\$6,818,891
Executive Office of Energy and Environmental Affairs (EOEEA)	438	\$682,197	\$899,830	\$1,582,027
Executive Office of Administration and Finance (EOANF)	47	\$171,800	\$319,137	\$490,938
Executive Office of Labor and Workforce Development (EOLWD)	44	\$63,681	\$155,932	\$219,613
Executive Office of Housing and Economic Development (EOHED)	12	\$28,703	\$48,492	\$77,195
<b>All Executive Departments</b>	<b>7,763</b>	<b>\$14,329,010</b>	<b>\$26,371,256</b>	<b>\$40,700,266</b>

Note: The claims costs given above in Table 2 pertain only to claims both originating and paid out during the period FY10-12. Claims costs paid out during FY10-12 from injuries originating in FY09 or earlier are not reflected here. If those costs were included, the total would be approximately \$90 million dollars for that three year period.

Like Table 1, Table 2 includes information about claims that were filed FY10-FY12 and paid out during this same period FY10-FY12.

The combined medical and compensation costs for this claims set is approximately \$40M. Once again, over 98% of the claims incurring costs were in the same five Executive Departments graphed in Chart 1 and Chart 2. These are listed in Table 2 by descending order of magnitude of total paid dollars as follows: EOHHS, EOE, EOPSS, MassDOT and EOEEA.

## Overview of Selected Agencies within Key Executive Departments

As shown above, five Executive Departments with the greatest number of work-related incidents reported (98%) and claims paid out (99%) are as follows: EOHHS, EOE, EOPSS, MassDOT, and EOEEA. They also accounted for 99% (3211) of lost time claims paid. This section provides more detailed information about the agencies and occupations within these Executive Departments with the largest numbers of injuries and highest workers' compensation costs. Notably, across the various agencies, Level-1 job positions appear to have the highest frequency of claims paid and also incur a large amount of the costs. Note Executive Department totals in following tables (Tables 3-7) will NOT be an exact match to those shown in Table 1 and Table 2.<sup>8</sup>

### ***Executive Office of Health and Human Services (EOHHS)***

The top agencies within EOHHS by frequency of incidents and paid claims and cost are the Department of Developmental Services (DDS), Department of Mental Health (DMH), Department of Public Health (DPH) and Department of Youth Services (DYS). For claims filed during FY10-FY12, approximately 87% of the claims and 90% of the direct claims costs (medical and compensation) are attributed to these four agencies.

The key job functional titles that accrued the majority of medical and compensation costs for FY10-FY12 work-related injuries and illnesses are listed below:

- DMH - Mental Health Workers and Registered Nurses,
- DDS - Developmental Services Workers
- DYS - Youth Services Group Workers
- DPH - Nursing Assistant, Licensed Practical Nurse, Registered Nurse

Table 3 below details for the EOHHS agencies listed above, the top jobs in which workers were injured and that have incurred the most costs paid out in medical and compensation benefits for new claims filed during FY10-FY12. The table also includes for each agency an "all other jobs" category with associated costs for jobs with a lower impact, and also, an "all other EOHHS agencies" row that represents only 10% of EOHHS secretariat-wide costs.

---

<sup>8</sup> The small discrepancy in claims counts is primarily due to claims that are filed outside of HRD's Notice of Injury (NOI) system or claims that are transferred into HRD's claims management system.

**Executive Order 511**  
**Annual Report March 2014**

**Table 3. EOHHS Agencies Top Jobs by Claims  
with Incurred Costs for Claims Filed FY2010-FY2012**

Department	Functional Title	Claims Incurring Cost	Medical	Compensation	Total
DDS	Developmental Services Wrk I	714	\$1,076,056	\$2,003,329	\$3,079,385
	Developmental Services Wrk II	195	\$304,132	\$547,125	\$851,257
	Licensed Practical Nurse I	48	\$97,048	\$294,327	\$391,375
	All Other Jobs	275	\$642,306	\$1,211,830	\$1,854,126
<b>DDS Total</b>		<b>1,232</b>	<b>\$2,119,543</b>	<b>\$4,056,601</b>	<b>\$6,176,143</b>
Department	Functional Title	Claims Incurring Cost	Medical	Lost Wages	Total
DMH	Mental Health Worker I	234	\$346,625	\$635,477	\$982,102
	Mental Health Worker II	122	\$114,675	\$299,942	\$414,617
	Registered Nurse II	58	\$113,197	\$409,087	\$522,284
	Registered Nurse III	53	\$48,778	\$154,877	\$203,656
	Mental Health Worker III	52	\$82,023	\$187,368	\$269,391
	Mental Health Worker IV	28	\$64,804	\$178,022	\$242,827
	All Other Jobs	205	\$405,901	\$698,093	\$1,103,994
<b>DMH Total</b>		<b>752</b>	<b>\$1,176,004</b>	<b>\$2,562,866</b>	<b>\$3,738,870</b>
Department	Functional Title	Claims Incurring Cost	Medical	Lost Wages	Total
DYS	Youth Services Group Worker I	172	\$410,470	\$673,342	\$1,083,813
	Youth Services Group Worker II	83	\$233,446	\$480,040	\$713,487
	Youth Services Grp Worker III	52	\$122,593	\$371,220	\$493,813
	Youth Services Caseworker II	12	\$56,556	\$142,941	\$199,497
	All Other Jobs	34	\$80,714	\$165,689	\$246,403
<b>DYS Total</b>		<b>353</b>	<b>\$903,779</b>	<b>\$1,833,233</b>	<b>\$2,737,012</b>
Department	Functional Title	Claims Incurring Cost	Medical	Lost Wages	Total
DPH	Nursing Assistant I	132	\$121,748	\$242,828	\$364,576
	Registered Nurse II	37	\$29,525	\$97,972	\$127,497
	Licensed Practical Nurse II	34	\$41,055	\$150,881	\$191,936
	Facility Service Worker II	21	\$17,649	\$52,436	\$70,085
	Campus Police Officer I	12	\$39,224	\$87,768	\$126,992
	All Other Jobs	121	\$328,903	\$582,800	\$911,703
<b>DPH Total</b>		<b>357</b>	<b>\$578,103</b>	<b>\$1,214,686</b>	<b>\$1,792,790</b>
<i>All other EOHHS Agencies</i>		<b>398</b>	<b>\$585,720</b>	<b>\$988,550</b>	<b>\$1,574,270</b>
<b>EOHHS Secretariat Total</b>		<b>3,092</b>	<b>\$5,363,149</b>	<b>\$10,655,936</b>	<b>\$16,019,085</b>

**Executive Office of Public Safety and Security (EOPSS)**

The top agency within EOPSS, both by claims frequency and paid medical and compensation claims costs, is by far the Department of Correction (DOC). For FY10-FY12 claims, DOC accounted for approximately 85% of the work injuries reported, 89% of all claims incurring cost (903/1020) and 94% of the total medical and compensation costs paid out within EOPSS. The other eight remaining agencies within EOPSS accounted for 6% of all remaining claims costs.

The key job functional titles within DOC that accrued the majority of workers' compensation costs for paid claims that were filed in FY10, FY11 or FY12 are within the Correctional Officer I, II, III positions as shown in Table 4 below:

<b>Table 4: EOPSS Agencies Top Jobs by Claims with Incurred Costs for Claims Filed FY2010-FY2012</b>					
Department	Functional Title	Claims Incurring Cost	Medical	Compensation	Total
DOC	Correction Officer I	613	\$1,076,504	\$3,304,067	\$4,380,571
	Correction Officer II	137	\$255,321	\$825,746	\$1,081,068
	Correction Officer	18	\$61,279	\$190,665	\$251,944
	Correction Officer III	32	\$41,442	\$170,796	\$212,238
	All Other Jobs	103	\$176,590	\$578,478	\$755,068
<b>DOC Total</b>		<b>903</b>	<b>\$1,611,137</b>	<b>\$5,069,751</b>	<b>\$6,680,888</b>
<i>All other EOPSS Agencies</i>		<b>117</b>	<b>\$171,901</b>	<b>\$267,434</b>	<b>\$439,335</b>
<b>EOPSS Secretariat Total</b>		<b>1,020</b>	<b>\$1,783,038</b>	<b>\$5,337,185</b>	<b>\$7,120,223</b>

Interestingly for this set of claims, the Correction Officer I position incurred greater than 66% of all correctional officer job workers' compensation costs.

To the credit of the DOC, workers' compensation incidents and costs have decreased for several years. In the most recent three-year snapshot, there has been a near 20% decrease in both in the number of paid claims and total losses for medical and compensation.

**Massachusetts Department of Transportation (MassDOT)**

Effective in November 2009, a new consolidated state transportation entity was created that resulted in the merger of former state agencies Mass Highway Department (DPW), Registry of Motor Vehicles (RMV) and the Executive Office of Transportation (TRANSP) with state authorities like the Massachusetts Turnpike Authority (MTA), Tobin Bridge (TOBIN), and Massachusetts Aeronautics Commission (MAC). Together these formerly independent units joined to become one new state agency - the Massachusetts Department of Transportation (MassDOT).

**Executive Order 511**  
**Annual Report March 2014**

Both the DPW and MTA are the major business units with greatest paid losses both in frequency and severity as displayed below. Together they comprise 94% of all claims paid that have either medical and/or compensation related claims costs for MassDOT.

The key job functional titles within MassDOT that incurred the majority of claims costs (>55% of all paid claims and >70% of all claims costs) are detailed in Table 5 below:

- MTA - Toll Collector, Maintenance Workers, Equipment Operators
- DPW - Maintenance Equip. Operator, Civil Engineer, Laborer, Contract Specialist II

<b>Table 5. MassDOT Agencies Top Jobs by Claims with Incurred Costs for Claims Filed FY2010 - FY2012</b>					
Department	Functional Title	Claims Incurring Cost	Medical	Compensation	TOTAL
DPW	Maintenance Equip Operator	68	\$142,702	\$189,132	\$331,834
	Contract Specialist	31	\$74,682	\$137,107	\$211,789
	General Construction Inspector	25	\$40,919	\$43,019	\$83,938
	Civil Engineer	24	\$41,512	\$110,610	\$152,123
	Laborer II	15	\$87,748	\$60,765	\$148,513
	Motor Equipment Mechanic	11	\$12,878	\$32,378	\$45,256
	DPW All Other Jobs	90	\$115,465	\$166,791	\$282,256
<b>DPW Total</b>		<b>264</b>	<b>\$515,905</b>	<b>\$739,803</b>	<b>\$1,255,708</b>
Department	Functional Title	Claims Incurring Cost	Medical	Compensation	TOTAL
MTA	Maintenance Worker	58	\$212,183	\$538,935	\$751,118
	Toll Collector	56	\$926,879	\$512,143	\$1,439,021
	Equipment Operators	44	\$128,588	\$394,424	\$523,012
	High Maintenance	4	\$32,834	\$159,028	\$191,862
	Heavy Equip Operator	4	\$23,141	\$59,537	\$82,678
	Special Projects Worker	4	\$21,625	\$131,443	\$153,068
	MTA All Other Jobs	132	\$469,320	\$590,617	\$1,059,937
<b>MTA Total</b>		<b>302</b>	<b>\$1,814,570</b>	<b>\$2,386,126</b>	<b>\$4,200,696</b>
<b>All Other MassDOT Agencies</b>		<b>38</b>	<b>\$132,486</b>	<b>\$88,090</b>	<b>\$220,577</b>
<b>MassDOT Secretariat Total</b>		<b>604</b>	<b>\$2,462,961</b>	<b>\$3,214,020</b>	<b>\$5,676,981</b>

Note that the remaining MassDOT sub-agencies (all other category) represent only 6% of paid claims and 4% of total claims costs. Within this category, RMV claims represent the vast majority (>90%) of medical and lost wage related claims costs.

**Executive Office of Energy and Environmental Affairs (EOEEA)**

Within the EOEEA secretariat, the Department of Conservation and Recreation (DCR) accounted for 85% of all paid claims with medical and/or compensation related costs.

The key job functional titles within DCR that accrued the majority of claims costs are listed in Table 6 by frequency and cost. Several job functional titles have been “grouped” into common classes so as to simply provide totals of major jobs with associated workers’ compensation costs. The top three jobs groupings, based on number of claims incurring cost, are Laborers (92), Forest and Park personnel (44), and then Recreation and Facilities personnel (41).

<b>Table 6. EOEEA Agencies Top Jobs by Claims with Incurred Costs for Claims Filed FY2010 - FY2012</b>					
Department	JOBs Grouped by Functional Title	Claims Incurring Cost	Medical	Compensation	TOTAL
DCR	Laborers	92	\$123,935	\$243,371	\$367,306
	Forest and Park personnel	44	\$90,147	\$156,012	\$246,160
	Recreation and Facilities	41	\$79,047	\$129,602	\$208,649
	Operators and Mechanics	17	\$25,317	\$111,317	\$136,635
	Carpenter/construction/electrician	11	\$51,508	\$73,656	\$125,165
	Fire personnel	6	\$15,254	\$18,909	\$34,163
	Bridge Operator	3	\$16,191	\$37,579	\$53,769
	Insect Pest Control Special II	3	\$6,494	\$3,906	\$10,400
	Civil Engineer	2	\$28,640	\$1,462	\$30,102
	All other jobs	134	\$105,258	\$137,578	\$32,320
<b>DCR Total</b>		<b>353</b>	<b>\$541,792</b>	<b>\$808,135</b>	<b>\$1,349,927</b>
<b>All Other EOEEA Agencies</b>		<b>84</b>	<b>\$140,405</b>	<b>\$91,695</b>	<b>\$232,100</b>
<b>EOEEA Secretariat Total</b>		<b>437</b>	<b>\$682,197</b>	<b>\$899,830</b>	<b>\$1,582,027</b>



**Executive Office of Education (EOE)**

The Executive Office of Education (EOE) secretariat consists of primarily the State Colleges and Universities and the University of Massachusetts (UMass) System.<sup>9</sup> Because there are several colleges and universities within the State’s Higher Education system, the top jobs by claims costs within the EOE are broken out by jobs within UMass and jobs outside of UMass (state colleges) - see Table 7.

As in EOEEA above, several job functional titles within EOE have been “grouped” into common classes so as to simply total top jobs coupled with claims costs as detailed in Table 7 below. Although the split between UMass and the State Colleges in number of claims incurring costs is roughly 70:30, in terms of total dollars paid out for medical and compensation benefits, the split is more closely 50:50. For both departments listed in Table 7, the major job title of injured workers that incurs substantial workers’ compensation costs is Maintainer/Janitor – comprising 27% of all claims costs. All the major job titles displayed represent 58% of all claim costs for both EOE subdivisions.

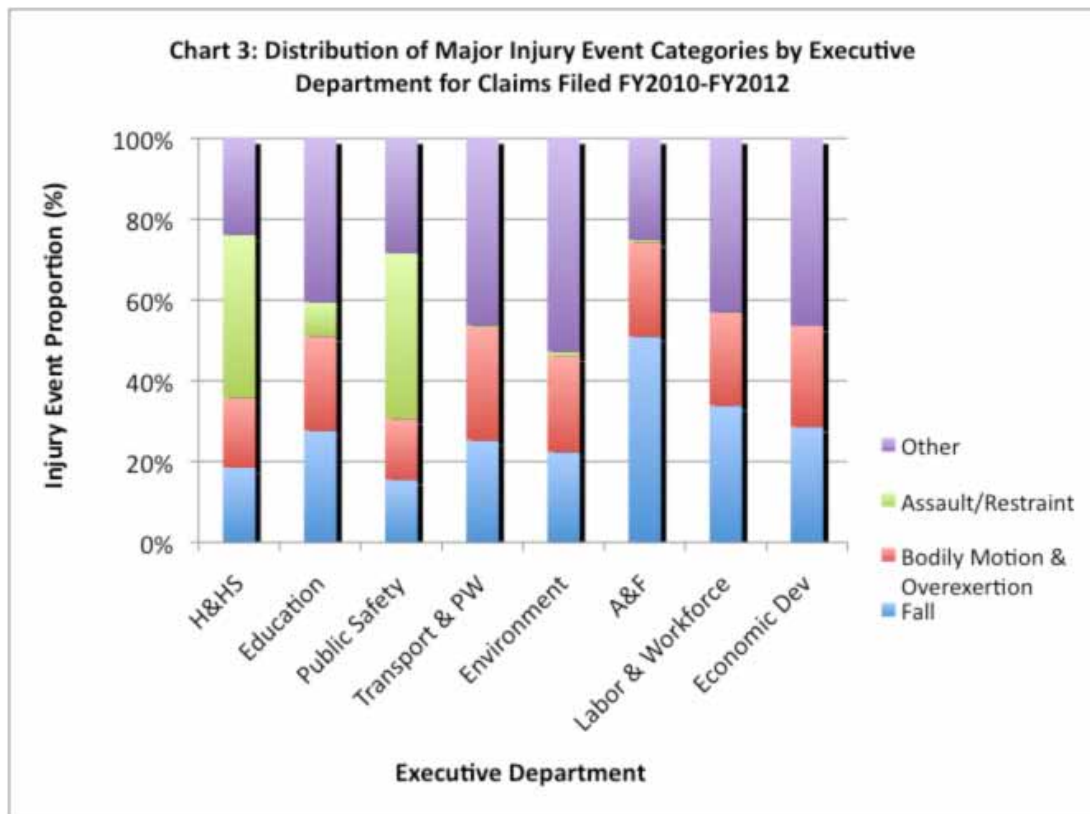
<b>Table 7. EOE Top Jobs by Claims with Incurred Costs for Claims Filed FY2010-FY2012</b>			
Department	JOBS Grouped by Functional Title	Claims Incurring Cost	Total Medical and Compensation
State Colleges	Maintainer/Janitor	177	\$1,058,463
	Clerk/Administrative Assistant	57	\$337,327
	Police	52	\$280,021
	Carpenter	18	\$105,256
	Plumber/Steamfitter/Steam Fireman	17	\$302,086
	Steam Fireman/Plant Engineer	15	\$250,156
	<b>State Colleges All Other Jobs</b>	<b>397</b>	<b>\$1,514,966</b>
	<b>State Colleges Total</b>		<b>733</b>
Department	JOBS Grouped by Functional Title	Claims Incurring Cost	Total Medical and Compensation
UMass	Maintainer/Janitor	251	\$1,094,693
	Nurse/LPN	70	\$295,518
	Clerk/Administrative Assistant	68	\$195,141
	Police	55	\$316,836
	Laborer	50	\$182,052
	Resident	242	\$137,286
	<b>UMASS All Other Jobs</b>	<b>925</b>	<b>\$1,827,721</b>
	<b>UMass Total</b>		<b>1,661</b>
<b>EOE Secretariat Total</b>		<b>2,394</b>	<b>\$7,897,523</b>

<sup>9</sup> EOE also consists of some small “oversight/non-campus” related boards and departments; these are included in the State Colleges claims counts and costs.

State colleges and universities are not mandated to comply with EO 511, and there are none formally participating in this effort. Voluntary participation has been encouraged, with all of the EO 511 training, tools, and resources available to the schools.

### Major Injury Event Categories

Chart 3 depicts the top three major event categories for each of the eight Executive Departments for all claims filed during FY10-FY12. Of the approximately 15,000 claims filed during this three-year period, 67% were due to Assaults/Restraints, Falls, or Bodily Motion and Overexertion events.<sup>10</sup> Approximately 40% of incidents in this last category involved lifting. Note that while assault/restraint type injuries represent 25% of all Executive Department claims filed, for EOHHS and EOPSS, they represent 40% of all claims filed. Compared to the other secretariats, this maybe typical for EOHHS and EOPSS, as agencies within these secretariats have employees that are in care and custody job positions – meaning they directly deal with inmates (DOC) or deal with patients (DMH, DDS, DPH). Conversely, it is interesting to note that for ANF agencies, whose employees are typically not in direct care/custody



<sup>10</sup> Bodily Motion/Overexertion-term represents Lifting/Moving/Walking injury event categories in the HRD claims management database.

relationships with clients, their major injury-causing event is falls, making up 51% of claims filed. HRD is working to improve data quality to be able to delineate specific events with these broader event categories to inform prevention efforts.

### Allocation of Medical and Compensation Costs by Major Event Category

Chart 4 and its related table (Table 8) show the proportion of medical and compensation expenditures for the top three major injury event categories. As described above, 67% (10,158) of claims filed for the period FY10-FY12 are due to Assault/Restraint, Falls, or Bodily Motion/Overexertion incidents. 34% of all claims filed in FY10-12 incurred costs and make up 78% of the total outlay in claims expenditures for the top three major event categories listed. The remaining 22% of expenditures is due to the “all other” category that consists of several injury event types that do not represent as significant an impact.

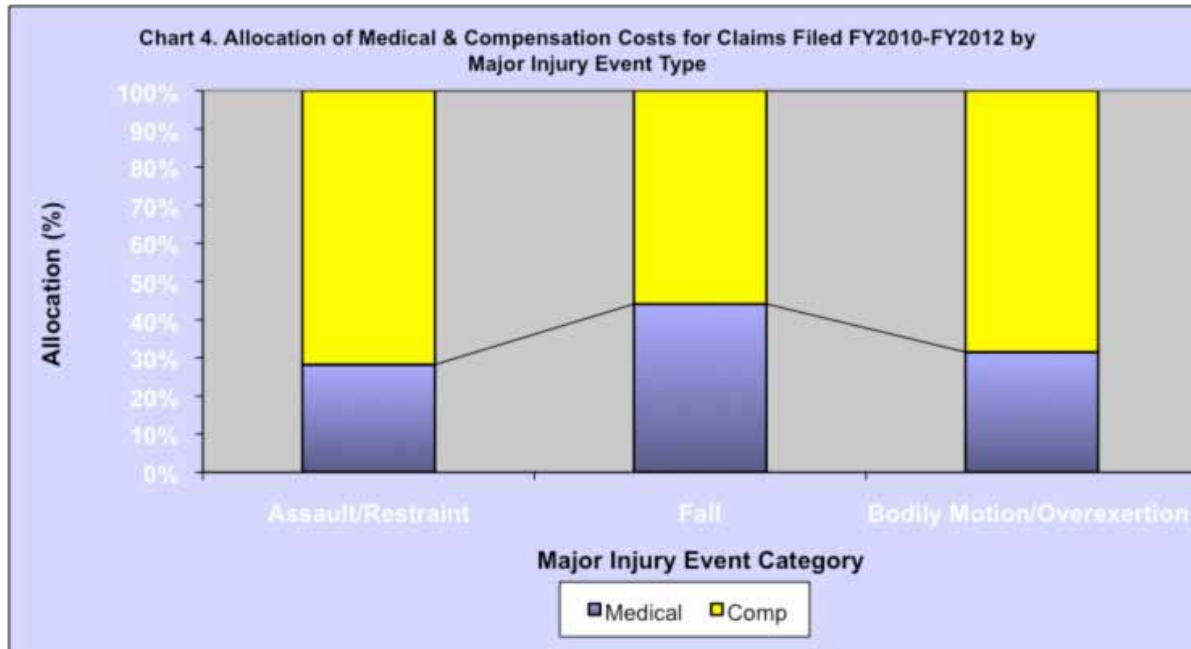


Table 8. Major Injury Event Category Costs for Claims Filed in FY2010-FY2012					
Event Category	Claims Incidents Filed	Claims Incurring Cost	Medical	Compensation	Total
Assault/Restraint	3,829	1,910	\$3,072,332.05	\$7,804,287.38	\$10,876,619.43
Fall	3,315	1,552	\$4,599,508.19	\$5,831,328.19	\$10,430,836.38
Bodily Motion/Overexertion	3,014	1,621	\$2,832,984.90	\$6,160,420.47	\$8,993,405.37
All Other	4,903	2,565	\$3,510,896.16	\$5,249,994.36	\$8,760,890.52
<b>Grand Total</b>	<b>15,061</b>	<b>7,648</b>	<b>\$14,015,721.30</b>	<b>\$25,046,030.40</b>	<b>\$39,061,751.70</b>

## Conclusion of Findings

The purpose of using workplace injury and illness statistics is to help state agencies –both management and employees - gain a greater understanding of workplace risks, identify prevention priorities and, monitor progress in meeting prevention goals over time. In addition to providing the broad overview presented here, HRD is also working together with staff of the DPH Occupational Health Surveillance Program and other members of the EO 511 Health and Safety Advisory Committee to make better use of the data. With input from agency health and safety committee members, they are working to develop standard injury and illness data reports that can be used by these committees to inform their efforts to reduce work-related injuries and illnesses among employees of the Commonwealth.

## 5. Provisions of the Executive Order

EO 511 listed seven concrete actions required of Executive Branch agencies. Following is an update on the progress made on each of these actions, and how each of these fit into a plan for sustainability of state worker health and safety management.

### Establish Secretariat Safety and Health Coordinators

*Section 2 (part 1): "...forward to the Commissioner of the Division of Occupational Safety<sup>11</sup> and to the Chief Human Resources Officer... the name and contact information of a qualified person who shall serve as the secretariat's Safety and Health Coordinator. The Safety and Health Coordinator will be responsible for ensuring the implementation of this Executive Order within the secretariat and shall serve as the secretariat's point of contact for training and other safety and health activities conducted by the Human Resources Division and/or the Division of Occupational Safety."*

---

The person named as the secretariat's Safety and Health Coordinator is a person who has knowledge of the secretariat structure, agencies, and key personnel, which is needed for health and safety committee formation. In essence, the coordinator serves to get the ball rolling with health and safety committee set-up to ensure that all employees are covered under a joint labor-management health and safety committee. Working with the agencies within the secretariat, the coordinator helps decide on a practical and effective structure of health and safety committees (for example, one committee for the whole agency, or separate committees by district or region, or by employee function, or a combined group of small agencies, etc.). The coordinator ensures that committees are formed, trained by DLS, and that they continue to meet and complete the EO 511 tasks.

The coordinator serves as the key communication liaison between agency health and safety committees and secretariat senior management, and also provides periodic status updates to DLS as requested for the EO 511 Massachusetts Employee Safety and Health Advisory Committee. The coordinator will also serve a key role in completing the Secretariat Health and Safety Management Plan.

---

<sup>11</sup> In January of 2011, Governor Deval L. Patrick filed pursuant to Article 87 of the Amendments to the Massachusetts Constitution, a reorganization of the Executive Office of Labor and Workforce Development. Under this reorganization, the Executive Office of Labor and Workforce Development was divided into five distinct departments, thereby abolishing the former Department of Labor and its divisions and the former Department of Workforce Development and its divisions. All of the programs and responsibilities under the Division of Occupational Safety (DOS) and the Division of Apprentice Training (DAT) were combined and consolidated under a new department organized and named the Department of Labor Standards (DLS). The reorganization was enacted into law on March 11, 2011, under Chapter 3 of the Acts of 2011, "An Act Reorganizing the Executive Office of Labor and Workforce Development."

Appointments by each Secretariat were completed by the Spring of 2010. Due to personnel turnover, new appointments have and will continue to occur. See Appendix B for the most current list of appointees.

*Section 2 (part 2): The Division of Occupational Safety (now the Department of Labor Standards) will conduct training for and work with the Coordinators to assist them in carrying out their responsibilities."*

---

The Department of Labor Standards (DLS) provided training to all Secretariat Coordinators as well as all of the health and safety committees. More than 100 trainings were conducted. Descriptions of each the trainings are provided below. In addition to the formal trainings conducted, on-going informational support, technical assistance, training, and brainstorming, etc. have been provided by DLS as needed to Secretariat Coordinators and health and safety committees. See Appendix G for the PowerPoint training tool for each of the trainings listed below.

#### Secretariat Coordinator Training

This training was designed to provide the newly-named EO 511 Secretariat Health and Safety Coordinators with all the information necessary to launch the EO 511 process for their secretariat. The primary focus was to look at the different variables to be considered in creating an effective break-out of health and safety committees for the secretariat (e.g., agency size, locations, seriousness and range of hazards faced, etc.). Other topics covered included: an overview of EO 511, an overview of health and safety management system elements framing the health and safety committee assessments, and a look at each of the serious worker hazards to be assessed by the health and safety committees.

#### Health and Safety Committee Start-up Training

This training was designed to fully prepare health and safety committees to launch into the EO 511 work, which starts with completion of the hazard assessment questionnaires. Topics covered include: an overview of EO 511, health and safety committees practical guidance, an overview of health and safety management system elements framing the health and safety committee assessments, a look at each of the serious worker hazards to be assessed by the health and safety committees, and the specific questions and how to answer them on the hazard assessment questionnaires.

#### Gap Analysis Training

This training was designed for committees who had completed the hazard assessment questionnaires and were ready to start the gap analysis phase. This training provided a short overview of the gap analysis process, which is a comparison of what is currently in place for each hazard, as identified on the hazard assessment questionnaires, against two benchmarks: 1) health and safety management ideals, and 2) the national worker protection standards of practice for this hazard, typically the OSHA standard. The bulk of this training is not reflected in the PowerPoint training tool, as it consisted of a guided group discussion to begin to develop actual gap analysis results.

**Executive Order 511**  
**Annual Report March 2014**

	Number of Secretariat Health and Safety Coordinator Trainings	# Staff Attended	
All Secretariats	8	32	
SECRETARIAT	Number of Health and Safety Committee Trainings	# Staff Attended	Number of Health and Safety Committees Formed (or existing committees participating)
Administration and Finance	3	18	1
Education	3	18	4
Energy and Environmental Affairs	15	160	19
Health and Human Services	48	464	36
Housing and Economic Development	6	58	3
Labor and Workforce Development	7	97	4
Public Safety and Security	7	106	11
Transportation	8	63	12
<b>TOTAL</b>	<b>105</b>	<b>872</b>	<b>90</b>

**Record Incidents**

*Section 3: "All state agencies shall keep records concerning occupational injuries, illnesses, and deaths in compliance with regulations promulgated under the Occupational Safety and Health Act, as set forth in 29 CFR Part 1904, titled Recording and Reporting Occupational Injuries and Illnesses."*

The Human Resources Division (HRD) administers the state employees' workers' compensation program. HRD acts as the insurance provider for state workers injured at work and is responsible for reviewing injury reports, determining what's compensable and ensuring that those eligible, receive adequate medical and/or lost-wage benefits. To expedite processing of workers' compensation claims, HRD developed its own workplace injury/accident reporting system -Workers' Compensation eServices- for state agencies to use and file all incidents online.

This process begins when an employee sustains an injury and reports the injury to his/her employer agency. The agency is responsible for timely filing the Notice of Injury/Illness Form (NOI) with HRD, preferably within forty-eight (48) hours of the work incident. For employees missing any time (full or partial) from work for five (5) or more calendar days, another form, the Employer's First Report of Injury or Fatality (Form 101) is also filed in the event the employee is owed any wage-replacement benefit. Filing both forms is easy and is done online. The agency-designated workers' compensation agent logs in to the HRD accident reporting system and files the NOI and/or Form 101. If the employee only loses fewer than 5 days, then only the NOI needs to be submitted. eServices is very user friendly and self explanatory. Additionally end-users have been trained on the application and there are reference documents online that help them complete the required forms, as well as workers' compensation specialists at HRD that can offer additional assistance.



eServices helps state agencies leverage a lot of information so that they can better manage their work-related injuries and enhance workplace health and safety measures. In addition to faster online filing of injury claims, agencies now have a centralized and secure electronic locale to track all facets of a claim from its inception to conclusion, thus eliminating the need for a paper-intensive, manual based records system. All vital claims information is stored in this centralized claims repository, such as the employee's secured personal information, date of injury, dates of lost time from work, date the incident report was filed, and key information about the type of injury, where the injury occurred, and what activity the employee was engaged in at the time of injury. Payment information regarding medical and wage replacement benefits as well other claims related expenses is also captured in the system. Combining all this information will enable state agencies to better focus on workplace injury prevention measures and hopefully avoid the same type of accidents from recurring at the workplace and mitigate pain and suffering caused to workers.

### Collect and Publish Data

*Section 4: "The Human Resources Division, in conjunction with the Division of Occupational Safety and the Massachusetts Department of Public Health Occupational Health Surveillance Program, shall establish a process for collecting data recorded by state agencies pursuant to this Executive order. The Division of Occupational Safety shall provide training to state agencies to facilitate their record-keeping and reporting under 29 CFR Part 1904. The Human Resources Division shall, to the extent permitted by law, make data reported under this system available to the Division of Occupational Safety and the Occupational Health Surveillance Program, and the to the Massachusetts Employee Safety and Health Advisory Committee established under this Executive Order."*

The Human Resources Division (HRD) collaborated with the Department of Public Health (DPH) Occupational Health Surveillance Program (OHSP) to adapt the existing workers' compensation case tracking system used by state agencies (workers' compensation E-services) so that it can be used to generate data on work-related injuries and illnesses consistent with OSHA record-keeping requirements and to centrally report work-related injuries and illnesses data for surveillance and prevention purposes. HRD provided training in use of the revised system to agency staff. HRD, with input from OHSP and other members of the EO 511 Advisory Committee, prepared the report on occupational injuries and illnesses during FY2010-12 included in this report and is working, with input from agency health and safety coordinators and committee input to develop standard reports for use by health and safety committees in planning prevention efforts. HRD with OHSP is continuing to work on data quality issues and steps to improve data to inform prevention efforts. OHSP continues to track all work-related fatalities including public sector fatalities, and has made this data available to the EO 511 committee and DLS.

In 2008, prior to the enactment of EO 511, DLS conducted training for public entities on OSHA record-keeping requirements for those entities selected to participate in the U.S. Bureau of Labor Statistics (BLS) annual Survey of Occupational Injuries and Illnesses (SOII). In 2010, the same training was offered to public entities and response was very minimal. In 2011, DLS posted an online training tool on its website at [www.mass.gov/dols](http://www.mass.gov/dols) for public entities on record-keeping requirements.

## Participate in National Survey

*Section 5: "All agencies that have workplaces selected by the Bureau of Labor Statistics as sample units for participation in the annual Bureau of Labor Statistics' Survey of Occupational Injuries and Illnesses shall comply with the survey's reporting requirements relating to injury and illness data."*

---

Since 1992, Massachusetts, and most other states, has been in a partnership with the U.S. Bureau of Labor Statistics (BLS) to collect non-fatal occupational injury and illness data. Each year, DLS collects this occupational injury and illness data in survey form, surveying approximately 5,800 work establishments. Nationwide, over 200,000 surveys are collected. The data are used to estimate the annual national and state-specific incidence rates and numbers of work-related injuries and illnesses by industry, worker characteristics, and circumstances of the event.

While the BLS survey has been part of the nation's primary public health surveillance system for job-related injuries and illnesses since the 1970's, a critical component of the data set has been missing: the occupational injury and illness experience among public sector workers. In 2008, BLS began collecting data for the annual Survey of Occupational Injuries and Illnesses (SOII) from both private *and* public establishments. However, unlike with the private sector, public sector workplaces in Massachusetts are not legally required to participate in the BLS survey because the public sector is not covered by the Occupational Safety and Health Act (OSHA). Realizing that collecting data on public sector workplaces is critical, Governor Patrick made one of the requirements of EO 511 that state agency workplaces selected by random sample to participate in the SOII, are mandated to participate. For the 2010 survey year, 80% of state units responded, which was a sufficient enough response rate for DLS to produce high-level estimates of injury and illness statistics for state government. *See Appendix D.* In 2011, DLS Director Heather Rowe sent a letter to selected state units, reminding them of the importance of their participation and the mandate of EO 511. *See Appendix E.* In addition, telephone calls were made by DLS staff members to every non-responsive state unit before the end of the survey data collection stage, reminding them of their obligations to respond to the survey in accordance with EO 511. For the 2011 survey year, close to 80% of state units responded. This response rate should allow for some high-level estimates on injury and illness data to be published.

## Establish the Governor's Advisory Committee

*Section 6: "The Massachusetts Employee Safety and Health Advisory Committee is hereby established, and shall be appointed by the Governor, to evaluate injury and illness data, recommend training and implementation of safety and health measures, monitor the effectiveness of safety and health programs, and determine where additional resources are needed to protect the safety and health of the Commonwealth's employees."*

---

## Executive Order 511 Annual Report March 2014

EO 511 calls for appointments to a Massachusetts Safety and Health Advisory Committee, comprised of 13 members representing officials from state government, labor, advocacy, and academia. The Governor's appointments, listed below, were completed by the fall of 2010.

Paul Dietl Advisory Committee Co-Chair	Chief Human Resources Officer, Human Resources Division (HRD), Executive Office for Administration and Finance
George Noel Advisory Committee Co-Chair	Director of the Department of Industrial Accidents (DIA) Executive Office of Labor and Workforce Development
Elissa Cadillic (AFSCME) representative	American Federation of State, County, and Municipal Employees
Letitia Davis, ScD, EdM Department of Public Health	Director, Occupational Health Surveillance Program
Joe Dorant	President, Massachusetts Organization of State Engineers and Scientists (MOSES)
Marcy Goldstein-Gelb	Executive Director, Massachusetts Coalition for Occupational Safety and Health (MassCOSH)
Andy Munemoto	Analyst, Executive Office for Administration and Finance
Brian Hickey	HRD Chief Financial Officer
John Langan	Deputy Director, Office of Employee Relations
Kathleen Manson	Director, Office of Safety, Department of Industrial Accidents
Paul Morse	Massachusetts Teachers Association (MTA) representative
Kevin Preston	Service Employee International Union (SEIU) representative
Heather Rowe	Director, Department of Labor Standards
David Wegman, M.D.	Professor Emeritus, UMass Lowell, Department of Work Environment

In October 2010, the committee convened and has met at least quarterly since. During 2011 the committee drafted its mission statement, received status updates on the work of the labor-management health and safety committees from DLS, formed a data team, and laid the groundwork to commit to a strategic plan for fulfilling its role with regard to EO 511. Identified goals of the Advisory Committee include:

- a. fostering comprehensive and effective worker health and safety management in all state agencies which results in reduced workplace fatalities, injuries, and illnesses;
- b. helping agencies identify a sustainable pathway of strategic, practical and manageable steps forward to achieve this;
- c. receiving committee survey results;
- d. receiving annual planning reports from secretariats on their progress toward enhancing the safety and health of its employees

**Mission Statement:** The Advisory Committee will serve to evaluate and address any needed improvements in the protection of our Commonwealth employees at the macro policy level. The Committee will use methods such as evaluation of existing health and safety systems and injury and illness statistics to create recommendations on effective strategies to improve state worker health and safety, including centralized worker protection policies or regulations, needed resource allocations, and/or agency health and safety system improvement measures. The Committee will also monitor the effectiveness of the state's health and safety programs.

## Establish Joint Labor-Management Health and Safety Committees

*Section 7 (part 1): "...Each secretariat and, where appropriate, each department, agency, and/or division, in conjunction with the applicable collective bargaining representatives, shall establish joint labor-management health and safety committees."*

---

EO 511 has resulted in the creation of 90 joint labor-management health and safety committees who are participating in the project, designed so that all employees in the Executive Branch are covered by a committee. Note that approximately 20 of these committees already existed, or were formed out of an existing committee.

A range of models was used for formation of committees depending on the structure and different functions and locations for each agency. Small to mid-size agencies typically formed a single committee. Larger agencies typically broke out into committees for different regions/areas/facilities. For discrete entities such as hospitals, they each formed their own committee. Some larger agencies and groupings of small agencies used a master committee approach, with representatives from the small agencies or regions making up one committee. The Massachusetts Department of Transportation (MassDOT) formed committees around each of the hazards evaluated.

Detail on the approach taken by each secretariat in the formation of committees, as well as an overview of progress with the health and safety management evaluation conducted by the committees (outlined under the description of Section 7, part 2 of EO 511), is provided below. On-going engagement and provision of guided activity will be necessary to ensure that the committees that have been initiated solidify into permanent and effective agents of health and safety improvement. Committee re-structuring as needed will also occur as part of the next phase of work.

### **Executive Office for Administration and Finance (AnF)**

A master committee approach with representatives from each agency is being used. Each agency was to complete its own health and safety evaluation findings.

Gap analysis results were received from the Department of Revenue and the Human Resources Division.

### ***Executive Office of Education (EOE)***

Staff was trained so that committees could be formed for all non-college/university staff.

Only one active committee resulted, the Early and Secondary Education group, which submitted hazard assessments but no gap analysis findings.

While state colleges and universities are not mandated to comply with EO 511, EOE has been supportive of voluntary participation by higher education campuses. The Advisory Committee co-chairs have sent a letter to all state college / university entities encouraging their voluntary participation in EO 511. *See Appendix F.* Several schools contacted DLS, who has sent them detailed information on the project and offered the full training and tools needed for participation.

### ***Executive Office of Energy and Environmental Affairs (EOEEA)***

The Department of Environmental Protection (DEP) formed a health and safety committee. The Department of Conservation and Recreation (DCR) is using their existing regional safety committees feeding into a statewide master committee. All remaining agencies and the executive office staff have formed a master committee.

The Executive Office, DEP, DCR, Environmental Police, MEPA, and OTA submitted completed gap analysis findings.

### ***Executive Office of Health and Human Services (EOHHS)***

A health and safety committee has been formed for every facility, agency region, central office, or grouped small agencies. EOHHS formed the largest and most localized group of health and safety committees. This allows them to gain the most detailed knowledge of gaps in health and safety management and controls, as this can vary greatly by facility or region even within the same department.

Full gap analysis findings were submitted by all but a few of the 36 committees, with these remaining few committees working to complete theirs.

### ***Executive Office of Housing and Economic Development (EOHED)***

The Department of Housing and Community Development (DHCD) has formed a committee. The Economic Development side staff were trained and planned to split out the agencies into two committees, but committees were not fully created.

No gap analysis findings were submitted by any agency.

### ***Executive Office of Labor and Workforce Development (EOLWD)***

A health and safety committee has been formed for every agency (except the Department of Labor Relations who, because of their agency size, is part of the Department of Labor Standards committee).

All agencies submitted full gap analysis findings.

### ***Executive Office of Public Safety and Security (EOPSS)***

A health and safety committee has been formed for every agency except the State Police who are not participating in EO 511.

Gap analysis findings were submitted by the Office of the Chief Medical Examiner and the Sex Offender Registry Board.

### ***Massachusetts Department of Transportation (MassDOT)***

Formation of Health and Safety Committees:

The Massachusetts Bay Transit Authority (MBTA) side of MassDOT used a master committee approach for the hazard assessment phase. The remaining MassDOT agencies were formed into hazard-based committees. Following successful completion of the hazard assessment phase, hazard-based committees were re-formed to ensure participation by those with expertise on the hazard, with one MBTA representative assigned to each of these committees.

Complete gap analysis findings were submitted by all committees.

*Section 7 (part 2): "Such committees shall, in conjunction with the health and safety coordinators established pursuant to this Order, survey safety and health hazards and existing safety and health measures within the secretariat, department, agency or division, evaluate the effectiveness of those measures and make recommendations to the Secretary on ways to improve employees' safety and health. Each secretariat shall forward committee survey results and recommendations to the Massachusetts Employees Safety and Health Advisory Committee established by this Order... and shall report annually to the Advisory Committee on its progress toward enhancing the safety and health of its employees."*

A systemic approach was taken in evaluating safety and health measures. The method was designed to look at where things stand with the systemic elements of comprehensive health and safety management, to see where there is needed improvement if workers are not fully protected every time they face on-the-job hazards. The method was intended to dig deeper than a surface assessment of what measures are in place, for example, through use of checklists, and instead identify what is missing and why for sustainable and complete management of health and safety hazards, to get down to the root causes so they can be corrected. This was done by looking at current health and safety management for a set of some of the most serious hazards state workers face on the job. Following training provided by DLS, health and safety committees conducted this information-gathering process by completing questionnaire documents with written narrative answers.

Each secretariat will review the findings from their agency committees to aid in their health and safety management planning efforts. The Advisory Committee and DLS will also review all committee findings, and DLS will prepare a full summary report.

Two secretariats merit special attention for their outstanding efforts with EO 511.

- **The Executive Office of Health and Human Services (EOHHS)**, EO 511 Coordinator, Denise Attwood. With strong support from the Secretary's office, EOHHS formed the largest and most localized group of health and safety committees. By having committees at the local level, such as at every facility or for every region, they gained the most detailed knowledge of gaps in health and safety management and controls, which can vary greatly by facility or region even within the same department. Through dedication and hard work, nearly every committee submitted full gap analysis results by their internal deadline of June 1, 2012. EOHHS has already moved on to the next phase of work, trying to immediately correct the identified gaps in health and safety and conducting planning where more comprehensive efforts or expenditures are needed to make improvements.
- **MassDOT: Highway, RMV and Aeronautics Divisions**, EO 511 Coordinator, Tom Broderick. The Highway, RMV and Aeronautics Divisions of the Massachusetts Department of Transportation (MassDOT) created an efficient strategy by forming committees centered around specific hazards and the job categories who primarily face these hazards. They took an early leadership role in the project, which included sharing their strategy and encouraging other secretariats in their participation in the EO 511 process. All of their committees completed the gap analysis work, and took the work further by having the committees assess all current policies and procedures for their hazard, followed by having each committee create one central policy for their hazard.

Through trainings and the root cause analysis of gaps in health and safety conducted by health and safety committees, many participants have expressed that they have a new way of thinking about health and safety that includes looking at prevention and seeing the full range of program elements needed to manage health and safety. At trainings, participants have made comments such as:

*"We no longer just think about the costs and administrative side of accidents, we now think about how to prevent it from happening again."*

*"I see what is missing now..."*

*"We only had half of what was needed in place."*

*"I was very surprised to learn that employees didn't know about this safety procedure."*



### **Hazard Assessment Phase**

In phase one of EO 511 implementation, health and safety committees completed hazard assessment questionnaires, evaluating the current status of health and safety management elements including: upper management support and policy, use of a technical worker protection standard (such as OSHA standards), accountability, training, and controls (such as safety equipment and procedures) for each hazard. Hazard assessments were conducted for the following hazards (only if relevant to the staff covered by the health and safety committee) including: **chemical hazards, confined space entry, driving safety, emergency action planning, electrical hazards, fall from height, life safety (fire safety) lockout/tagout, trench safety, workplace and domestic violence, and work zone safety (working in vehicle traffic)**. Secretariats and agencies were given the option to add hazards to the assessment process, and the EOHHS elected to add patient handling (ergonomic hazards from patient lifting and transfers). *See Appendix H for hazard assessment tools.*

### **Gap Analysis Phase**

In phase two, committees conducted a “gap analysis” which is a comparison of what is currently in place for protection against each serious hazard (as answered on the hazard assessment questionnaire) against two benchmarks: 1) health and safety management ideals, and 2) the relevant worker protection standard. These comparisons were intended to help identify: a) where agencies stand with the capacity to implement and maintain worker protections (existence of health and safety oversight, decision-makers, methods to approve and implement new practices, funding for health and safety, etc.), and b) where agencies stand relative to the national worker protection standards of practice.

Committees did not need to conduct research for this comparison. They were provided with a written description of health and safety management ideals in the areas of upper management support and policy, use of a technical worker protection standard (such as OSHA standards), accountability, training, and controls (such as safety equipment and procedures). They were also provided with a written summary of the OSHA or other relevant worker protection standard(s) for each hazard. These written documents, called Summaries of Standards and Recommendations, were developed by DLS and provided to the health and safety committees. *See Appendix I for gap analysis tools and guidance, including summaries of standards and recommendations for each of the serious hazards assessed.*

After this current evaluation is completed, a method for on-going planning and concrete action will be implemented as outlined below.

### **Secretariat Health and Safety Management Plans**

After the completion of the gap analysis phase, each secretariat is being guided in an annual Health and Safety Management Review and Planning process for their secretariat and its agencies that includes an implementation time frame. This effort will be led by the EO 511 Secretariat Health and Safety Coordinator, with benchmarks/goals provided by the Advisory Committee, and technical assistance and training provided by the DLS. In addition, information to support each secretariat in

this planning effort will include:

- Findings developed by their health and safety committees.
- Injury and illness statistics reports, including costs, for their secretariat and agencies, developed by the Advisory Committee.

During each annual planning and review process, specific plans will be developed using a phased approach that builds up a full framework / capacity for health and safety management over time using foundational elements such as the examples listed below.

- Roles and responsibilities
  - o This will include clarifying the role of the health and safety committees for agencies within the secretariat, for example, authorizing committees to conduct the actions outlined in the health and safety committee section below
- Goals and benchmarks
- Fiscal management: evaluating and reducing current losses; prioritizing expenditures and prevention efforts toward the highest loss and risk areas; maximizing use of existing health and safety resources; identifying lowest cost solutions, etc.
- Development of specific action plans and time frames
- Methods for communication and accountability

#### *Health and Safety Specific Measures List for All Serious Hazards*

Health and safety committees will use the assessment skills developed in phase one along with additional guidance to look at the full range of health and safety hazards faced by employees covered under their committee. From this, they will work to develop a comprehensive list identifying specific measures needed to improve prevention and protection efforts for all serious hazards. These identified measures might include training, procuring equipment, a new safety procedure, increased on-the-job guidance, technical assistance, a better way for employees to be able to report concerns, near misses, and incidents, etc.

#### *Implementing Identified Prevention and Protection Measures*

Agencies will be encouraged to implement and identify measures that are immediately feasible. For measures that cannot be implemented immediately, for example, those requiring funding, large scale staff involvement, time, research, etc., committees will be guided in prioritization of measures, and will develop an implementation time frame in coordination with those developing the secretariat health and safety management plan.

## 6. Health and Safety Committee Member Formal Interviews

The EO 511 Advisory Committee sought direct input from participants in the health and safety committees to build a more complete understanding of the progress, successes, barriers and challenges as we move forward in this effort to maximize protection of employees of the Commonwealth.

24 members of the health and safety committees were interviewed – 9 from management and 15 from labor. At least one person from each of the secretariats was interviewed. Although this survey was not intended to be a representative sample for statistical purposes, we found participants to offer thoughtful and helpful assessments of the system to date.

When asked about the leading types of current health and safety concerns, there were some common problems that warrant specific attention. Among the most frequently noted concerns were chemical exposures, violence, a lack of safety or personal protective equipment, work zone safety, and indoor air quality.

Participants were helpful and frank about both positive impacts of committee activity and some of the challenges that need to be addressed. Committees have generally been successful in training members, reviewing policies, procedures, and health and safety standards, and reviewing injury data, as well as conducting workplace walkthroughs.

Many respondents felt positive about their experiences on their respective committees. They viewed their opinions as valued and expressed overall “positive” feelings. One labor representative noted, “[I] **appreciated that I was given new things to think about,**” and found meetings “incredibly interesting.” For another, it was a “**blessing that Governor Patrick issued Executive Order 511.**” Some committee members, however, expressed frustration that health and safety problems were not being addressed quickly enough.

Management seemed more uniformly upbeat about the committees, although several labor representatives were also positive. Management representatives said: “**Meetings were well run; there was a sense of purpose;**” and “**New issues were raised.**” One labor representative stated, “[There was] **good collaboration between labor and management.**”

The demands of daily agency work, however, present an ongoing problem for committee success. For example, the biggest problem experienced by interviewees was poor attendance at committee meetings. Other high-priority duties, long travel times, and inadequate staffing – “**people spread thin**” – were mentioned as causes. Perceived or real inaction on specific hazards or problems was also a source of frustration as the process gets off the ground.

Given that the committees were only tasked with collecting information and evaluating the health and safety status quo, it is not surprising that most committee members indicated that there had not

yet been any changes to safety in their departments. However, a few noted that there had been some improvements already, including equipment or PPE obtained, specific safety procedures instituted, or just increased discussion of or interest in health and safety: "...**better sense of what's going on in the daily grind.**"

Respondents in general felt that the Advisory Committee could be of significant assistance by: compiling and distributing the findings of the health and safety committees, providing training, giving direction/clarifying goals, and holding management accountable for reaching objectives: **"Ask the [department] to provide a response as to what findings were addressed and how."**

Committee members had a wide variety of suggestions for improving state employee health and safety. Some were very specific to their departments: **"Investigate using [traffic] detours whenever possible during work hours;"** **"[Use] temporary rumble strips to slow traffic and alert distracted/tired drivers."** Others were very general. One labor representative noted, **"[It's important to] increase the safety culture."** Another suggested that more employee input be encouraged.

One of the most common themes was the need to implement health and safety protection: establish an enforcement program modeled on OSHA; enforce deadlines for taking corrective action; and to do all this, **"State resources need to be made available to all agencies to address their individual health and safety issues."** Note that a key strategy of EO 511 is to make significant improvements to health and safety within the current fiscal limitations, which will also result in cost savings over time. This includes risk-based diversion of funds currently spent on losses from work-related injuries towards prevention. This also includes maximizing use of every dollar spent on health and safety, such as sharing of training and equipment resources, and ensuring that existing health and safety equipment procedures are used routinely.

## 7. Information and Resource Sharing

For the first time, there is a connected network across and within agencies looking at health and safety. Each facility / agency / region is no longer an “island,” and information and idea sharing has already started occurring. In addition, within secretariats and agencies, creating this connection has led to projects such as disparate policies being evaluated to create a “best of the best” policy for the whole agency or secretariat.

From the central level, there is now the ability to reach every agency with important health and safety outreach information, training, and resources. Prior to EO 511, it was often not clear who to contact relative to health and safety issues.

A web-based information and resource sharing tool was developed through the Commonwealth’s wiki platform, CommonWiki. This new site, the Massachusetts Employee Safety and Health Assistance Resource Exchange (MESHARE) contains:

- Model health and safety policies and procedures developed by state agencies
- Model health and safety policies and procedures from expert sources
- Links to comprehensive expert sources of health and safety information
- A training calendar so agencies can share open spots in training courses
- A discussion forum to post questions or share ideas with peers in other agencies

Completion of each Secretariat Safety and Health Management Plan will be greatly aided by mechanisms that have been put in place for information and resource sharing.

## 8. Advisory Committee Recommendations

The Advisory Committee offers its highest commendation to Governor Deval Patrick for his leadership in enacting this important initiative. The Advisory Committee also strongly commends the hard work of all of the members of the health and safety committees for their time and efforts in providing the valuable information gained through their hard work in completion of the hazard assessment and gap analysis process, and also to the hard work of the Department of Labor Standards for implementation of EO 511. The Advisory Committee makes the following recommendations:

With a goal of reducing injuries and illnesses through creating comprehensive, effective, and sustainable/institutionalized worker health and safety management in our state agencies, we make the following recommendations:

- Institute a centralized policy that all secretariats/agencies are to use the nationally-recognized worker protection standards, including the OSHA standards, as the basis for worker injury and illness prevention programs.
- Establish, through legislation, an OSHA-type program of training, technical assistance, and enforcement for state government using these standards, and allocate sufficient resources for necessary staff and equipment and other prevention measures to implement this program. Ensure that design and implementation of this program is risk-focused so that highest risk issues are given the highest priority.
- Conduct comprehensive guided health and safety management review and planning efforts on an annual basis. This effort should be done by secretariat/agency management and shall include areas such as:
  - Identifying and assigning health and safety roles and responsibilities, with a goal of creating a chain of decision-makers who can authorize action, and also formalizing the role of the health and safety committees within each secretariat. A need for health and safety staff may also be identified.
  - Identifying/setting health and safety benchmarks (e.g., use of OSHA standards) and goals (e.g., percent reduction in losses).
  - Fiscal review and planning (injury and illness losses/costs, health and safety expenditures, targeting prevention efforts).
  - Injury and illness statistics review and planning (targeting highest accident causes for prevention efforts, prioritization of needed health and safety corrective actions).
  - Review of health and safety committee work results.

- o Methods for accountability and communications.
- o Review of existing and need for additional written health and safety policies, procedures, and plans.
- Formalize the role of health and safety committees to conduct the recommended activities outlined below. Provide continual training and technical support to build the capacity of health and safety committees to conduct these activities. This should be done by secretariat/ agency management in conjunction with technical assistance from DLS.
  - o Evaluate the full range of hazards employees under their committees face, and create a concrete health and safety needs/corrective actions list (e.g., safety equipment, training, written policy, greater accountability, etc.) using the health and safety management system gap analysis approach.
  - o Review and use injury and incident data and reports to develop and prioritize interventions that prevent future incidents/injuries.
  - o Serve as a receiving point for employee input on risks and corrective actions.
  - o Implement all health and safety corrective actions that can be put in place immediately (not requiring significant funding, time, or new management authorization).
  - o With technical guidance and in coordination with management, prioritize the remaining health and safety corrective actions.
- Conduct a central review of the health and safety needs/corrective actions lists from all committees and identify and implement what can be provided at the central level. This may include:
  - o Loans and/or other sources of funding;
  - o Training;
  - o Model written health and safety policies and procedures.
- Identify a time frame and means of funding for implementing the remaining health and safety corrections identified by the committees. This should be done by secretariat/agency management and may include:
  - o Diverting a portion of funding currently spent on losses from industrial accidents (IAs) towards prevention.
  - o Evaluating injury losses associated with a hazard against the cost of the preventive correction, e.g., safety equipment. This may clearly demonstrate that significant cost savings will be achieved over time by purchasing what is needed for prevention of accidents.



- o Evaluating overall existing health and safety expenditures, and ensuring that funds are spent addressing the highest risks, e.g., health and safety spending is effectively prioritized.
- o Ensuring that no money is wasted on health and safety preventions that are not effective.
- o Including needed health and safety corrections in long-term budget planning.
- o Implementing the best possible interim measure until the ideal corrective action can be implemented.
- Provide funding at the central level for the necessary staff to conduct the following functions:
  - o Technical staff to support meaningful injury and illness data collection and evaluation including epidemiological analysis, data analysis, and data QA/QC.
  - o Technical staff to support agencies/committees in implementing and sustaining injury and illness prevention programs.
- Have monies saved through prevention efforts retained within the agency to be spent only on health and safety issues instead of going back in the general fund.
- Continue to share best practices across agencies, as well as resources (training, equipment – where possible).
- Encourage sharing of the tools and resources developed under EO 511 with public sector entities not within the Executive Branch, including municipalities, authorities, and state colleges and universities.

# Appendix A: Executive Order Number 511

Go to <http://www.mass.gov/lwd/labor-standards/massachusetts-workplace-safety-and-health-program/executive-order-511.pdf> to download Executive Order 511, signed by Governor Deval Patrick on April 27, 2009.

# Appendix B: Secretariat Safety and Health Coordinators

Go to <http://www.mass.gov/lwd/labor-standards/massachusetts-workplace-safety-and-health-program/sec-sh-coordinators.pdf> to view the safety and health coordinator for each Secretariat in 2012.

# Appendix C: Fact Sheet on EO 511

Go to <http://www.mass.gov/lwd/labor-standards/massachusetts-workplace-safety-and-health-program/eo511-factsheet.pdf> to download a fact sheet on EO 511 that describes key project initiatives and frequently asked questions.

# Appendix D: 2010 Public Sector (State Government) SOII Report

Go to <http://www.mass.gov/lwd/labor-standards/massachusetts-workplace-safety-and-health-program/appendix-d-soii-state-gvt-2010.pdf> to view the 2010 data report, showing non-fatal occupational injury and illness information about state government workers.

The report is compiled using results from the Survey of Occupational Injuries and Illnesses, an annual survey of over 5,000 Massachusetts public and private workplaces. The survey is conducted through a partnership between the U.S. Bureau of Labor Statistics and the Massachusetts Department of Labor Standards.

# Appendix E: Letter to State Units Selected for Participation in BLS SOII

Every state workplace within the Commonwealth of Massachusetts Executive Branch is required to complete the Survey of Occupational Injuries and Illnesses (SOII), pursuant to EO 511. The Department of Labor Standards sent a letter to all state units selected for the survey in December 2011, reminding them of the importance of their participation in completing the survey.

Go to <http://www.mass.gov/lwd/labor-standards/massachusetts-workplace-safety-and-health-program/appendix-e-ltr-to-state-units-for-bls.pdf> to view the letters.

# Appendix F: Letter to State University and Community College Presidents and Chancellors

State Colleges and Universities are not mandated to comply with EO 511, and there are none formally participating in this effort. Voluntary participation has been encouraged, with all of the EO 511 training, tools, and resources available to the schools.

Go to <http://www.mass.gov/lwd/labor-standards/massachusetts-workplace-safety-and-health-program/letters-to-higher-ed-vol-part.pdf> to view an invitation sent to State University and Community College Presidents and Chancellors.



# Appendix G: Training Presentations

Go to: <http://www.mass.gov/lwd/labor-standards/massachusetts-workplace-safety-and-health-program/training-presentations.html> to view training presentation materials given to various audiences by the Department of Labor Standards at each phase of EO 511 project execution through the end of calendar year 2012.

Phases of the project through calendar year 2012 included:

## PHASE 1:

Creation of a centrally connected health and safety infrastructure that includes:

- The Governor's Employee Safety and Health Advisory Committee
- A Health and Safety Coordinator for each Secretariat
- Joint labor management health and safety committees for all Executive Branch agencies

Health and safety committees conducted a guided analytical process looking at a set of serious worker hazards in order to assess:

- The current capacity of their agencies to implement and sustain worker health and safety prevention and protection efforts, and specifics on what is missing.
- How current worker protection measures compare against the benchmark of national and state worker protection standards and guidelines.

## PHASE 2:

The ultimate goal of Executive Order #511 is to assist secretariats and their agencies develop the full capacity to comprehensively, effectively, and sustainably manage worker health and safety by moving forward in strategic and realistic steps. In phase two, secretariats and agencies identify these specific steps in a guided planning process, and begin implementation of their plans right away. This phase includes identifying specific measures needed to improve prevention and protection efforts for all hazards faced by workers within each agency; development of secretariat health and safety management plans; implementation of protection and prevention measures that are immediately feasible; and increased inter-agency and inter-secretariat connection within the health and safety infrastructure that is being built.

# Appendix H: Hazard Assessment Tools

For worker health and safety protections to become part of the daily routine, a variety of factors must all be in place together, and this creates a comprehensive worker health and safety system. These factors include:

- Upper management support / worker health and safety policy
- Accountability at all levels for use of health and safety equipment and procedures
- Use of the correct technical worker protection standard or guideline to identify what employee protections are needed
- Training of employees in health and safety hazards and needed protections
- Use of the protective “controls” outlined in the technical standards, such as special equipment or procedures.

For Executive Order #511, a method was developed for health and safety committees to evaluate their organization’s health and safety systems for some of the most serious hazards workers face on the job. The first step for health and safety committees was to complete questionnaires for all relevant hazards, which consist of open-ended questions about what was currently in place relative to specific worker hazards.

Go to <http://www.mass.gov/lwd/labor-standards/massachusetts-workplace-safety-and-health-program/hazard-assessment-tools.html> to view the guidance materials provided to health and safety committees by the Department of Labor Standards during the Hazard Assessment Phase of the project.

# Appendix I: Gap Analysis Tools and Guidance

For worker health and safety protections to become part of the daily routine, a variety of factors must all be in place together, and this creates a comprehensive worker health and safety system. These factors include:

- Upper management support / worker health and safety policy
- Accountability at all levels for use of health and safety equipment and procedures
- Use of the correct technical worker protection standard or guideline to identify what employee protections are needed
- Training of employees in health and safety hazards and needed protections
- Use of the protective “controls” outlined in the technical standards, such as special equipment or procedures.

For Executive Order #511, a method was developed for health and safety committees to evaluate their organization’s health and safety systems for some of the most serious hazards workers face on the job. The first step for health and safety committees was to complete questionnaires for all relevant hazards, which consist of open-ended questions about what was currently in place relative to specific worker hazards. The second step was to compare what was currently have in place against what is required by the technical standard as well as effective health and safety system program elements. Once these “gaps” were identified, the committees could further evaluate this information to identify the core reasons for what was missing in their health and safety systems. Going through this process helped to identify effective measures and strategies for improving worker health and safety within each organization.

Go to <http://www.mass.gov/lwd/labor-standards/massachusetts-workplace-safety-and-health-program/gap-analysis-tools-and-guidance.html> to view the guidance materials provided to health and safety committees by the Department of Labor Standards during the Gap Analysis Phase of the project.