Safety Data Decisionmaking at WSDOT

Unique among State Departments of Transportation, the Washington State Department of Transportation (WSDOT) does not have a centralized safety office. Rather, safety is central to decisionmaking across the agency; the offices of planning, traffic operations, design, risk management, and maintenance all work together to build and maintain safe roadways in the State. The agency's State-level highway safety program is coordinated by three cross-cutting groups: the Highway Safety Executive Committee, the Highway Safety Working Group, and the Highway Safety Issues Group.

The agency relies upon these three groups to ensure that expert judgment guides the transportation planning and project selection process in Washington State.[1] These three groups play an important role in identifying the State's safety needs and providing guidance to WSDOT regional offices in support of safety project selection.

The Case for the WSDOT Approach

The existing structure for safety decisions at WSDOT arose from the need for staff across the agency to work toward common safety goals without the presence of centralized safety office. The safety decision making process now in place in Washington State, as described below, has enabled WSDOT to divide and coordinate the activities of safety practitioners, policymakers, and executive-level decisionmakers within the agency. As a result of this approach, WSDOT has been able to demonstrate the value of new safety initiatives, such as the adoption of AASHTOWare Safety Analyst™ and securing support for their implementation.

One key benefit of WSDOT's interoffice safety groups is their focused ability to address the factors contributing to crashes using a "4E" approach, which uses quantitative data evaluation of contributing factors to crashes to determine appropriate engineering, education, enforcement, and emergency medical services strategies. This interoffice approach enables the agency to target statewide safety priorities by coordinating activities between various parts of the agency, including: programming, design, traffic operations, risk management, and maintenance. Due in part to the State's safety-related innovations, Washington has observed a continued reduction in the number of fatal crashes. In fact, Washington State has averaged 22 fewer traffic fatalities and 80 fewer serious injuries each year between 2002 and 2011 (see Figure 1).[2] WSDOT anticipates that, with continued highway safety improvements, this figure will continue to decline.

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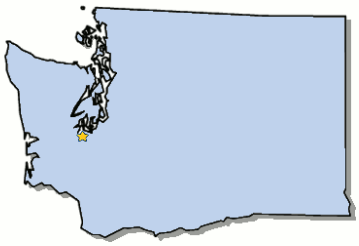

Safety Data Decisionmaking

Highway Safety Executive Committee (HSEC): HSEC is an executive policy team composed of key staff from major WSDOT divisions and offices, including the Director of Enterprise Risk Management, the Director of Project Development, the Director of Highways and Local Programs, the Director of Multi-modal Planning, and other WSDOT leaders. This group oversees and approves the safety policies implemented by WSDOT's maintenance, planning, design, preservation, and traffic operations programs. HSEC provides overall direction to the agency through high-level guidance on safety plans and programs; project ranking and prioritization methods; risk and crash reduction countermeasure policies; budget targets; research and data priorities; and safety program performance assessments. As the party responsible for WSDOT's highway safety program, HSEC reviews data analysis and recommendations from safety practitioners, which it then uses to

[1] AASHTOWare Safety Analyst™ is a set of software tools available that supports highway safety management at state and local highway agencies.

[2] 2013 Washington State Strategic Highway Safety Plan

develop policy and communicate guidance to WSDOT regional offices.

Highway Safety Issues Group (HSIG): In the 1990s, WSDOT established HSIG as the statewide committee responsible for coordinating the development of policy, plans, and programs for highway safety in Washington State. HSIG members include safety experts and from the areas of risk management, traffic, design, program development, performance reporting, research, highways and local programs, and transportation data, as well as the WSDOT regional offices. HSIG also partners with external groups, such as the FHWA Washington Division Office, the Washington State Patrol, the Washington Traffic Safety Commission, the County Road Administration Board, and local agencies. The group is co-chaired by the managers of traffic operations and highway design.

HSIG identifies potential safety improvements, coordinates the development of safety polices and initiatives, manages WSDOT's safety resources, and reviews proposed safety programs from its constituent offices. Along with partner groups from the law enforcement and education sectors, HSIG drafts Washington's Strategic Highway Safety Plan (SHSP) updates. HSIG focuses on the technical aspect of safety work, and collaborates with HSEC and the Highway Safety Working Group on safety data policies. The executive committee relies on HSIG to provide technical expertise and recommendations on the development of policy, plans, and programs for roadway safety.

Highway Safety Working Group (HSWG): Members of this group include Assistant State Safety Engineers; Safety Risk Managers; Priority and Program Development Engineers, the Transportation Data and GIS Office Managers, and other WSDOT staff at the same level. HSWG is responsible for the day-to-day implementation of safety procedures. HSWG presents safety-related proposals to executive committee, often through the development of white papers and other documents. For example, HSWG presented a white paper to the executive committee to support the implementation of Safety Analyst™, which WSDOT now uses for network screening and project prioritization. The working group also prepared a benefit/cost study to support the collection of additional roadside data on State-owned roadways.

In order to justify the expenditures associated with any new safety project or initiative, the Working Group must demonstrate the benefit and cost effectiveness of the undertaking (e.g. adopting Safety Analyst™) to the executive committee. Although WSDOT does not have a central safety office or programmatic funding for special safety initiatives, the agency uses HSWG to propose and investigate new investments in safety and safety data.

Safety Data Coordination at WSDOT

A variety of offices at WSDOT have a role in the collection, maintenance, and analysis of safety data. While the Transportation Data and GIS Office holds the primary responsibility for roadway data in the State, WSDOT's maintenance staff also collect data on State-owned roadways. The Transportation Data and GIS Office also coordinates with data stewards at the Maintenance Division, and other offices and agencies, to request access to roadway data. The same office also extracts roadway data from highway construction

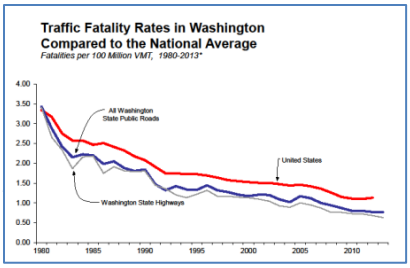

Figure 1 Traffic fatality rates in Washington compared to the national average

contracts, including vertical and horizontal curvature data. In addition to roadway data, the Transportation Data and GIS Office also collects traffic data on roadways included in the Highway Performance Monitoring System.

WSDOT takes part in the Washington Traffic Records Committee (TRC), which works to improve the accessibility, timeliness, accuracy, and completeness of traffic data in Washington State. As part of the TRC, WSDOT works with the Data Integration Subcommittee to promote the integration of different data records to create a comprehensive crash outcome dataset and to enhance the data's value beyond the limited, agency-specific purpose for which it was initially gathered. The Data Integration Subcommittee is currently linking procedures for the initial phase of developing an integrated traffic records system across the state, including linking collision and health records.

Additional Resources

FHWA Gap Analysis Report: Tools and Practices for System Wide Safety Improvement (*Description of WSDOT Decisionmaking on Pages 10-12*)

WSDOT Target Zero: SHSP 2013