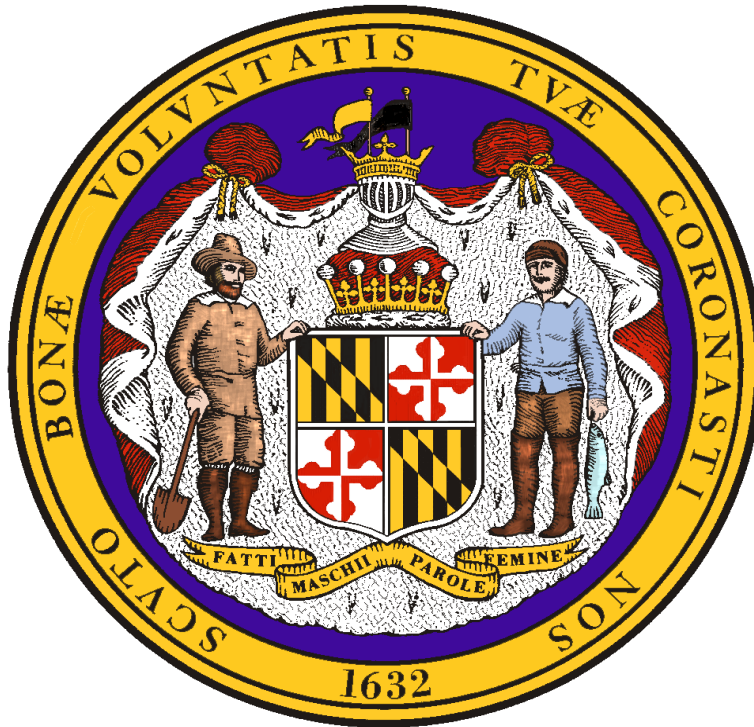


# **FY 2024 State OSHA Annual Report (SOAR): Maryland Occupational Safety and Health**



**Evaluation Period: October 1, 2023- September 30, 2024**

**Prepared by: Maryland Occupational Safety and Health**

**Submitted: December 16, 2024**

**Wes Moore, Governor**

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## I. Executive Summary

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Federal Fiscal Year 2024 (FFY24) was the second year in the current five-year Strategic Plan. Maryland Occupational Safety and Health (MOSH) has accomplished several goals this year and is on track to complete all of the annual and five-year goals. MOSH Enforcement responded to 32 reported fatalities in FFY24. Despite staffing challenges, MOSH was able to maintain an effective enforcement program in FFY24. MOSH again maintained inspection outcomes equivalent to those of its federal counterparts and ensured that identifying and removing hazards from employees in the state of Maryland remained a top priority.

In FY24, MOSH promulgated the first heat stress regulations on the East Coast covering both indoor and outdoor workers in Maryland.

On May 30, 2024, OSHA informed State Plans that OSHA had a budget shortfall for fiscal year 2024. OSHA described that the current budget shortfall was the result of OSHA hiring too many permanent employees with the temporary funding provided by the American Rescue Plan Act of 2021. OSHA explained that it expected the budget shortfall created by OSHA over-hiring would correct itself through attrition or additional funding but that had not occurred as anticipated. As a result, OSHA indicated it was going to reduce the fiscal year 2024 enforcement grants for all State Plans by 3.61% or a total of \$4,327,000 in the fourth quarter. This unexpected and disheartening reapportionment enacted on States in the last quarter of the fiscal year equated to a 15.19% reduction of federal funding available for that quarter. Additional information can be found here: <https://oshspa.org/Documents> *It is imperative that OSHA reapportion the federal funds back to State Plans and look internally to balance their own over-expenditures.*

On March 26th, 2024, at approximately 1:30 a.m., the Francis Scott Key Bridge (FSKB) in Baltimore was struck by the container ship Dali, resulting in the collapse of six spans of the bridge and six worker fatalities. MOSH responded to the bridge collapse with an immediate compliance inspection to investigate the circumstances surrounding the workers on the bridge at the time of its collapse. MOSH worked within the Unified Command involving State and Federal agencies and worked collaboratively with OSHA Region 3 (Philadelphia) along parallel jurisdictions. In addition, MOSH formed a successful partnership with State transportation officials and their contractors to help ensure that the unprecedented and extremely dangerous shearing of thousands of tons of steel to reopen shipping lanes was completed as safely and efficiently as possible.

Finally, MOSH remains focused on increasing safety in the Tree Care Industry. MOSH optimized its tree care inspection checklist for investigators by adding supplemental data fields to allow for a more detailed analysis of contributing factors. The effort is part of a strategic effort to increase worker safety in the tree care industry which experiences an inordinate number of fatalities. This new data, combined

with MOSH-specific regulations for the tree care industry and coordinated efforts with sister agencies and industry associations, will help target and refine efforts by all parties.

MOSH Enforcement FFY24 Overview\* :

- 1,010 safety inspections identifying 4,635 hazards, which resulted in 3,651 citations.
- 127 health inspections identifying 684 hazards, which resulted in 512 citations.
- Per compliance inspection, MOSH Compliance Officers and Industrial Hygienists identified an average of 2.57 violations classified as serious, willful, or repeat and 2.25 violations classified as other-than-serious, for a total average of 4.82 violations per inspection.
- Violations were identified in more than 74% of enforcement inspections (77% Safety and 53% Health)

\*Data derived from OSHA-provided end-of-year SAMM and OIS Standards Cited reports.

42 whistleblower investigations resulted in meritorious findings and a combined total of \$90,680.78 awarded to complainants.

## II. Summary of Annual Performance Plan Results & III. Progress Toward Strategic Plan Accomplishments

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% (5% by end of FFY 2027)			
Performance Goal 1.2: Reduce the rate of occupational injuries and illnesses in Maryland's private sector by 1% (5% by end of FFY 2027)			
Performance Goal 1.3: Reduce the rate of occupational injuries and illnesses in Maryland's State and local government sector by 1% (5% by the end of FFY 2027)			
Unit Responsible (data source)	Performance Indicator	Result	Comments
Enforcement/ Compliance Assistance	Perform inspection and intervention activity in the following areas: <u>Industry</u> <u>FY2024 Projected</u> a. Construction (NAICS 23).....940  b. Other high-hazard industries.....298 (NAICS 11, 5617, 562, 622-624, 71, 721)  c. Public Sector.....104  d. Manufacturing (NAICS 31-33).....75  e. Trade, Transportation, Utilities.....75 (NAICS 2213, 424, 44-45, 48-49)	<u>Industry</u> <u>2024 Actual</u> a. Construction (NAICS 23).....736  b. Other high-hazard industries.....77 (NAICS 11, 5617, 562, 622-624, 71, 721)  c. Public Sector.....85  d. Manufacturing (NAICS 31-33)....100  e. Trade, Transportation, Utilities.....97 (NAICS 2213, 424, 44-45, 48-49)	<b>NOTE: Maryland's private sector Days Away, Restricted, and Transfer (DART) rate for reference year 2023 was 1.4 injuries and illnesses per 100 full-time equivalent workers; 2022's rate was 1.6.</b>
Consultation  OSHA Information System (OIS) Data for various metrics  (Bureau of Labor Statistics BLS] survey of occupational injuries and illnesses)	Conduct the following number of Consultation visits: <u>Industry</u> <u>FY2024 Projected</u> a. Construction (NAICS 23).....See CAPR  b. Other high-hazard industries.....See CAPR (NAICS 11, 5617, 562, 622-624, 71, 721)  c. Public Sector.....50  d. Manufacturing (NAICS 31-33).....See CAPR	<u>Industry</u> <u>2024 Actual</u> a. Construction (NAICS 23).....See CAPR  b. Other high-hazard industries.....See CAPR (NAICS 11, 5617, 562, 622-624, 71, 721)  c. Public Sector.....68  d. Manufacturing (NAICS 31-33)....See CAPR  e. Trade, Transportation, Utilities....See CAPR	

e. Trade, Transportation, Utilities.....See CAPR  
(NAICS 2213, 424, 44-45, 48-49)

(NAICS 2213, 424, 44-45, 48-49)

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

**Performance Goal 2.1:** Increase Recognition Programs from 19 to 20 (3 new Recognition programs by end of FFY 2027)

Unit Responsible (data source)	Performance Indicator	Result	Comments
Compliance Assistance (report from consultation unit and Voluntary Protection Program [VPP] unit)	Increase Recognition Programs by 1 new company for FY24.	There were 0 sites added for FY24.	MOSH maintained 18 VPP sites.

**Performance Goal 2.2a:** Increase Cooperative Compliance Partnerships (CCP) from 102 to 103 in 2024 (this is the total number of signed cooperative partnerships, not the total number of active cooperative partnerships) (add 8 new cooperative partnerships by the end of FY 2027)

Unit Responsible (data source)	Performance Indicator	Result	Comments
Compliance Assistance (report from partnership and alliance unit)	Increase MOSH Cooperative Compliance Partnerships by 1 in 2024.	MOSH added 2 CCP sites in FFY24	MOSH exceeded its goal for the year and is on track to meet the 5-year goal.

**Performance Goal 2.2b:** Maintain SPECS partnerships at 5 (this is the total number of signed cooperative partnerships, not the total number of active cooperative partnerships)

Unit Responsible (data source)	Performance Indicator	Result	Comments
Compliance Assistance (report from training and education unit)	Maintain SPECS partnerships at 5.	There were 0 new SPECS sites added for FY24.	There were 0 new SPECS sites added for FY24.

Unit Responsible (data source)	Performance Indicator	Result	Comments
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Compliance Assistance (report from training and education unit)	MOSH will enact outreach and training events in the areas covered by MOSH LEPs, current SST, and Federal NEPs, including formal training, workshops, seminars, speaking engagements, conferences, and informal worksite training.	MOSH Outreach and Education conducted 18 speaking engagements, provided 5 in-house training sessions to new Compliance Safety and Health Officers (CSHO), conducted 8 online S&H webinars, and attended 6 safety conferences.	MOSH exceeded its goal for FFY24 and plans to continue to expand training via webinars & virtually-led instruction for employers/public in FFY25.
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**Performance Goal 2.4:** Develop a public sector initiative program to leverage agency resources in the following areas: MOSH enforcement, partnerships/alliances, training, and consultation

Unit Responsible (data source)	Performance Indicator	Result	Comments
Compliance Assistance (report from training and education unit)	Number of initiatives enacted by the agency to increase focus on public sector workplaces in the State of Maryland.	(1) MOSH has continued to work with the Secretary of the Workers' Compensation Commission on reciprocal sharing of injury and illness data and lay the foundation for joint efforts regarding public sector risk reduction; (2) MOSH 23(g) Consultation staff joined and actively participated in the State Employee Risk Management Association (SERMA); (3) MOSH 23(g) Consultation staff provided a presentation during the Department of Natural Resources' Safety Day; (4) MOSH 23(g) Consultation Staff participated in Baltimore County Public School's Meet the Primes event; (5) MOSH is working more closely with public sector labor organizations to address safety and health concerns in public sector workplaces.	MOSH is actively engaged in seeking opportunities to increase safety and health in public sector locations, increasing targeting.

**Performance Goal 3.1:** Initiate 100% of fatality and catastrophe inspections within one working day of notification

Unit Responsible (data source)	Performance Indicator	Result	Comments
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Enforcement/ Compliance Assistance (OIS/Integrated Management Information System [IMIS])	Percentage of fatal case investigations initiated within 1 working day of notification.	According to the 2024 EOY State Activity Mandated Measures (SAMM) Measure 10, MOSH investigated 32 workplace fatalities (at the time of data collection), all of which were opened within one day of notification.	MOSH met its goal of 100% of fatality inspections initiated within one working day of notification.
<b>Performance Goal 3.2:</b> Initiate inspections of serious complaints within five working days of notification			
<b>Unit Responsible (data source)</b>	<b>Performance Indicator</b>	<b>Result</b>	<b>Comments</b>
Enforcement/ Compliance Assistance (OIS/IMIS) SAMM Report	Serious complaint inspections are initiated within an average of 5 days of notification.	In FY24, MOSH initiated complaint inspections within an average of 3.52 days.	MOSH maintained complaint tracking and auditing processes that prevented outliers from exceeding 5 days.
<b>Performance Goal 3.3:</b> Percent of discrimination complaint investigations completed within 90 days maintained at least at 90%			
<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.	53.85% of 11c investigations were completed within 90 days.	In FFY24, MOSH piloted having Wage and Hour investigators investigate 11(c) cases. The learning experience allowed MOSH to gain valuable insight into wage restitution and wage and hour laws. However, it was determined that utilizing safety and health compliance officers was more efficient. MOSH ended the pilot and began training six safety investigators and one public sector consultant to investigate whistleblower



			complaints in addition to safety inspections.
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## Program Activity Projections:

Total Inspections- Enforcement				
	Safety		Health	
	Projected	Actual	Projected	Actual
Private Sector Inspections	1214	952	108	109
Public Sector Inspections	60	58	10	18
Total	1274	1010	118	127

Consultation Visits			
	Projected	Actual	Total Visits
21(d) Projected Visits	*	*	*For results of the 21(d) consultation unit please see the FY24 Consultation Annual Program Report (CAPR) **There were 67 public sector 23g consultation visits conducted. Safety conducted 56 initial visits and 11 follow-up visits. Health conducted 1 initial and 0 follow-up visits. ***Health visits for the public sector require the use of a private sector consultant. MOSH Consultation has two health consultants, however, for three months of the fiscal year a health consultant was not available due to the use of FMLA-qualifying leave.
23(g) Projected Visits Safety**	43	67	
23(g) Projected Visits Health**	7	1	
Total Visits	50	68	

## IV. Mandated Activities

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### Enforcement

According to the OSHA-derived SAMM report, MOSH Compliance Officers opened 1,137 enforcement inspections in FFY24, including 1,010 safety and 127 health inspections. MOSH had projected 1,274 safety and 118 health inspections would be conducted; however, staff turnover contributed to a lower-than-anticipated number of safety inspections performed. MOSH lost four safety compliance officers and one industrial hygienist in FFY24. MOSH successfully hired three new industrial hygienists and achieved 108% of the projected goal of 118 health inspections.

Individually, MOSH investigators successfully met or exceeded their inspection goals. This proportionate goal achievement indicates that while MOSH sets its goals on the current number of staff during the grant application; the unanticipated loss of staff during the fiscal year directly reduced an otherwise attainable goal. It is important to note that the newly adopted SAMM measures effective in FFY 25 will compensate for staff turnover to better ensure that MOSH can meet its overall inspection goals within the established FRL moving forward.

The MOSH safety compliance officer classification series salaries were increased by approximately 6.5% for new hires through level II, and 13.8% at level III and above, which is anticipated to help reduce turnover in these positions and retain highly qualified staff.

Compliance officers continued to focus on the Maryland industries with high injury and illness rates. Of the 1,137 enforcement inspections, 794 (70%) were conducted under one or more of the state's Local Emphasis Programs (LEPs), and 498 (44%) of the inspections were conducted under one or more of the adopted National Emphasis Programs (NEP). MOSH compliance officers investigated 108 accidents, the same as FFY23. MOSH investigated 32 workplace fatalities; all were opened within one day of notification.

There were no instances where a Compliance Officer was not able to gain entry to a facility after an employer originally denied the inspection.

End-of-year SAMM data shows MOSH initiated complaint inspections, on average, in 3.52 days, which is within the five-day requirement. Complaint investigations were successfully initiated within an average of 2.72 days which is within the three-day negotiated goal.

Per SAMM Measure 5, MOSH Compliance Officers and Industrial Hygienists averaged 2.57 serious, willful, or repeat violations and 2.25 other-than-serious violations per case, for a total average of 4.82 violations per case file.

The average penalty per serious violation for all employers was \$897.40. MOSH issued an average penalty of \$771.00 per serious citation for employers with 25 employees or fewer, \$1,054.30 for

employers between 26 and 100 employees, \$1,417.39 for employers between 101 and 250, and \$1,721.05 for employers with over 250 employees.

Based on the most recent U.S. Bureau of Labor Statistics results for reference year 2023, 42 states, 3 U.S. territories, and the District of Columbia, all had publishable state-specific data. Maryland's private sector total recordable case incidence rate was 2.3 injuries and illnesses per 100 full-time equivalent (FTE) workers, slightly below the U.S. private sector's rate of 2.4.

SAMM Measure 9 shows there were 948 qualified safety inspections completed, with 181 (19.09%) in compliance. There were also 87 qualified health inspections completed with 25 (28.74%) in compliance. The MOSH in compliance rate is far below the national average, further reflecting successful targeting and utilization of limited resources.

More than 6.5% of all MOSH inspections were completed in the public sector, exceeding the FFY24 estimated goal of 5% in the public sector. MOSH continues to use an LEP to help focus on public sector establishments.

During FFY24, the average lapse time for safety inspections was 38.39 days and the average lapse time for health inspections was 80.55 days. The number for safety was significantly lower than both the state plan and federal averages, while the number for health was on par with the federal average.

## **Consultation - Public Sector**

There were 67 public sector visits conducted; 66 were safety-related, and one was health-related, exceeding the goal of 50 visits for FFY24. Of the visits conducted, 67% were correctional facility-related while the remaining 33% were conducted in other public service sectors, such as transportation, and parks and recreation. The program achieved 134% of its visit goals.

Targeted outreach to state parks resulted in seven visits conducted.

MOSH had one public sector safety consultant in 23(g) for FFY24 and due to OSHA reapportionment (rescinding over \$38,000, equating to 15.19% of the last quarter's federal funds allocated to Maryland), a private sector consultant had to be reassigned to the public sector consultation program at the end of the federal fiscal year. If OSHA maintains this fiscal rescission of State Plan funds, additional changes or reductions may be necessary.

When there are specific health concerns on a public sector site, one of the health consultants from the 21(d) program will temporarily transfer to the 23(g) program and perform the health visit; funding modifications between the two budgeted programs are properly allocated.

Consultation supported the Outreach unit by providing consultants to fulfill speaker and seminar requests. All of the public sector requests for service were fulfilled in a timely manner and employer surveys received by the Consultation unit rated the public sector consultant's service as "excellent."

## **Whistleblower**

FY24 was the last full year the MOSH Whistleblower Unit was assisted with help from four wage claims investigators and one manager from the Division of Labor and Industry (DLI) Employment Standards Unit. These investigators were cross-trained and received ongoing formal and informal training to conduct whistleblower investigations for MOSH.

As the agency begins FY25, MOSH is now fully retaining the whistleblower program and has assigned seven active MOSH personnel to screen and investigate whistleblower claims that are filed with and referred to the agency in addition to their regular duties.

In FY24, MOSH docketed 42 whistleblower complaints for a full investigation under §5-604 of the Labor and Employment Article, which parallels Section 11(c) of the OSH Act. Four investigations resulted in meritorious findings of over \$90,680.78 for the complainants.

## **Education Unit**

In FY24, the Training and Education Unit provided a variety of training and outreach. Safety and Health training and education were offered to employers and the public via webinars, virtual and onsite speaking engagements, and targeted outreach to specific high-hazard industries. MOSH continued offering more virtual learning opportunities through live webinars on topics such as "This Is MOSH", heat injury and illness prevention, and the Globally Harmonized System.

MOSH was able to respond to speaker requests on a wide range of safety and health topics, including construction site safety, excavation safety, tree care, MOSH site inspections, slips, trips, and falls, electronic reporting, highway work zone safety, heat stress, and youth worker safety.

In FFY24, more than 18 different employers, institutions, and government agencies requested a MOSH speaker at their job site or event, reaching a total of 1332 employers, employees, and students. MOSH continues to respond to numerous requests for youth worker safety for high school students who are preparing to enter the workforce. In FY24, MOSH was able to provide Youth Worker Safety training to 752 students at 9 high school events throughout the state.

## **Staff Training**

In FFY24, compliance safety and health officers were able to attend both in-person and virtual courses offered through the OSHA Training Institute.

In-house classroom training for new CSHOs was conducted which covered the MOSH Act, laws, and regulations, hazard recognition, citations and case writing, and Construction Subparts. New and junior CSHOs participated in on-the-job training. MOSH personnel, including veteran compliance safety and health officers and consultants, supervisors, and managers, provided the training which included classroom and hands-on practical instruction, and evaluation.

In November 2023, MOSH organized the NFPA 70E course, led by John Grizzly, to train 30 CSHOs. This course is equivalent to the OTI 3090 Electrical Standards course. Additionally, over 20 CSHOs took part in the virtual Mobile Elevated Work Platform Basics training offered by the Scaffold and Access Industry Association (SAIA). Biannual training sessions were held during all-staff meetings, with over 50 MOSH employees participating in each session. The training covered Trench Safety and Crane Operation at IUOE (Local Union 37), as well as Fall Protection, with support from Sales Solutions Inc. Additionally, Preventing Runovers & Backovers in Roadway Construction training from ARTBA was provided to CSHOs. MOSH also participated in several training events hosted by the OSHA Philadelphia (Region 3) office and appreciates the sharing of resources and opportunities by the Region.

## Instructions and Standards Notices

Title 5, Subtitle 12 of the Labor and Employment Article, Annotated Code of Maryland, Chapter 308, Laws of 2020 (House Bill 722) – Heat Stress Standards, requires the Commissioner of Labor and Industry, in consultation with the MOSH Advisory Board, to develop and adopt regulations to require employers to protect employees from heat-related stress in the workplace. In accordance with Ch. 308, MOSH hosted additional stakeholder meetings in FFY24, both virtually and in-person, and reviewed public comments. The regulations were [published final as of September 30, 2024](#). MOSH continues to work diligently to develop guidance documents and other resources for stakeholders to use to encourage compliance and continue educating the public on this important health and safety issue.

In addition to the heat stress final rule, MOSH issued eight new [instructions](#) in FFY24, including:

- *Instruction 24-1 - National Emphasis Program (NEP) - Respirable Crystalline Silica*
- *Instruction 24-2 - Revised Combustible Dust National Emphasis Program (NEP)*
- *Instruction 24-3 - National Emphasis Program on Warehousing and Distribution Center Operations*
- *Instruction 24-4 - Adoption of OSHA Instruction CSP 02-00-005, Consultation Policies and Procedures Manual*
- *Instruction 24-5 - Enforcement Policies and Procedures for MOSH's Severe Violator Enforcement Program (SVEP)*
- *Instruction 24-6 - Voluntary Protection Programs Policies and Procedures Manual*

- *Instruction 24-7 - Local Emphasis Program (LEP) Falls in All Industries*
- *Instruction 24-8 - Civil Penalty Adjustments*

\*Additional instructions are expected to be adopted in the first part of FFY25. MOSH continues to successfully adopt outstanding OSHA directives. Please see the website for the most up-to-date list.

## **Cooperative Compliance Partnerships (CCP) & Voluntary Protection Program (VPP) - Star Only**

The Cooperative Compliance Partnership program continued its reorganization phase in FY24. The CCP program added two new sites and reviewed several others with various general contractors throughout the state of Maryland. Several new applications are currently undergoing review and are likely to become new partnerships in FY25.

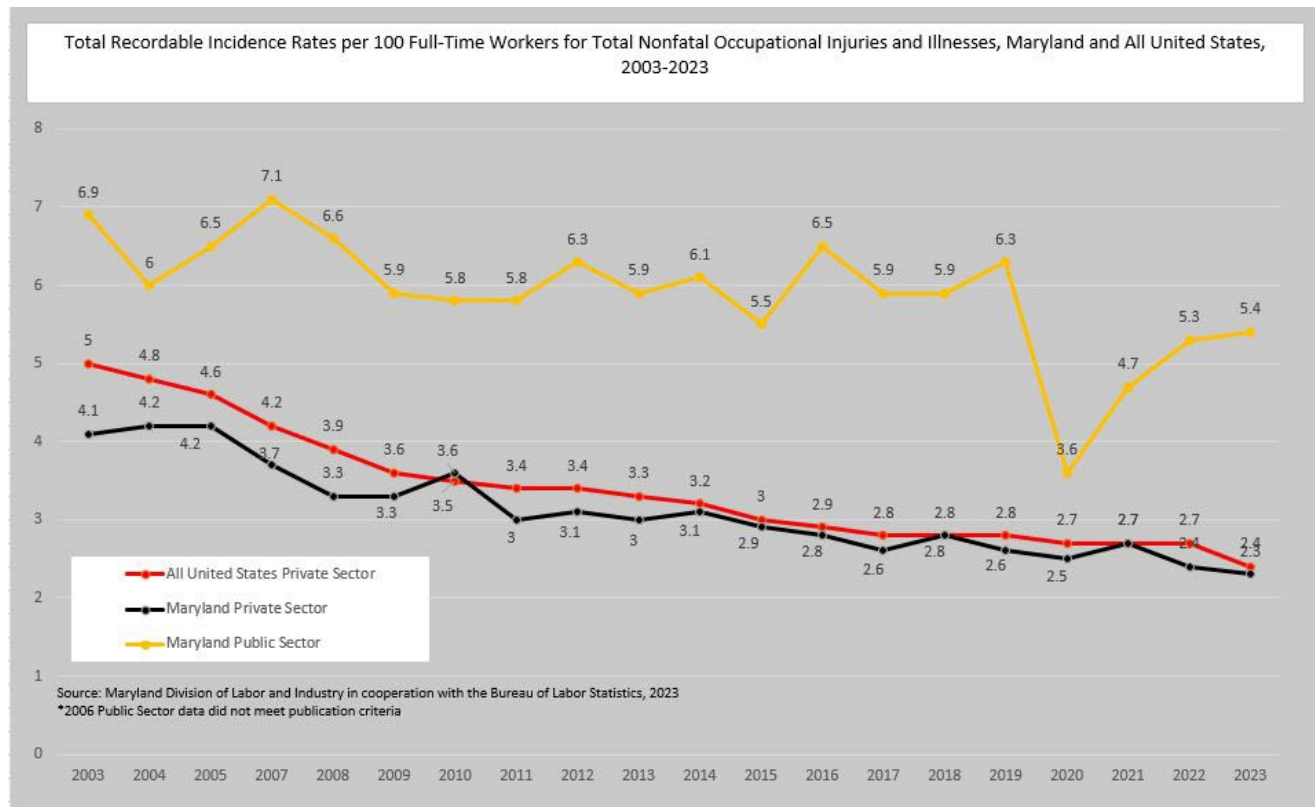
Due to reorganization and staffing challenges, no renewal inspections were completed and no new sites were added to the Voluntary Protection Program in FY24. In an effort to advance VPP, two MOSH employees received SGE training in FY24 and several recertification visits are planned for FY25. Maryland VPP continues to support the OSHA and Voluntary Protection Programs Participants' Association (VPPPA) and Special Government Employee (SGE) program and intends to focus more resources and efforts toward VPP in FY25.

## **Research and Statistics**

In September 2024, the MOSH Research and Statistics unit completed the reference year 2023 data collection for the Bureau of Labor Statistics (BLS) Survey of Occupational Injuries and Illnesses (SOII) program. The statistics generated from this employer-based survey are the U.S. government's official accounting of the safety and health issues facing America's workplaces. The SOII charts the nature and magnitude of occupational injuries and illnesses across the United States. The dedication and perseverance of the Research and Statistics staff helps ensure that MOSH has reliable and timely occupational injury and illness data at its disposal for industry outreach initiatives, targeted enforcement, and other surveillance purposes.

## Highlights of the Maryland Survey of Occupational Injuries and Illnesses

- Maryland's private industry TRC rate of 2.3 in 2023 was lower than the 2022 rate of 2.4. Maryland's TRC rate has generally been on a decline with the 2003 TRC rate being 4.1 and decreasing, with a few exceptions ever since.
- Transportation and equipment manufacturing in Maryland had a significantly higher TRC and DART rate (14.6 and 6.9) than the National TRC and DART rates (3.4 and 2.2).
- The information supersector had a significant increase in its DART incidence rate from the previous year (0.3 in 2022 to 1.4 in 2023).



## V. Special Measures of Effectiveness/Special Accomplishments

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### Case Highlights - Enforcement

#### *Francis Scott Key Bridge Removal Partnership*

On March 26th, 2024, at approximately 1:30 a.m., the Francis Scott Key Bridge (FSKB) in Baltimore was struck by the container ship Dali, resulting in the collapse of six spans of the bridge and six worker fatalities. The FSKB was a vital link over the Patapsco River and a heavily used thoroughfare in everyday Maryland life as part of the I-695 beltway. MOSH responded to the bridge collapse with an immediate compliance inspection, separate from the partnership, to investigate the circumstances surrounding the workers on the bridge at the time of its collapse.

The Maryland Transportation Authority (MdTA) oversaw the implementation of safety and health controls for their contractors who were responsible for the removal of bridge components. It was determined that a partnership between MOSH and MdTA would be the most effective and immediate path to ensure employee health and safety during the salvage operation.

The Francis Scott Key Bridge Removal Partnership between MdTA and MOSH was signed on 05/14/24. In forming this partnership, MOSH consulted with the Minnesota Occupational Safety and Health Administration, which provided valuable input based on its partnership agreement with the Minnesota Department of Transportation after the I-35W bridge collapse.

A total of 7 partnership visits were conducted from 05/16/24 to 06/27/24. On-site it was found that MdTA and its contractors had placed a large emphasis on safety and health, the team was receptive to MOSH's guidance and input. It was apparent that a lot of time and effort had been put into planning and upkeep of employee health and safety controls. Extensive measures to mitigate employee heat stress were employed including providing shade canopies, fans, supplemental electrolyte packets, and ice chests full of water. A large emphasis was placed on personal protective equipment as well, not only were cutting employees provided a new filter for their powered air purifying respirator (PAPR) daily their coveralls were laundered each day too.



*Photo 1 shows two employees wearing coveralls and PAPR's using 5 foot long torches to cut sections of bridge.*



During the partnership visits, MOSH conducted personal air sampling for lead on employees who were torch-cutting bridge sections. The exposure assessment results found that all samples were above the permissible exposure limit (PEL). The APF (Assigned Protection Factors) of the PAPRs being utilized by employees during torch cutting was found to be substantial protection from lead. When accounting for the PAPR protection, employees were exposed to less than 75% of the permissible concentration of lead. MOSH worked with MdTA and contractors to ensure the employees torch cutting received blood lead testing per occupational safety and health regulations. The results of the blood lead tests were well received in that no employee blood lead levels (BLLs) of concern, either venous or zinc protoporphyrin (ZPP). Those employees whose BLLs did not decrease during the project saw an average increase in blood lead concentration of 1.6 µg/dl; all of these employees had a BLL concentration measuring less than 7 µg/dl and an average final BLL concentration of 3.2 µg/dl, or 6.4% of the threshold for medical removal from the work being performed. No employee had a ZPP analysis at or above 50 µg/dl.

The last partnership visit MOSH made to Sparrows Point was on 06/27/24. In summary, MOSH increased awareness of the lead program and its importance through various means, including direct conversations with employees and employers, attending team safety and planning meetings, and conducting personal sampling. This partnership resulted in all parties working cooperatively during the recovery and removal project by improving safety and health processes, and ensuring all workers had a safe and healthful workplace.

## **VI. Adjustments or Other Issues**

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### **Organizational Changes**

MOSH redesignated the regional boundaries of the six compliance regions to carve out a solely dedicated Baltimore City Region. See the MOSH website for details.