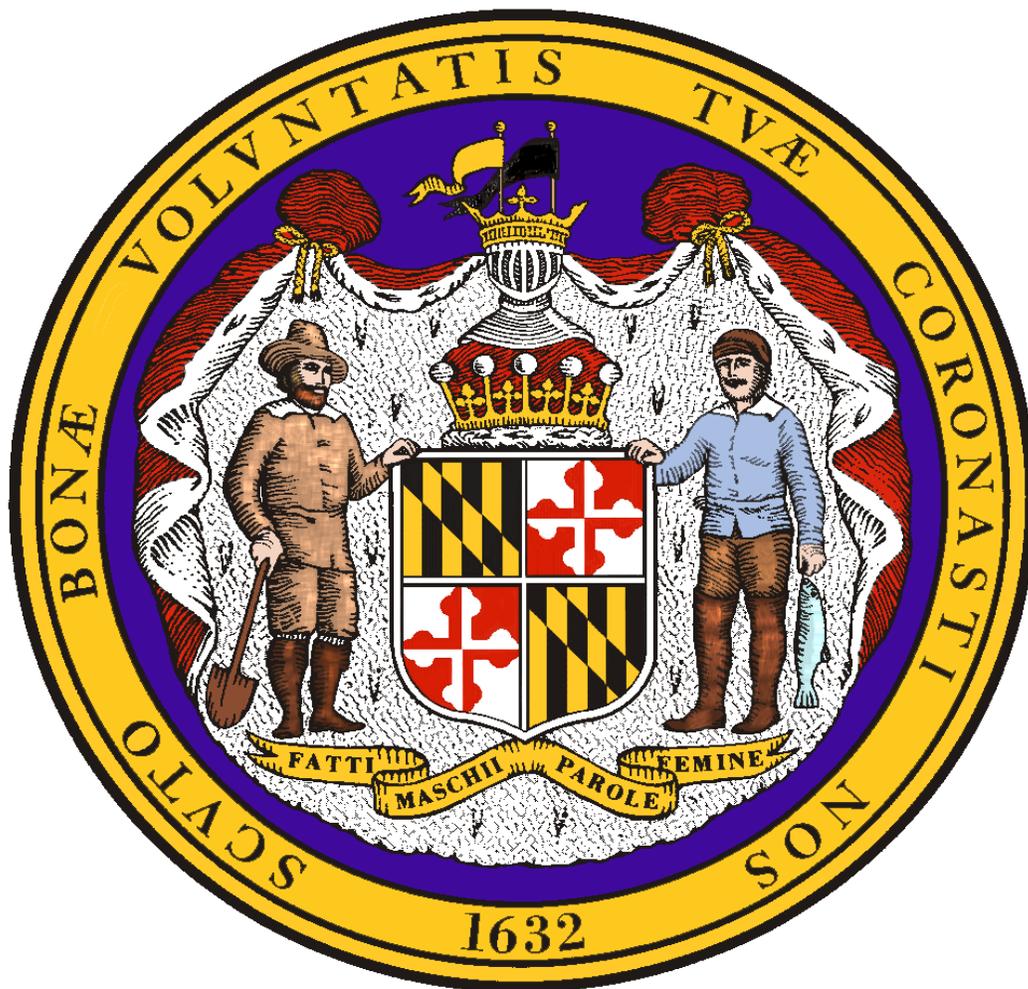


# State of Maryland Occupational Safety and Health Compliance Annual Report for Fiscal Year 2010

December 2010



Martin O'Malley, Governor  
Alex Sanchez, Secretary  
J. Ronald DeJuliis, Commissioner  
Eric M. Uttenreither, Assistant Commissioner

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## **Section 1 Year in Review**

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Fiscal Year 2010 was a busy year for Maryland Occupational Safety and Health (MOSH). We saw the retirement of our Assistant Commissioner, Roger Campbell and had the pleasure of welcoming our new Assistant Commissioner, Eric Uttenreither. We also took a huge step in increasing the agency's ability to better serve the employees in Maryland by consolidating 4 offices into one central location. We continue to enjoy the success of restructuring the annual plan and strategic goals. By integrating the agency's annual goals into each employee's individual goals we have everyone in the agency working towards them. This enabled the agency to work more efficiently at protecting the employees in the State of Maryland. In this fiscal year number of accidents under our jurisdiction to investigate decreased by 12. During FY10 MOSH continued to focus on the annual and strategic plans as the primary driving tool of our day-to-day operations.

MOSH Enforcement and Outreach continued to focus their efforts in the high hazard industries in Maryland. In order to identify those employers that needed the most help, several local emphasis programs including fall hazards in construction, struck/crushed by hazards in construction, electrocution hazards in construction and general industry establishments that had high Days, Away, Restricted, or Transferred/Total Recordable Cases (DART/TRC) numbers were continued. Compliance officers were able to complete over 600 inspections under 1 or more of our local emphasis programs. MOSH also participates in a number of national emphasis programs including; process safety management, silica, hexavalent chromium, flavorings, lead, poultry, amputations, combustible dust, and trenching. In FY10 compliance officers were able to complete an additional 200 inspections under 1 or more national emphasis programs. The program was able to complete and surpass most of its annual goals.

MOSH compliance completed 1544 inspections and interventions in FY10 and issued over 5,200 citations for violations of Federal and State Regulations (included in this number were 28 willful and 10 repeat serious). A total of over \$4 million in penalties was issued. MOSH only averaged a total of 49 Compliance Safety and Health Officers (CSHOs) at any one time in FY10, 4 inspectors less than FY09.

## New Regulations:

MOSH Instructions/Directives Adopted in FY09			
Directive Number	Title	MOSH Instruction	Notes
CPL 02-00-147	The Control of Hazardous Energy - Enforcement Policy and Inspection Procedures	09-03	
09-05 (CPL 02)	Site Specific Targeting FY10	09-04	
	LEP Maryland High Hazards Industries	09-05	Applies only in Maryland
	LEP Fall Hazards in Construction	09-06	Applies only in Maryland
	LEP Electrocutation Hazards in Construction	09-07	Applies only in Maryland
	LEP Struck/Crushed by Hazards in Construction	09-08	Applies only in Maryland
CPL 02-10-02	Injury and Illness Recordkeeping NEP	10-1A	
CPL 03-00-011	Facilities that Manufacture Food Flavorings Containing Diacetyl (NEP)	10-2	
CPL 02-02-075	Enforcement Procedures for Very High Occupational Exposure Risk to 2009 H1N1 Influenza	10-3	
CSP 03-01-003	Voluntary Protection Programs (VPP) Policies and Procedures	10-4	
CPL 02-01-034	Inspection Policy and Procedures for OSHA's Steel Erection Standards for Construction	10-6	

In response to increased crane failures and fatalities around the nation MOSH took aggressive steps to implement more stringent crane operation regulations. The industry, including crane manufacturers, general contractors, trade contractors, rental companies, labor organizations, and certifying agencies were brought together to develop this standard by our Commissioner, Ron DeJuliis, a former crane operator. On April 6, 2009, COMAR 09.12.26 became final rule. It sets forth regulations for crane operators, riggers and signal persons. The regulations address training/certification, inspections, physical exams, and drug testing for most all cranes in construction. Also covered are additional requirements for tower crane usage. Note these standards do require extensive training for all riggers and signalpersons as well as the operator. Citations with penalties for non-compliant employers began to be issued January 1, 2010. The new standard is also available on the MOSH website <http://www.dllr.md.gov/labor/cranes/craneregs.shtml> .

In July 2010, MOSH investigated a catastrophe where 3 employees were severely burned. The employees were installing a geothermal heating system in a residential home. They were nearing the end of the project and began to flush out the system. Two employees were located within a small room where they began to add ethylene to a flush cart. All doors to the room had been closed and no other means of ventilation had been provided. One of the employees flipped the motor switch on the flush cart when an explosion occurred. It was determined after investigation that the flush cart and its equipment had not been rated for a hazardous location and that the cans of ethylene were left out in the heat overnight. The flashpoint of the liquid had been exceeded and when the switch was thrown to start the machine a spark was created which ignited the vapors. This case resulted in \$14,300 in penalties being issued. We feel this may be a national concern and are currently working with federal OSHA, other State Plan States and National Institute of Occupational Safety and Health (NIOSH).

## **Staff Training**

In FY10, MOSH continued staff training according to its Training Program for Compliance Personnel (MOSH Instruction 09-02). In April, MOSH hired 7 new compliance safety officers. These new CSHOs began the rigorous classroom training and, as of the end of September, they had completed nearly 5 months of the 12 month program. Four of the new CSHOs will be assigned to MOSH's Region I in Easton Maryland, two will be assigned to Hunt Valley Maryland, and one has since left the agency.

MOSH was able to send 24 compliance officers to the OSHA Training Institute (OTI) training courses throughout the nation. Topics of study included: Principles of Industrial Ventilation, Inspection Techniques and Legal Aspects, Evaluation of Safety & Health Management Systems, Combustible Dust Hazards & Controls, Fall Arrest Systems, and Accident Investigation. MOSH will continue the growth of its highly skilled compliance officers and send them to additional classes in FY11.

In addition to sending CSHOs out of state to OTI, MOSH brought in the Steel Erection class from OTI for 27 of its Compliance Officers. This week long class was held at Local 16 of the Steel Workers Union and included hands on demonstrations in their training yard. MOSH was also able to send one CSHO to an Industrial Ammonia Refrigeration class in Garden City, Utah to complete the 3 levels of Process Safety Management training. In addition, MOSH holds quarterly staff meetings for all field personnel to go over technical issues and to give a general update on the agency. Some of the topics covered in FY10 staff meetings include: a review of the agencies FY11 Local Emphasis Programs, following an accident investigation CSHOs were given a presentation on geothermal systems and the hazards associated with the installation process, CSHOs were also given a presentation on the hazards of earth moving equipment with unprotected swing radii, and OSHA Recordkeeping.

There were several educational classes that were taught by outside companies for our CSHOs. These included; Microsoft Excel, Advanced Microsoft Excel, and Microsoft Excel Basics and Beyond the Basics. MOSH was also lucky enough to have an instructor from the acclaimed Reid School present Interviewing and Interrogation using The Reid Technique. MOSH was also fortunate enough to have [REDACTED] teach the Electrical Standards Class for Compliance Officers. MOSH also sent CSHOs to the following in-state safety training programs: 2009 Miss Utility Conference and Level 1 Signal Person and Rigger training. In all 143 CSHO's attended the training offered within the state.

MOSH had 2 of its CSHOs join the Department's Training Academy. Members from across the Department of Labor, Licensing, and Regulation (DLLR) were selected to participate in the development of a training program for managers and supervisors in each Division. The focus of this training will be on *Conflict Resolution in a Regulatory Environment*. The development of this initiative began nearly 2 years ago in conjunction with the University of Maryland at Baltimore County Training Centers. The final program will consist of ten all day training sessions held throughout the state, with the first being held in December 2010 and the last being held in May 2011.

## **Organizational Changes:**

In June 2010, Assistant Commissioner Roger Campbell retired after nearly 2 decades of service. He was succeeded by our new Assistant Commissioner, Eric Uttenreither.

In September 2010, MOSH consolidated 4 of its offices into one central location in Hunt Valley, Maryland. The new location houses most of MOSH's upper management, the Outreach unit, Consultation, the Industrial Hygiene (IH) unit, and the Central Maryland enforcement region. MOSH is better able serve the employees in Maryland by having its management team and operations centralized, saving time and resources. Also, Consultation is now officially under the Outreach Unit and the enforcement division now has 1 Chief and 2 Assistant Chiefs

## **Funding & Furloughs:**

MOSH began with a larger base award than in FY10, both the 21(d) and 23(g) programs were awarded permanent increases in 2010 that rolled over into 2011. With budget reductions imminent for 2012 MOSH is making preparations to ensure that our CSHOs have all necessary equipment and training in 2011.

Furloughs and Temporary Salary Reductions once again occurred during this fiscal year. Since our state fiscal year runs July to June we have experienced 2 separate rounds in one federal fiscal year. In state fiscal year 2010 employees in our unit experienced 90 days of salary reduction as well as an additional 3-5 days of floating furloughs for each employee. Then in state fiscal year 2011, which began in July 2010 five service reduction days were once again used for a new temporary salary reduction, as well as 2-4 additional floating furlough days based on salary will be in effect across federal fiscal year 2011. The cumulative effect of the furlough days are being felt and achieving goals set without knowledge of an average of 9 additional lost work days per CSHO presented a challenge.

## **Federal Audit**

In FY10 MOSH underwent an extensive Federal Audit by a team from Region III. The audit team spent an entire week at our facility, then located in Laurel, Maryland. The team reviewed numerous case files, looked at policies and procedures, and spoke to all of our upper management team. MOSH found the audit team to be very friendly and easy to work with. A few months later the audit results were released for our review. There were several items that MOSH disagreed with, we believed them to be an 'as effective as' issue, which our program has been found to be, such as where are our case file information is stored. There were also a few

suggestions that we found to be helpful and new procedures were put into place. An example of this was our implementation of a case file diary sheet; this will help our compliance officers and management team to follow the progress of a case from the opening conference through to the closing and settlement (if citations and penalties were issued). Items left unresolved focus around penalty amounts and percent serious.

## Section 2

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MOSH employee inspects a fluorescent bulb crushing operation for mercury exposure

### **Enforcement:**

**Note:** for enforcement inspection activity several coding issues led to host rejects that resulted in a number of cases not being counted in the FY data. Working with OSHA, MOSH has since resolved the majority of coding issues/host rejects. OSHA subsequently ran new SAMM/SIRS that more accurately reflect MOSH FY data to ensure consistency and accurate recording of work performed. The enforcement numbers in this report will first report the original data then the corrected/actual data in parentheses immediately following. For example, at first the information system indicated MOSH completed 933 inspections but after coding corrections the correct/actual number of 1114 was confirmed.

MOSH compliance officers were able to conduct 933 (1114) enforcement inspections in FY10. Efforts were made for compliance officers to focus on the industries in MD that had high DART/TRC values. Over 600 of these inspections were conducted under 1 or more of the state's local emphasis programs and 200 of the inspections were conducted under 1 or more of the adopted national emphasis programs. MOSH compliance officers investigated 100 accidents and 26 fatalities.

Out of 729 (740) programmed inspections, both safety and health, 60% had serious, willful, and/or repeat violations. This is 3% higher than the 3 year national average of 57%. MOSH averaged 2.77 serious, willful, repeat and 2.63 other-than-serious violations per inspection. These numbers are well above the national average of 2.1 and 1.2, respectively. For MOSH this represents an average of 5.4 violations per inspection, the National 3 year average is only 3.3 violations per case.

MOSH's average penalty per serious violation was \$1386.51, which is approximately \$124 more than the average penalty in FY09. This also represents approximately \$26 more than the 3 year National average.

There was an increase in public sector inspections this year. Approximately 4.5% of all MOSH's inspections were done in public sector; this is right on target Maryland's three year average of 4.6% of all inspections.

Case Highlight:

MOSH investigated an explosion that occurred during an adhesive mixing operation where approximately 4,000 pounds of heptane and rubber particles were being agitated in a large industrial mixer. Large blocks of rubber were granulated in another building and conveyed to the blending area through metal piping, down through a cyclone and flexible tubing, and dropped into the vessel. The free movement of rubber particles through the system, and the free fall from the top of the tank to the heptane level below, caused static electricity to build up. Without proper bonding and grounding throughout the system, and without a non-combustible gas system in place, a static spark most likely ignited the heptane vapors in the presence of oxygen inside the mixer causing the explosion. During the inspection it was also noted that the mixer motor was rated as having an operating temperature of 215° C. Heptane has an auto ignition temperature of 204° C. Eight citations were issued, including a citation for operating a motor where the markings exceeded the ignition temperature of the heptane vapor, and a General Duty citation for failing to control ignition sources, including those from static electricity.



Employee working on a roof was not protected from falling

## Consultation:

MOSH has one public sector consultant (23(g)) and in FY10 this individual attended training in areas that included: Workplace Violence (given as a public MOSH seminar), MOSH's FY2011 LEPs, geothermal systems, OSHA recordkeeping, swing radius' (given at all staff meetings), and Interviewing and Interrogation – The Reid Technique (given by the Reid School) Our public sector consultant inspected 27 sites (20 initial visits and seven follow up visits). Twenty-two of these visits were made to public correctional facilities throughout the state (15 were initial visits and 7 were follow-ups). These public sector institutes are not considered high-hazard, 14 of these are considered to be maximum security facilities and are therefore considered to be high-hazard in the State of Maryland. There was 1 additional case done in a recognized public sector high-hazard industry, making the total 15 of 27 (55%). For all other consultation measures please refer to the FY10 Consultation Annual Project Report (CAPR).



## **Outreach:**

### **Cooperative Compliance Partnerships (CCP)**

In FY10 the CCP Unit signed 4 new partnerships bringing the total to 54 partnerships since the programs inception in 1997. The unit has achieved its 5 year Strategic Goal of 49 partnerships and MOSH is in its 4<sup>th</sup> year of the 5 year plan.

Companies Signing a Partnership in FY 2010:

Company Name	Project Name	CCP Signing Date	Estimated Cost
Warner Construction	Frederick Co. Public Schools Central Office Bldg.	11/18/2009	\$14.6M
The Whiting-Turner Contracting Company	Dorchester County Career & Tech. Center #11727	3/31/2010	\$30M
Barton Malow Company	Towson University West Village Commons Project	2/5/2010	\$30M
Warner Construction	Frederick County Public Safety Training Facility	6/25/2010	\$6.9M

[PHOTO REDACTED]

CSHO [REDACTED] teaches new compliance officers about rigging at the Rockville District Court House

MOSH's CCP unit performed 430 inspections of contractors during 24 visits to some of the largest construction sites in our state in FY10. The unit removed 4,604 employees from 477 hazards. At the end of FY10 the CCP unit had 13 active sites.

*Special Note:* As part of our intensive approval process for CCP each company's nationwide Log 300's are reviewed in-depth for accuracy and injury trends then throughout the project it is required to keep a "site-wide" log for any and all trade employees working on the site and the accuracy of these logs are compared to actual injuries and illnesses. These efforts and reporting integrity have been implemented since 2000 on all sites and complement the new nationwide effort to increase reporting accuracy recently undertaken in light of the recent Government Accountability Office (GAO) study of injury and illness data.

Active CCP sites as of end FY10

Company Name	City	Project Name	Estimated Cost
G.A. & F.C. Wagman, Inc.	Rosedale	Section 100 I95/I695 Interchange Contract #1	208M
Clark Construction Group, LLC	Baltimore	Johns Hopkins Hospital Clinical Buildings	600M
The Whiting-Turner Contracting Company	Baltimore	St. Agnes Hospital-Campus Revitalization Phase I	150M
Armada Hoffer Construction Co.	Baltimore	Legg Mason Tower/Four Seasons Hotel	300M
The Whiting-Turner Contracting Company	Baltimore	Mercy Medical Center New Tower	260M
Bovis Lend Lease	Baltimore	Franklin Square Hospital	150M
The Whiting-Turner Contracting Company	Towson	Towson University-College of Liberal Arts &	110M
Coakley & Williams Construction Inc.	Rockville	Rockville District Courthouse	60M
Warner Construction	Frederick	Frederick Co. Public Schools Central Office Bldg.	14.6M
The Whiting-Turner Contracting Company	Cambridge	Dorchester County Career & Tech. Center #11727	30M
Barton Malow Company	Towson	Towson University West Village Commons Project	30M
Warner Construction	Frederick	Frederick County Public Safety Training Facility	6.9M
Paul Reed Smith	Stevensville	Paul Reed Smith Guitars	N/A



Photo of Frederick County Public Safety Training Facility – Warner Construction (new CCP partner)

The CCP unit has partnered with Maryland contractors for total project values of just over \$4 billion as of the end of FY10. The unit continues to accept applications from contractors for up and coming projects being developed throughout the state. The response to this vigorous program and the resulting verified reductions in injuries and illnesses is changing the culture of construction in Maryland. Increased employer and employee relations with MOSH, instant information conduit from the industry to MOSH and vice versa, and the spreading of best practices from CCP sites to traditional work places are some of the benefits MOSH reaps from this program in addition to the reduced injuries and illnesses. In addition, 3 meetings a year are held bringing in all participating companies to share technical updates, work on initiatives together, and strengthen the informational relationship between the industry and MOSH.

### **Voluntary Protection Program (VPP) - Star only**

In FY10 the VPP unit was able to perform 5 pre-application site visits and although no new VPPs were awarded, 3 certification ceremonies were held for companies that were approved last fiscal year. The unit performed 1 re-certification evaluations and recommended that the company be approved. This makes for a total of 13 active VPP sites for FY10. The VPP project manager attended the Region III Voluntary Protection Programs Participants' Association (VPPPA) conference and the Region III VPPPA Board of Directors meeting in FY10. He also participated in 9 VPPPA Board of Directors conference calls and 2 National VPP Managers conference calls.

VVP Certification Ceremonies held FY10:

<b>VVP Certification Ceremonies FY10</b>	
BlueLinx Corporation	Frederick
Covanta Energy	Dickerson
Monsanto Galena Research Station	Galena

Active VPP sites FY10

<b>Active VPP Sites FY10</b>	
Company	Location
BlueLinx Corporation	Frederick
Clean Harbors Environmental Services	Baltimore
Calvert Cliffs Nuclear Power Plant	Lusby
Covanta Energy	Dickerson
FritoLay	Aberdeen
Grace Davis Technical Center	Curtis Bay
Life Technologies Corporation	Frederick
Mosanto Galena Research Station	Galena
Northrop Grumman Advanced Technologies Laboratories	Linthicum
Northrop Grumman Electronic Systems	Linthicum
Performance Pipe	Hagerstown
Sherwin Williams	Crisfield
Wheelabrator	Baltimore

**Safety and Health Achievement Recognition Program (SHARP)**

Please refer to the FY10 CAPR for these results.

**Education Unit**

In FY10 the Training and Education Unit was able to offer 93 educational seminars covering 34 topics at no cost to the employees and employers in Maryland. The majority of these seminars was taught by MOSH compliance officers and were offered at locations throughout the state. Topics included everything from Accident Investigation to Introduction to OSHA Recordkeeping to Teen Safety to Workplace Hazard Assessment. Three of the 93 classes held were held in Spanish (Excavation and Trenching, Construction Site Safety and OSHA 10 Hour – Construction). Nearly 2200 employees and employers participated in the seminars that were given. Another approximately 3600 employees attended speaking engagements given by MOSH staff.

## Educational Seminars Offered in FY 2010

Educational Seminars	
Course Name	Course Name
Accident Investigation	Introduction to OSHA Recordkeeping
Bloodborne Pathogens	Introduction to Safety and Health for Supervisors
Characteristics of an Effective Safety & Health Program	Job Safety Analysis
Construction Site Safety	Machine Guarding
Construction Site Safety - Fall Protection	MSDS/Right-to-Know & Personal Protective Equipment
Construction Site Safety II	Occupational Exposure to Noise
Cranes - New Maryland Regulations	OSHA 10 Hour - Construction - Spanish
Electrical Safety & Lockout Tagout	OSHA 10 Hour - General Industry
Electrical Standards for Compliance Officers	OSHA 10 Hour - Construction
Emergency Response and Disaster Preparedness	Permit Required Confined Spaces
Excavation de trincheras	Powered Industrial Truck Safety
Excavation & Trenching	Respiratory Protection
Excavation Safety	Scaffolding Safety in Construction
General Industry I	Seguridad en la Construccion
General Industry II	Teen Safety
Hand and Power Tool Safety	Workplace Hazard Assessment
Introduction to IH for Construction	Workplace Violence

# APPENDIX A

## Summary of Annual Performance Plan Goals for MOSH FY 10

- Performance Goal 1.1 – Total Reduction in the Fatality Rate by 1% in FY10 (5% by end of FFY 2012).
- Performance Goal 1.2 – Total Reduction in Injury and Illness DART rate from 2.4 to 2.34 in FY10 (2.1 DART by end of FFY 2012).
- Performance Goal 2.1 – Increase VPP and SHARP Recognition Programs from 13 to 16 in FY10 (18 New Recognition programs by the end of FFY 2012).
- Performance Goal 2.2 – Increase Partnership and Alliance Programs from 54 to 57 in FY10 (49 Partnerships and Alliances by end of FFY 2012).
- Performance Goal 2.3 – Increase the total number of people participating in MOSH outreach and training programs by 9% in FY10 (total annual participation of 7498 by end of FFY 2012).
- Performance Goal 3.1 – Percent of fatality and catastrophe inspections initiated within one working day of notification maintained at least 95% in FY08 (FFY 2006 is 97%).
- Performance Goal 3.2 – Percent of serious complaint inspection initiated within five working days of notification increased from 90% to 95%.
- Performance Goal 3.3 – Percent of discrimination complaint investigations completed within 90 days maintained at least 90% (FFY 2006 is 100%).
- Performance Goal 3.4 – Percent of polled responses from MOSH website users indication a positive overall experience established at 90% by 2012.
- Performance Goal 3.5 – 90% of responding employers are satisfied in the consultation visit received.
- Performance Goal 3.6 – Provide prompt consultation service.

## APPENDIX B

### Program Activity Projections:

**Note:** for enforcement inspection activity several coding issues led to host rejects that resulted in a number of cases not being counted in the FY data. Working with OSHA, MOSH has since resolved the majority of coding issues/host rejects. OSHA subsequently ran new SAMM/SIRS that more accurately reflect MOSH FY data to ensure consistency and accurate recording of work performed. The enforcement numbers in this report will first report the original data then the corrected/actual data in parentheses immediately following. For example, at first the information system indicated MOSH completed 900 inspections but after coding corrections the correct/actual number of 1114 was confirmed.

Total Inspections- Enforcement				
	Safety		Health	
	Projected	Actual	Projected	Actual
Private Sector Inspections (FFY09: Safety 933; Health 191)	816	743 (895)	144	146 (168)
Public Sector Inspections (FFY08: safety 22; Health 28)	19	22 (24)	15	22 (27)

Projected Inspection - Consultation		
	Safety	Health
21(d)	178*	102*
23(g)	4**	19**

Total Inspections – Consultation
<p>* For results of the 21(d) consultation unit please see the FY10 CAPR</p> <p>** In all, twenty-seven 23g consultation visits were conducted. Twenty were initial visits and seven were follow-up visits. Of the twenty initial visits, three were safety, and seventeen covered both safety and health.</p>

# Performance Standards:

Strategic Goal 1- **Improve workplace safety and health through compliance assistance and enforcement of occupational safety and health regulations.**

Performance Goal 1.1- **Total reduction in the fatality rate by 1%**

Performance Goal 1.2- **Total reduction injury and illness DART rate from 2.4 to 2.34**

Unit Responsible (date source)	Performance Indicator	Result	Comments
<p>Enforcement/ Compliance Assistance</p> <p>Consultation</p> <p>(IMIS (numerator) and the Maryland Quarterly Census of Employment and Wages (QCEW) Program (denominator)</p> <p>(BLS survey of occupational injuries and illnesses)</p>	<p>Increase inspection and intervention activity by 5% in the following areas from FFY 2006:</p> <p style="text-align: center;"><u>Industry</u> <span style="float: right;"><u>2010</u></span></p> <p>a. Construction (SIC 1500-1799).....744</p> <p>b. Manufacturing (SIC 2000-3999).....86</p> <p>c. Trade, Transportation, Utilities (SIC 4000-4999).....35</p> <p>d. Public Sector.....33</p> <p>Conduct the following number of visits (8 of the planned visits will be comprehensive safety and health program evaluations):</p> <p style="text-align: center;"><u>Industry</u></p> <p>a. Construction (SIC 1500-1799)..... 26</p> <p>b. Manufacturing (SIC 2000-3999)..... 135</p> <p>c. Trade, Transportation, Utilities (SIC 4000-4999)..... 10</p> <p>d. Public Sector..... 23</p>	<p style="text-align: center;"><u>Industry</u> <span style="float: right;"><u>2010</u></span></p> <p>a. Construction (SIC 1500-1799) .....1144</p> <p>b. Manufacturing (SIC 2000-3999).....127</p> <p>c. Trade, Transportation, Utilities (SIC 4000-4999).....134</p> <p>d. Public Sector.....53</p> <p style="text-align: center;"><u>Industry</u> <span style="float: right;"><u>2010</u></span></p> <p>a. Construction (SIC 1500-1799) ..... see CAPR</p> <p>b. Manufacturing (SIC 2000-3999).....see CAPR</p> <p>c. Trade,Transportation,Utilities (SIC 4000-4999)see CAPR</p> <p>d. Public Sector.....27</p> <p style="text-align: center;">See CAPR for consultation results on Goal 1.2</p>	<p>MOSH enforcement and compliance assistance was able to exceed all inspection numbers by more than the projected 5%, in the SIC codes identified.</p> <p><b>NOTE: The DART rate for CY 2009 has remained at 1.7 injuries and illnesses per 100 equivalent fulltime workers</b></p> <p>MOSH had one 23(g) public sector consultant. The projected number for public sector inspections was exceeded by 5. All other parameters for consultation can be found in the FY10 CAPR.</p>

**Strategic Goal 2: Promote a safety and health culture through Cooperative Programs, Compliance Assistance, On-site Consultation Programs, Outreach, Training and Education, and Informative Services.**

**Performance Goal 2.1- Increase VPP and SHARP Recognition Programs from 13 to 16**

<b>Unit Responsible (data source)</b>	<b>Performance Indicator</b>	<b>Result</b>	<b>Comments</b>
Compliance Assistance (IMIS, report from consultation unit and VPP unit)	Increase VPP by three new site in FFY 2010 Increase SHARP by two new site in FFY 2010 Renew two existing SHARP facility Have two additional employer enter pre-SHARP	0 sites were added to the VPP program in FFY 2010 See FY10 CAPR See FY10 CAPR See FY10 CAPR	The VVP unit did not sign any new VPPs in FY2010. There were only 2 applications received in FY2010, one company was shut down before an evaluation could be made and the other site is scheduled for an initial evaluation in January 2011.

**Performance Goal 2.2- Increase partnerships and alliance programs from 54 to 57**

<b>Unit Responsible (data source)</b>	<b>Performance Indicator</b>	<b>Result</b>	<b>Comments</b>
Compliance Assistance (IMIS, report from partnership and alliance unit)	Increase partnerships by 3 Increase alliances by 0	4 new partnerships signed in FFY 2010 No new alliances signed in FFY 2010	MOSH CCP partnerships were increased by 4 (one more than the goal, although no new alliances were signed MOSH has already exceeded its goal of 53 total partnerships and alliances with a grand total of 58 (4 alliances and 54 partnerships)

Performance Goal 2.3- Increase the total number of people participating in MOSH outreach and training programs by 9%			
Unit Responsible (data source)	Performance Indicator	Result	Comments
Compliance Assistance (report from training and education unit)	Increase total number of trainees/participants anticipated to be effected by outreach activities in the areas covered by MOSH LEPs, SST-10, and Federal NEPs including formal training, workshops, seminars, speeches, conferences, and informal worksite training to 7118 (6,833).	<p>The total number of employees/employers participating in MOSH outreach and training programs in FFY 2010 was 5,838. The total number of participants in the 2 day, full day and ½ day educational seminars was 2,197. There were 3,641 participants in speaking engagements done by MOSH personnel.</p> <p><i>Note:</i> The total number of projected participants was decreased to 6,833 due to the reduced available workdays from furlough and service reduction days imposed on MOSH personnel.</p>	<p>MOSH missed its goal by 995 participants. 13 classes were canceled in FY10 due to low enrollment and inclement weather conditions. With reduced available workdays and economic conditions resulting in near 10% unemployment we feel this result is acceptable.</p>

<b>Strategic Goal 3: Secure public confidence through excellence in the development and delivery of MOSH programs and services</b>			
<b>Performance Goal 3.1- Percent of fatality and catastrophe inspections initiated within one working day of notification maintained at least 95%</b>			
<b>Unit Responsible (data source)</b>	<b>Performance Indicator</b>	<b>Result</b>	<b>Comments</b>
Enforcement/ Compliance Assistance (IMIS)	95% of fatal case investigations initiated within one working day of notification	In FFY 2010 96.2% of fatal cases were investigated within one working day of notification- out of 26 fatalities 25 of them were investigated within 1 day of notification. In the one fatality that wasn't responded to with one day – as attempt was made to open the case two days after notification , contact wasn't made with the employer and the case wasn't opened until 6 days later.	MOSH exceeded it's goal of 95%. Response time in FY09 was at 91% - this year makes for a 5% increase.
<b>Performance Goal 3.2- Percent of serious complaint inspections initiated within five working days of notification increased from 90% to 95%</b>			
<b>Unit Responsible (data source)</b>	<b>Performance Indicator</b>	<b>Result</b>	<b>Comments</b>
Enforcement/ Compliance Assistance (IMIS)	95% of serious complaint inspections initiated within five working days of notification	In FFY 2010 94% of all serious complaint inspections were initiated within five working days of notification- there were a total of 100 complaints of a serious nature filed and 94 were investigated within 5 days of notification. According to the SAMM report MOSH initiated complaint inspections within an average of 5.54 (4.61) days and initiated complaint investigations within an average of .08 days.	Final result 4.61 average days is below negotiated average of 5 days.
<b>Performance Goal 3.3- Percent of discrimination complaint investigations completed within 90 days maintained at least at 90%</b>			
<b>Unit Responsible (data source)</b>	<b>Performance Indicator</b>	<b>Result</b>	<b>Comments</b>
Enforcement/ Compliance Assistance (whistleblower web based application)	Percent of discrimination complaint investigations completed within 90 days	According to our Discrimination Unit there were a total of 17 cases completed in FY10. Of these 12 were completed within 90 days of receiving the complaint. 70% of cases were completed in 90 days.	Beginning in the summer the procedures for how these complaints are handled was revamped. New policies are in effect to ensure that complaints are addressed in a timely manner and that investigations are completed within the allowed timeframe. MOSH is certain that these new procedures will fix the back log that exist.

**Performance Goal 3.4- Percent of polled responses from MOSH website users indicating a positive overall experience established at 90% by 2012**

Unit Responsible (date source)	Performance Indicator	Result	Comments
<p>Enforcement/ Compliance Assistance</p> <p>Consultation (on-line review of website)</p>	<p>This is a new Performance Goal within the 5 year Strategic Plan, whereas, 90% of website users indicate a positive overall experience when polled. In this third year of our plan all transparency objectives for the website have been met. Our new user friendly web site was brought on line in the spring of this year and as we continue to move forward we are working with a web architect to design, plan and implement a content management plan, this allowing the agency to better maintain the web pages, and this is to be implemented in the next fiscal year.</p> <p>Consultation will share in the technical development of the website and continue to maintain their Federal OSHA requirements, current information, and forms.</p>	<p>MOSH was able to complete the goal of getting the new website launched in the spring of 2010. When we moved our new location the website changed. Below is the current address: <a href="http://www.dllr.state.md.us/labor/mosh/">http://www.dllr.state.md.us/labor/mosh/</a></p>	<p>The agency hopes to continue such great progress. The agency is next in line to get help from the DLLR Information Technology Department to increase the user friendliness of our website.</p>

**Performance Goal 3.5- 90% of responding employers are satisfied in the consultation visit received**

Unit Responsible (data source)	Performance Indicator	Result	Comments
<p>Consultation (returned and completed DLLR external customer survey from)</p>	<p>Percent of responding employers that are satisfied in the consultation visit received</p>	<p>See FY10 CAPR</p>	<p>This measure is addressed and the results are explained in the CAPR for FY10</p>

**Performance Goal 3.6- Provide prompt consultation service**

Unit Responsible (data source)	Performance Indicator	Result	Comments
<p>Consultation (OSHA CAM reports)</p>	<p>On average, small high-hazard employers are visited within 30 days of their request for an initial visit; on average, initial visit reports are mailed within 20 days of the closing conference.</p>	<p>See FY10 CAPR</p>	<p>This measure is addressed and the results are reported in the CAPR for FY10</p>

## **Appendix C**

### **RESEARCH AND STATISTICS**

The MOSH Research and Statistics Unit is responsible for developing and implementing programs that generate statistical data on fatal and nonfatal occupational injuries and illnesses.

#### **BLS Survey of Nonfatal Occupational Injuries and Illnesses (SOII)**

In cooperation with the U.S. Department of Labor Bureau of Labor Statistics (BLS), the MOSH Research and Statistics Unit within the Division of Labor and Industry conducts the Survey of Occupational Injuries and Illnesses (SOII) program. Each year approximately 4,700 Maryland business establishments -- which are selected through a random statistical sampling process, participate in this survey. SOII estimates the number and frequency (incidence rates) of nonfatal workplace injuries and illnesses. The injury and illness estimates are based upon logs kept by employers during the year. The number of injuries and illnesses reported in any given year can be influenced by changes in the level of the State's economic activity, working conditions, work practices, worker experience and training, and the number of hours worked. SOII also provides details on the demographics of the most seriously injured and ill workers (e.g., occupation, gender, race and length of service), along with the characteristics of their injuries and illnesses (e.g., nature of injury/illness, part of the body affected, event or exposure, and source of the injury/illness).

As one component of the U.S. Department of Labor's occupational injuries and illnesses surveillance system, the SOII is the primary source that charts the nature and magnitude of the workplace injury and illness problem across the country.

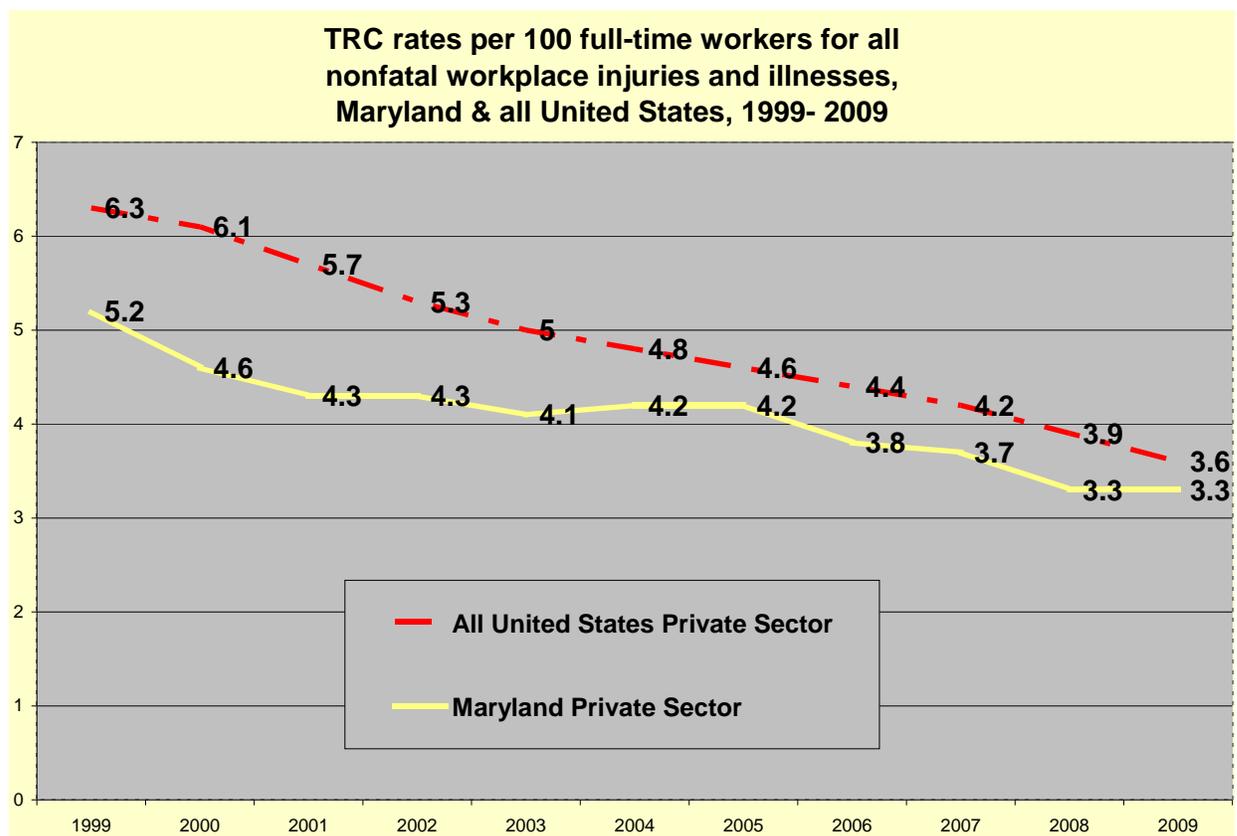
Policy makers in government and industry use the SOII statistics. Labor organizations, manufacturers of safety equipment and occupational safety and health researchers are also users of the data. The Bureau of Labor Statistics includes Maryland's survey results when compiling the national statistics. The Maryland Occupational Safety and Health agency uses the data for directing resources and assessing agency performance measures including identifying high-hazard industries that require outreach and intervention. Maryland employers use the SOII data to measure the effectiveness of their own safety programs by comparing their company injury and illness rates to the aggregate state and national numbers for their respective industries. Federal OSHA uses the SOII to measure the effectiveness of certain MOSH activities, and in measuring the progress toward meeting the objectives of the Occupational Safety and Health Act by assuring safe and healthful working conditions for every working man and woman through the reduction of occupational injuries and illnesses.

#### **Maryland SOII Results for 2009**

A total of 72,500 nonfatal work-related injuries and illnesses were reported by Maryland's public and private sector workplaces during 2009, according to the latest

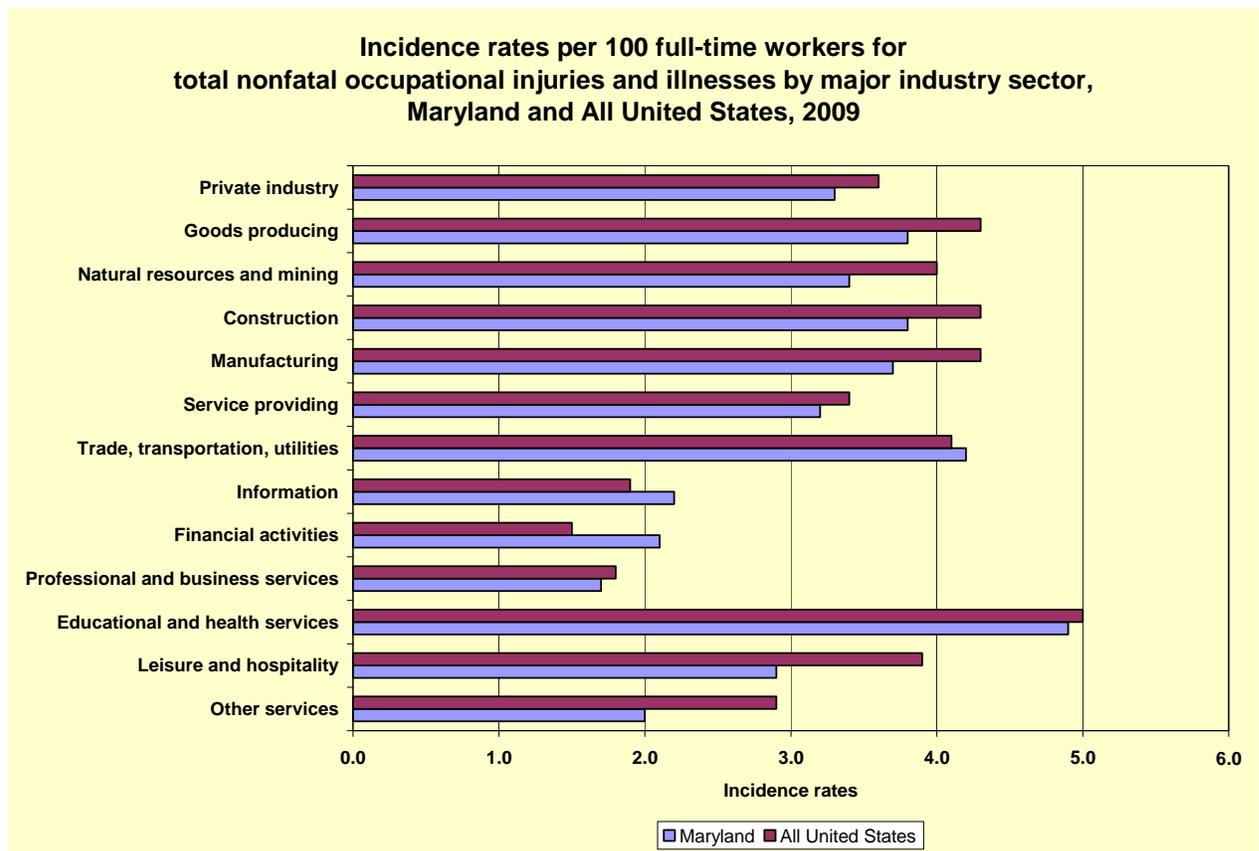
results of the Survey of Occupational Injuries and Illnesses (SOII). There were 2,500 fewer cases reported than in 2008. The number of injuries and illnesses converts to a total recordable case (TRC) incidence rate of 3.7 injuries and illnesses per 100 equivalent full-time workers. The rate for all industries including State and local government remained unchanged from 2008. Maryland's TRC rate, however, is 5 percent below the 2009 national average. Occupational injuries and illnesses among Maryland's private sector employers occurred at a rate of 3.3 cases per 100 equivalent full-time workers. The private sector rate also remained unchanged from the previous year.

**Total recordable occupational injury and illness case rates for Maryland and all the United States, private industry, 1999 - 2009**



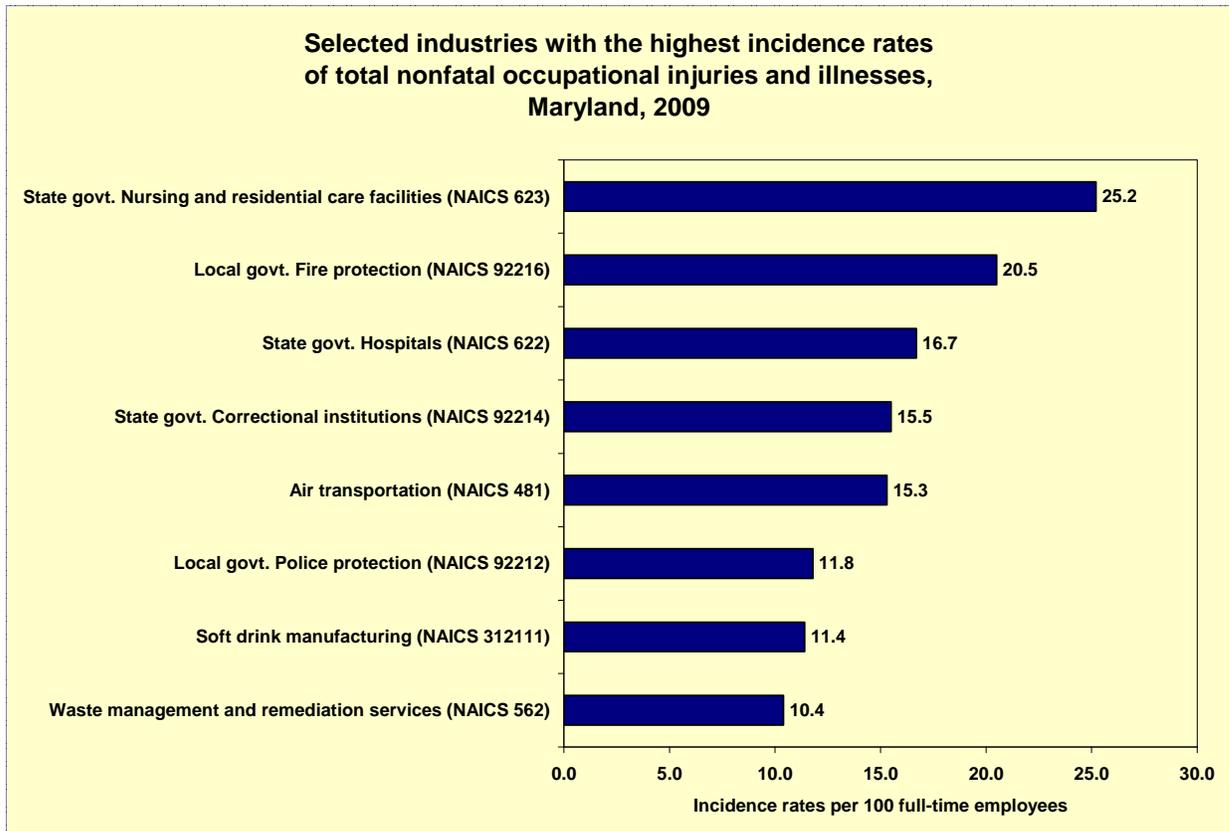
SOURCE: Maryland Department of Labor, Licensing and Regulation in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2009

**Comparison of incidence rates per 100 full-time workers for total nonfatal occupational injuries and illnesses by major NAICS industry sector, Maryland and all United States, 2009**



SOURCE: Maryland Department of Labor, Licensing and Regulation in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2009

**Selected industries with the highest incidence rates of total nonfatal occupational injuries and illnesses, Maryland, 2009**



SOURCE: Maryland Department of Labor, Licensing and Regulation in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics, Survey of Occupational Injuries and Illnesses, 2009

<b>Maryland Nonfatal Incidence Rates</b>			
<b>Survey of Occupational Injuries and Illnesses, 2003 – 2009</b>			
	<b>Total Recordable Cases (TRC)</b>	<b>Cases with days away, restriction, or transfer (DART)</b>	<b>Other recordable cases (ORC)</b>
<b>Private industry</b>			
2009	3.3	1.7	1.6
2008	3.3	1.7	1.6
2007	3.7	1.9	1.8
2006	3.8	2.0	1.8
2005	4.2	2.2	2.0
2004	4.2	2.3	1.9
2003	4.1	2.3	1.8
<b>State and local govt.</b>			
2009	5.9	3.0	2.9
2008	6.6	3.3	3.3
2007	7.1	3.5	3.6
2006*	-	-	-
2005	6.5	2.9	3.6
2004	6.0	3.2	2.9
2003	6.9	3.9	3.0
<b>All industries including State &amp; local govt.</b>			
2009	3.7	1.9	1.8
2008	3.7	1.9	1.8
2007	4.1	2.1	2.1
2006*	-	-	-
2005	4.5	2.3	2.2
2004	4.5	2.4	2.1
2003	4.5	2.5	1.9

SOURCE: Bureau of Labor Statistics Survey of Occupational Injuries and Illnesses, 2009  
Incidence rates represent the number of injuries and illnesses per 100 full-time or equivalent Employees.

\*2006 injury and illness data for State and local government did not meet publication criteria.

## **Census of Fatal Occupational Injuries (CFOI)**

The Census of Fatal Occupational Injuries (CFOI) is a Federal/State cooperative program that provides details about fatal job-related injuries. The CFOI program is a census, meaning that it provides a comprehensive count of all workplace fatalities. CFOI's scope covers workers in the private and public sectors, the military, the self-employed, and certain volunteer workers. The program's methodology ensures that fatality counts are as complete and accurate as possible by cross-referencing diverse data sources in order to identify and verify fatalities. This process by its complexity, results in the data being released a year after the current calendar reporting year. The personal identifiers of individuals and companies are kept confidential. The program provides workplace fatality data by industry, occupation, worker demographics and case characteristics that describe the circumstances of each event.

### **Maryland Workplace Fatalities Results in 2009**

Fatal work injuries in Maryland totaled 65 in 2009 according to the preliminary results of the Census of Fatal Occupational Injuries (CFOI) program. Although this is an eight-percent increase from the previous year's total of 60, it is the third lowest count for the State since the fatality program's inception in 1992. The increase was due to a spike in the number of workplace Assaults and violent acts which went from 9 reported cases in 2008 to 17 in 2009. Nationwide 4,340 fatal work injuries were reported in 2009, a decrease of 17 percent from 2008's count of 5,214.

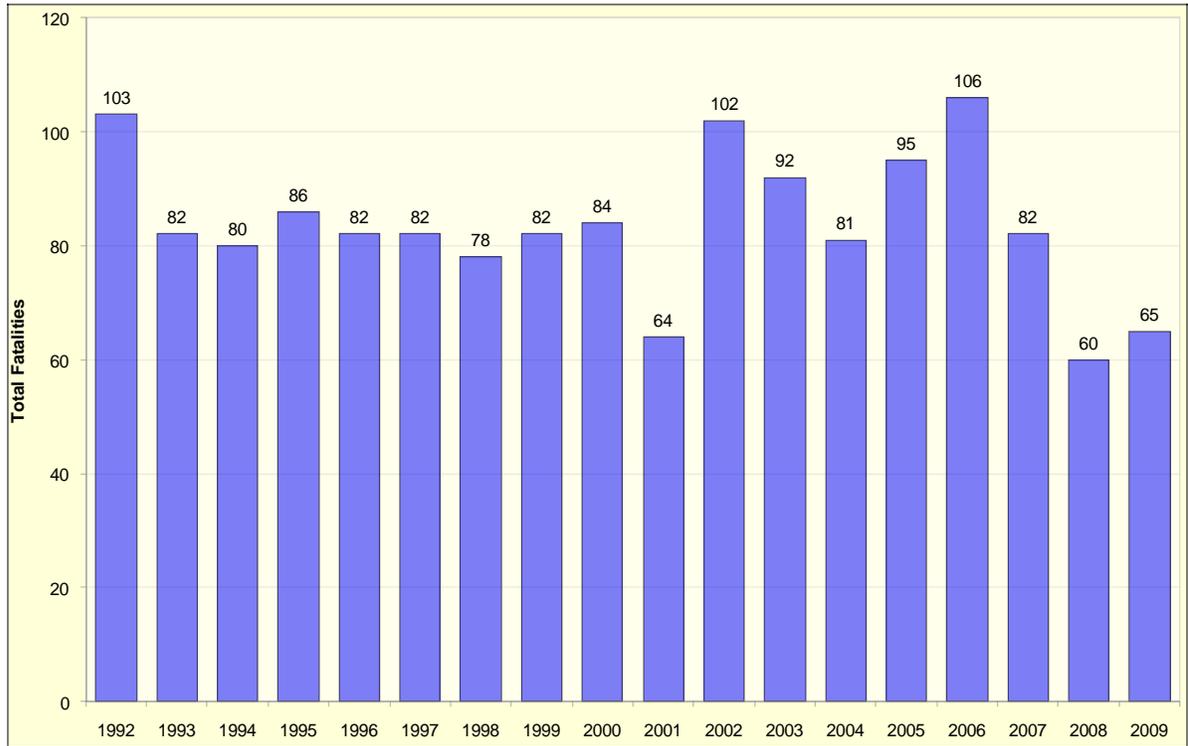
#### Key findings from the 2009 Maryland Census of Fatal Occupational Injuries

- The most frequent types of fatal workplace events in Maryland during 2009 were homicides with 14 cases, falls to a lower level with 10, highway crashes with 9, and pedestrian workers struck by vehicles or mobile equipment with 6. Together these four types of occurrences accounted for 60 percent of all worker deaths in Maryland for 2009.
- Workplace homicides rose from 9 reported cases in 2008 to 14 for 2009. Homicides accounted for 22 percent of the State's total and 12 percent of the nation's.
- Deaths from falls to a lower level increased by one case from 9 reported in 2008 to 10 in 2009. This type of event represented 15 percent of the total for all fatal work injuries that occurred in Maryland and 12 percent for the nation.
- In 2009 three workers died after coming into contact with electric current; this was down from 8 reported cases in 2008. From 2005 through 2009, there were 21 work-related fatalities in Maryland associated with electrocution. Slightly over three-quarters of these workers were in the construction industry. All were men. Sixty-two percent were white, non-Hispanic; 19 percent, black, non-Hispanic; and

10 percent, Hispanic. In 2009, deaths due to contact with electric current comprised 5 percent of fatal work injuries in the State and 4 percent nationwide.

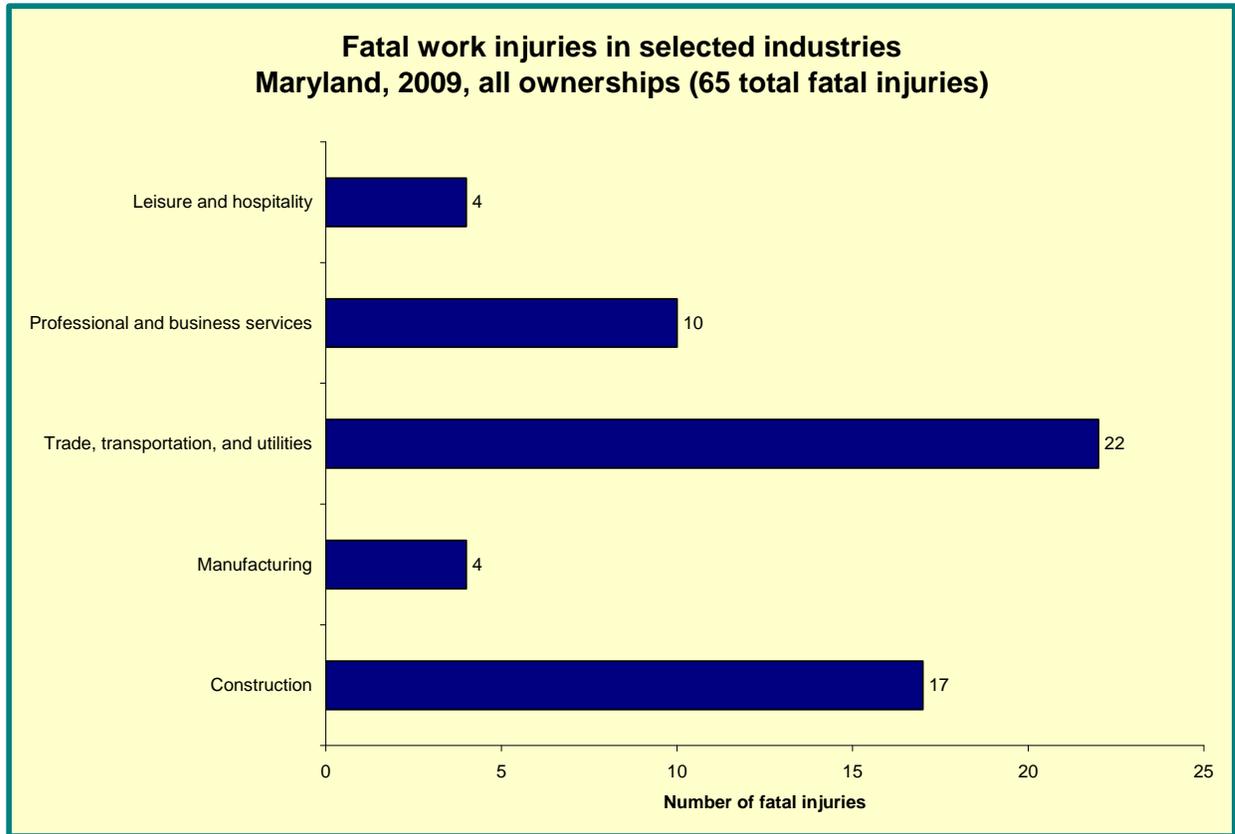
- The number of fatalities resulting from highway incidents increased slightly from 7 reported cases in 2008 to 9 for 2009. Deaths due to highway incidents represented 14 percent of Maryland's occupational fatalities and 20 percent of the nation's total.
- Seventy-one percent of those who died from workplace injuries in 2009 were white, non-Hispanic (46). This was an increase of 10 cases for white, non-Hispanic workers from the previous year. Twenty percent were black, non-Hispanic (13); the same number for this group as in 2008. Hispanic or Latino workers and Asian workers, with three fatalities each, accounted for the remainder of the cases, though deaths involving Hispanic workers declined sharply from the 10 reported cases in 2008.
- Three-quarters of those killed on the job worked for wages and salaries (49 cases), the rest were self-employed. The leading cause of death for a wage and salary worker was a transportation incident with 21 reported cases. Death by an assault or violent act was the leading event among the State's self-employed with 11 cases.
- Based on industry sector, construction recorded the most fatalities with 17 cases; though this number represented a 15 percent decline for this industry from 2008. The transportation and warehousing sector recorded the second highest number of fatalities with 14 cases, an increase from the 8 reported in 2008.
- Construction fatalities were distributed fairly evenly across the industry's three sub-sectors. Building construction (NAICS 236) recorded 5 cases with heavy and civil engineering construction (NAICS 237) and specialty trade contractors (NAICS 238) each recording 6 cases.
- Ninety-five percent of the workplace fatalities in the State occurred in the private sector (62 cases). The remaining 3 cases were in the public sector, down from 8 reported cases for government the previous year.
- In private industry, the goods-producing sector experienced 22 fatalities. This represented slightly over one-third of the total fatality count. The most frequent types of fatalities in goods-producing were transportation incidents with 8 cases and falls with 6.
- Accounting for 62 percent of the total, the service-providing sector had 40 fatalities. The leading fatal events in service-providing were assault and violent acts (15 cases) and transportation incidents (14 cases). Together these two accounted for almost three-quarters of the cases in this sector.

## Total workplace fatalities in Maryland, 1992 -2009



SOURCE: Maryland Department of Labor, Licensing and Regulation in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2009

## Workplace fatalities in Maryland by selected industries, 2009



NOTE: the fatality total includes industry categories not shown separately.

SOURCE: Maryland Department of Labor, Licensing and Regulation in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, 2009

### Technical Notes

The Census of Fatal Occupational Injuries and Illnesses (CFOI) is a cooperative program between the State of Maryland, Department of Labor, Licensing and Regulation, Division of Labor and Industry and the U.S. Department of Labor, Bureau of Labor Statistics. CFOI provides a complete count of all fatal work injuries occurring in Maryland and in the United States in each calendar year. The program uses diverse State and Federal data sources to identify, verify and profile fatal work injuries. Information about each workplace fatality (e.g., industry, occupation, worker characteristics, equipment being used, and circumstances of the event) is obtained by cross-referencing multiple source documents, such as death certificates, workers' compensation reports, news accounts, and reports to State and Federal agencies. Diverse sources are used

because studies have shown that no single source captures all job-related fatalities. The documents are matched so that each fatality is counted only once. To ensure that a fatality occurred while the decedent was at work, information is verified from two or more independent source documents. This method assures counts are as complete and accurate as possible.

For a fatality to be included in the census, the decedent must have been employed (that is, working for pay, compensation, or profit) at the time of the event, engaged in a legal work activity, or present at the site of the incident as a requirement of his or her job. Fatalities to volunteers and unpaid family workers who perform the same duties and functions as paid workers are also included in the count. These criteria are generally broader than those used by State and Federal agencies administering specific laws and regulations. (Fatalities that occur during a person's normal commute to or from work are excluded from the census counts.)

Data presented in this release include deaths occurring in 2009 that resulted from traumatic occupational injuries. An injury is defined as any wound or damage to the body resulting from acute exposure to energy, such as heat, electricity, or impact from a crash or fall, or from the absence of such essentials as heat or oxygen, caused by a specific event or incident within a single workday or shift. Included are open wounds, intracranial and internal injuries, heatstroke, hypothermia, asphyxiation, acute poisonings resulting from short-term exposures limited to the worker's shift, suicides and homicides, and work injuries listed as underlying or contributory causes of death.

The CFOI program presents data for all fatal work injuries, regardless of whether the decedent was working in a job covered under the regulatory oversight of the Maryland Occupational Safety and Health Agency or other State and Federal agencies. Thus, any comparison between the Maryland CFOI fatality counts and those released by other agencies should take into account the different coverage requirements and definitions being used by each agency.

Information on work-related fatal illnesses is not reported in the Maryland Census of Fatal Occupational Injuries because the latency period associated with many types of occupational illness, and the difficulty of linking those illnesses to work exposures, make identification of a universe problematic.

### **OSHA Data Initiative**

The MOSH Research and Statistics Unit also conducts the OSHA Data Initiative (ODI). The objective of the ODI program is to collect occupational injury and illness data from private and public sector establishments in selected high-hazard industries. MOSH uses the ODI data as a basis for targeting safety and health intervention programs such as inspections, consultations, outreach initiatives, and technical assistance. MOSH also uses the ODI for resource allocation and for measuring the effectiveness of the agency's performance. In October 2007, MOSH began its first year of implementing targeted inspections from this data and utilizing the synergistic effects of having

**2003**

**4.5**

**2.5**

**1.9**

Enforcement, Consultation, and Outreach all working from the same data and coordinating efforts. The initial reports from the last quarter of 2007 showed immediate improvement in targeting and positive feedback from unit managers and field staff.

### **Employer's First Report of Injury or Occupational Disease**

In 2010, Maryland employers submitted approximately 67,369 Workers' Compensation reports to the Division of Labor and Industry. Once received, the Workers' Compensation forms are reviewed to identify potential safety and health problems. Serious injury and illness cases are forwarded to MOSH Compliance for further review. All Workers' Compensation reports are filed for future reference.