

May 21, 2015

Board of County Commissioners  
Clackamas County

Members of the Board:

**The Road Ahead: Safe Roads Are No Accident**

|                         |   |
|-------------------------|---|
| <b>Purpose/Outcomes</b> | Present information about the crucial role road maintenance plays in keeping our roadways safe for all travelers.   |
| <b>Fiscal Impact</b>    | We currently have an annual \$17.6 million gap between the amount of money available and the amount of money needed to maintain our roadways  |
| <b>Funding Source</b>   | To be determined  |
| <b>Safety Impact</b>    | Filling the funding gap will reduce future crashes, thereby reducing deaths and injuries.   |
| <b>Duration</b>         | Ongoing   |
| <b>Previous Action</b>  | The Board of County Commissioners has been focused on road maintenance funding needs for more than a year. Last year the BCC also approved the County's first Transportation Safety Action Plan (TSAP). |
| <b>Contact Person</b>   | Mike Bezner, Assistant Director, Transportation & Development, 503-742-4651   |

**BACKGROUND**

Clackamas County maintains 1,400 miles of roads – more miles of paved roads than any other county in Oregon – yet has no local source of funding for maintenance. There is currently an annual gap of \$17.6 million between the amount of money available for road maintenance and the amount of money needed for road maintenance.

For more than a year, the County has shared information with the public about this looming crisis. That outreach has included data on the cost of maintenance, various maintenance activities, the dramatically increased cost of rebuilding a roadway compared to ongoing maintenance, why the funding shortage has occurred, etc.

Today, we want to focus on another, and perhaps the most important, reason to maintain our roads – safety.

Smooth pavement and shoulders, clear lane markings and unobstructed sight lines are all critical to keeping our roads safe and sound. As funds available for maintenance have diminished, the County has been forced to juggle priorities and stretch the number of years between routine maintenance services such as repairing culverts and storm sewers, cutting back brush, signage, controlling water on County roads and marking pavement.

Though the majority of crashes are primarily the result of driver error, road conditions can make a difference in preventing whether a crash occurs and/or the severity of a crash.

Respectfully submitted,

  
Barbara Cartmill  
Director



# Safe Roads Are No Accident

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BOARD OF COUNTY COMMISSIONERS BUSINESS MEETING

MAY 21, 2015

# What we heard

## Focus Groups:

*Safety is the strongest argument for the need for more road funds*

## Community Discussion Forum:

*Strongest messages:*

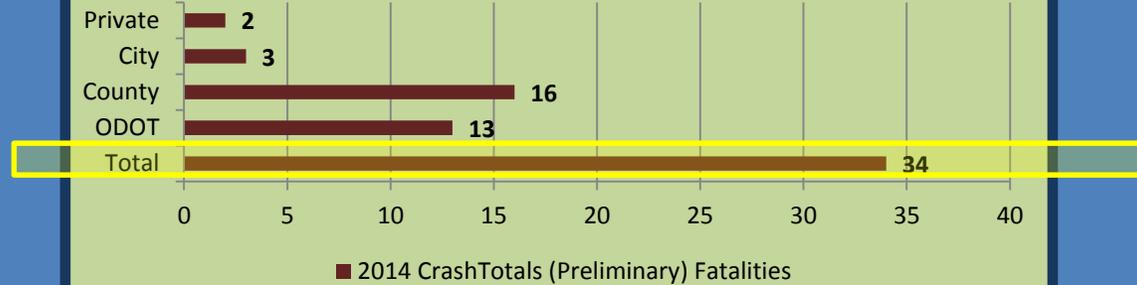
- *High cost of waiting*
- *Safety*

# What we know

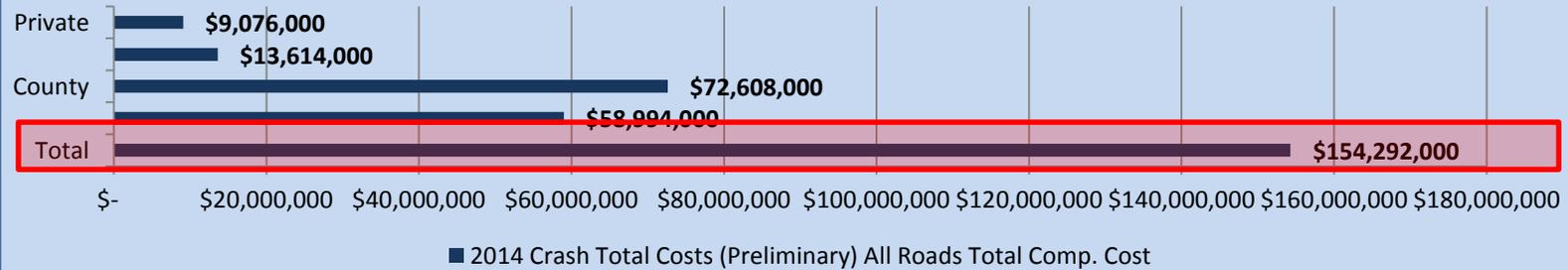
Safe roads are no accident; we work to make them safe every day.

Maximum Time Between Fatal Crashes: 53 Days 😊

### 2014 Crash Totals (Preliminary) Fatalities – All Roads

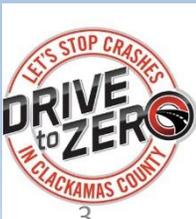


### 2014 Crash Total Costs (Preliminary) Total Comp. Cost – All Roads



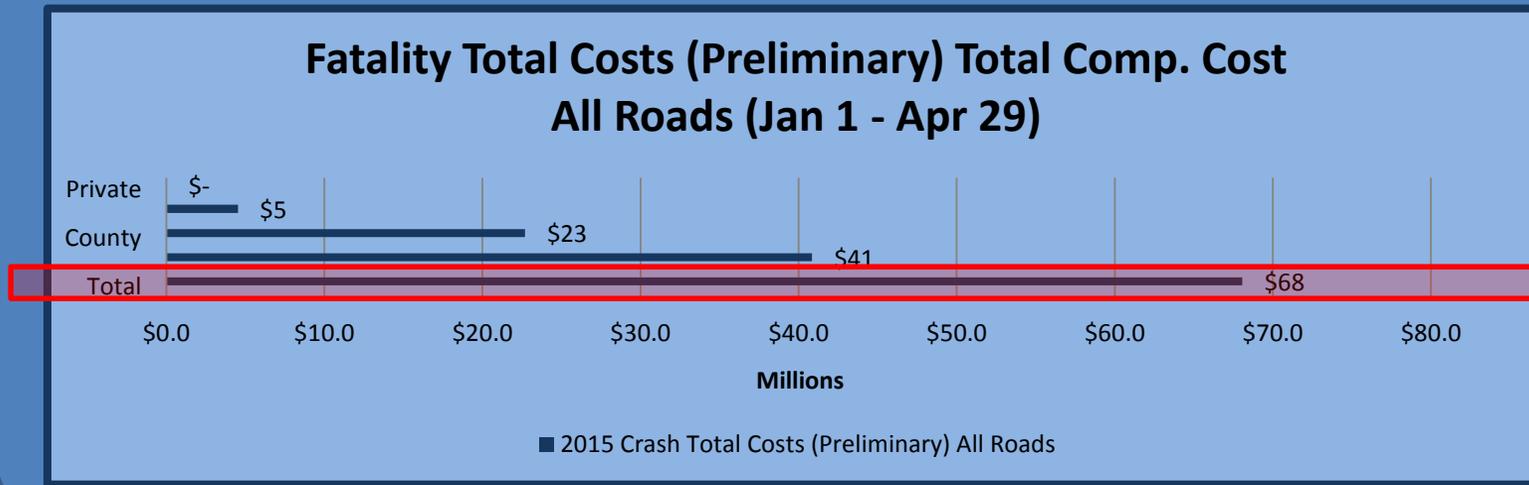
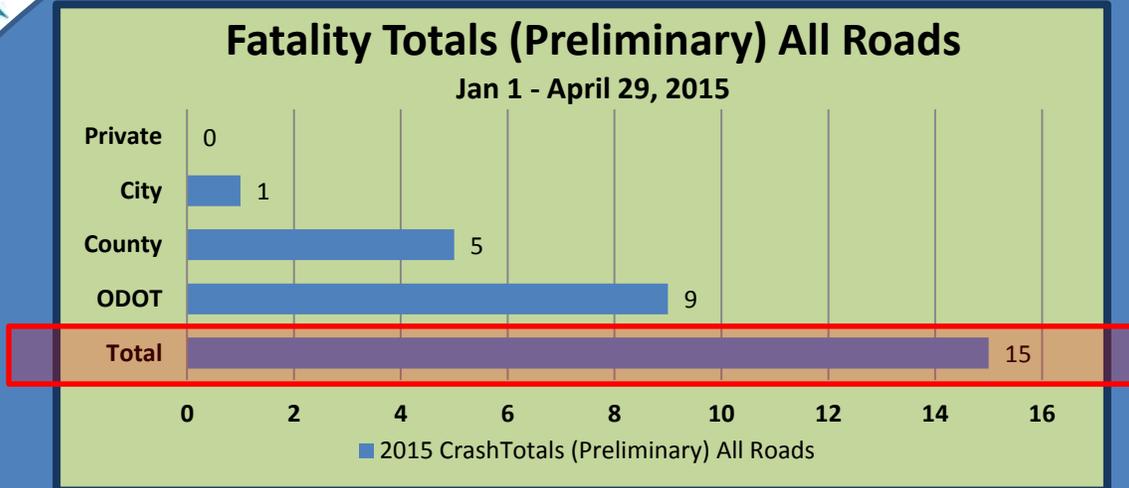
2014 Preliminary Fatality & Comprehensive Costs through January 1, 2015

Comprehensive cost of one fatal = \$4.538 million per National Safety Council





Maximum Time Between Fatal Crashes: 13 Days 😊



2015 Preliminary Fatality & Comprehensive Costs through April 29, 2015

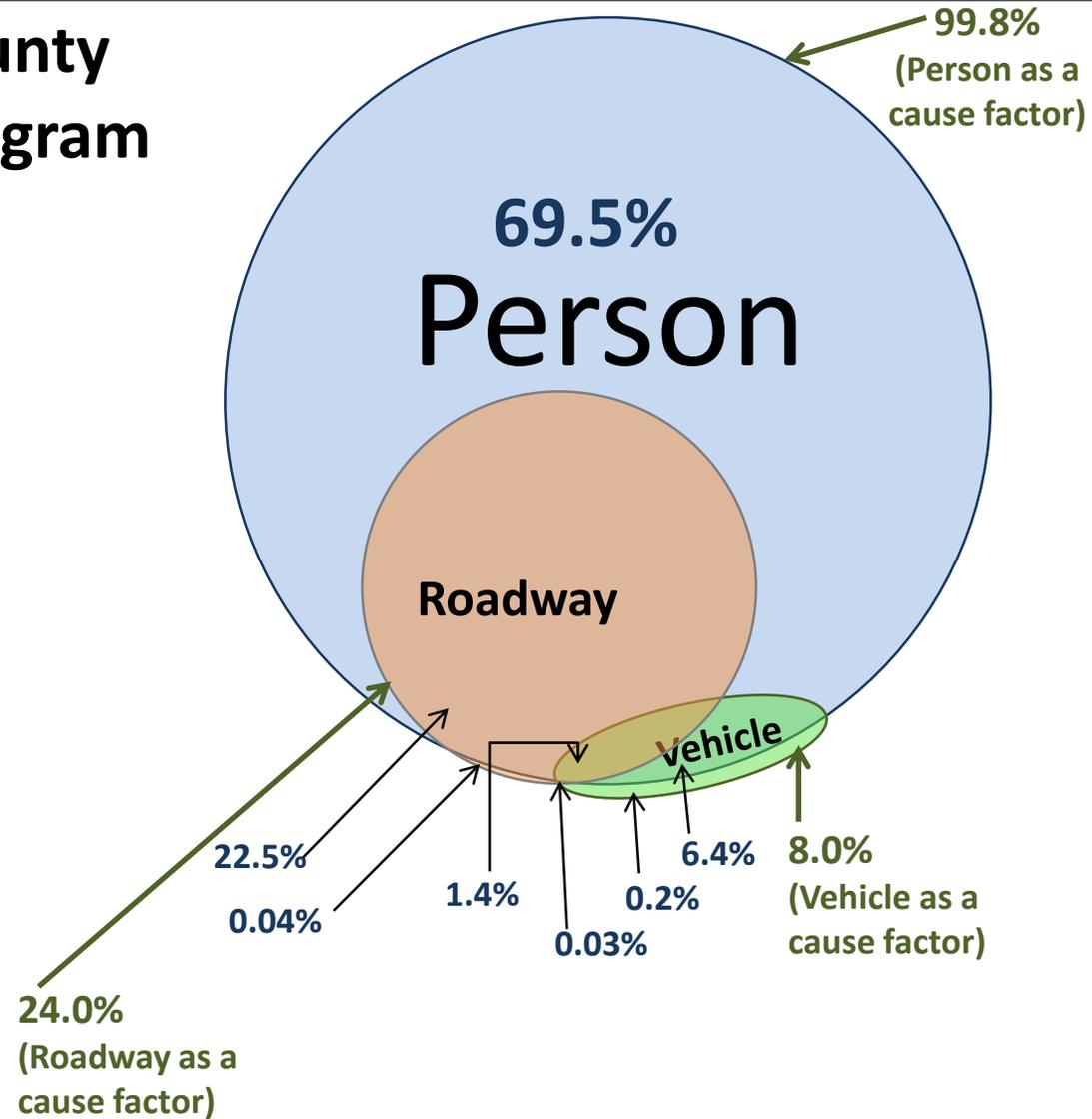
2014: 9 Fatalities as of April 30<sup>th</sup>!

Comprehensive cost of one fatal = \$4.538 million per National Safety Council

# Clackamas County Crash Cause Diagram

| Crash Cause Factor              | %    |
|---------------------------------|------|
| Person                          | 99.8 |
| Roadway                         | 24.0 |
| Vehicle                         | 8.0  |
| Sole Crash Cause Factor         | %    |
| Person                          | 69.5 |
| Roadway                         | 0.04 |
| Vehicle                         | 0.2  |
| Combination Crash Cause Factors | %    |
| Person & Roadway                | 22.5 |
| Person & Vehicle                | 6.4  |
| Roadway & Vehicle               | 0.03 |
| Roadway & Vehicle & Person      | 1.4  |

Source: Oregon DOT crash data, 2009-2013



National Strategy On Highway Safety<sup>™</sup>  
**PROUD PARTNER**  
TowardZeroDeaths.org



# Surface Treatments

## Chip Seal

Provides a long-wearing, high-friction coating for roadway

- Improves vehicle braking
- Improves vehicle traction in wet and/or icy conditions



## Paving

Adds friction for vehicles

Can add a safety edge (45-degree beveled edge) to the side of the road

Provides a safe, smooth surface to travel on so travelers are not forced to leave the travel lane to avoid damaged sections

Provides adequate width for safe two-way travel for roadways with different volumes and speeds

# Culverts / Ditching / Storm Drainage

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Keeps standing water off the roadway to prevent:

- Hydroplaning
- Sudden braking
- Loss of braking performance due to wet braking surfaces on vehicle

Keeps roadbed dry to increase the life of the roadway



# Shoulders

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Serve as safety area for a disabled vehicle in case of emergency

May provide a safe area for person to walk or bike

Provide recovery area, if needed, for errant driver to be able to maintain control of vehicle

Provide support to pavement area

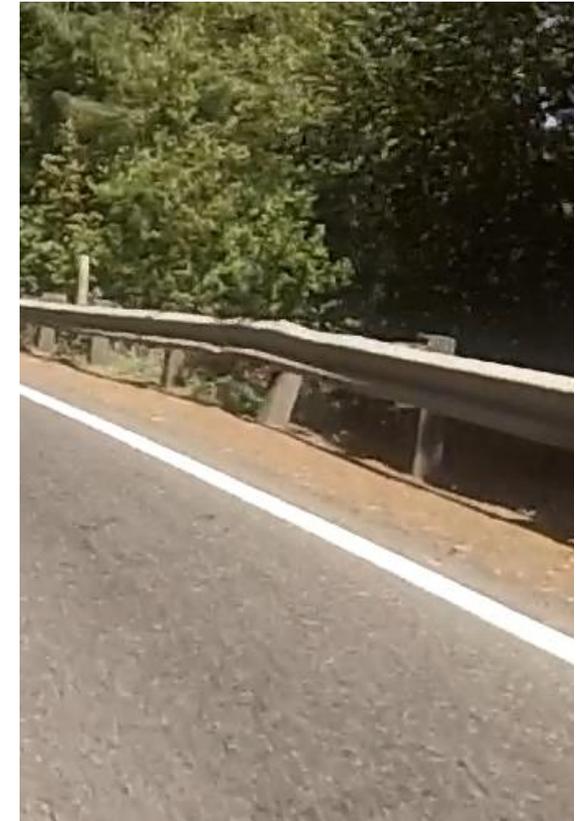


# Guardrails

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Help keep vehicles from leaving the road in high-risk areas

Updated guardrail ends better protect vehicle occupants when the guardrail is impacted by a vehicle



# Vegetation Management

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Help optimize sight lines:

- at intersections
- along the roads to see the road ahead
- at driveways so travelers can enter and exit roadway safely

Remove obstructions from the roadway



# Signs

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Guide drivers safely along roads

Help people find their destination (name signs)

Posting speeds and other safety related duties of drivers

Signs to define priority for an intersection- stop signs



# Traffic Signals

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Safe travel through intersections (prevent crashes)

Use of modern computer and electronics to optimize safety and efficiency along a roadway

Built-in safety systems

# Pavement Markings

Centerline markings guide drivers in their lane along a roadway

Edge lines (where there is enough width) help guide drivers to stay on the roadway

Centerline raised markings provide visibility at night and in rainy/foggy conditions

Messaging on pavement guides drivers and notifies them of upcoming changes

Mark where different road users should be (motorists, walkers, bicyclists)

