



Nevada Freeways Wrong Way Driver Crashes, Countermeasures and Experimentation 2017 NV Safety Summit

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Freeway Wrong Way Drivers

- This effort focuses on drivers going the wrong way on freeway off-ramps and accessing the freeway mainline
- From experience we know that approximately 50% of these drivers are at some level of intoxication
- It is often difficult to know where wrong way drivers access the freeway



Freeway Wrong Way Driver Crashes Statewide 2005-2015

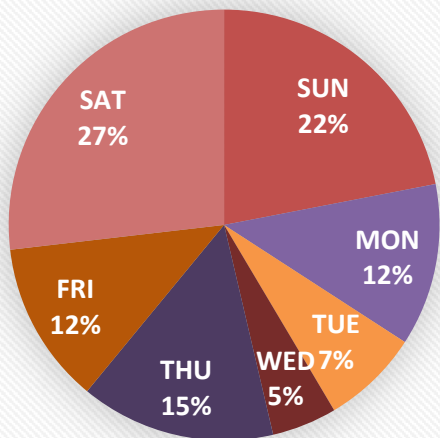
COUNTY	FATAL CRASHES	INJURY CRASHES	PDO CRASHES	TOTAL CRASHES	TOTAL FATALITIES	TOTAL INJURIES
CARSON CITY	1		1	2	1	1
CHURCHILL		1		1		3
CLARK	27	87	88	202	41	206
ELKO	1	6	1	8	2	10
EUREKA	1			1	1	
HUMBOLDT	2	3		5	2	7
LANDER			1	1		
LYON	1		1	2	2	1
PERSHING	1		1	2	1	1
WASHOE	7	28	20	55	8	55
TOTAL (STATEWIDE)	41	125	113	279	58	284



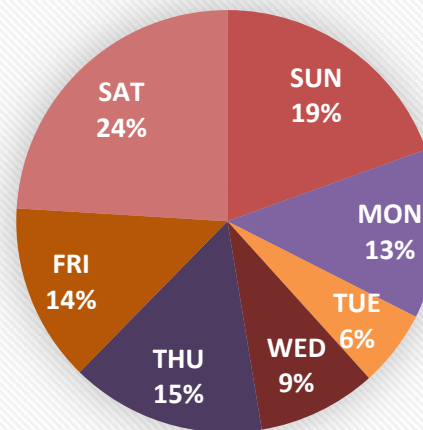


Freeway Wrong Way Crashes by Day of Week

Fatalities (Statewide)
by Day of Week



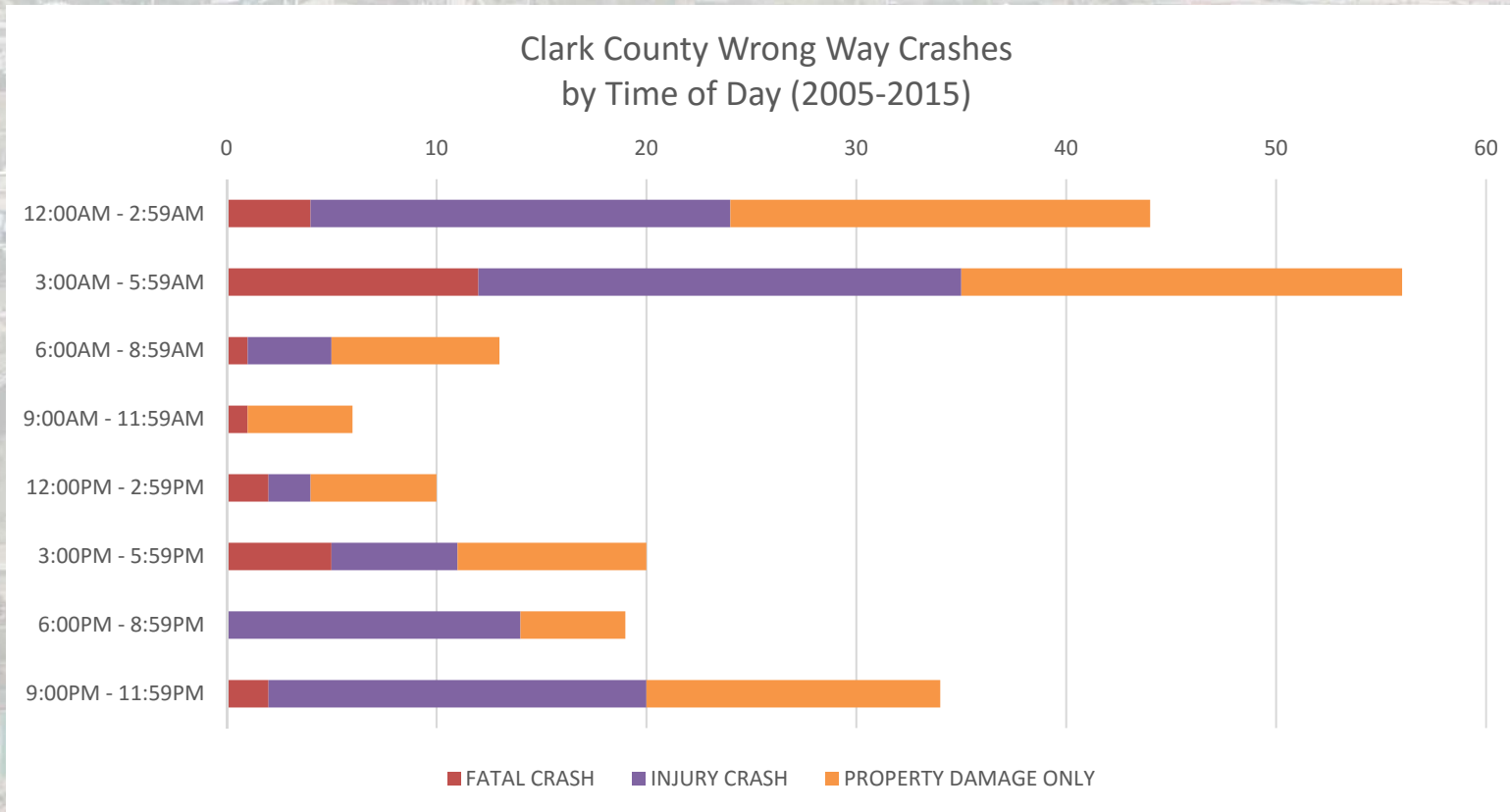
Injuries (Statewide)
by Day of Week



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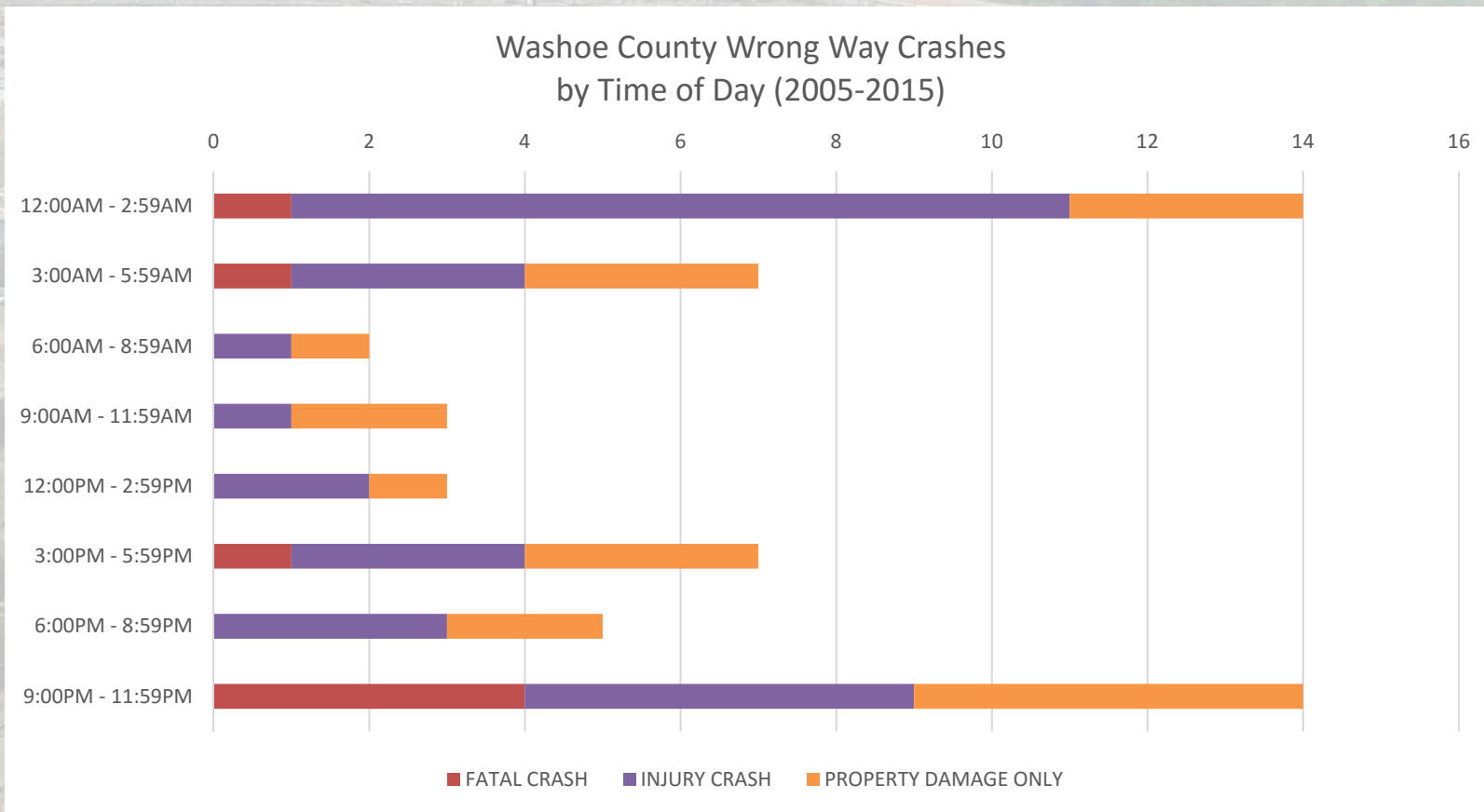


Clark County Freeway Wrong Way Driver Crashes by Time of Day





Washoe County Freeway Wrong Way Driver Crashes by Time of Day





WWD Warning System

HOW IT WORKS

- Wrong Way Drivers are detected and Red RRFBs are activated
- Cameras verify if driver turns around or continues onto the freeway
- Alarm notifies Traffic Control Center of the event
- Law Enforcement notified by TCC, Dynamic Message Signs activated





NDOT WWD COUNTERMEASURE





Countermeasure Options

Signing

- Use Larger Wrong Way and Do Not Enter Signs
- Use Double-Signs
- Use Wrong Way and Do Not Enter Signs at Lower Mounting Height



Countermeasure Options



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Countermeasure Options



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Countermeasure Options

Pavement Markings

- Use Large Pavement Arrows on the Off-Ramps



Countermeasure Options



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How Did We Get Here

- Red RRFBs not currently allowed in the MUTCD, requires experimentation approval from FHWA
- NDOT received approval from FHWA to experiment with red RRFBs for wrong way driver countermeasures at Southern and Northern Nevada locations
- We may request additional locations be added to the experiment as opportunities arise



Experiment Requirements

- Experimentation will be over a 36 month period depending on installation dates
- Before/After Crash Data will be reviewed
- Wrong Way events will be documented with help from UNR
- Semi-annual progress reports to FHWA will be required, followed by a final report at the completion of the experimentation



Experimentation Sites (26)

Northern Nevada

- US 395 – CA/NV line to Oddie Blvd.
- I-80 – CA/NV line to Keystone Ave.
- I-580 @ Bowers Mansion

Southern Nevada

- US 95 @ Kyle Canyon, Durango Dr., Horse Dr. and Centennial Bowl (US 95/CC-215)
- I-15 @ Garnet (US 93) and Starr Ave.





Thank You!

P.D. Kiser

NDOT

Assistant Chief Traffic Safety Engineer



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