

Worker Safety Quarterly Update

WSDOT emphasizes worker safety, sees mixed results

Worker Safety Highlights

The recordable incident rate has improved, decreasing by 17 percent to date in 2012 compared to the same period in 2011.

Six of WSDOT's eight organizational units are meeting their annual goals as of September 30, 2012.

The agency-wide days away, restricted, or transfer (DART) rate worsened, increasing by nine percent from the same period in 2011. However, four organizational units improved their DART rates, decreasing by 13 percent or more.

Changes in WSDOT recordable incident rates¹ by organizational unit

Number of recordable incidents for every 100 full-time employees

Organizational unit	CY 2011	Q1-Q3 2011	Goal 2012	YTD ² 2012	2011-2012 ² % change ³
Northwest Region	6.6	6.5	5.6	4.5	-31%
North Central Region	8.9	10.7	7.9	6.1	-43%
Olympic Region	5.2	4.0	4.2	5.0	25%
Southwest Region	6.6	3.9	5.6	4.6	18%
South Central Region	7.8	6.5	6.8	5.5	-15%
Eastern Region	9.9	10.4	8.9	8.8	-15%
Headquarters	2.2	2.4	1.2	3.2	33%
Subtotal	5.8	5.4	4.8	4.8	-11%
Ferry System	7.5	7.7	6.5	5.2	-32%
Agency-wide	6.2	5.9	5.2	4.9	-17%

Data source: WSDOT Office of Human Resources and Safety.

Notes: 1 The recordable incident rate is calculated as the count of recordable incidents multiplied by 200,000 hours (approximate number of hours worked by 100 employees in one year), divided by the total hours worked. 2 Year to date percent change comparing January through September 2011 to 2012. 3 Incident rate changes: improved = decrease (-%); worsened = increase.

WSDOT has embarked on a program to transform its employee safety, guided by a core value that every employee should leave at the end of their shift just as healthy as when they started. WSDOT has made significant progress toward this goal. In the first three quarters (January through September) of 2012, there were 227 Occupational Safety and Health Administration (OSHA) recordable incidents reported, showing a marked decrease from 2011 when there were 395 recordable incidents. WSDOT's health and safety staff completed training in root cause analysis methods, as part of WSDOT's ongoing commitment to improve employee safety. This method of incident investigation is further described on p. 4.

Worker safety metrics track injury frequency and severity

WSDOT focuses on the agency's overall recordable incident rate as the primary measure to gauge employee safety. This cumulative (year to date) incident rate is the number of OSHA-recordable incidents reported for every 100 full-time employees. "OSHA-recordable incidents" is an industry standard measure that includes all work-related illnesses and injuries (see *Gray Notebook* 45, p. 2). Tracking the incident rate allows the agency to better address employee safety, and identify problem areas and progress in preventing work-related injuries and illnesses.

A second measure for WSDOT employee safety is the cumulative "DART" rate, for "days away, restricted, or transferred." This "days away" rate is a subset of the overall incident rate and measures the rate of recordable incidents that keep employees away from work, on restricted duty, and/or require a job transfer. This rate indicates the relative severity of incidents. If two regions have equal recordable incident rates, but one has a lower days away, restricted, or transferred rate, it indicates which one is experiencing more severe injuries that require longer times for employees to recover. The U.S. Coast Guard requires maritime employees to

be 100 percent fit for duty before they return to work. Therefore, some Washington State Ferries (WSF) employees are not able to return to work either part-time or in a limited capacity following an injury. This stipulation typically leads to higher "days away" rates for WSF employees compared to other WSDOT employees.

Five organizational units improve incident rates

WSDOT's Safety and Health Champions team challenged each region to meet or exceed a full point reduction of their calendar year (CY) 2011 recordable incident rate in 2012. For example, the agency had an incident rate of 6.2 at the end of 2011, and therefore the goal for WSDOT is a rate of 5.2 or less at the end of 2012. Six organizational units are on track to meet their incident rate goals for the year. Olympic Region and Headquarters currently have incident rates higher than their 2012 goals.

As of September 30, 2012 (Q1 - Q3), WSDOT made progress in reducing OSHA-recordable workplace incidents; the incident rate decreased to 4.9 incidents for every 100 full-time employees, a 17 percent improvement from the same period in 2011, when it was 5.9. Five WSDOT organizational units improved their incident rates by 15 percent or more in this time frame. The North Central Region led the way with a 43 percent improvement.

Days away rate and lost workdays increase

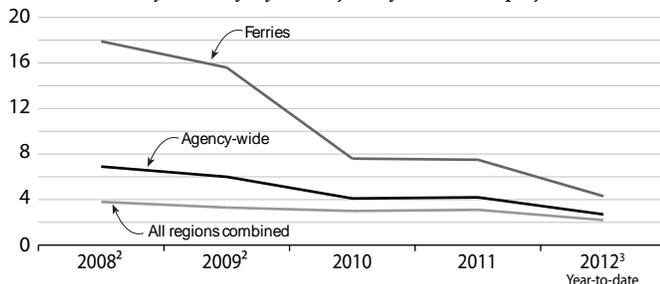
Rate of incidents involving days away, restricted duty or job transfer increases

In the first three quarters of 2012, the “days away” rate was 3.5, nine percent worse than the same period in 2011. Four WSDOT organizational units (North Central Region, South Central Region, Eastern Region, and Ferries) improved their “days away” rates by 13 percent or more. Ferries led the way with a 28 percent improvement. Olympic Region, Southwest Region and Headquarters increased their “days away” rates.

The longer term trend for “days away” rates is illustrated in the graph below. The “days away” rate for Ferries showed a 74 percent improvement from 17.9 incidents involving days away, restricted duty, and/or job transfers for every 100 full-time employees in 2008, to 4.8 in the first three quarters of 2012. The highway regions and Headquarters improved more than 18 percent, from 3.8 in 2008 to 3.1 in the first three quarters of 2012 (January through September).

WSDOT “days away¹” rate for ferries, regions, and agency wide

Number of recordable incidents involving days away, restricted work activities, and/or job transfer for every 100 full-time employees



Data source: WSDOT Office of Human Resources and Safety, WSF, Labor and Industries (L&I).
Notes: 1 The “days away” or DART rate is calculated as the count of recordable incidents involving days away, restricted duty, or transfer, multiplied by 200,000 hours, and divided by the total hours worked. 2 The 2008-2009 Ferries “days away” rates are based on data from the Jones Act claims database and the L&I database. 3 Q1-Q3 (January - September 2012).

Lost workdays rise 77 percent from the same period in 2011; maintenance workers take brunt of lost workdays

During the third quarter of 2012, WSDOT employees lost 982 workdays to work-related incidents. This is 77 percent more than during the same period in 2011, when employees lost 554 workdays. This increase is due to a high number of lost workdays reported by highway maintenance workers. In 2012, highway maintenance workers lost 511 workdays, while in the third quarter of 2011 they lost 147 workdays to work-related incidents.

WSDOT “days away¹” rates by organizational unit

Number of recordable incidents involving days away, restricted duty, and/or job transfer for every 100 full-time employees

Organizational unit	CY 2011	Q1-Q3 2011	YTD ² 2012	YTD ² 2011-2012 rate % change ³
Northwest Region	2.6	2.2	2.4	9%
North Central Region	6.5	3.2	2.8	-13%
Olympic Region	2.0	1.5	4.0	167%
Southwest Region	7.2	2.5	5.4	116%
South Central Region	4.4	4.4	3.3	-25%
Eastern Region	3.0	3.3	2.8	-15%
Headquarters	1.6	0.8	2.4	200%
All Regions combined	3.1	2.1	3.1	48%
Ferry System	7.5	6.7	4.8	-28%
Agency-wide	4.2	3.2	3.5	9%

Data source: WSDOT Office of Human Resources and Safety, WSF, Labor and Industries (L&I).

Notes: 1 The “days away” rate is the count of recordable incidents involving days away, restricted duty, or job transfer, multiplied by 200,000 hours, and divided by the total hours worked. 2 Year to date (Q1-Q3) percent change comparing January through September of 2011 and 2012. 3 Incident rate changes: improved = decrease (-%); worsened = increase.

OSHA-recordable injuries sustained and workdays lost by category of worker

July 1 - September 30, 2012, and comparable calendar quarters

	Days away from work	Percent of all injuries	Number of injuries		
	Q3 2012	Q3 2012	Q3 2012	Q2 2012	Q3 2011
Highway maintenance	511	44%	31	18	28
Highway engineering	58	20%	14	11	19
Admin. staff	25	9%	6	4	2
Ferry system	388	27%	19	20	15
Total	982	100%	70	53	64

Data source: WSDOT Office of Human Resources and Safety.

Note: The U.S. Coast Guard requires maritime employees to be 100 percent fit for duty before they may return to work. Some Ferry System employees are not able to return to work either part-time or in a limited capacity following an injury.

While the number of days away for maintenance employees has increased significantly from the same quarter a year ago, the number of injuries increased by only three, from 28 to 31. The number of injuries for engineers, administrative staff, and ferries employees varied by no more than five injuries per category (listed above) between this quarter and last quarter (Q2 2012) or one year ago (Q3 2011).

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Analyzing the root causes of worker injuries

WSDOT enhances root cause analysis

Root cause analysis is a systematic problem solving method that identifies and rectifies the source of problems to prevent them from happening again.

In root cause analysis, the investigator systematically analyzes what may lead to on-the-job incidents and injuries. Safety officers focus their root cause analyses on WSDOT work groups with the highest recordable incident rates, and collaborate with the teams to identify and implement safety improvements. The efforts aim to identify systemic issues that lead to repeated incidents, and to raise awareness at all levels of the agency. Safety officers share their best practices for improving safety and reducing workplace incidents throughout the agency.

How WSDOT's worker compensation history factors into insurance premium assessment

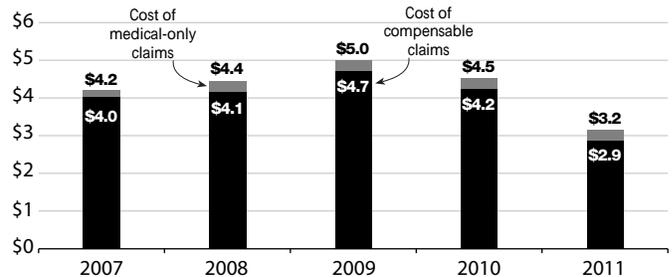
The Washington State Department of Labor and Industries (L&I) calculates a unique experience factor for each employer annually that determines their workers' compensation premiums for the coming year. This factor is based on past claims experience, or costs, and is applied to the base premium rate for the employer's risk class or classes. Washington state has over 300 individual risk classes.

WSDOT's experience factor improved considerably from 2008 to 2011 due to a number of factors including claim frequency (how many claims are filed), claim severity (the expense of claims), and worker hours (the time exposed to hazards). WSDOT's premiums are calculated by multiplying the experience factor to the industry rate(s) established by L&I.

As an insurance system, the overall workers' compensation premiums are intended to cover the lifetime costs of all claims that will occur during the year. L&I considers several factors in determining the overall rate and the rates for each risk class.

Cost of L&I claims, 2007-2011

WSDOT Highways and Ferries System L&I cases only; Dollars in millions



Data source: WSDOT Office of Human Resources and Safety, Staff Development, Labor and Industries (L&I).

Note: *Medical-only claims* are claims for which the payments are for medical costs only and claimants missed three or fewer days of work, excluding the day of injury or illness. *Compensable claims* are claims with medical costs plus costs for wage replacement benefits and/or disability and pension; claimants missed more than three days of work, excluding the day of injury or illness. This is a snapshot of costs incurred through May 1, 2012. Additional charges to these claims may apply.

WSDOT insurance premiums vs. experience factor

2007-2011; Lower experience factors are better; Premiums in dollars

Calendar year	Experience factor	Premium
2007	0.9917	\$6,404,450
2008	1.0622	\$8,565,132
2009	0.8949	\$7,062,174
2010	0.8539	\$7,636,840
2011	0.7294	\$7,638,714

Data source: WSDOT Office of Human Resources and Safety.

These include frequency of long-term disability claims and lifetime pensions, estimated income from investments, and the industry risk class experience. The rates for WSDOT's assigned risk classes and overall premiums increased slightly while the experience factor improved for 2011.