June 2020



Nevada Department of P**ublic Safety** Office of Traffic Safety





**Kimley**»Horn

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#### Statutory Notice 23 U.S.C. § 409: US Code -

Section 409: Discovery and admission as evidence of certain reports and surveys

Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway- highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

## **LIST OF ACRONYMS**

- AASHTO American Association of State Highway and Transportation Officials
  - ARIDE Advanced Roadside Impaired Driving Enforcement
    - BAC Blood Alcohol Content

- **CEA** Critical Emphasis Area
- **DMV** Department of Motor Vehicles
- DPS Department of Public Safety
- DUI Driving Under the Influence
- FARS Fatality Analysis Reporting System
- FHWA Federal Highway Administration
- GHSA Governors Highway Safety Association
- HVE High Visibility Enforcement
- HSIP Highway Safety Improvement Program
- HSP Highway Safety Plan
- ICE Intersection Control Evaluations
- LVMPD Las Vegas Metropolitan Police Department
- NDOT Nevada Department of Transportation
- NECTS Nevada Executive Committee on Traffic Safety
  - NHP Nevada Highway Patrol
- NHTSA National Highway Traffic Safety Administration
  - NRS Nevada Revised Statutes
  - **OTS** Office of Traffic Safety
  - RSA Roadway Safety Assessment
  - **RTC** Regional Transportation Commission
  - **SOE** Sequence of Events
  - SDAT Safety Data Analysis Team
  - SFST Standardized Field Sobriety Test
  - SHSP Strategic Highway Safety Plan
  - STSI State Traffic Safety Information
  - TIM Traffic Incident Management
- TRCC Traffic Records Coordinating Committee
- TWG Technical Working Group
- UNR University of Nevada Reno
- VMT Vehicle Miles Traveled

## **INTRODUCTION**

The Nevada Traffic Safety Crash Facts documents the analysis of Fatality Analysis Reporting System (FARS) data downloaded from the National Highway Traffic Safety Administration (NHTSA) (<u>ftp://ftp.nhtsa.dot.gov/fars/</u>). The primary purpose of the Nevada Traffic Safety Crash Facts is to provide the appropriate data to effectively guide strategies and actions for the Strategic Highway Safety Plan (SHSP), the Highway Safety Plan (HSP) for the Nevada Office of Traffic Safety (OTS), the Highway Safety Improvement Program (HSIP) for the Nevada Department of Transportation (NDOT), and other traffic safety efforts within the state.

FARS data is updated continuously and published on the FARS website each fall. For the purpose of historical understanding, 10 years worth of data is reported. However, all trend and analysis was conducted on the most recent five years of data (2014 – 2018).

Following a data-driven approach enables implementers to inform change in policy, infrastructure, and education for the five Es of the Nevada SHSP (Education, Enforcement, Emergency Response, Engineering, and Everyone). This report provides information related to the following five key questions:

- What fatalities have occurred?
- Where did these fatalities occur?
- Who was responsible/who was affected?
- When did these fatalities occur?
- Why did these fatalities occur?

The intent is for traffic safety implementers to use this data to gain a better understanding of crash causes. Once the applicable crash causes are understood, then implementers and policy makers are in position to support the appropriate proven countermeasures and innovative approaches that target the leading causes of crash fatalities.

Critical emphasis areas (CEAs) are topics of concern that experience high frequency of crashes and, as such, are the focus of efforts to reduce crash occurrences. A total of seven CEAs have been identified within the Nevada SHSP.

Percent values in charts may not add up to 100% due to rounding to the nearest percent value.



Percent values in charts may not add up to 100% due to rounding to the nearest percent value.

## **OVERALL CRASH DATA**

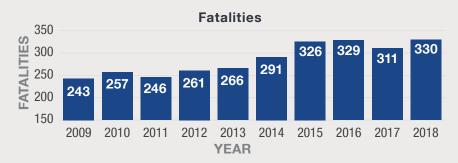
This section analyzes the overall crash data for Nevada between 2014 and 2018. Official FARS data from an FTP site maintained by NHTSA was used to determine fatalities and fatal crashes (<u>ftp://ftp.nhtsa.dot.gov/fars/</u>). This data is used to determine where to focus efforts and resources and to evaluate effectiveness of existing traffic safety measures in Nevada.

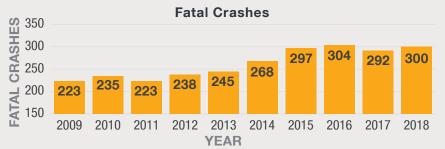
### What?

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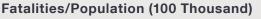
Fatalities and fatal crashes have generally increased over the last 10 years. Nevada's fatalities have increased from 243 in 2009 to 330 in 2018 and, likewise, fatal crashes have increased from 223 in 2009 to 300 in 2018.

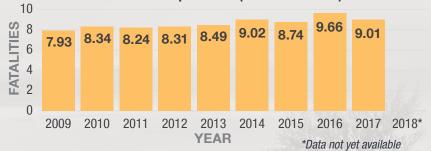
As shown in the graphs, fatalities per vehicle miles traveled (VMT) have slightly decreased in Nevada. Fatalities per population have generally increased since 2009. Traffic fatalities increased between 2015 and 2016 but declined in 2017.









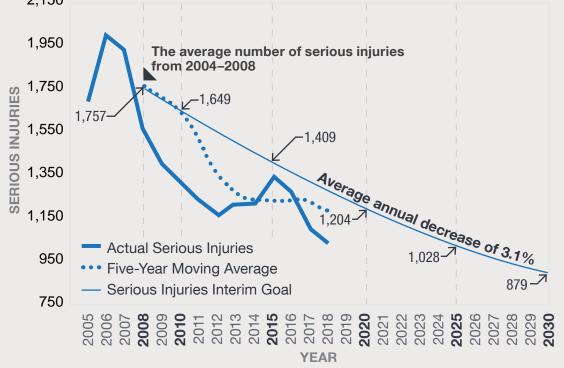


### What? CONTINUED

**Zero Fatalities** has been Nevada's official traffic safety goal since 2010, when it was adopted by the Nevada Executive Committee on Traffic Safety (NECTS). Nevada has a **Zero Fatalities** interim goal of reducing the 2004-2008 five-year moving average of fatalities and serious injuries by half by 2030. As shown in the charts below, Nevada is currently on track to meet the interim goal for serious injuries but not for fatalities.



**Nevada Serious Injury Historical Trends (Interim Goals to 2030)** 2,150

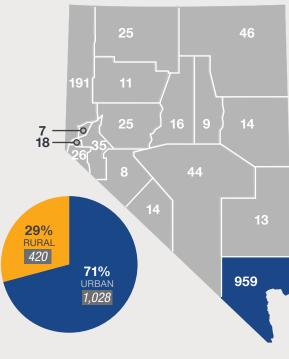


## Where?

Rural and urban crash locations are defined in FARS as the classification of the segment of trafficway on which a crash occurred, based on Federal Highway Administration (FHWA)-approved adjusted census boundaries of small rural and urbanized areas.

Between 2014 and 2018, Clark County reported the largest number of fatal crashes and fatalities. Seventy-one percent of all Nevada fatal crashes occurred on urban roadways.

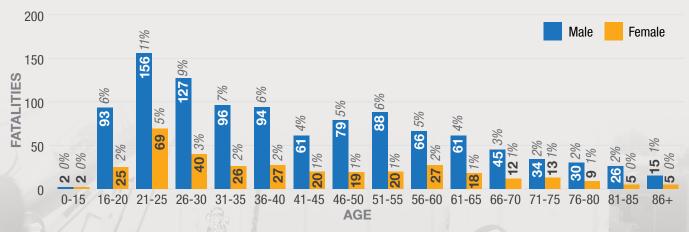
Location of Fatal Crashes\*



County	Fatal Crash	Percent of all Fatal Crashes
Carson City	18	1%
Churchill	25	2%
Clark	959	66%
Douglas	26	2%
Elko	46	3%
Esmeralda	14	1%
Eureka	9	1%
Humboldt	25	2%
Lander	16	1%
Lincoln	13	1%
Lyon	35	2%
Mineral	8	1%
Nye	44	3%
Pershing	11	1%
Storey	7	0%
Washoe	191	13%
White Pine	14	1%
TOTAL	1,461	

## Who?

From 2014 to 2018 in Nevada, males ages 21 to 25 years old comprised the largest number of at-fault drivers in fatal crashes.



#### Age/Gender Breakdown of At-Fault Drivers in All Fatal Crashes\*

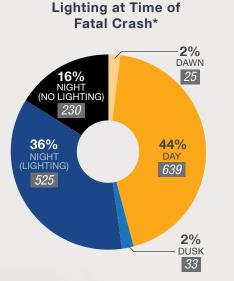
\*Does not include values that are unknown or missing

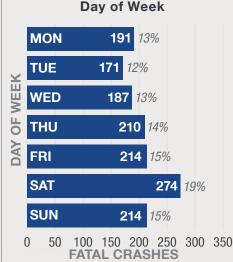
### When?

Between the hours of 6:00 PM and 8:59 PM, 271 of 1,461 fatal crashes and fatalities occurred. Nearly 40% took place at night in areas with street lighting.

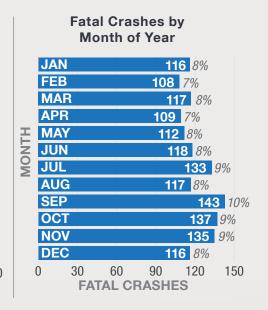
From 2014 to 2018, 34% of all fatal crashes and fatalities occurred on the weekends. Ten percent occurred during the month of September.







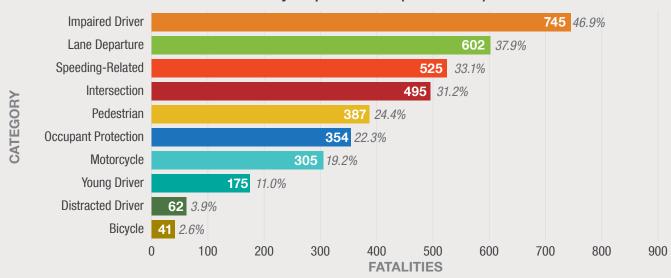
**Fatal Crashes by** 



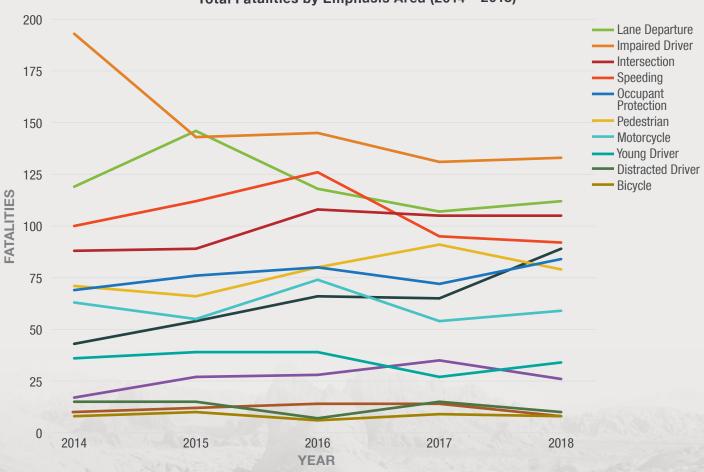
## Why?

Between 2014 and 2018, impaired driving fatalities, which involves a driver with a blood alcohol content (BAC) of 0.08 or greater and/or tested positive for drugs in their system, comprised the largest percent of fatalities at nearly 47% of all Nevada's traffic fatalities.

Fatalities by Emphasis Area (2014 - 2018)\*



\*A crash may be categorized in more than one emphasis area e.g., an impaired motorcyclist at an intersection. Therefore, the values exceed the total number of fatalities and the sum of the percentages is more than 100%.

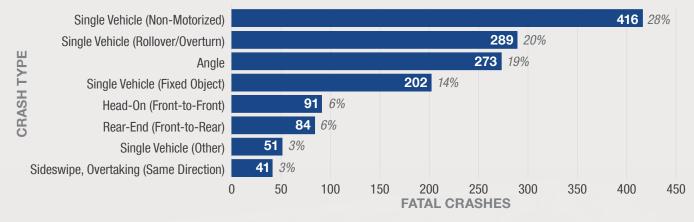


Page 6

#### Total Fatalities by Emphasis Area (2014 – 2018)

### Why? CONTINUED

Fatalities most frequently involved a non-motorized form of transportation, defined as **any form of transportation including pedestrian, bicycle, wheelchair, skateboard, etc.** 



#### Fatal Crashes by Crash Type\*

\*Does not include values that are unknown or missing or data categories with low representation



## **IMPAIRED DRIVING** CRASHES

## 46.9% of Nevada's total fatalities.

Impaired driving crashes are fatal crashes involving a driver with a BAC of 0.08 or greater and/or tested positive for drugs in their system. The FARS data uses the attribute "alcohol test result (ALC\_RES)" in the person data set to report the BAC test result, and the attribute "drug test result (DRUGRES)" in the person data set to report the type of drug(s) present in a person's system at the time of the crash. For this analysis, the following attribute codes were used for drug involvement: narcotic, depressant, stimulant, hallucinogen, cannabinoid, phencyclidine, anabolic steroid, and inhalant. If the driver in a fatal crash had either a BAC greater than or equal to 0.08 and/or had any of the listed drug attribute codes, the crash was deemed an impaired driving crash.

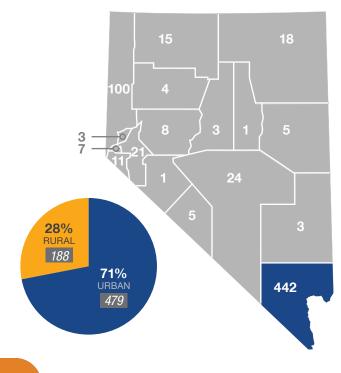
### What?

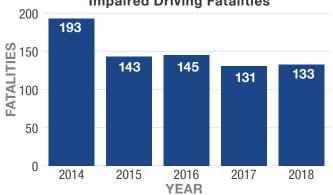
Between 2014 to 2018, the number of impaired driving fatalities and fatal crashes generally decreased. A total of **745 fatalities and 671 fatal impaired driving crashes** occurred on Nevada roadways during that time.

### Where?

From 2014 to 2018, more than 70% of fatal impaired driving crashes occurred on urban roadways. Clark County reported the highest number of fatal impaired driving crashes in Nevada.

#### Location of Fatal Impaired Driving Crashes\*







\*Does not include values that are unknown or missing

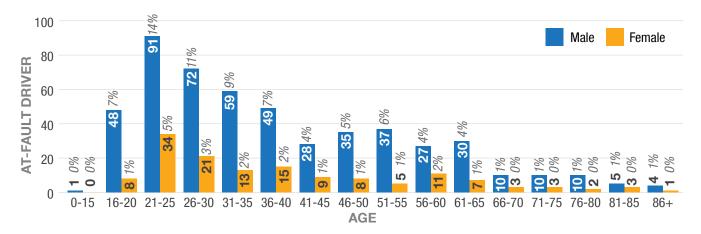
#### Impaired Driving Fatalities

## Who?

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Males ages 21 to 25 comprised the greatest number of at-fault drivers in fatal impaired driving crashes from 2014 to 2018.

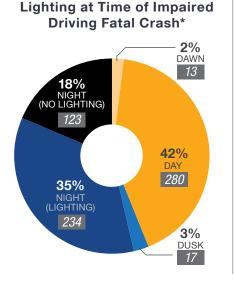
#### Age/Gender Breakdown of At-Fault Drivers in Impaired Driving Fatal Crashes\*



### When?

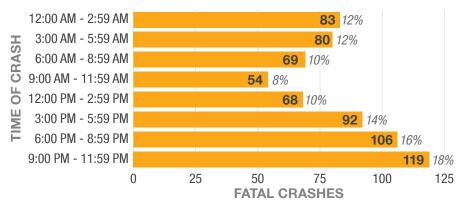
Nearly half of fatal impaired driving crashes took place between 3:00 PM and 11:59 PM, while 53% of the time the officer reported that the fatal crash took place at night in areas with and without street lighting.

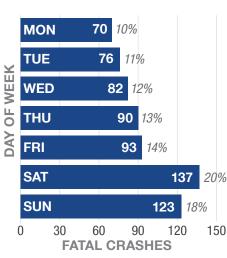
From 2014 to 2018, 38% of fatal impaired driving crashes occurred on the weekends. These crashes occurred most frequently in the month of September.



\*Does not include values that are unknown or missing

#### Fatal Impaired Driving Crashes by Time of Day

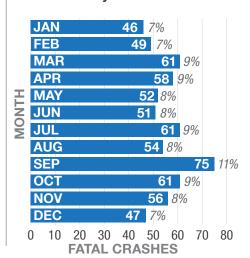




**Fatal Impaired Driving Crashes** 

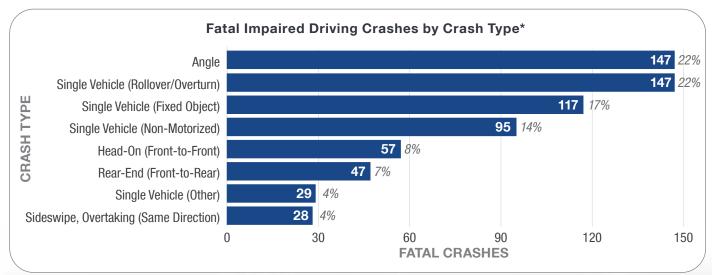
by Day of Week

#### Fatal Impaired Driving Crashes by Month of Year



## Why?

From 2014 to 2018, 44% of fatal impaired driving crashes involved a motor vehicle being struck by another motor vehicle in an angle crash or rolling over.



\*Does not include values that are unknown or missing or data categories with low representation



**31.2%** of Nevada's total fatalities.

Intersection crash data includes all crashes where the reporting officer designates the crash location at an intersection. FARS data uses the attribute "relation to junction-specific location (RELJCT2)" to identify the crash location with respect to the presence in or proximity to roadway junctions or interchanges. For this analysis, the two attribute codes used were "intersection" and "intersection-related." If a fatal crash was assigned either of the two attribute codes, the crash was deemed an intersection crash.

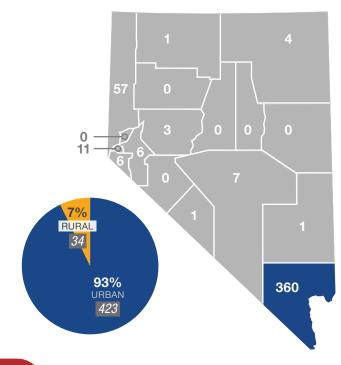
### What?

From 2014 to 2018, the number of intersection fatalities and fatal crashes generally increased. A total of **495 fatalities and 457 fatal intersection crashes** occurred on Nevada roadways during that period.

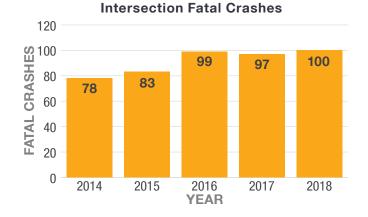
### Where?

Between 2014 and 2018, more than 90% of fatal intersection crashes occurred on urban roadways. Clark County reported the highest number of fatal intersection crashes in Nevada.





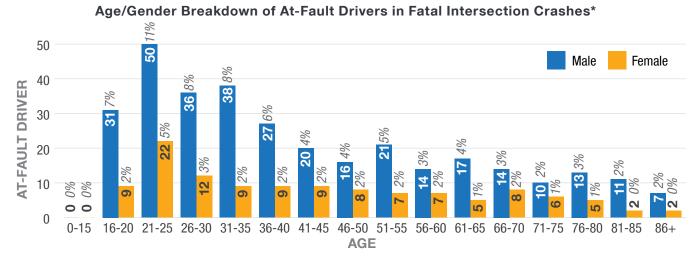
120 **EXTALLIES** 100 80 60 40 108 105 105 89 80 88 60 40 20 0 2014 2015 2016 2017 2018 YEAR



**Intersection Fatalities** 

## Who?

Between 2014 and 2018, males ages 21 to 25 were the largest reported age group of at-fault drivers in fatal intersection crashes.

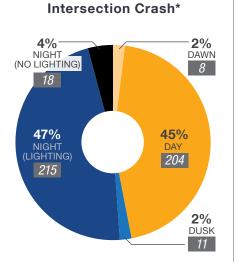


### When?

The hours of 3:00 PM and 8:59 PM had the greatest number of fatal intersection crashes. More than half of fatal intersection crashes took place at night in areas with and without street lighting.

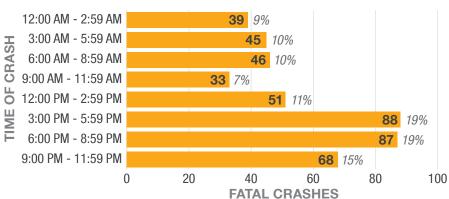
Thirty-two percent of fatal intersection crashes occurred on the weekends. Fatal intersection crashes took place in the months of September and December most often; combined, those months comprised 20% of crashes.

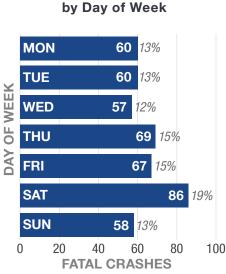
Lighting at Time of Fatal



\*Does not include values that are unknown or missing

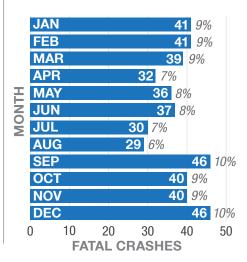
Fatal Intersection Crashes by Time of Day



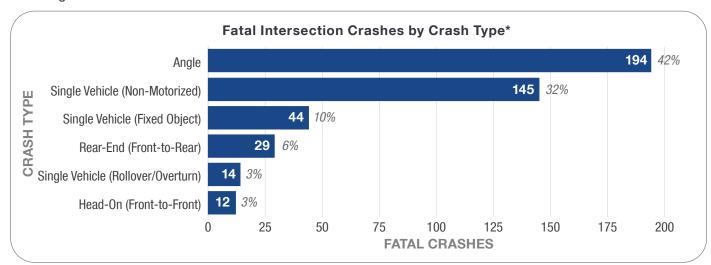


**Fatal Intersection Crashes** 





## Why?



From 2014 to 2018, fatal intersection crashes most frequently involved a motor vehicle hitting another motor vehicle in an angle crash.

\*Does not include values that are unknown or missing or data categories with low representation



## **37.9%** of Nevada's total fatalities.

Lane departure crashes involve a motor vehicle in transit that leaves its designated lane. The FARS data uses the attribute "sequence of events (SOE)" in the crash event (CEVENT) dataset to identify if and how the vehicle left its lane. Thirty-three attribute codes were used: rollover/overturn, immersion or partial immersion, building, impact attenuator/crash cushion, bridge pier or support, bridge rail, guardrail face, concrete or other traffic barrier, utility pole/light support, post/pole/other support, culvert, curb, ditch, embankment, fence, wall, fire hydrant, shrubbery, tree (standing only), other fixed object, traffic signal support, snow bank, bridge overhead structure, guardrail end, mail box, cable barrier, traffic sign support, ran off road–right, ran off road–left, cross median, and cross centerline. If any of the listed attribute codes were assigned, the crash was deemed a lane departure crash.

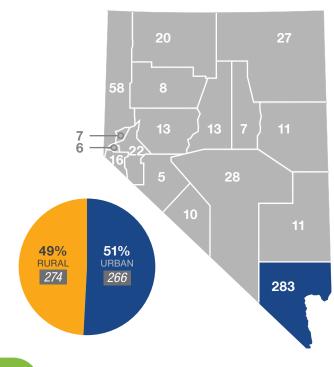
### What?

During 2014 to 2018, there were a total of **978 fatalities and 873 fatal lane departure crashes** that occurred on Nevada roadways.

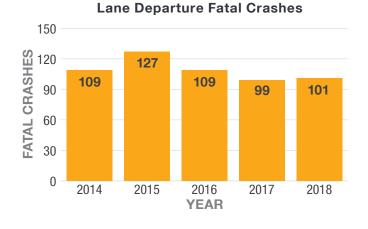
### Where?

Between 2014 and 2018, nearly two-thirds of fatal lane departure crashes occurred in Clark County. More than half of such fatalities occurred on urban roadways.





**Lane Departure Fatalities** 150 146 **EATALITIES** 90 60 119 118 112 107 30 0 2014 2016 2015 2017 2018 YEAR



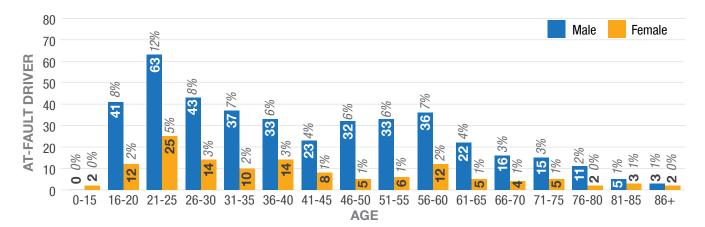
\*Does not include values that are unknown or missing

### Who?

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Males ages 21 to 25 were the largest reported age group of at-fault drivers involved in fatal lane departure crashes between 2014 and 2018.

#### Age/Gender Breakdown of At-Fault Driver in Fatal Lane Departure Crashes\*



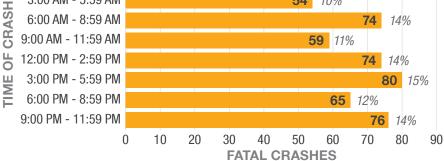
### When?

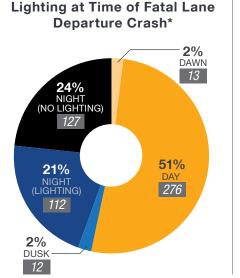
The hours of 3:00 PM and 5:59 PM had the greatest number of fatal lane departure crashes. Over 50% of fatal lane departure crashes occurred during daylight.

From 2014 to 2018, 37% of fatal lane departure crashes occurred on the weekends. Most fatal crashes took place in the month of July.

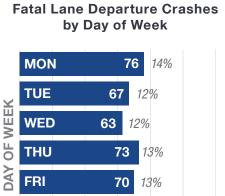


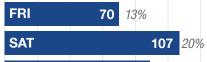
Fatal Lane Departure Crashes by Time of Day





\*Does not include values that are unknown or missing





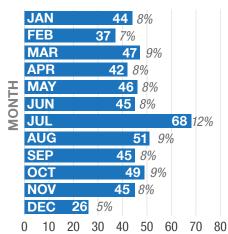
SUN



89

16%

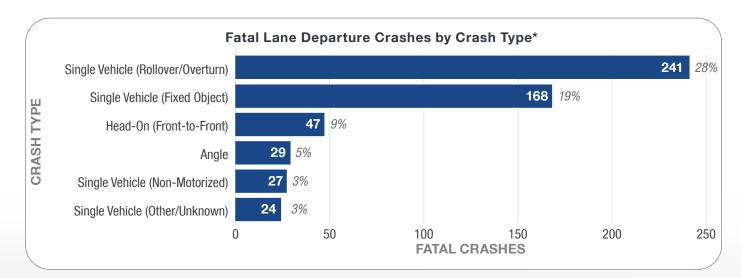
#### Fatal Lane Departure Crashes by Month of Year



**FATAL CRASHES** 

## Why?

From 2014 to 2018, fatal lane departure crashes most frequently involved a motor vehicle rolling over (33%). The least frequent fatal lane departure crash type involved a motor vehicle side swiping/overtaking another motor vehicle (4%).



\*Does not include values that are unknown or missing or data categories with low representation

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**33.1%** of Nevada's total fatalities.

A speeding crash is a crash in which the responding officer deemed the crash to be related to the vehicle speeding. The FARS data uses the attribute "speeding-related (SPEEDREL)" in the vehicle file to indicate if a crash was speeding-related. For this analysis, five attribute codes were used: "yes," "yes, racing," "yes, exceeded speed limit," "yes, too fast for conditions," and "yes, specifics unknown." If a crash reported any of the attribute codes, the crash was deemed a fatal speeding crash.

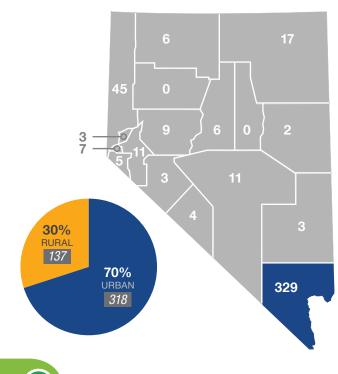
### What?

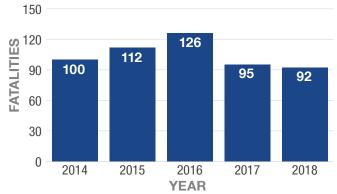
From 2014 to 2018, there was a slight decline in the number of fatal speeding crashes. A total of **525 fatalities and 461 fatal speeding crashes** occurred on Nevada roadways.

### Where?

Between 2014 and 2018, 70% of fatal speeding crashes occurred on urban roadways. Clark County reported the highest number of fatal speeding crashes in Nevada.









Speeding Fatalities

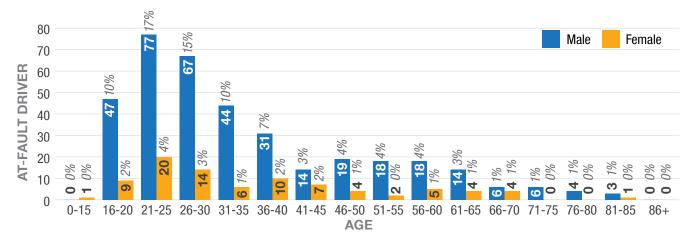
\*Does not include values that are unknown or missing

## Who?

......

Male drivers ages 21 to 25 years old comprise the greatest number of at-fault drivers in fatal speeding crashes from 2014 to 2018.

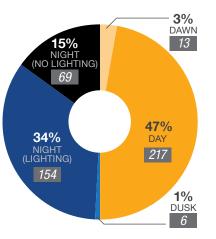
#### Age/Gender Breakdown of At-Fault Drivers in Fatal Speeding Crashes\*



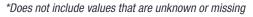
### When?

The hours of 6:00 PM and 11:59 PM had the greatest number of fatal speeding crashes. Nearly half of fatal speeding crashes took place at night in areas with and without street lighting.

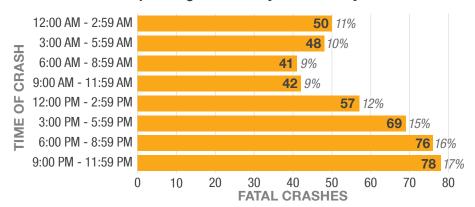
Over 50% of fatal speeding crashes occurred from Friday to Sunday. Fatal crashes occurred most frequently during the months of March and September, totaling 20% of all fatal speeding crashes.

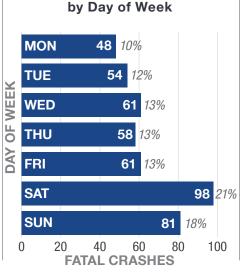


Lighting at Time of Fatal Speeding Crash\*



Fatal Speeding Crashes by Time of Day

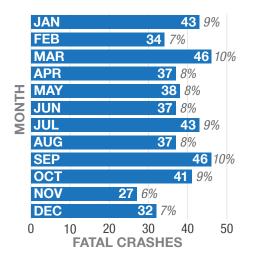




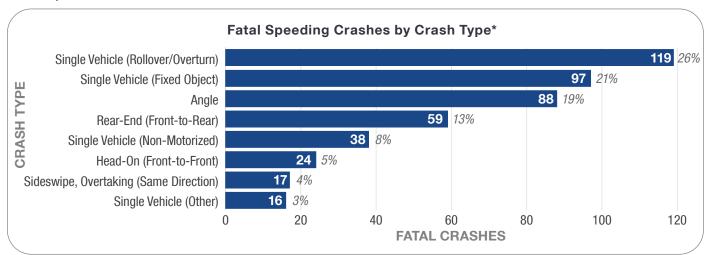
Page 18

**Fatal Speeding Crashes** 

#### Fatal Speeding Crashes by Month of Year



## Why?



From 2014 to 2018, fatal speeding crashes most frequently involved a motor vehicle rolling over or hitting a fixed object.

\*Does not include values that are unknown or missing or data categories with low representation



## DISTRACTED DRIVING CRASHES

## **3.9%** of Nevada's total fatalities.

A distracted driving crash is a crash in which the driver of a motor vehicle involved in a fatal crash was distracted, and this contributed to the crash. The FARS data uses the attribute "driver distracted by (MDRDSTRD)" in the distracted (DISTRACT) data file to indicate what distracted the driver. For this analysis, all attribute codes for the attribute "driver distracted by" were used with the exception of "not distracted," "no driver present/unknown if driver present," "not reported," and "unknown if distracted." The other 19 attribute codes cover a range of situations and activities such as: while talking or listening to cellular phone, eating or drinking, careless/inattentive, etc. If a crash reported any of the 24 attribute codes, the crash was deemed a distracted driving crash. It is likely the number of recorded distracted driving crashes is much less than the actual number of distracted driving crashes due to the difficulty of a police officer being able to confirm a driver was distracted when they arrive at the crash scene.

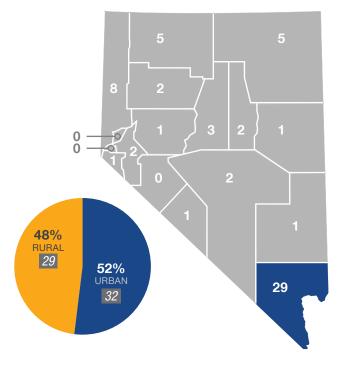
### What?

Between 2014 and 2018, a total of 62 fatalities and 63 fatal distracted driving crashes occurred in Nevada.

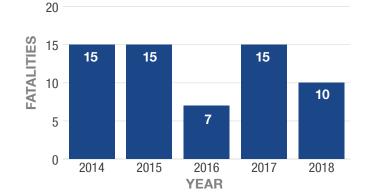
### Where?

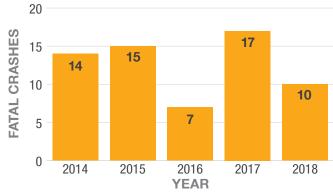
Between 2014 and 2018, 52% of fatal distracted driving crashes occurred on urban roadways. Clark County reported the greatest number of fatal distracted driving crashes in Nevada.

#### Location of Fatal Distracted Driving Crashes\*



Distracted Driving Fatalities\*\*





**Distracted Driving Fatal Crashes\*\*\*** 

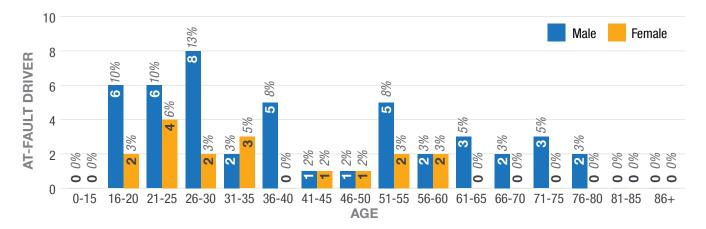
\*\*These charts have been modified to match the NHTSA STSI summary \*\*\*In 2017, the number of fatal crashes is higher than the number of fatalities due to adjusting the fatality values to match NHTSA STSI

<sup>\*</sup>Does not include values that are unknown or missing

### Who?

Males ages 26 to 30 were the largest reported age groups of at-fault drivers in fatal distracted driving crashes from 2014 to 2018.

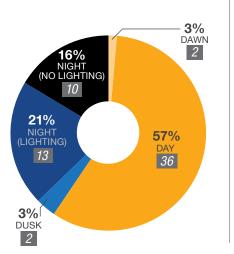
#### Age/Gender Breakdown of At-Fault Driver in Fatal Distracted Driving Crashes



### When?

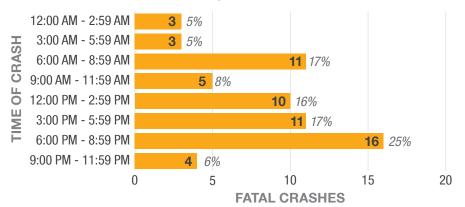
Fatal distracted driving crashes occurred most frequently between the hours of 6:00 PM and 8:59 PM. However, outside of this time frame, the majority of crashes (57%) took place during the day.

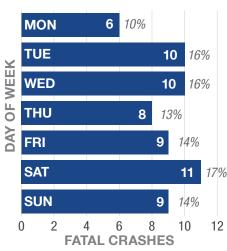
Between 2014 and 2018, most fatal distracted driving crashes occurred on Saturday. November was the highest reported month for fatal distracted driving crashes.



Lighting at Time of Fatal Distracted Driving Crash

#### Fatal Distracted Driving Crashes by Time of Day

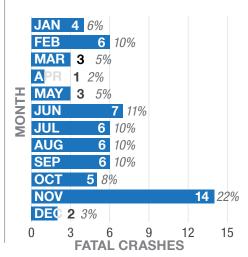




**Fatal Distracted Driving** 

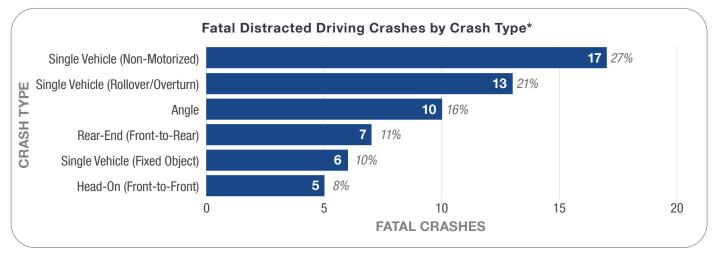
**Crashes by Day of Week** 

#### Fatal Distracted Driving Crashes by Month of Year



## Why?

From 2014 to 2018, in fatal distracted driving crashes, a moving vehicle colliding with a non-motorized form of transportation, such as a bicycle or pedestrian, was reported more often than all other crash types.



\*The values in the chart differ from the total due to eliminating data categories with low representation





## **19.2%** of Nevada's total fatalities.

Fatal motorcycle crashes are fatal crashes involving a motorcyclist where one or more people on a motorcycle were killed in the crash. The FARS data uses the attribute "body type (BODY\_TYP)" in the vehicle data set to identify if a motorcycle was involved, and attribute "deaths" in the vehicle data set to determine that one or more people on a motorcycle died. Eight attribute codes were used: two-wheel motorcycle, three-wheel motorcycle (two rear wheels), off-road motorcycle, motor scooter, unenclosed three-wheel motorcycle/unenclosed autocycle (one rear wheel), enclosed three-wheel motorcycle/enclosed autocycle (one rear wheel), unknown three wheel motorcycle type, and unknown motorcycle. If a fatal crash had any of the listed attribute codes assigned and one or more people on a motorcycle died in the crash, the crash was deemed a fatal motorcycle crash.

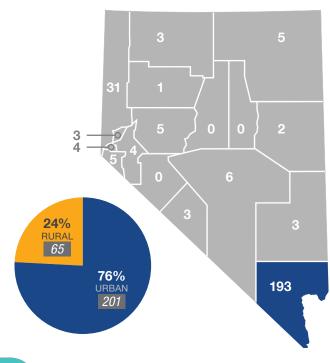
### What?

Between 2014 to 2018, there were 305 fatalities and 268 fatal motorcycle crashes on Nevada roadways.

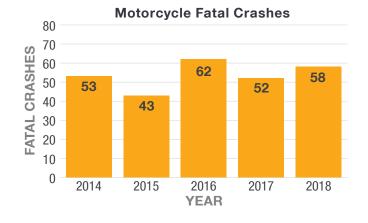
### Where?

Between 2014 and 2018, more than 70% of fatal motorcycle crashes occurred on urban roadways. Clark County reported the highest number of fatal motorcycle crashes in Nevada.





**Motorcycle Fatalities\*\*** 80 70 74 FATALITIES 60 63 59 50 55 54 40 30 20 10 0 2014 2015 2016 2017 2018 YEAR

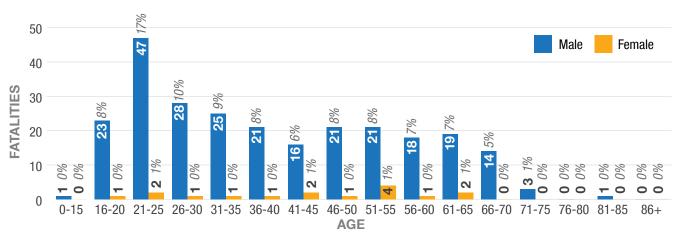


\*Does not include values that are unknown or missing \*\*This chart has been modified to match the NHTSA STSI summary

### Who?

......

Between 2014 and 2018, males ages 21 to 25 years old were the largest reported age group for motorcycle driver and passenger fatalities.



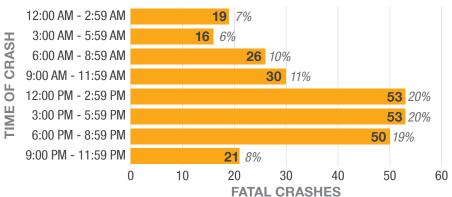
#### Age/Gender Breakdown of Motorcycle Driver and Passenger Fatalities\*

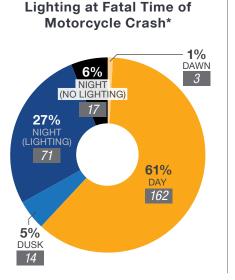
### When?

The majority of fatal motorcycle crashes occurred between the hours of 12:00 PM and 8:59 PM, while 61% of the time the officer reported that the fatal crash took place during the day.

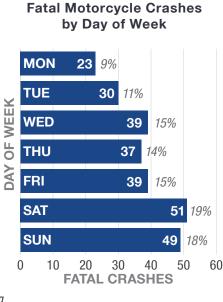
Thirty-seven percent of fatal motorcycle crashes occurred on the weekends. Fatal motorcycle crashes took place most frequently in September.



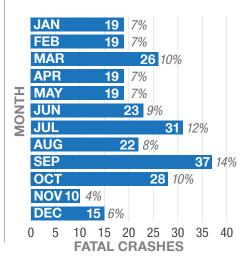




\*Does not include values that are unknown or missing

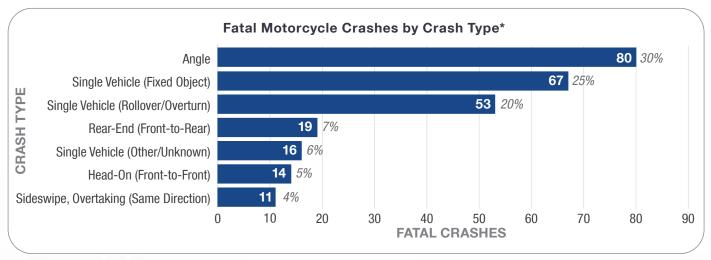


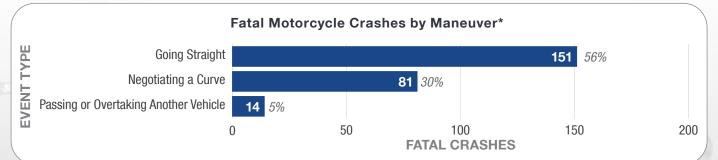
#### Fatal Motorcycle Crashes by Month of Year



## Why?

From 2014 to 2018, 30% of motorcycle crashes were angle crashes. The most frequent maneuver of fatal motorcycle crashes was going straight (56%).





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\*Does not include values that are unknown or missing or data categories with low representation



## **15.2%** of Nevada's total fatalities.

The values presented in the fatalities and fatal crash charts is equivalent to the published NHTSA STSI values. However, from 2013 to 2016, the published NHTSA STSI values appear to underreport the number of helmeted motorcycle crashes, based on the queries performed on the raw FARS data. Thus, the crash summaries performed were expanded to eliminate the restraint system values of five (DOT-Compliant Motorcycle Helmet) and 16 (Helmet, Other than DOT-Compliant Motorcycle Helmet). By eliminating these data sets, we were able to provide data that is classified by FARS as a helmeted motorcycle crash.

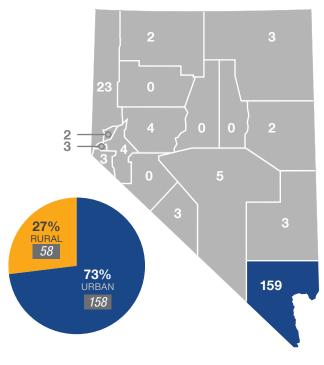
### What?

Between 2014 and 2018, a total of **242 fatalities and 216 helmeted motorcyclist fatal crashes occurred** in the state of Nevada.

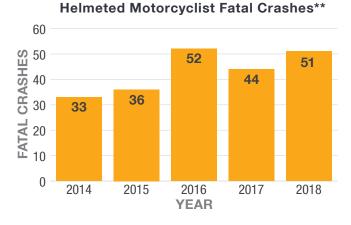
### Where?

Between 2014 and 2018, over 70% of fatal helmeted motorcyclist crashes occurred on urban roadways. Clark County reported the highest number of fatal helmeted motorcyclist crashes in Nevada.





60 59 50 **EATALITIES** 20 52 46 44 41 10 0 2014 2015 2016 2017 2018 YEAR

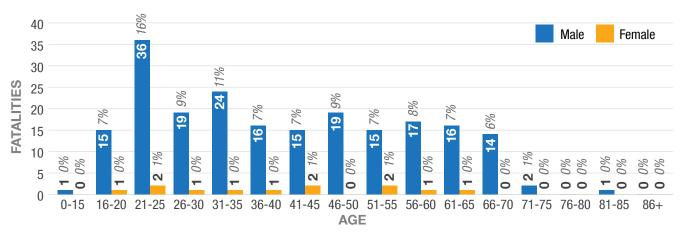


\*These charts have been modified to match the NHTSA STSI summary \*\*In 2018, the number of fatal crashes is higher than the number of fatalities due to adjusting the fatality values to match NHTSA STSI

Helmeted Motorcyclist Fatalities\*

### Who?

Males ages 21 to 25 were the highest reported age group for helmeted motorcyclist fatalities between 2014 and 2018.



#### Age/Gender Breakdown of Helmeted Motorcyclist Fatalities

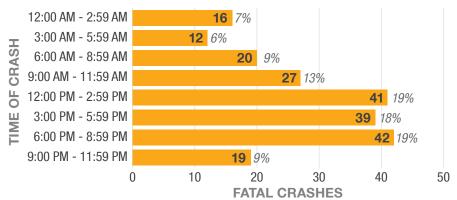
### When?

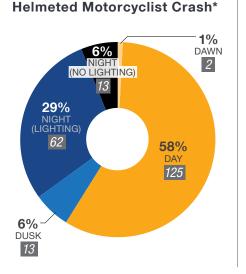
The most reported time frames for fatal helmeted motorcyclist crashes were 12:00 PM to 2:59 PM and 6:00 PM to 8:59 PM. Nearly 60% of fatal helmeted motorcyclist crashes occurred during the day.

Between 2014 and 2018, the weekends reported the most fatal helmeted motorcyclist crashes (37%). September reported the greatest number crashes.

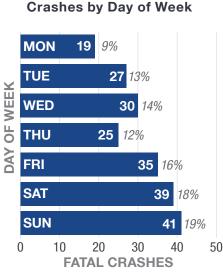
Lighting at Time of Fatal

#### Fatal Helmeted Motorcyclist Crashes by Time of Day



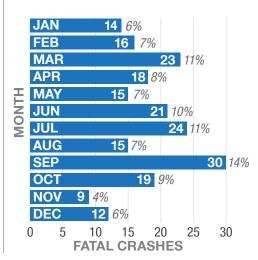


\*Does not include values that are unknown or missing



**Fatal Helmeted Motorcyclist** 

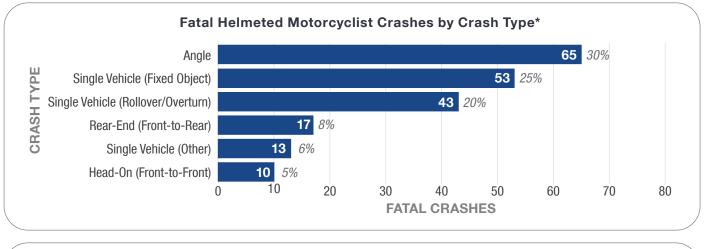
#### Fatal Helmeted Motorcyclist Crashes by Month of Year

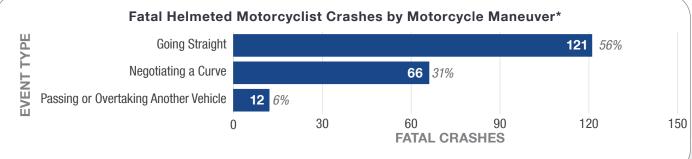




## Why?

From 2014 to 2018, fatal helmeted motorcyclist crashes involving a motorcycle being struck by another motor vehicle in an angle crash was the highest reported crash type. The second highest reported crash type was a motorcycle striking a fixed object. Nearly 60% of fatal helmeted motorcyclist crashes involved the vehicle maneuver going straight.





\*Does not include values that are unknown or missing or data categories with low representation





## **3.0%** of Nevada's total fatalities.

The values presented in the fatalities and fatal crash charts is equivalent to the published NHTSA STSI values. However, from 2013 to 2016, the published NHTSA STSI values appear to underreport the number of unhelmeted motorcycle crashes, based on the queries performed on the raw FARS data. Thus, the crash summaries performed were expanded to eliminate the restraint system values of five (DOT-Compliant Motorcycle Helmet) and 16 (Helmet, Other than DOT-Compliant Motorcycle Helmet). By eliminating these data sets, we were able to provide data that is classified by FARS as an unhelmeted motorcycle crash.

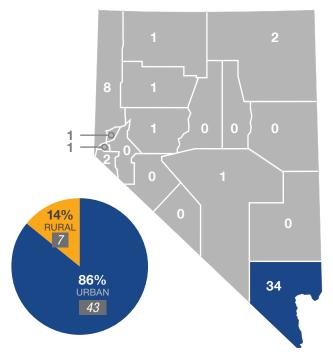
### What?

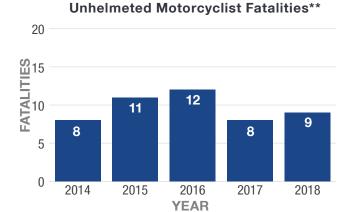
Between 2014 and 2018, a total of **48 fatalities and 52 unhelmeted motorcyclist fatal crashes occurred** in the state of Nevada.

### Where?

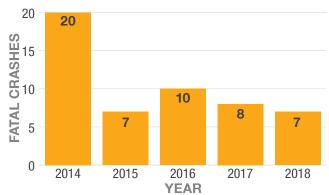
Between 2014 and 2018, 86% of fatal unhelmeted motorcyclist crashes occurred on urban roadways. Clark County reported the highest number of fatal unhelmeted motorcyclist crashes in Nevada.







Unhelmeted Motorcyclist Fatal Crashes\*\*\*

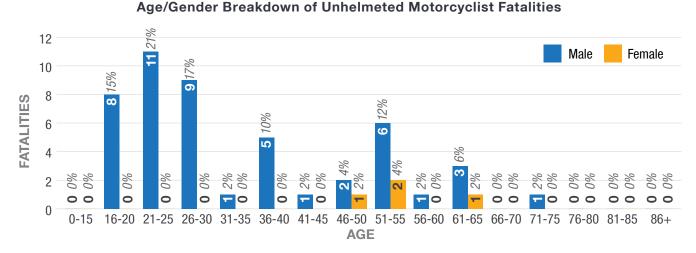


\*Does not include values that are unknown or missing

\*\*These charts have been modified to match the NHTSA STSI summary \*\*\*In 2014, the number of fatal crashes is higher than the number of fatalities due to adjusting the fatality values to match NHTSA STSI

### Who?

Males ages 21 to 25 were the highest reported age group for unhelmeted motorcyclist fatalities. Zero female fatalities, compared with 11 male fatalities, were reported between 2014 and 2018.

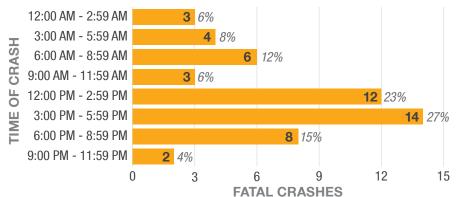


### When?

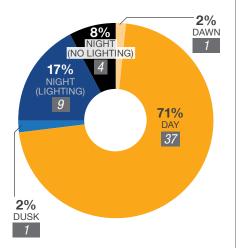
The most reported time frame for fatal unhelmeted motorcyclist crashes was 3:00 PM to 5:59 PM. More than 70% of fatal unhelmeted motorcyclist crashes occurred during daylight.

Between 2014 and 2018, Thursday and Saturday reported the most fatal unhelmeted motorcyclist crashes (23%). October reported the greatest number crashes.

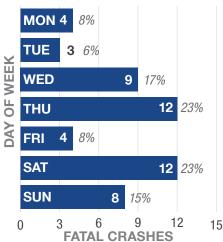
#### Fatal Unhelmeted Motorcyclist Crashes by Time of Day



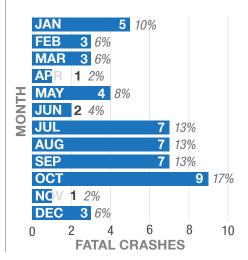
#### Lighting at Time of Fatal Unhelmeted Motorcyclist Crash



#### Fatal Unhelmeted Motorcyclist Crashes by Day of Week



#### Fatal Unhelmeted Motorcyclist Crashes by Month of Year

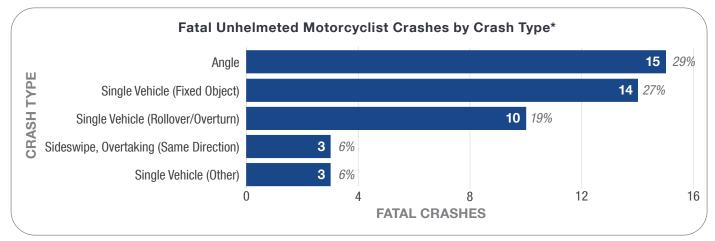


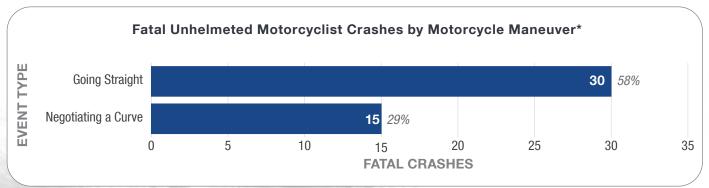
## **S**O ()

## Why?

**S** 

From 2014 to 2018, fatal unhelmeted motorcyclist crashes involving a motorcycle being struck by another motor vehicle in an angle crash was the highest reported crash type. The second highest reported crash type was a motorcycle striking a fixed object. More than half (58%) of fatal unhelmeted motorcyclist crashes involved the vehicle maneuver going straight.





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\*Does not include values that are unknown or missing or data categories with low representation

## **CONTRACTOR OCCUPANT PROTECTION** CRASHES



A fatal crash involving a person that did not use a restraining device, such as a seatbelt, that died in the crash is deemed an occupant protection fatal crash. The FARS data uses the attribute "restraint system/helmet use (REST\_USE)" in the Person data set to determine if a person was using a seatbelt, and the attribute "injury severity (INJ\_SEV)" to determine the level of the persons injuries. For this analysis, the two attribute codes used were "none used/not applicable" for restraint use and "fatal injury (K)" for injury severity. If a crash reported both attributes, the crash was deemed a fatal occupant protection crash.

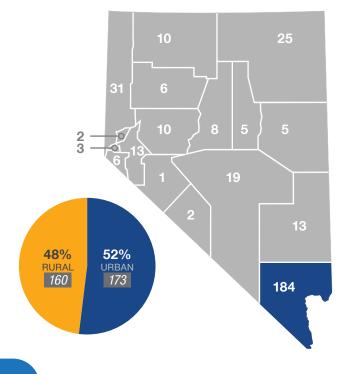
### What?

Between 2014 and 2018, **354 fatalities and 337 fatal unbelted vehicle occupant crashes** occurred on Nevada roadways.

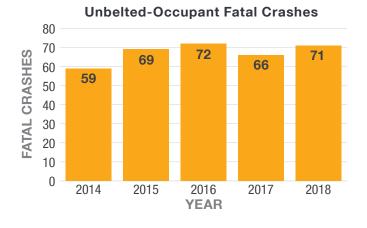
### Where?

Between 2014 and 2018, 184 of fatal occupant protection crashes occurred in Clark County. More than half of fatal occupant protection crashes took place on urban roadways.

#### Location of Fatal Unbelted-Occupant Crashes\*



80 76 70 72 72 FATALITIES 69 60 65 50 40 30 20 10 0 2014 2015 2016 2017 2018 YEAR



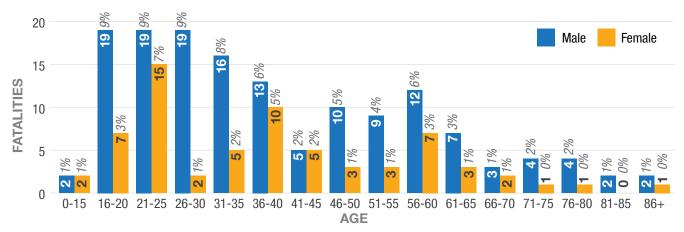
\*Does not include values that are unknown or missing \*\*This chart has been modified to match the NHTSA STSI summary

#### Unbelted-Occupant Fatalities\*\*

### Who?

.....

Males ages 16 to 30 years old comprised the greatest number of unbelted-occupant fatalities from 2014 to 2018.

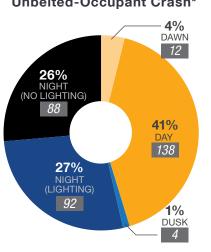


#### Age/Gender Breakdown of Unbelted-Occupant Fatalities

### When?

The greatest percentage of fatal unbelted-occupant crashes occurred between the hours of 9:00 PM and 11:59 PM. More than half of fatal unbelted-occupant crashes occurred at night in areas with and without street lighting.

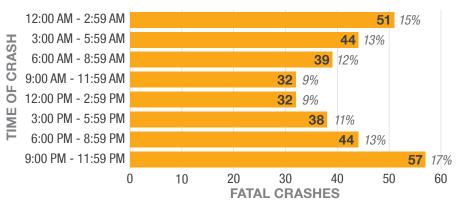
Most fatal unbelted-occupant crashes occurred on the weekends (38%). July reported the greatest number of fatal unbelted-occupant crashes.



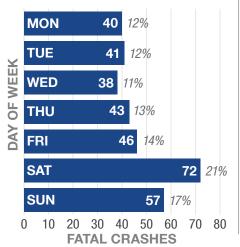
Lighting at Time of Fatal Unbelted-Occupant Crash\*

\*Does not include values that are unknown or missing

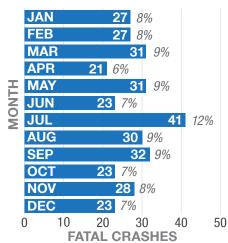
#### Fatal Unbelted-Occupant Crashes by Time of Day



#### Fatal Unbelted-Occupant Crashes by Day of Week

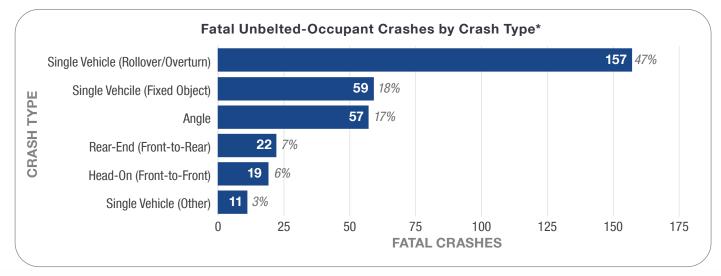


#### Fatal Unbelted-Occupant Crashes by Month of Year



#### Why?

From 2014 to 2018, fatal unbelted-occupant crashes most frequently involved a motor vehicle rolling over.



\*Does not include values that are unknown or missing or data categories with low representation



### **0.4%** of Nevada's total fatalities.

A child passenger crash involves a child between the ages of zero and four that dies in a crash. The FARS data uses the person data file attributes "age," "person type," "injury severity," and "restraint system/helmet use." The following attribute codes were used: values equal to and between zero and four to identify age, "passenger of a motor vehicle in transport," and "fatal injury (K)." If a crash reported all the individual attribute codes, the crash was deemed a fatal child passenger crash. Child passenger fatal crashes make up too small of a percentage of all fatalities and fatal crashes in Nevada to perform a full analysis.

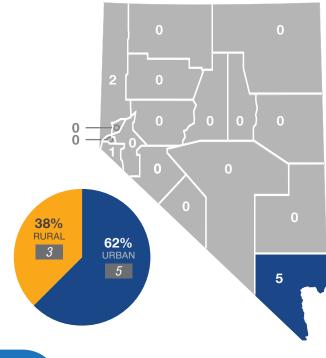
#### What?

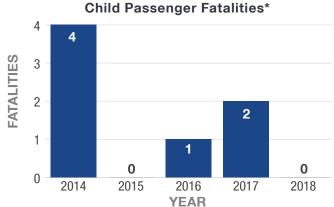
During 2014 to 2018, child passenger fatalities generally decreased. There were a total of four fatalities and four child passenger fatal crashes in 2014, compared to zero fatalities or fatal crashes in 2015 and 2018.

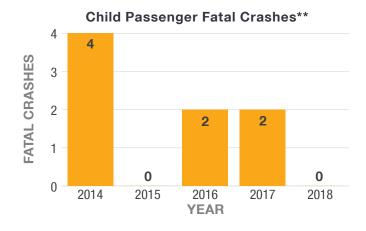
#### Where?

The majority of fatal child passenger crashes occurred in Clark County on urban roadways.

#### Location of Fatal Child Passenger Crashes







\*These charts have been modified to match the NHTSA STSI summary \*\*In 2016, the number of fatal crashes is higher than the number of fatalities due to adjusting the fatality values to match NHTSA STSI

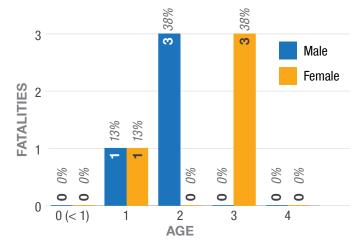
#### Who?

From 2014 to 2018, male children age two and female children age three each accounted for three child passenger fatalities.

#### When?

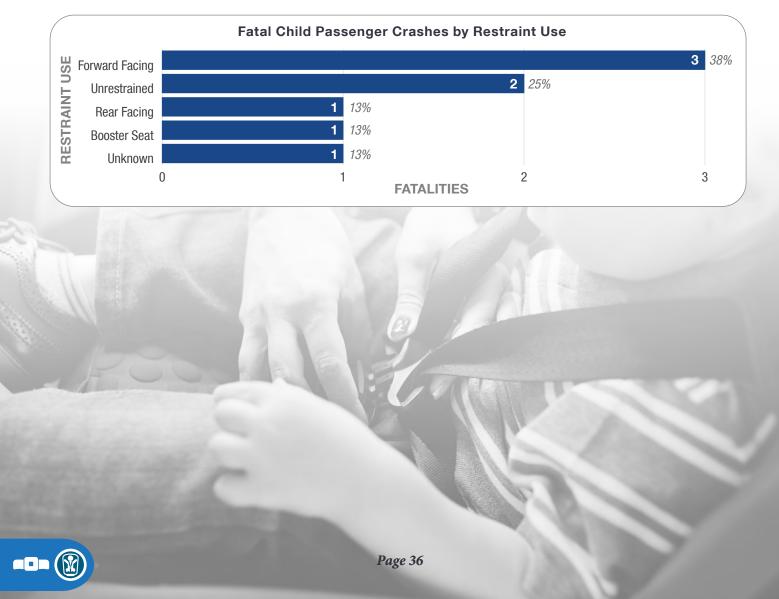
More than half (63%) of fatal child passenger crashes took place between the hours of 3:00 PM and 5:59 PM. All fatal child passenger crashes occurred during daylight. The months of April, October, and November each reported two fatal child passenger crashes.

#### Age/Gender Breakdown of Child Passenger Fatalities



#### Why?

Between 2014 and 2018, forward facing and unrestrained were the most reported restraint uses for children involved in fatal child passenger crashes.



# PEDESTRIAN CRASHES

**24.4%** of Nevada's total fatalities.

A pedestrian fatal crash is a motor vehicle crash in which a pedestrian dies. Pedestrian crash fatalities are the total number of pedestrians killed in crashes. The FARS data uses the attribute "person type (PER\_TYP)" in the person data set to determine if the person was a pedestrian, and "injury severity" to determine the level of the person's injuries. For this analysis, the two attribute codes used were "pedestrian" for the person type, and "fatal injury (K)" for injury severity. If a crash reported both attributes, the crash was deemed a fatal pedestrian crash.

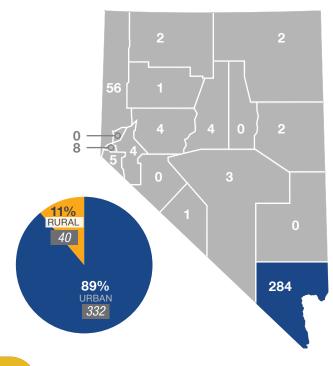
#### What?

During 2014 to 2018, the number of pedestrian fatalities and fatal crashes generally increased. A total of **387 fatalities and 376 fatal pedestrian crashes** occurred on Nevada roadways.

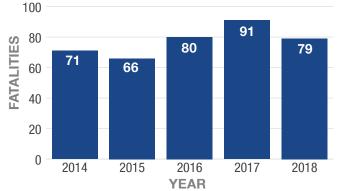
#### Where?

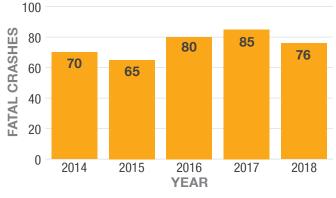
Between 2014 and 2018, nearly 90% of fatal pedestrian crashes occurred on urban roadways. Clark County reported the highest number of fatal pedestrian crashes in Nevada.









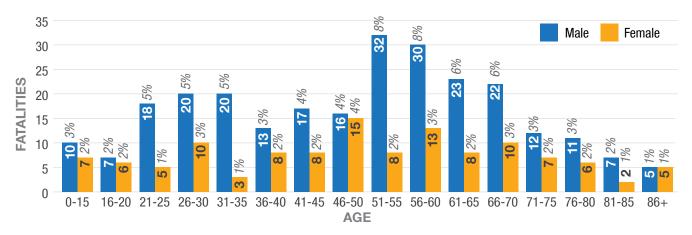


Pedestrian Fatal Crashes

\*This chart has been modified to match the NHTSA STSI summary

#### Who?

Males ages 51 to 60 years old comprised the greatest number of pedestrian fatalities from 2014 to 2018.



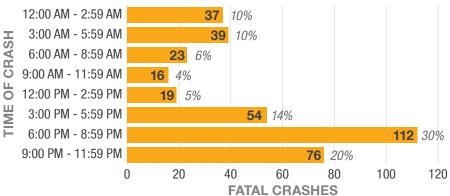
#### Age/Gender Breakdown of Pedestrian Fatalities

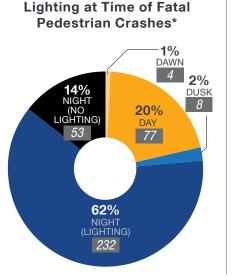
#### When?

The hours of 6:00 PM and 11:59 PM had the greatest number of fatal pedestrian crashes. More than 60% of fatal pedestrian crashes took place at night in areas with street lighting.

Fifty percent of fatal pedestrian crashes occurred from Thursday to Saturday. More pedestrian fatal crashes occurred in November than any other month.

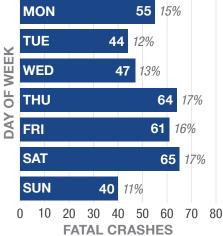




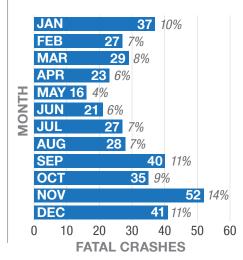


\*Does not include values that are unknown or missing



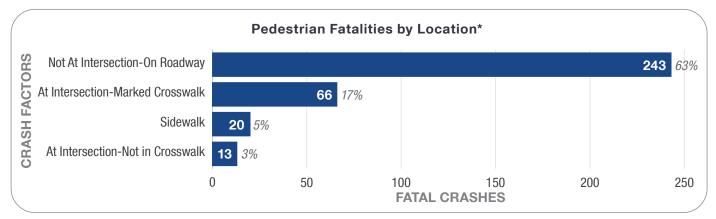


#### Fatal Pedestrian Crashes by Month of Year



#### Why?

From 2014 to 2018, the pedestrian location that resulted in the majority (63%) of fatal pedestrian crashes was not at an intersection or a marked crosswalk-on the roadway.



\*Does not include values that are unknown or missing or data categories with low representation





### **2.6%** of Nevada's total fatalities.

A fatal bicycle crash is a motor vehicle crash in which a cyclist is killed. Bicycle crash fatalities are the total number of cyclists who died in a crash. The FARS data uses the attribute "person type" in the person data file to determine if the person was a cyclist, and "injury severity" to determine the level of the person's injuries. For this analysis, three attribute codes were used: "bicyclist" and "other cyclist" for person type and "fatal injury (K)" for injury severity. If a crash reported either "bicyclist" or "other cyclist" and a "fatal injury (K)," the crash was deemed a fatal bicycle crash.

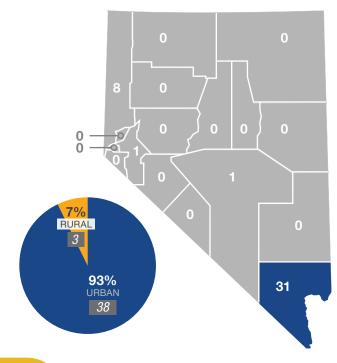
#### What?

Between 2014 and 2018, there were 41 fatalities in 41 fatal bicycle crashes on Nevada roadways.

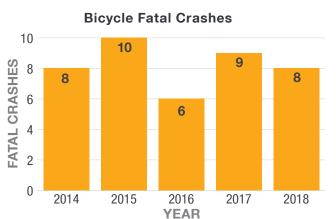
#### Where?

Between 2014 and 2018, over 90% of fatal bicycle crashes occurred on urban roadways. Clark County reported the highest number of fatal bicycle crashes in Nevada.



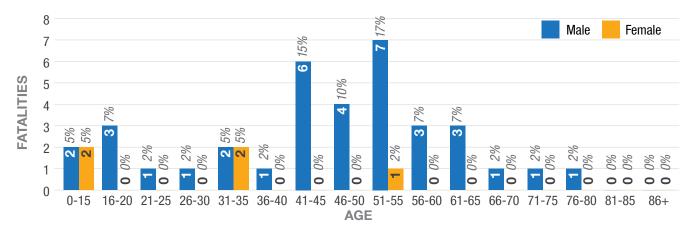






#### Who?

Males ages 51 to 55 comprised the largest number of bicycle fatalities between 2014 and 2018.

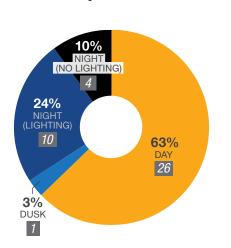


#### Age/Gender Breakdown of Bicycle Fatalities

#### When?

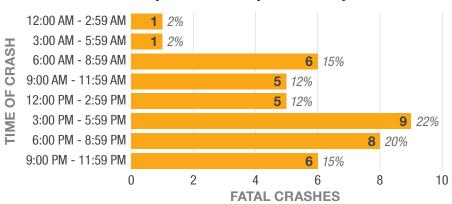
From 2014 to 2018, 44% of fatal bicycle crashes took place between the hours of 3:00 PM and 8:59 PM. Sixty-three percent of fatal bicycle crashes occurred during daylight hours.

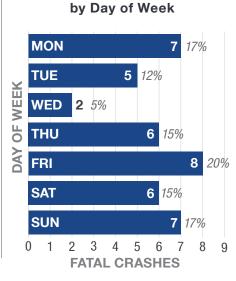
Fifty-two percent of fatal bicycle crashes occurred on Friday, Saturday, and Sunday. Twenty percent of crashes occurred in the month of June, the highest reported month for fatal bicycle crashes.



Lighting at Time of Fatal Bicycle Crash

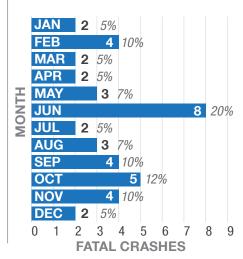






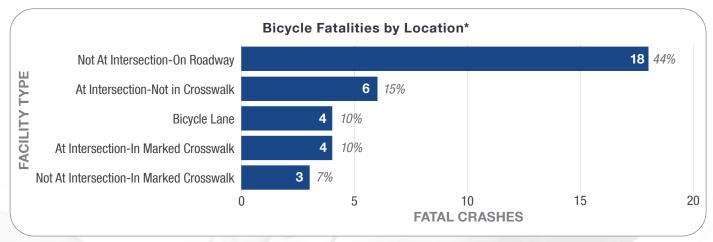
**Fatal Bicycle Crashes** 

#### Fatal Bicycle Crashes by Month of Year

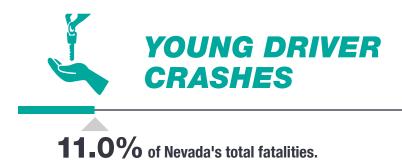


#### Why?

From 2014 to 2018, the bicycle location that resulted in the most (44%) of fatal bicycle crashes was not at an intersection or a marked crosswalk–on the roadway.



\*Does not include values that are unknown or missing or data categories with low representation



A young driver crash is a crash in which at least one driver is between the ages of 15 and 20, regardless of fault. The FARS data uses the attribute "person type" in the person data file to determine if the person was the driver and "age" in the person data file to determine the age of the driver. For this analysis, the two attribute codes that were used were "driver of a motor vehicle in transport" to indicate the person was the driver and age values of 15 to 20 to designate the specified age range. If a crash reported both attributes, the crash was deemed a fatal young driver crash.

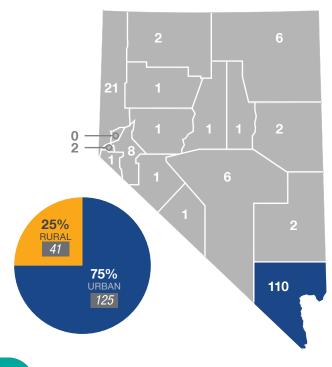
#### What?

During 2014 to 2018, the number of young driver crash fatalities and fatal crashes in Nevada generally decreased. There were a total of **175 fatalities and 166 fatal young driver crashes**.

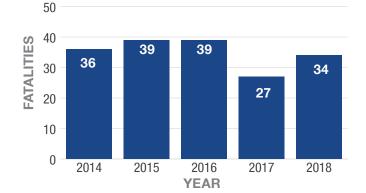
#### Where?

Between 2014 and 2018, 75% of young drivers involved in fatal crashes occurred on urban roadways. Clark County reported the highest number of fatal young driver crashes.





Young Driver Crash Fatalities\*



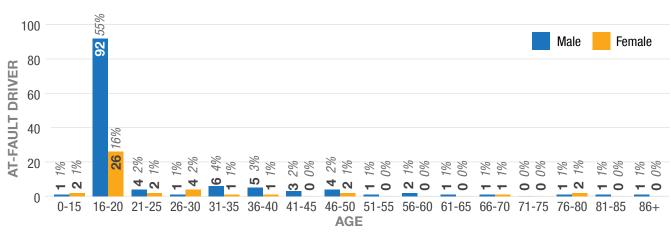


\*This chart has been modified to match the NHTSA STSI summary

#### Who?

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Between 2014 and 2018, young males (16 to 20 years old) were the highest reported age group of at-fault drivers in fatal young driver crashes.

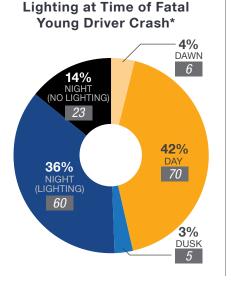


#### Age/Gender Breakdown of At-Fault Driver in Fatal Young Driver Crashes

#### When?

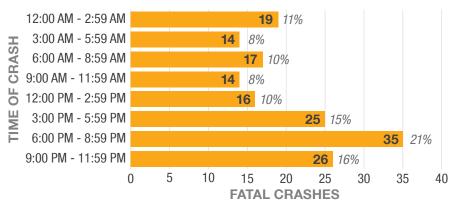
From 2014 to 2018, most fatal young driver crashes occurred during the hours of 6:00 PM to 8:59 PM, totaling 21%. Fifty percent of fatal young driver crashes took place at night in areas with and without street lighting.

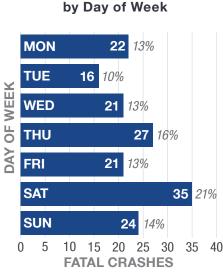
Fatal young driver crashes occurred most frequently on Saturdays. The largest percent of fatal young driver crashes took place in the months of May and October, with a total of 26%.



\*Does not include values that are unknown or missing

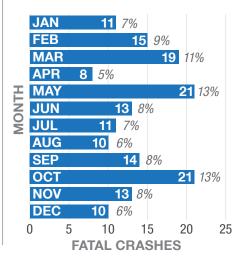
Fatal Young Driver Crashes by Time of Day





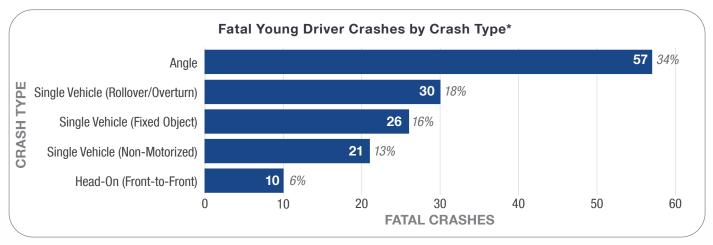
**Fatal Young Driver Crashes** 

#### Fatal Young Driver Crashes by Month of Year



### Why?

From 2014 to 2018, fatal young driver crashes most frequently involved a motor vehicle hitting another motor vehicle in an angle crash or a motor vehicle rolling over.



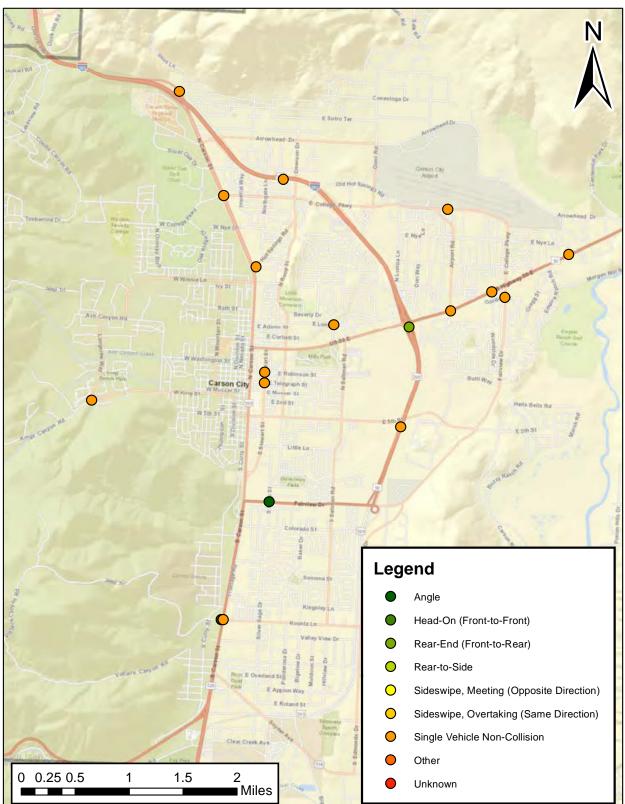
\*Does not include values that are unknown or missing or data categories with low representation

### **APPENDIX A – CRASH MAPS**

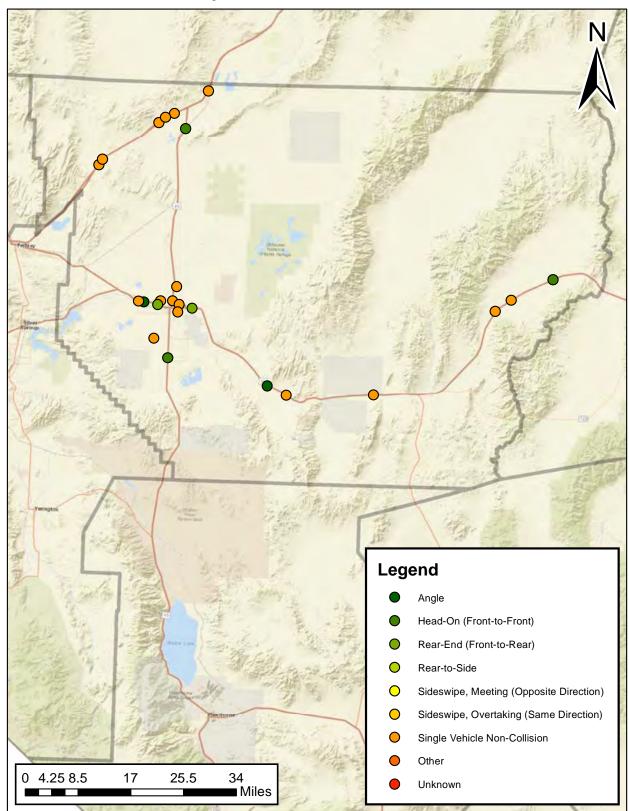
### **TABLE OF CONTENTS**

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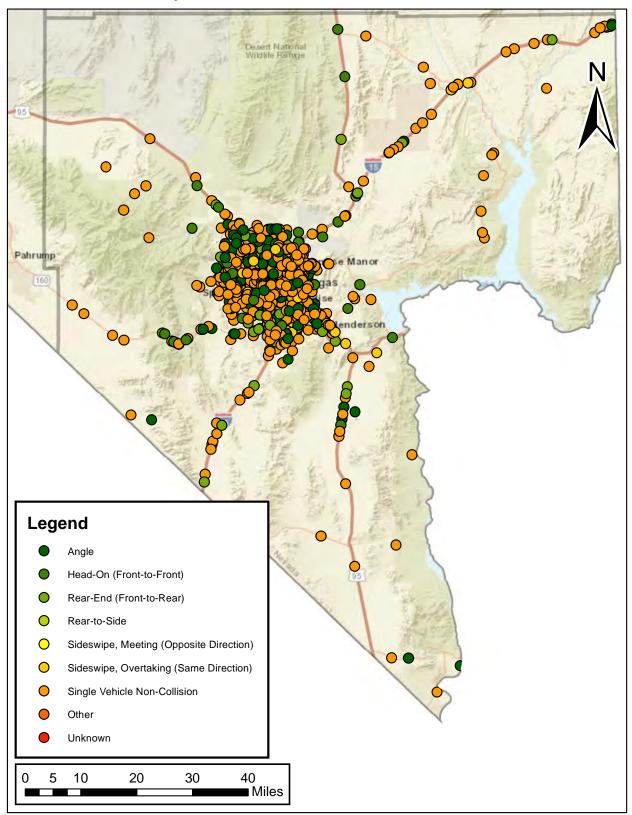
Carson City County Fatal Crashes
Churchill County Fatal Crashes
Clark County Fatal Crashes
Las Vegas Valley Fatal Crashes50
Las Vegas Downtown Fatal Crashes51
Douglas County Fatal Crashes
Elko County Fatal Crashes53
Esmeralda County Fatal Crashes54
Eureka County Fatal Crashes55
Humboldt County Fatal Crashes56
Lander County Fatal Crashes57
Lincoln County Fatal Crashes58
Lyon County Fatal Crashes
Mineral County Fatal Crashes60
Nye County Fatal Crashes61
Pershing County Fatal Crashes62
Storey County Fatal Crashes
Washoe County Fatal Crashes64
Reno-Sparks Area Fatal Crashes65



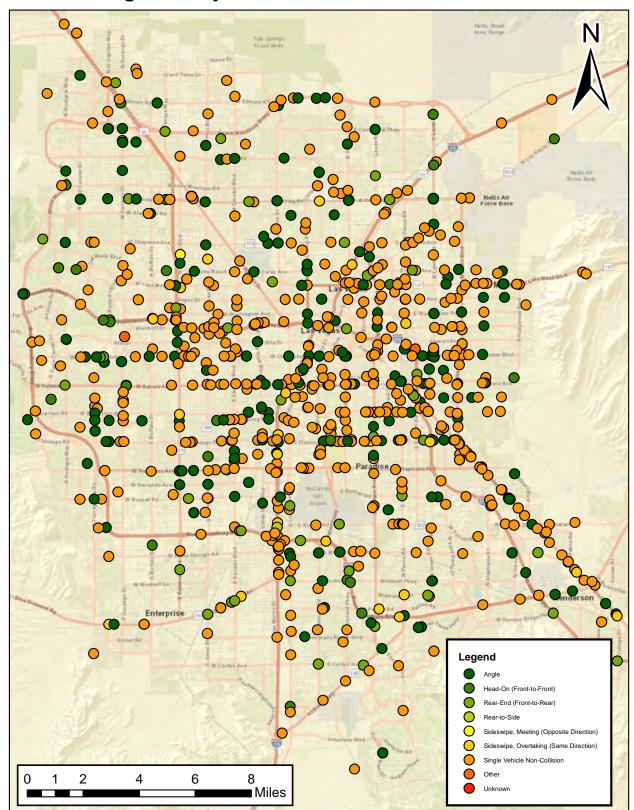
### **Carson City County Fatal Crashes from 2014 to 2018**



### **Churchill County Fatal Crashes from 2014 to 2018**



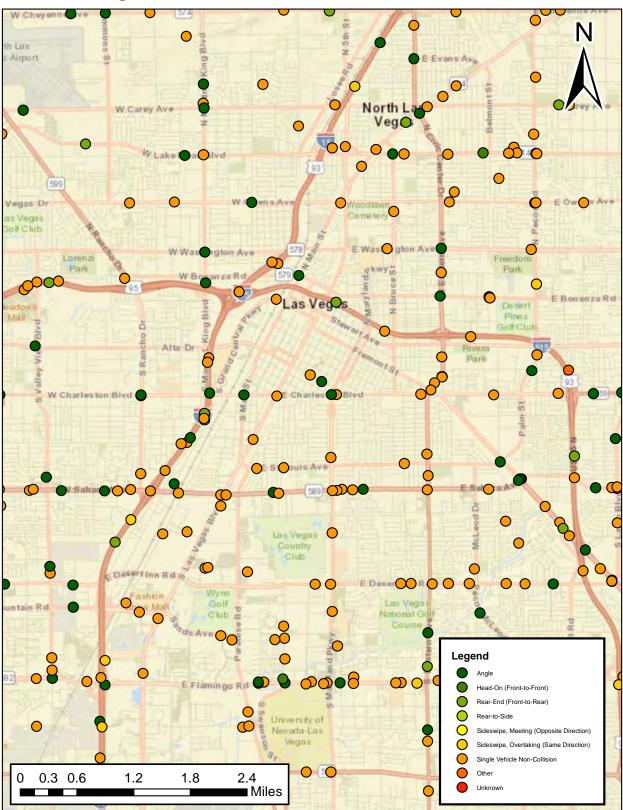
**Clark County Fatal Crashes from 2014 to 2018** 



Las Vegas Valley Fatal Crashes from 2014 to 2018

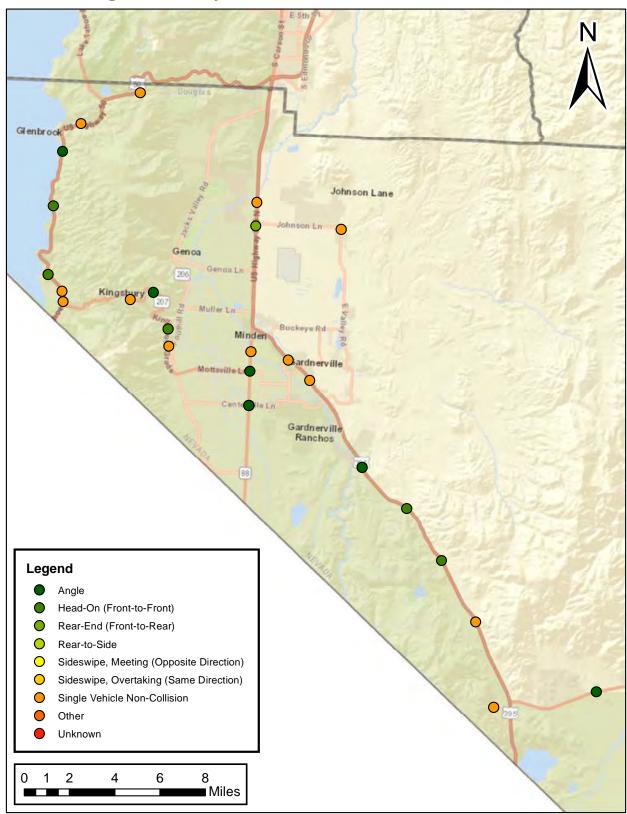
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#### Las Vegas Downtown Fatal Crashes from 2014 to 2018

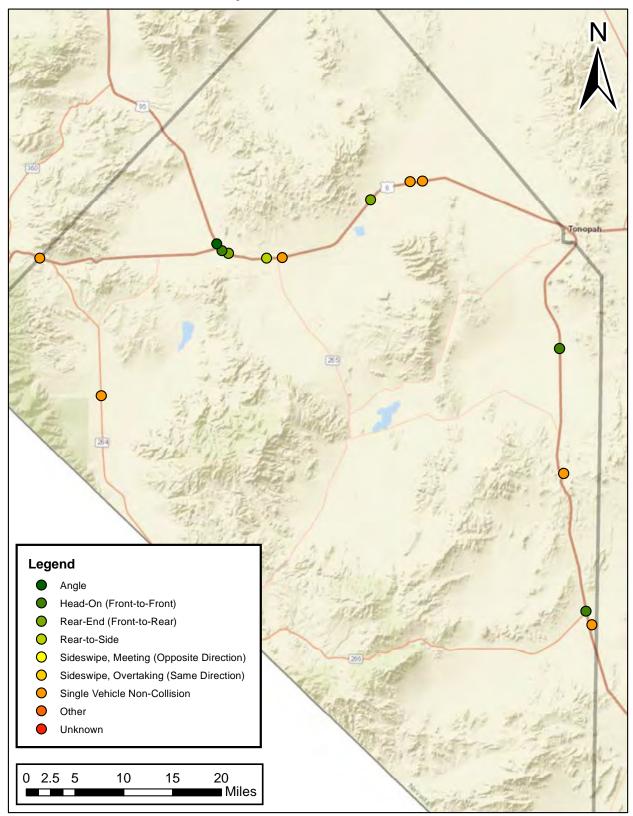
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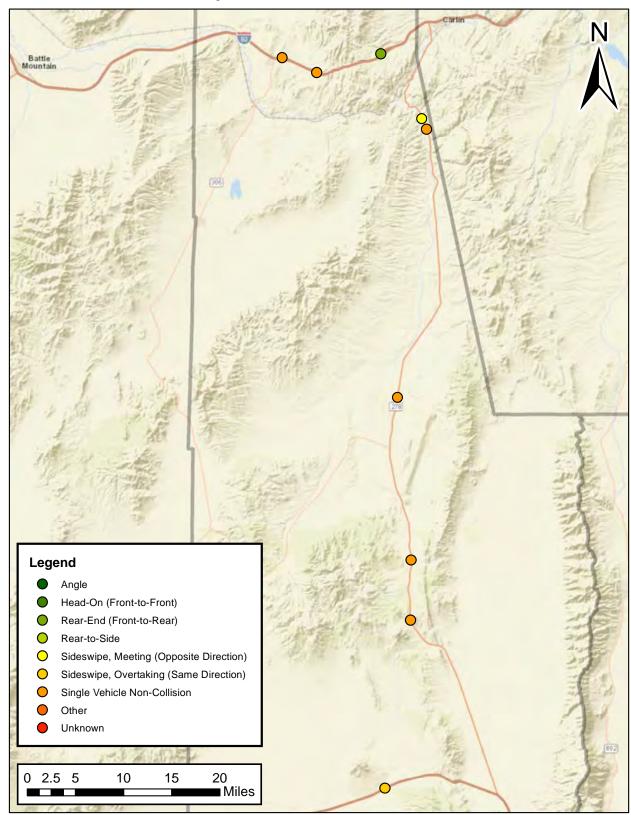
### **Douglas County Fatal Crashes from 2014 to 2018**

Ν  $\bigcirc$ 0 0000 Legend Angle Head-On (Front-to-Front) Rear-End (Front-to-Rear)  $\bigcirc$  $\bigcirc$ Rear-to-Side O Sideswipe, Meeting (Opposite Direction) Sideswipe, Overtaking (Same Direction)  $\bigcirc$ Single Vehicle Non-Collision Other  ${}$ Unknown 0 5 10 30 40 20 Miles





### Esmeralda County Fatal Crashes from 2014 to 2018



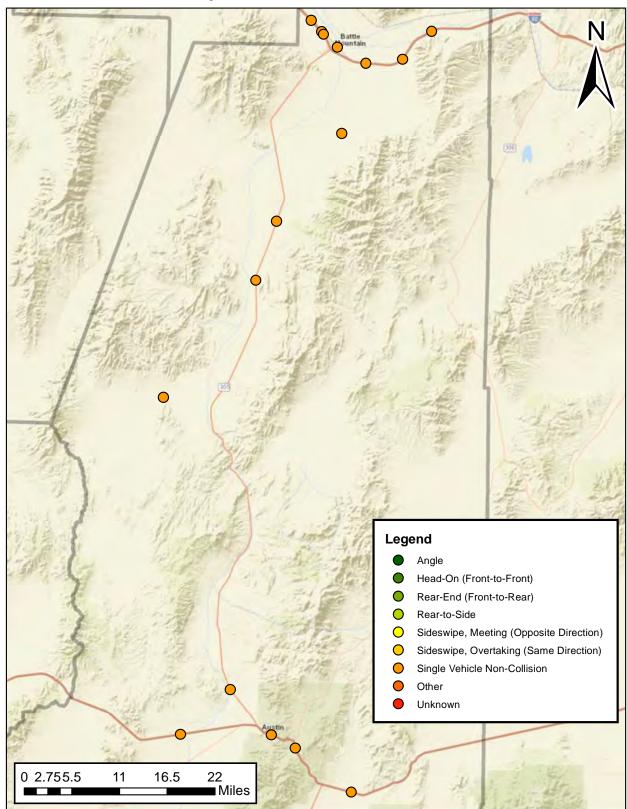
### Eureka County Fatal Crashes from 2014 to 2018

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## Ν Legend Angle Head-On (Front-to-Front) $\bigcirc$ Rear-End (Front-to-Rear) $\bigcirc$ O Rear-to-Side Sideswipe, Meeting (Opposite Direction) Sideswipe, Overtaking (Same Direction) ${}^{\circ}$ Single Vehicle Non-Collision Other $\bigcirc$ Unknown 28 ■ Miles 0 3.5 7 14 21

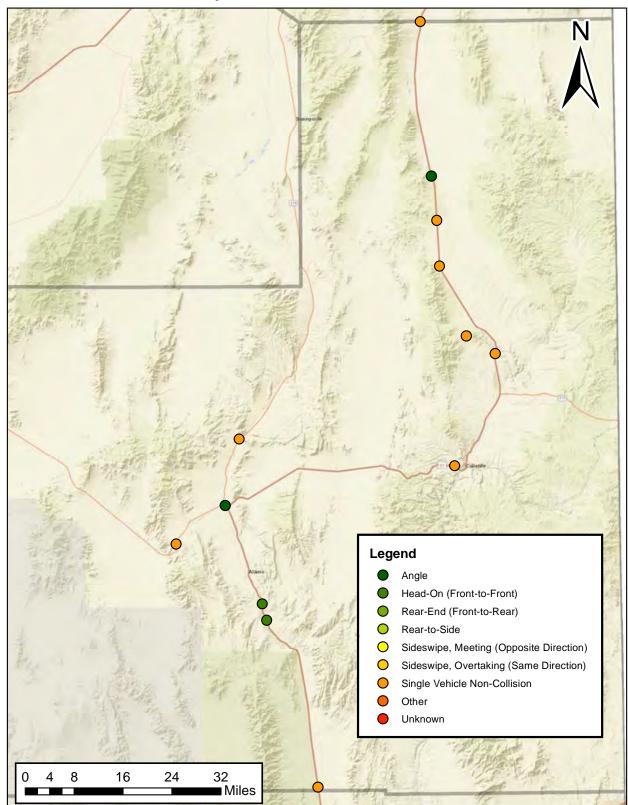
### Humboldt County Fatal Crashes from 2014 to 2018

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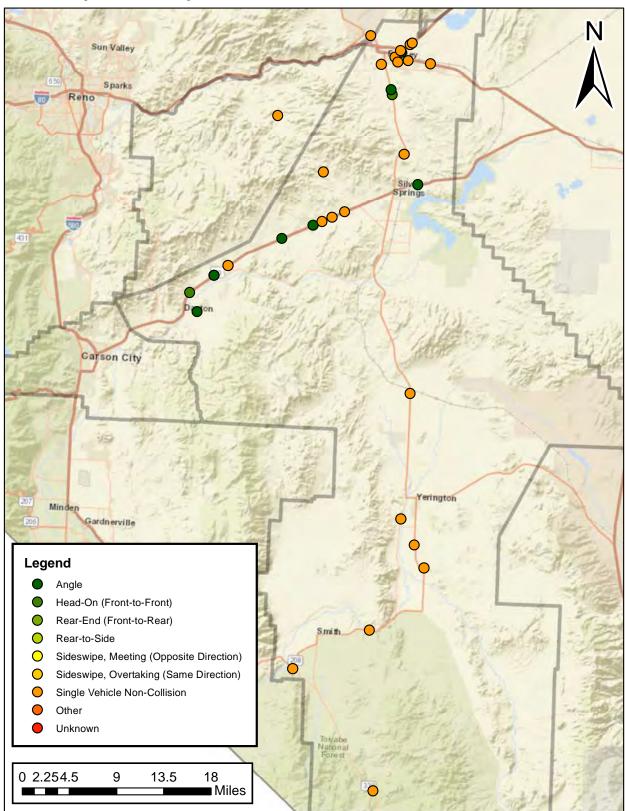


### Lander County Fatal Crashes from 2014 to 2018

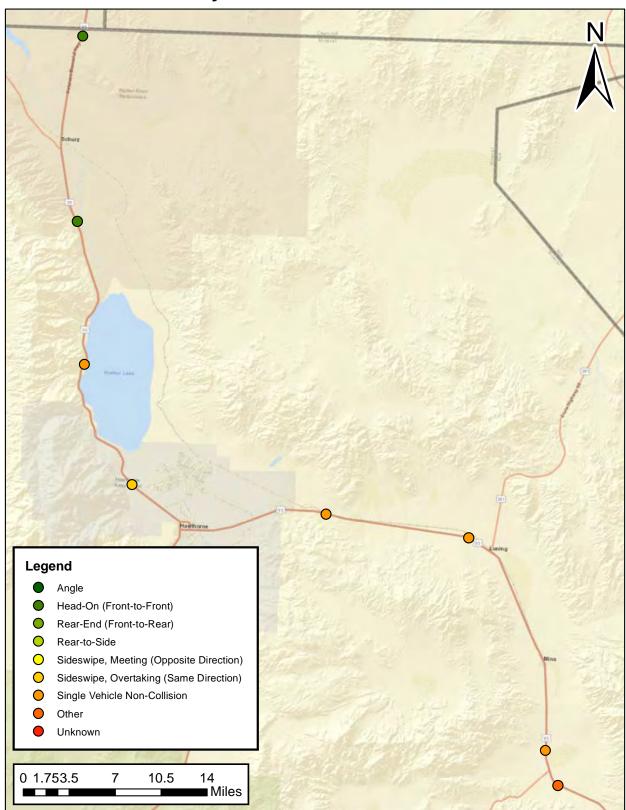
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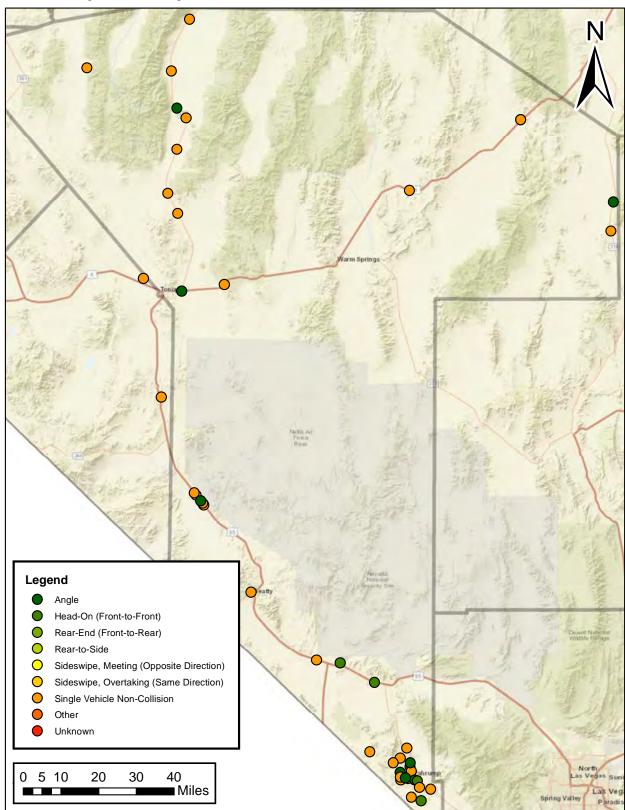
### Lincoln County Fatal Crashes from 2014 to 2018



Lyon County Fatal Crashes from 2014 to 2018



Mineral County Fatal Crashes from 2014 to 2018



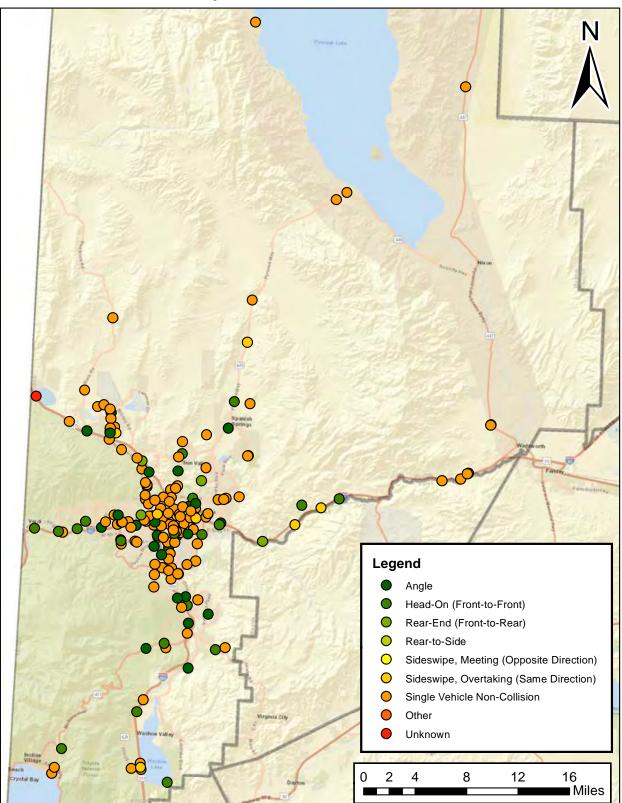
### Nye County Fatal Crashes from 2014 to 2018

### N Legend Angle Head-On (Front-to-Front) Rear-End (Front-to-Rear) $\bigcirc$ $\mathbf{O}$ Rear-to-Side 0 Sideswipe, Meeting (Opposite Direction) $\mathbf{O}$ Sideswipe, Overtaking (Same Direction) 0 Single Vehicle Non-Collision 0 Other Unknown 8 0 2 4 12 16 Miles

### Pershing County Fatal Crashes from 2014 to 2018

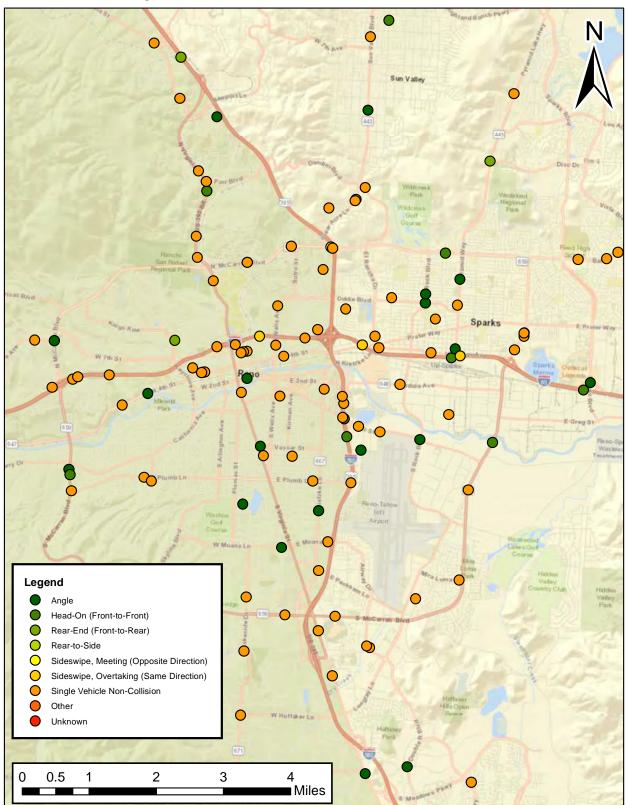
Ν Legend Angle Head-On (Front-to-Front) igodol0 igodolRear-End (Front-to-Rear) 0 Rear-to-Side Virginia City 0  $\circ$ Sideswipe, Meeting (Opposite Direction)  $\mathbf{O}$ Sideswipe, Overtaking (Same Direction) 0 Single Vehicle Non-Collision 0 Other Unknown Silver City 0 0.5 1 2 3 4 Miles 0 

### Storey County Fatal Crashes from 2014 to 2018

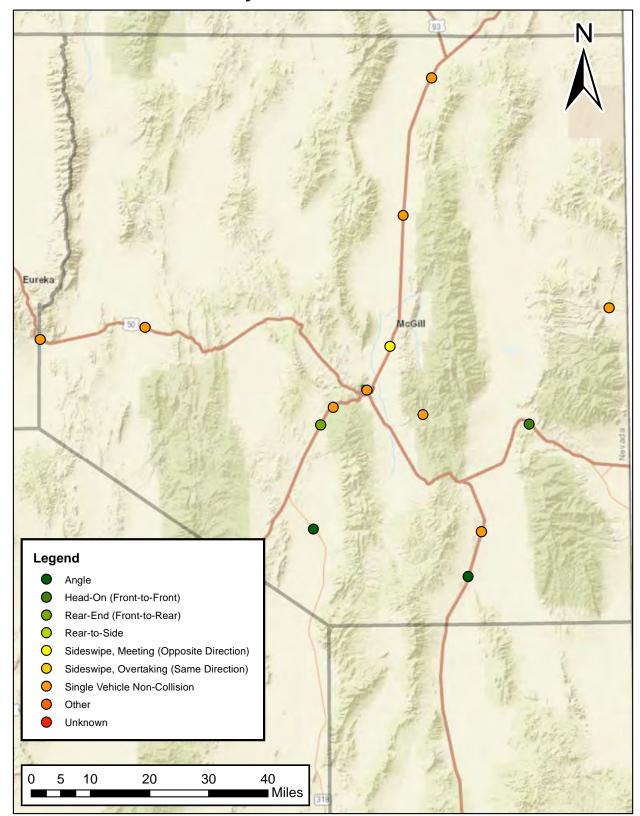


### Washoe County Fatal Crashes from 2014 to 2018

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### **Reno-Sparks Area Fatal Crashes from 2014 to 2018**



### White Pine County Fatal Crashes from 2014 to 2018

### **APPENDIX B – EMPHASIS AREA DATA QUERY TABLE**

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Emphasis Area	Description	Source	Query
All Data	All fatal crashes in the state of Nevada	FARS - Accident	<b>STATE = 32</b> (32 = Nevada)
Intersection	Fatal crashes that occur at intersections or are related to intersections	FARS - Accident	In 2009: <b>RELJCT2 = 2 or 3 or 10 or 11</b> From 2010 to 2018: <b>RELJCT2 = 2 or 3</b> (In 2009: 2 = Intersection [Non- Interchange Area], 3 = Intersection-Related [Non-Interchange Area], 10 = Intersection [Interchange Area], 11 = Intersection-Related [Interchange Area]) From 2010 to 2018: 2 = Intersection or 3 = Intersection-Related
Impaired Driving	Fatal crash involving a driver either intoxicated by alcohol (BAC = 0.08 or greater) or tested positive for one or more drugs	FARS - Person FARS - Drugs (2018)	$\begin{array}{l} \textbf{ST\_CASE} \ (\textbf{Person}) = \textbf{ST\_CASE} \ (\textbf{Accident}) \\ \textbf{ST\_CASE} \ (\textbf{Drugs}) = \textbf{ST\_CASE} \ (\textbf{Accident}) \\ (This ensures the data is on a crash level) \\ \textbf{AND} \\ \textbf{PER\_TYP = 1} \ (1 = \text{Driver of a Motor Vehicle In-Transport}) \\ \textbf{AND} \\ \textbf{ALC\_RES \ge 80 \ and < 994} \ (80 = \text{Actual Value of BAC Test 0.08}) \\ \textbf{AND/OR} \\ \textbf{DRUGRES} \ (1, 2, and/or \ 3) \ge 100 \ and \le 996 \ or = 998 \\ \text{In 2018: } \textbf{DRUGRES \ge 100 \ and \le 996 \ or = 998} \ (100 \ to \ 995 = \text{Narcotic,} \\ \text{Depressant, Stimulant, Hallucinogen, Cannabinoid, Phencyclidine [PCP], \\ \textbf{Anabolic Steroid, Inhalant 996 = Other Drugs \ 998 = Tested \ for Drugs, Drugs \\ \text{Found, Type Unknown/Positive} \end{array}$
Lane Departure	Fatal crash in which a vehicle leaves its lane of travel	FARS - Cevent	ST_CASE (Accident) (This ensures the data is on a crash level)ANDEVENTNUM = 1 (1 = The first event in the sequence of events (SOE))ANDSOE = 1, 3, 19-43, 46-48, 52, 53, 57, 59, 63-65, or 68 (1 = Rollover/Overturn, 3 = Immersion or Partial Immersion, 19 = Building, 20 = Impact Attenuator/ Crash Cushion, 21 = Bridge Pier or Support, 23 = Bridge Rail (Includes Parapet), 24 = Guardrail Face, 25 = Concrete Traffic Barrier, 26 = Other Traffic Barrier, 30 = Utility Pole/Light Support, 31 = Post, Pole or Other Support, 32 = Culvert, 33 = Curb, 34 = Ditch, 35 = Embankment, 38 = Fence, 39 = Wall, 40 = Fire Hydrant, 41 = Shrubbery, 42 = Tree (Standing Only), 43 = Other Fixed Object, 46 = Traffic Signal Support, 48 = Snow Bank, 52 = Guardrail End, 53 = Mail Box, 57 = Cable Barrier, 59 = Traffic Sign Support, 63 = Ran Off Road – Right, 64 = Ran Off Road – Left, 65 = Cross Median, 68 = Cross Centerline)
Lane Departure Speeding	Fatal crash in which speeding is determined by the officer to be a factor in the crash	FARS - Vehicle	ST_CASE (Vehicle) = ST_CASE (Accident)         (This ensures the data is on a crash level)         AND         SPEEDREL > 0 and < 6 (1 = Yes, 2 = Yes Racing, 3 = Yes Exceeded Speed Limit, 4 = Yes Too Fast for Conditions, 5 = Yes Specifics Unknown)
Lane Departure Distracted Driving	Fatal crash in which the driver of the motor vehicle was distracted	FARS - Distracted	<ul> <li>ST_CASE (Distracted) = ST_CASE (Accident) (This ensures the data is on a crash level)</li> <li>AND</li> <li>MDRDSTRD ≠ 0, 16, 96, or 99 (0 = Not Distracted, 16 = No Driver Present/ Unknown if Driver Present, 96 = Not Reported, 99 = Unknown if Distracted)</li> </ul>

Emphasis Area	Description	Source	Query
Motorcycle	A fatal crash involving a motorcycle in which either the driver or a passenger on the motorcycle died	FARS - Vehicle	ST_CASE (Vehicle) = ST_CASE (Accident) (This ensures the data is on a crash level)         AND         BODY_TYP ≥ 82 and ≤ 87 or = 80 or = 89 (82 = Three-Wheel Motorcycle [2 Rear Wheels], 83 = Off-Road Motorcycle, 84 = Motor Scooter, 85 = Unenclosed 3-Wheel Motorcycle/Unenclosed Autocycle [1 Rear Wheel], 86 = Enclosed 3-Wheel Motorcycle/Enclosed Autocycle [1 Rear Wheel], 87 = Unknown Three Wheel Motorcycle Type, 80 = Motorcycle/Two Wheel Motorcycle [excluding motor scooters], 89 = Unknown Motored Cycle Type)         AND         DEATHS > 0 (either driver or passenger[s] died while riding a motorcycle)
Motorcycle Unhelmeted Motorcycle	A fatal crash involving a motorcycle in which either the driver or a passenger on the motorcycle died and was not wearing a helmet	FARS - Person	ST_CASE (Person) = ST_CASE (Accident) (This ensures the data is on a crash level)ANDBODY_TYP $\geq$ 82 and $\leq$ 87 or = 80 or = 89 (82 = Three-Wheel Motorcycle [2 Rear Wheels], 83 = Off-Road Motorcycle, 84 = Motor Scooter, 85 = Unenclosed 3-Wheel Motorcycle/Unenclosed Autocycle [1 Rear Wheel], 86 = Enclosed 3-Wheel Motorcycle/Enclosed Autocycle [1 Rear Wheel], 87 = Unknown Three Wheel Motorcycle Type, 80 = Motorcycle/Two Wheel Motorcycle [excluding motor scooters], 89 = Unknown Motored Cycle Type)AND From 2017 to 2018: REST_USE = 17 (17 = No Helmet)From 2013 to 2016: REST_USE $\neq$ 5 and $\neq$ 16 (5 = DOT-Compliant Motorcycle Helmet, 16 = Helmet, Other than DOT-Compliant Motorcycle Helmet)AND INJ_SEV = 4 (4 = Fatal)
Motorcycle Helmeted Motorcycle	A fatal crash involving a motorcycle in which either the driver or a passenger on the motorcycle died and was wearing a helmet	FARS - Person	ST_CASE (Accident) (This ensures the data is on a crash level)ANDBODY_TYP $\geq$ 82 and $\leq$ 87 or = 80 or = 89 (82 = Three-Wheel Motorcycle [2 Rear Wheels], 83 = Off-Road Motorcycle, 84 = Motor Scooter, 85 = Unenclosed 3-Wheel Motorcycle/Unenclosed Autocycle [1 Rear Wheel], 86 = Enclosed 3-Wheel Motorcycle/Enclosed Autocycle [1 Rear Wheel], 87 = Unknown Three Wheel Motorcycle/Enclosed Autocycle [1 Rear Wheel], 87 = Unknown Three Wheel Motorcycle/Enclosed Autocycle [1 Rear Wheel], 87 = Unknown Three Wheel Motorcycle/Enclosed Autocycle [1 Rear Wheel], 87 = Unknown Three Wheel Motorcycle Type, 80 = Motorcycle/Two Wheel Motorcycle [excluding motor scooters], 89 = Unknown Motored Cycle Type)AND From 2017 to 2018: REST_USE $\neq$ 17 (17 = No Helmet)From 2013 to 2016: REST_USE $\neq$ 5 and $=$ 16 (5 = DOT-Compliant Motorcycle Helmet, 16 = Helmet, Other than DOT-Compliant Motorcycle Helmet)ANDINJ_SEV = 4 (4 = Fatal)
Occupant Protection	A fatal crash in which a person in a motor vehicle in transit dies while not using a seatbelt.	FARS - Person	ST_CASE (Person) = ST_CASE (Accident) (This ensures the data is on a crash level)         AND         From 2010 to 2016: REST_USE = 7         From 2017 to 2018: REST_USE = 20         (7 = None Used, 20 = None Used/Not Applicable)         AND         INJ_SEV = 4 (4 = Fatal)

Emphasis Area	Description	Source	Query
Occupant Protection Child Passenger	A fatal crash in which a child age 4 or younger died in the crash	FARS - Person	ST_CASE (Person) = ST_CASE (Accident)         (This ensures the data is on a crash level)         AND         AGE ≥ 0 and ≤ 4 (A child is classified as age 0 to 4 with 0 being less than 1 year old)         AND         PER_TYP = 2 (2 = Passenger of a Motor Vehicle In-Transport)         AND         INJ_SEV = 4 (4 = Fatal)
Pedestrian	A fatal crash in which a pedestrian is killed	FARS - Person	ST_CASE (Person) = ST_CASE (Accident) (This ensures the data is on a crash level) AND PER_TYP = 5 (5 = Pedestrian) AND INJ_SEV = 4 (4 = Fatal)
Pedestrian Bicycle	A fatal crash in which a bicyclist is killed	FARS - Person	ST_CASE (Person) = ST_CASE (Accident) (This ensures the data is on a crash level) AND PER_TYP = 6 or = 7 (6 = Bicyclist, 7 = Other Cyclist) AND INJ_SEV = 4 (4 = Fatal)
Young Driver	A fatal crash in which a driver age 15 to 20 is operating one or more of the motor vehicles involved in the crash	FARS - Person	$\begin{array}{l} \textbf{ST\_CASE (Person) = ST\_CASE (Accident)} \\ (This ensures the data is on a crash level) \\ \textbf{AND} \\ \textbf{AGE} \geq \textbf{15 and} \leq \textbf{20} (A young driver is classified as a driver age 15 to 20) \\ \textbf{AND} \\ \textbf{PER\_TYP = 1} (1 = \text{Driver of a Motor Vehicle In-Transport}) \end{array}$

FARS Data is available for download at the NHTSA website (<a href="http://ftp.nhtsa.dot.gov/fars/">http://ftp.nhtsa.dot.gov/fars/</a>)

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FARS Data Dictionary can be found at the NHTSA website (https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812827)

Prepared for:

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