



NHTSA

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Fatality Analysis Reporting System (FARS) Visualization

NHTSA's FARS and Traffic Safety Fact Sheets

Traffic Safety Facts

2016 Data

March 2018 (Revised)

DOT HS 812 493



Pedestrians

Key Findings

- In 2016 there were 5,067 pedestrians killed in traffic crashes, a 9-percent increase from the 4,646 pedestrian fatalities in 2015. This is the highest number of pedestrians killed in one year since 1990.
- On average, a pedestrian was killed nearly every 1.5 hours in traffic crashes in 2016.
- In 2016, pedestrian deaths accounted for 16 percent of all traffic fatalities.
- Twenty-six percent of pedestrian fatalities occurred from 6 to 8:59 p.m. in 2016.
- In 2016, one-fifth (20%) of the children 14 and younger killed in traffic crashes were pedestrians.
- More than two-thirds (70%) of the pedestrians killed in traffic crashes were males in 2016.
- Alcohol involvement—for the driver and/or the pedestrian—was reported in 48 percent of all fatal pedestrian crashes in 2016.
- In 2016, 90 percent of the pedestrians killed were killed in single-vehicle traffic crashes.
- One in five pedestrians killed in 2016 were struck in crashes that involved hit-and-run drivers.



U.S. Department of Transportation
National Highway Traffic Safety Administration
1200 New Jersey Avenue SE
Washington, DC 20590

Traffic Safety Facts

2016 Data

March 2018 (revised)

DOT HS 812 480



Speeding

Key Findings

- There were 37,461 traffic fatalities in 2016. Among them, 10,111 (27%) were in crashes where at least one driver was speeding.
- The number of speeding-related fatalities in 2016 increased by 4 percent from 2015, from 9,723 to 10,111, while the total number of fatalities increased by 5.6 percent from 2015 to 2016.
- In 2016, 32 percent of 15- to 20-year-old male drivers involved in fatal crashes were speeding, the highest among the age groups presented.
- In 2016, 37 percent of all speeding drivers in fatal crashes were alcohol-impaired, compared to 15 percent of non-speeding drivers involved in fatal crashes.
- In 2016, 33 percent of motorcycle riders involved in fatal crashes were speeding, more than drivers of any other vehicle type.
- In total crashes in 2016, half (50%) of speeding passenger vehicle drivers were unrestrained at the time of crash, compared to 21 percent of non-speeding passenger vehicle drivers.
- In 2016, when roadway function class was known, 96 percent of speeding-related fatalities occurred on non-interstate roadways.



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Traffic Safety Facts

2016 Data

October 2017

DOT HS 812 450



Alcohol-Impaired Driving

Key Findings

- In 2016 there were 10,497 fatalities in motor vehicle traffic crashes involving drivers with BACs of .08 g/dL or higher. This totaled 28 percent of all traffic fatalities for the year.
- An average of 1 alcohol-impaired driving fatality occurred every 58 minutes in 2016.
- The estimated economic cost of all alcohol-impaired crashes (including alcohol-impaired drivers or alcohol-impaired nonoccupants) in the United States in 2016 (the most recent year for which cost data is available) was \$44 billion.
- Of the traffic fatalities in 2016 among children 14 and younger, 17 percent occurred in alcohol-impaired-driving crashes.
- The 25- to 34-year-old age group had the highest percentage (27%) of drivers with BACs of .08 g/dL or higher in fatal crashes compared to other age groups in 2016.
- The percentage of drivers with BACs of .08 g/dL or higher in fatal crashes in 2016 was highest for fatalities involving motorcycle riders (25%), compared to passenger cars (21%), light trucks (28%), and large trucks (2%).
- The rate of alcohol impairment among drivers involved in fatal crashes in 2016 was 2.3 times higher when the fatal crashes occurred at night than during the day.
- In 2016 among the 10,497 alcohol-impaired-driving fatalities, 67 percent (7,052) were in crashes in which at least one driver had a BAC of .15 g/dL or higher.



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Drivers are considered to be alcohol-impaired when their blood alcohol concentrations (BACs) are .08 grams per deciliter (g/dL) or higher. Thus, any fatal crash involving a driver with a BAC of .08 g/dL or higher is considered to be an alcohol-impaired-driving crash, and fatalities occurring in those crashes are considered to be alcohol-impaired-driving fatalities. The term "drunk driving" is used instead of alcohol-impaired driving in some other NHTSA communication and material. The term "driver" refers to the operator of any motor vehicle, including a motorcycle.

Estimates of alcohol-impaired driving are generated using BAC values reported to the Fatality Analysis Reporting System (FARS) and BAC values imputed when they are not reported. In this fact sheet, NHTSA uses the term "alcohol-impaired" in evaluating the FARS statistics. In all cases throughout this fact sheet, use of the term does not indicate that a crash or a fatality was caused by alcohol impairment, only that an alcohol-impaired driver was involved in the crash.

In this fact sheet for 2016 the alcohol-impaired-driving information is presented as follows.

- Overview
- Economic Cost for All Traffic Crashes
- Children
- Environmental Characteristics
- Time of Day and Day of Week
- Drivers
- Fatalities by State

This fact sheet contains information on fatal motor vehicle crashes and fatalities based on data from FARS. FARS is a census of fatal crashes in the 50 States, the District of Columbia, and Puerto Rico (Puerto Rico is not included in U.S. totals).

Overview

All 50 States, the District of Columbia, and Puerto Rico have by laws a threshold making it illegal to drive with a BAC of .08 g/dL or higher. In 2016 there were 10,497 people killed in alcohol-impaired-driving crashes, an average of 1 alcohol-impaired-driving fatality every 50 minutes. These alcohol-impaired-driving fatalities accounted for 28 percent of all motor vehicle traffic fatalities in the United States in 2016.

Of the 10,497 people who died in alcohol-impaired-driving crashes in 2016, there were 6,479 drivers (62%) who had BACs of .08 g/dL or higher. The remaining fatalities consisted of 3,070 motor vehicle occupants (29%) and 948 nonoccupants (9%). The distribution of fatalities in these crashes by role is shown in Table 1.

FARS Data

Fatality Analysis Reporting System

Census of all Police-reported traffic crashes in the U.S. That resulted in fatality

Available from 1975 to 2016

Hundreds of data elements coded from multiple data sources



NHTSA's Traffic Safety Fact Sheets

Fact Sheets contain statistics, charts and trends on high-interest areas

Sixteen fact sheets in various topics of safety

Updated annually with yearly FARS data releases

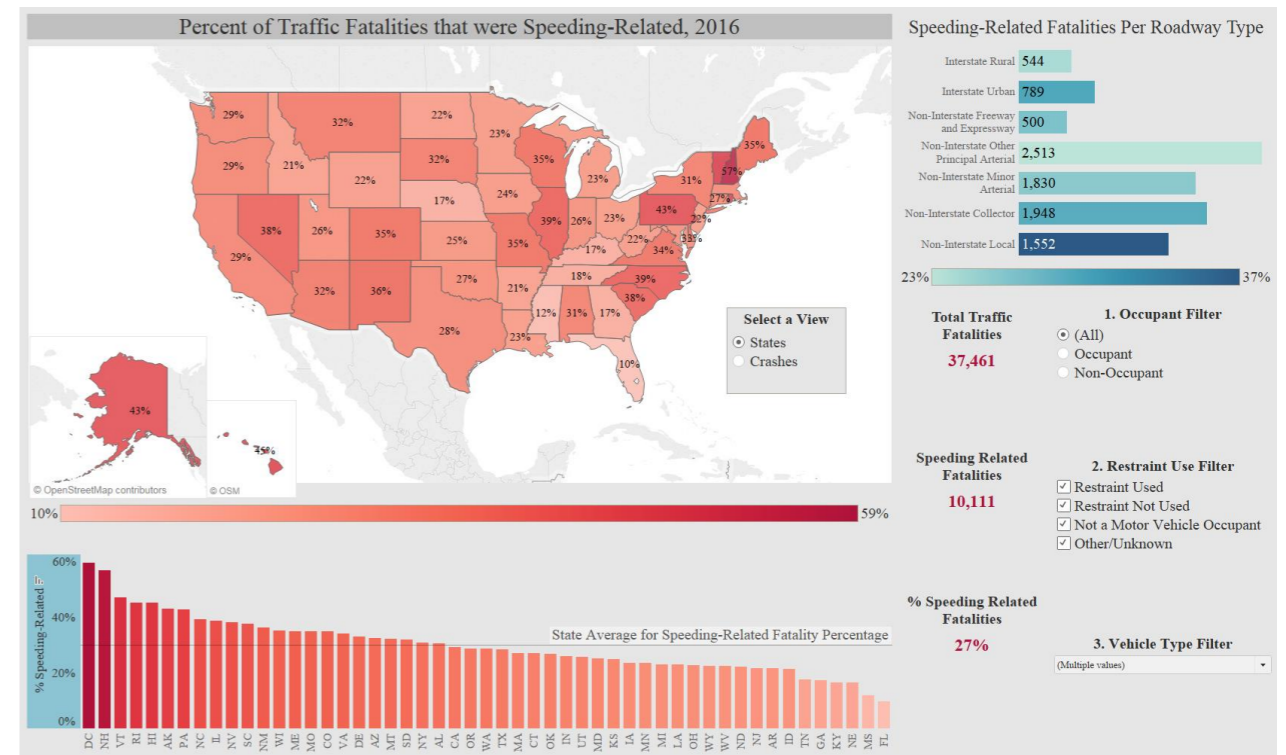
Current versions incorporate inter-departmental review team findings

Project Overview

Extend pdf tables in NHTSA Traffic Safety Fact Sheets to interactive dashboards and visualizations

Table 6
Speeding-Related Traffic Fatalities, by State and Roadway Function Class, 2016

State	Total Traffic Fatalities	Speeding-Related Fatalities		Speeding-Related Fatalities by Roadway Function Class						
		Total	Percentage of Total Traffic Fatalities	Interstate Rural	Interstate Urban	Non-Interstate Freeway and Expressway	Non-Interstate Principal Arterial	Non-Interstate Other Arterial	Non-Interstate Minor Arterial	Non-Interstate Collector
Alabama	1,038	317	31%	13	15	0	67	68	83	58
Alaska	84	36	43%	4	2	0	6	7	10	7
Arizona	982	311	32%	41	16	30	72	54	47	51
Arkansas	545	117	21%	1	7	0	30	25	26	28
California	3,823	1,056	28%	49	116	205	254	188	152	54
Colorado	608	211	35%	14	18	5	64	47	42	21
Connecticut	293	79	27%	1	9	4	15	23	13	13
Delaware	119	39	33%	0	1	0	11	4	18	5
District of Columbia	27	16	59%	0	2	0	0	0	0	14
Florida	3,174	310	10%	3	11	11	132	34	78	38
Georgia	1,554	266	17%	9	24	6	51	71	50	55
Hawaii	120	54	45%	0	3	0	38	12	1	0
Idaho	253	54	21%	13	3	1	11	5	11	6
Illinois	1,082	418	39%	29	51	4	101	86	78	74
Indiana	821	213	26%	1	1	0	39	41	63	36
Iowa	404	95	24%	1	1	0	23	27	15	12
Kansas	429	106	25%	1	1	0	36	14	8	32
Kentucky	834	138	17%	1	1	0	25	15	57	27
Louisiana	757	173	23%	1	1	0	29	27	57	33
Maine	161	56	35%	0	0	0	9	12	17	18
Maryland	505	127	25%	1	1	0	35	18	19	22
Massachusetts	389	105	27%	1	1	0	25	33	4	15
Michigan	1,064	245	23%	1	1	0	43	50	53	48
Minnesota	392	82	21%	1	1	0	23	22	19	16
Mississippi	690	81	12%	1	1	0	13	13	36	12
Missouri	945	328	35%	1	1	0	64	64	82	83
Montana	190	61	32%	1	1	0	18	4	18	14
Nebraska	218	36	17%	1	1	0	8	8	1	15
Nevada	328	125	38%	1	1	0	31	27	25	14
New Hampshire	138	77	56%	1	1	0	21	12	16	16
New Jersey	601	130	22%	0	3	19	36	32	16	23
New Mexico	402	145	36%	1	1	0	53	20	25	23
New York	1,025	314	31%	2	12	17	87	36	30	111
North Carolina	1,450	566	39%	23	40	4	316	28	35	120
North Dakota	113	25	22%	1	0	0	11	2	1	10
Ohio	1,132	257	23%	7	27	8	29	53	81	50
Oklahoma	683	183	27%	8	14	10	40	21	53	37
Oregon	495	142	29%	5	7	0	48	29	45	14
Pennsylvania	1,188	505	43%	30	27	11	115	105	102	107
Rhode Island	51	23	45%	0	4	3	9	0	2	5
South Carolina	1,015	381	38%	40	16	10	80	157	28	50
South Dakota	116	37	32%	3	1	0	5	5	18	5
Tennessee	1,041	183	18%	12	17	1	37	42	43	31
Texas	3,778	1,089	29%	47	124	69	199	133	167	0
Utah	281	72	26%	8	10	0	17	11	12	13
Vermont	62	29	47%	2	0	0	4	0	9	8



Why Visualize?

Traffic Safety Facts

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DOT HS 812 493



Pedestrians

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- On average, a pedestrian was killed nearly every 1.5 hours in traffic crashes in 2016.
- In 2016, pedestrian deaths accounted for 16 percent of all traffic fatalities.
- Twenty-six percent of pedestrian fatalities occurred from 6 to 8:59 p.m. in 2016.
- In 2016, one-fifth (20%) of the children 14 and younger killed in traffic crashes were pedestrians.
- More than two-thirds (70%) of the pedestrians killed in traffic crashes were males in 2016.
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- In 2016, 90 percent of the pedestrians killed were killed in single-vehicle traffic crashes.
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- In 2016, 37 percent of all speeding drivers in fatal crashes were alcohol-impaired, compared to 15 percent of non-speeding drivers involved in fatal crashes.
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Alcohol-Impaired Driving

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Why Visualize?

- Allows for unique insights through spatial explorations
 - State county level maps
 - Crash location maps
- Insights through interactions
 - Facilitates interactions with other FARS attributes
- Interactive Dashboards
 - Refresh information for any context
 - Update other visuals for that context

Current and Next Steps in Visualization

- **Speeding Fact Sheet** chosen as first topic
- Regional insights into speeding
- Interactions with other information
- Maps / Chart based visuals



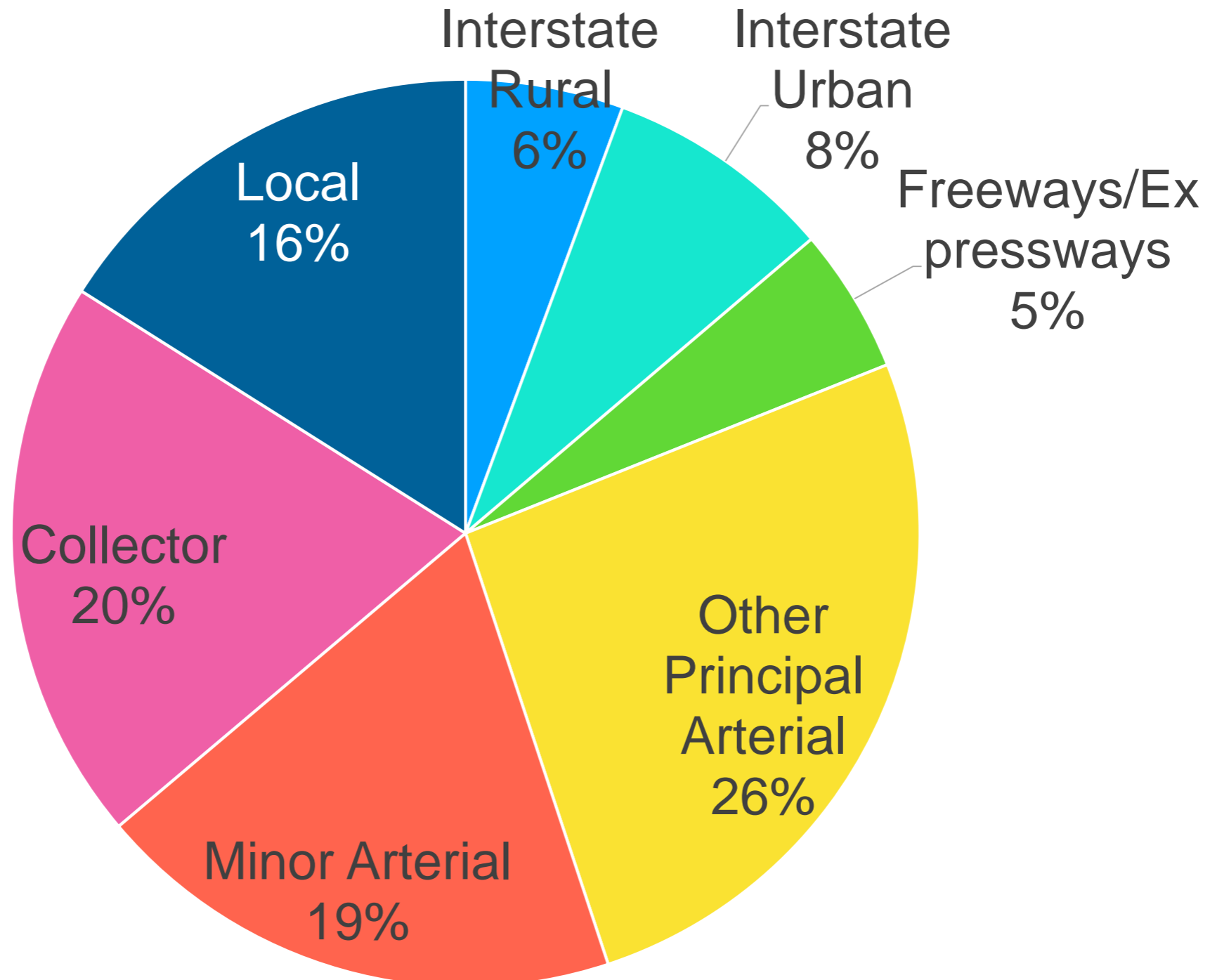
- Deployment for public access
- Expand to other safety topic areas
- Continue to provide innovative visualizations

Speeding Fact Sheet Visualizations



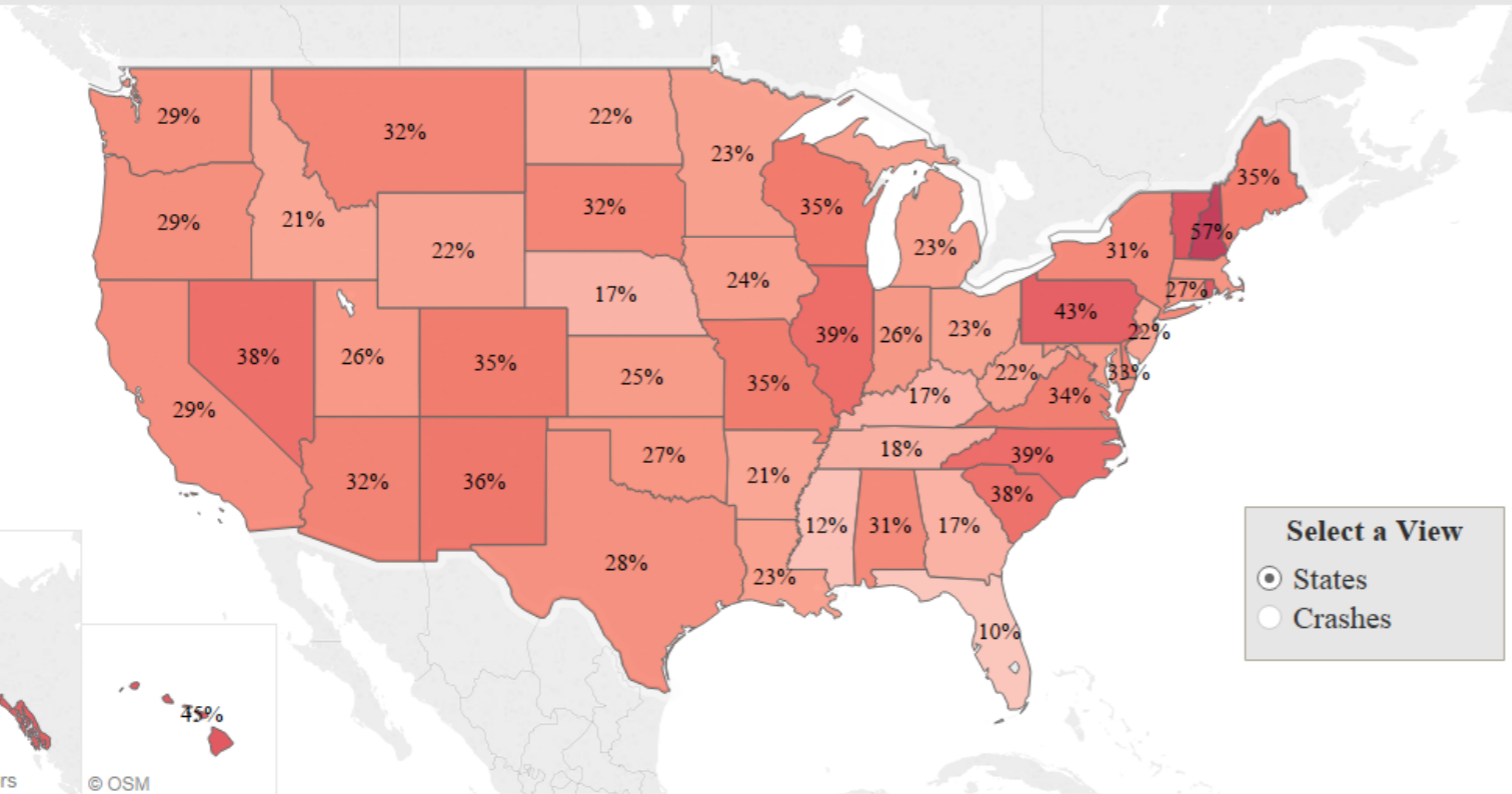
Fatalities in Speeding-Related Crashes

10,111 fatalities (27% of all fatalities)

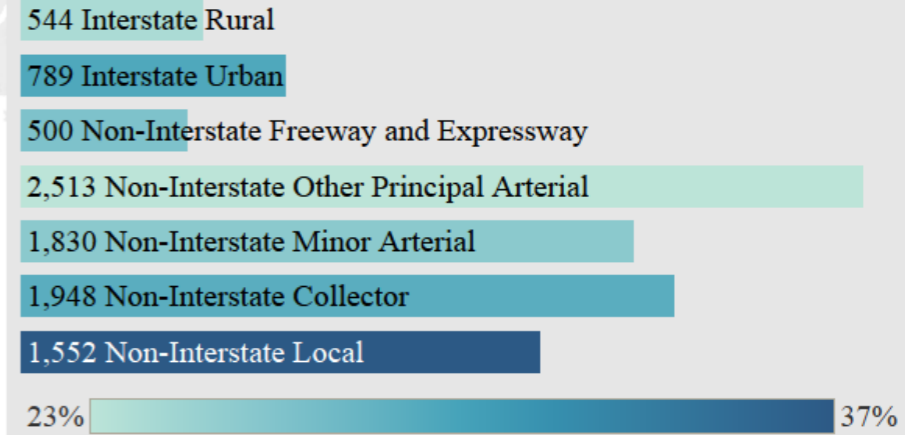


Speed Involvement in Traffic Fatalities, 2016

Percentage of Traffic Fatalities that were Speeding-Related, by State



Speeding-Related Fatalities by Roadway Type



Total Traffic Fatalities

37,461

Speeding Related Fatalities

10,111

% Speeding Related Fatalities

27%

1. Occupant Filter

(All)

2. Restraint Use Filter

(All)

3. Vehicle Type Filter

(All)

4. Month of Crash Filter

(All)

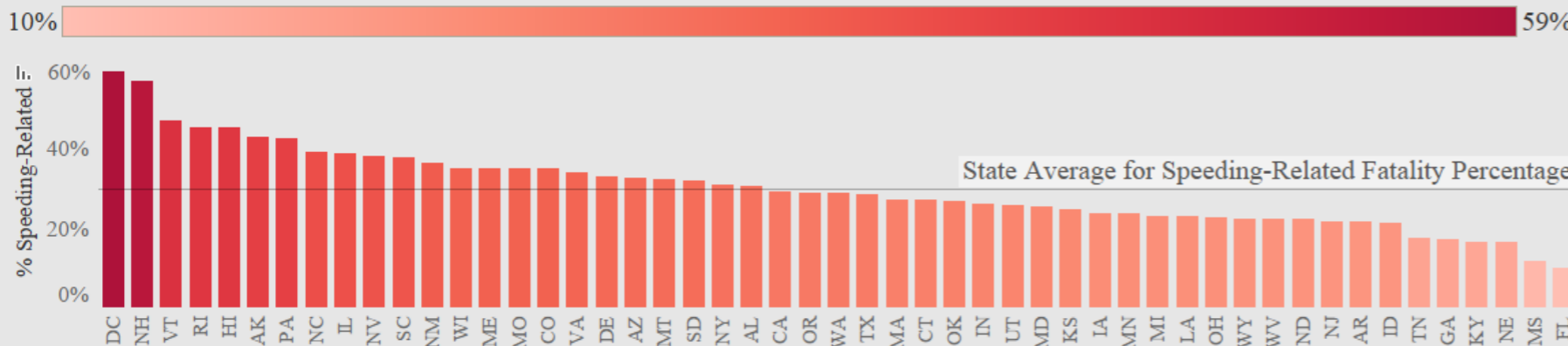
5. Day of Week Filter

(All)

6. Hour of Day Filter

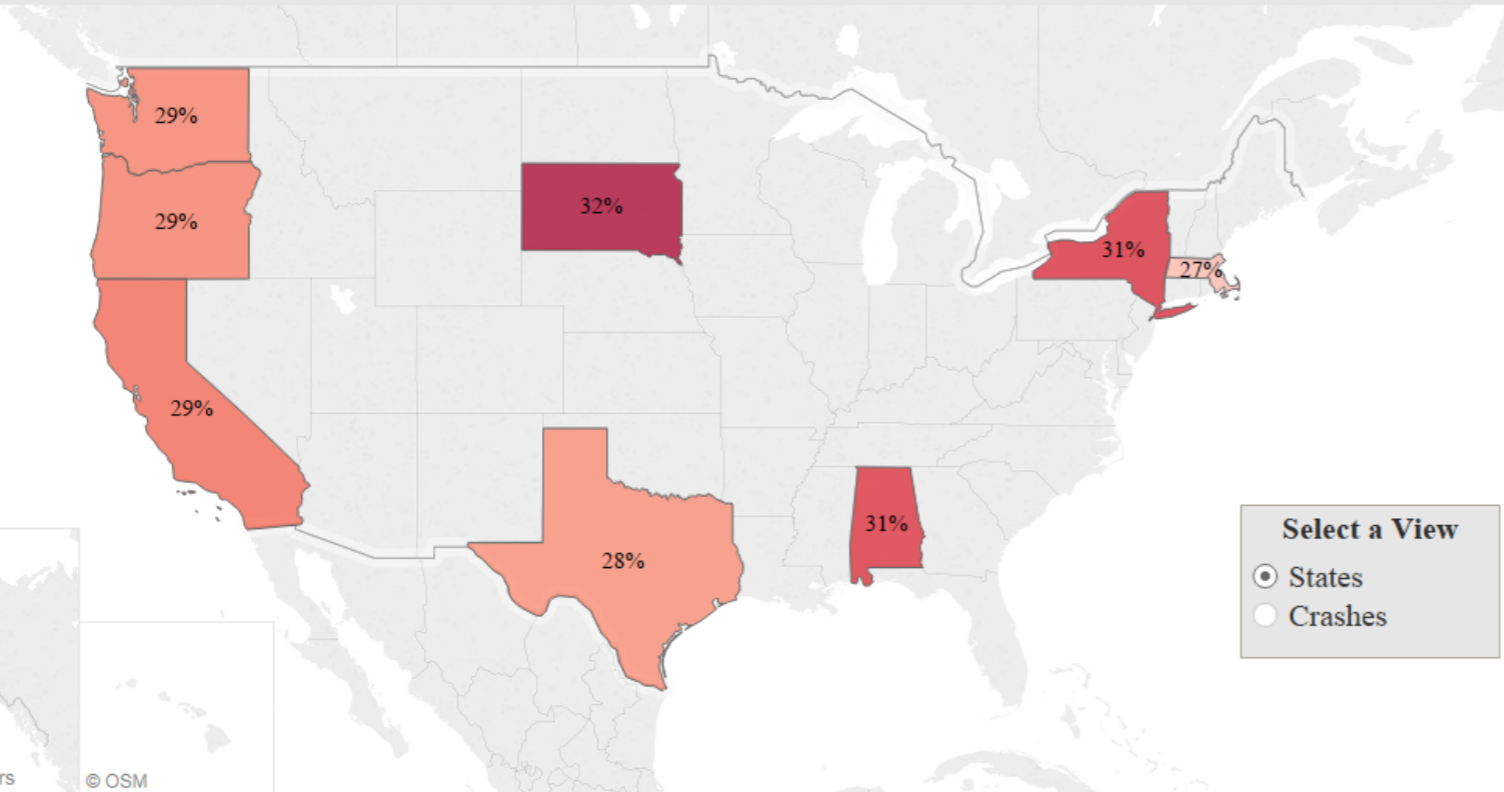
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State Average for Speeding-Related Fatality Percentage

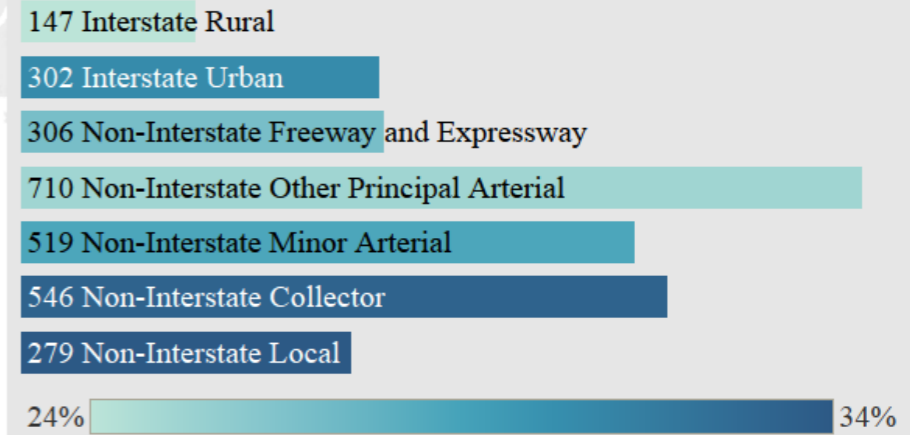


Speed Involvement in Traffic Fatalities, 2016

Percentage of Traffic Fatalities that were Speeding-Related, by State



Speeding-Related Fatalities by Roadway Type



Total Traffic Fatalities
10,999

Speeding Related Fatalities
3,194

% Speeding Related Fatalities
29%

1. Occupant Filter: (All)

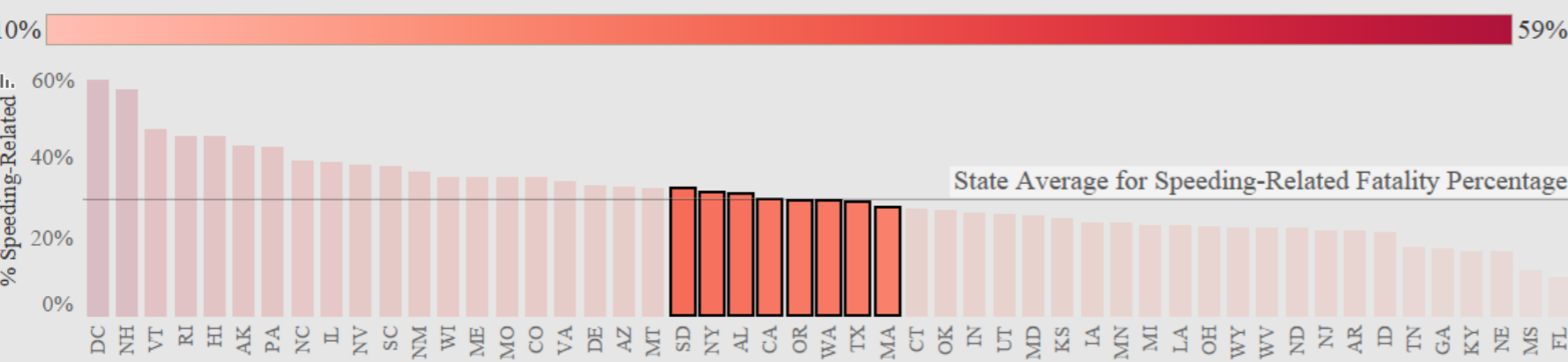
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3. Vehicle Type Filter: (All)

4. Month of Crash Filter: (All)

5. Day of Week Filter: (All)

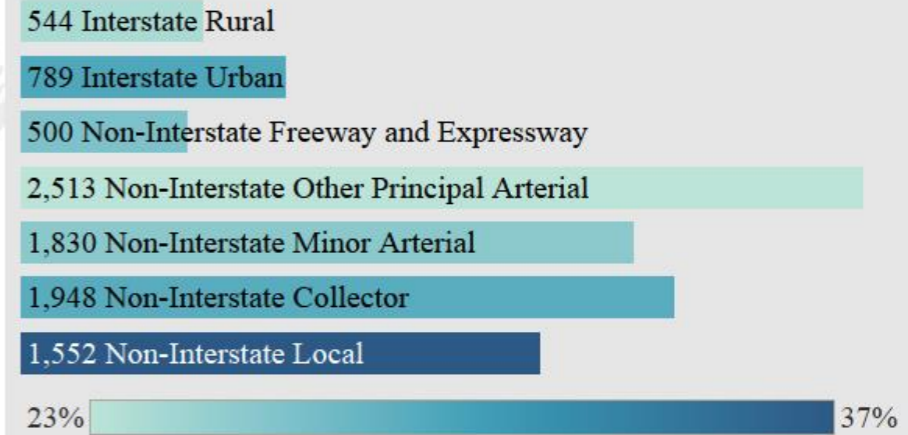
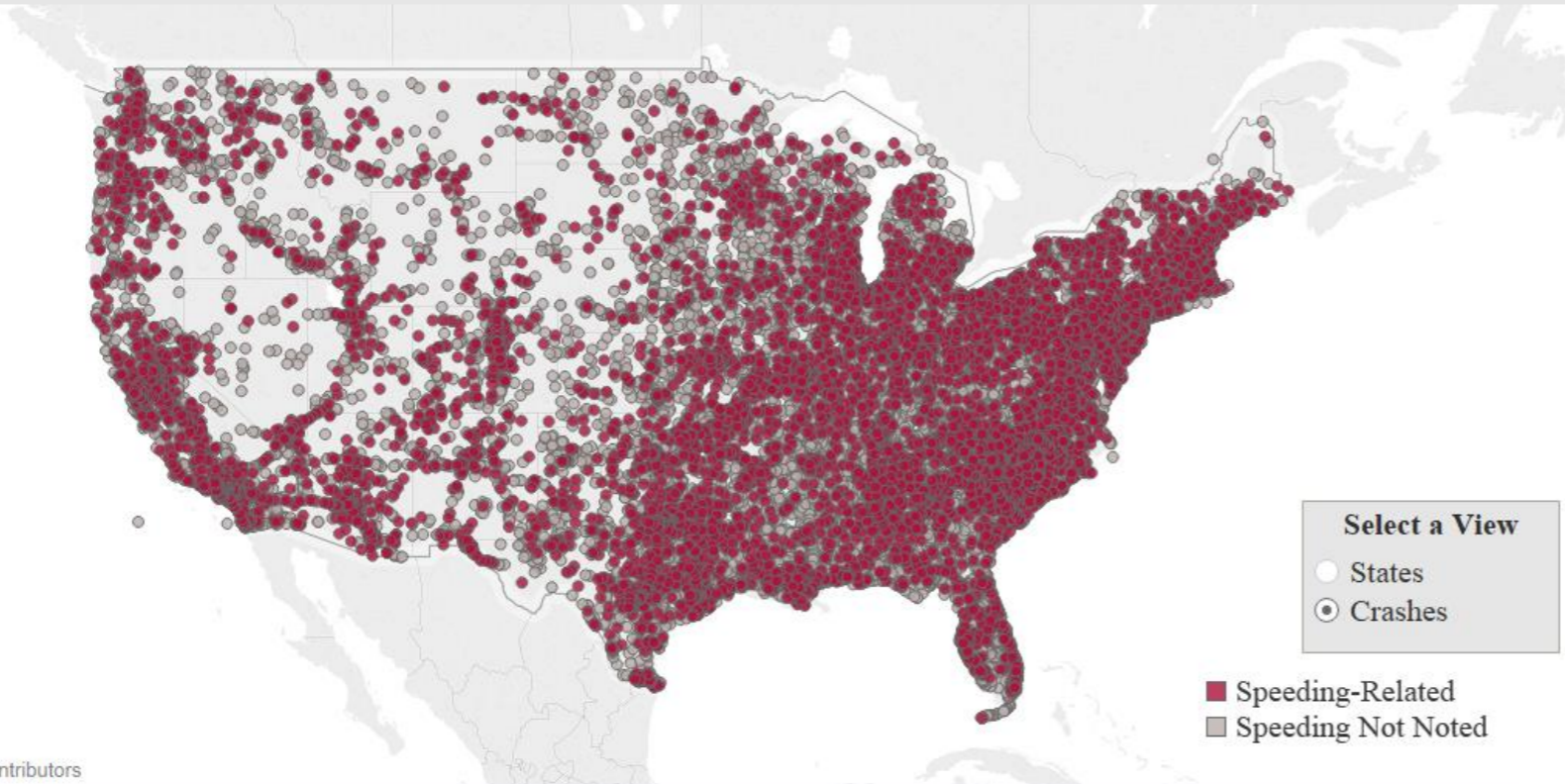
6. Hour of Day Filter: (All)



Speed Involvement in Traffic Fatalities, 2016

Fatal Crashes

Speeding-Related Fatalities by Roadway Type



Total Traffic Fatalities

37,461

Speeding Related Fatalities

10,111

% Speeding Related Fatalities

27%

1. Occupant Filter

(All)

2. Restraint Use Filter

(All)

3. Vehicle Type Filter

(All)

4. Month of Crash Filter

(All)

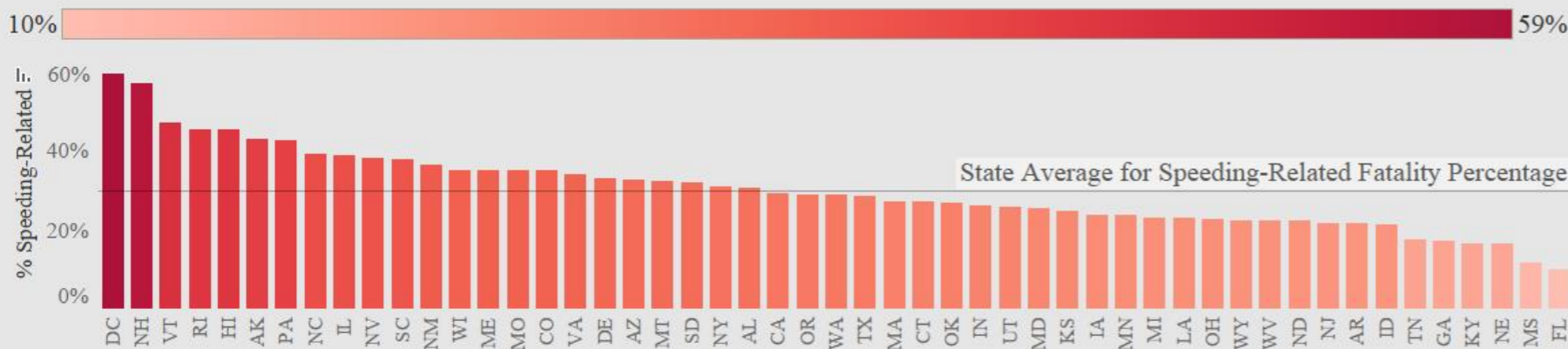
5. Day of Week Filter

(All)

6. Hour of Day Filter

(All)

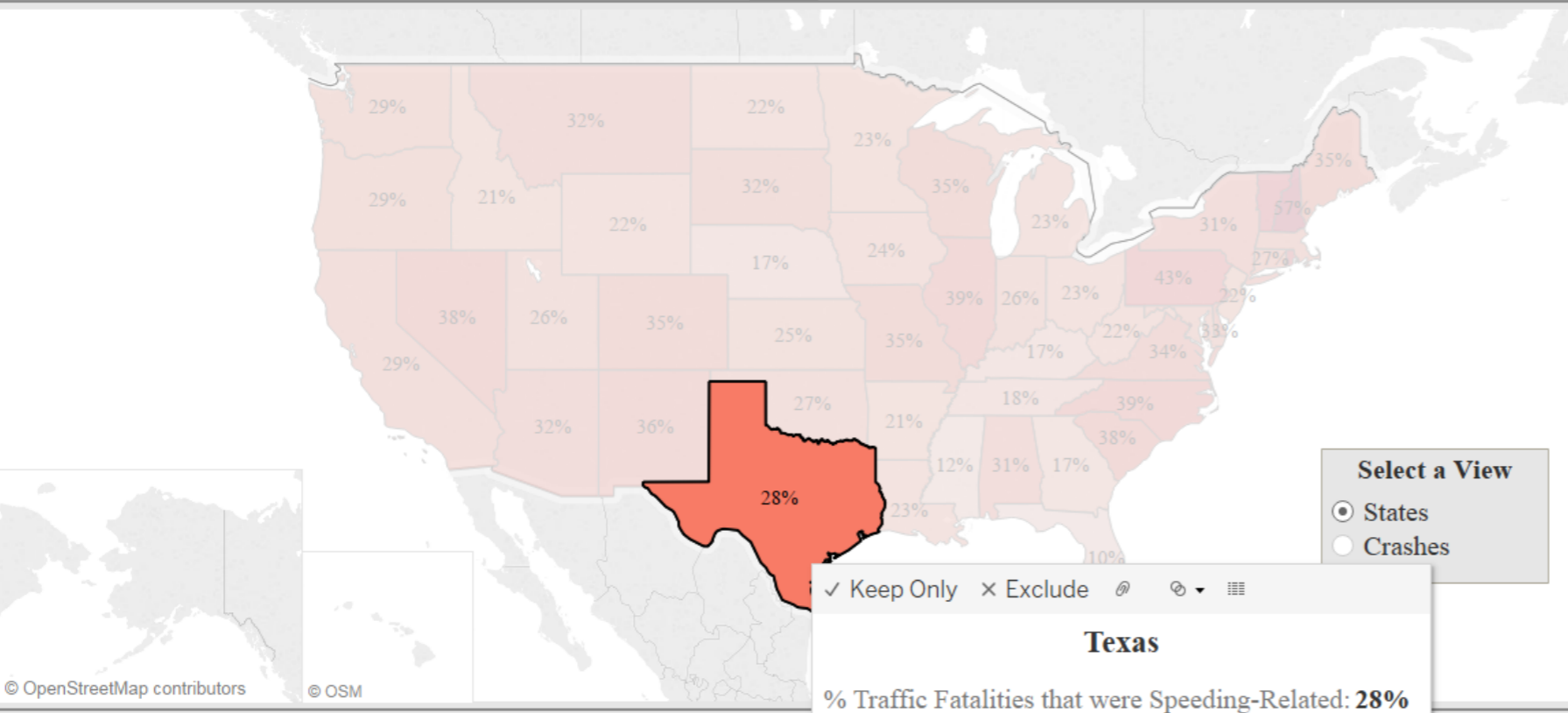
© OpenStreetMap contributors



Speed Involvement in Traffic Fatalities, 2016

Percentage of Traffic Fatalities that were Speeding-Related, by State

Speeding-Related Fatalities by Roadway Type



Select a View
 States
 Crashes

✓ Keep Only × Exclude @ 🔍 🗨

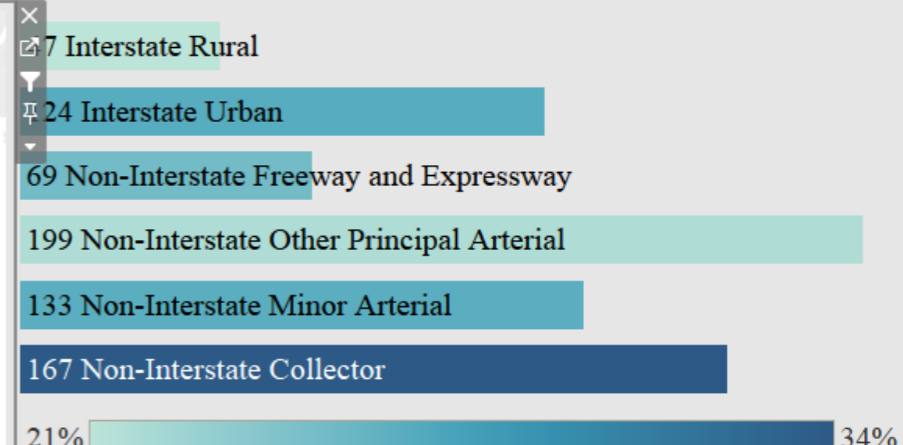
Texas

% Traffic Fatalities that were Speeding-Related: **28%**

Number of Traffic Fatalities: **3,776**

Number of Speeding-Related Fatalities: **1,069**

[See State-Level Breakdown](#)



Total Traffic Fatalities
3,776

Speeding Related Fatalities
1,069

% Speeding Related Fatalities
28%

1. Occupant Filter (All)

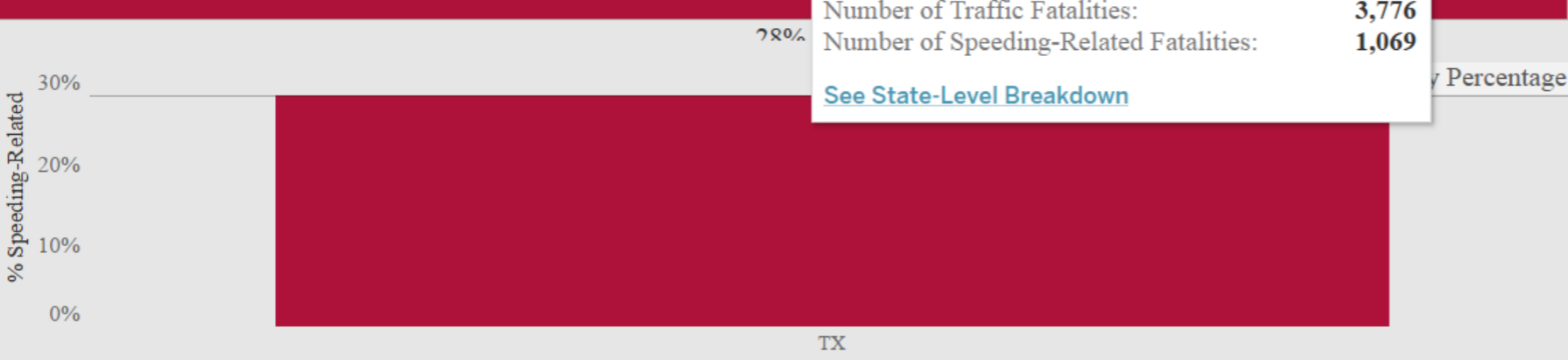
2. Restraint Use Filter (All)

3. Vehicle Type Filter (All)

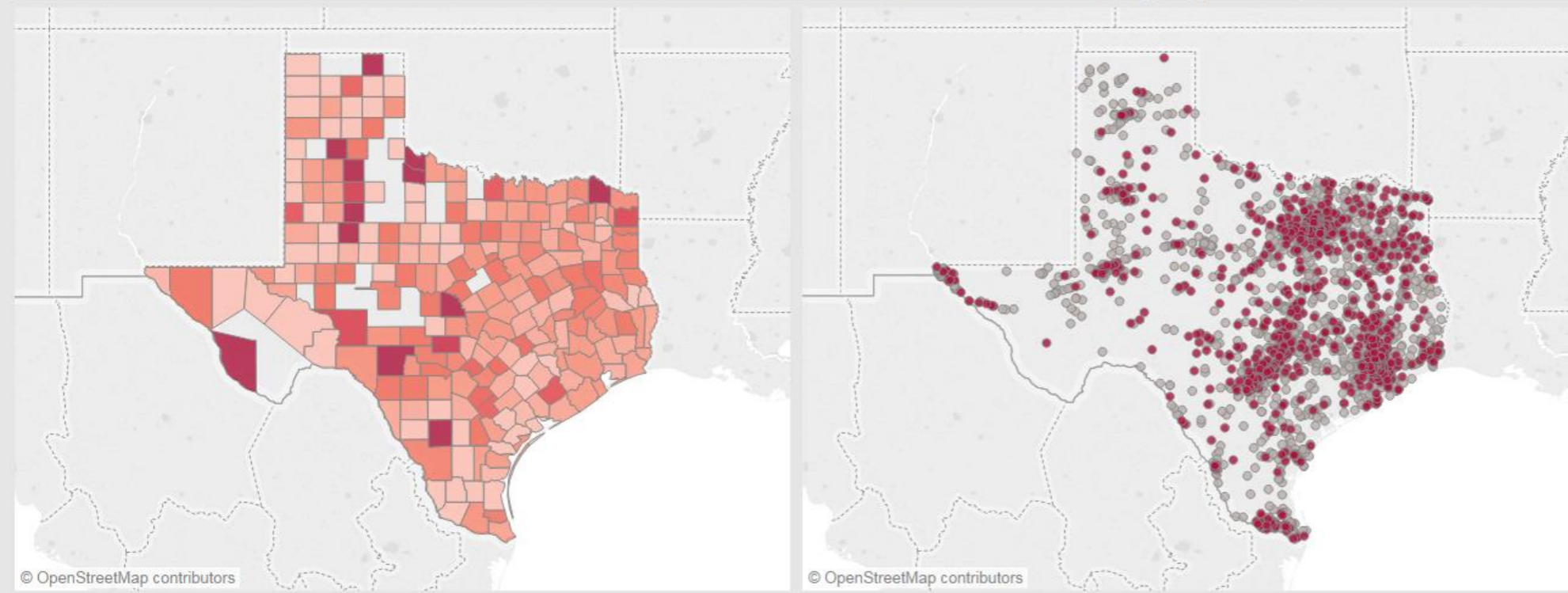
4. Month of Crash Filter (All)

5. Day of Week Filter (All)

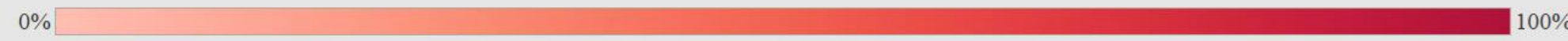
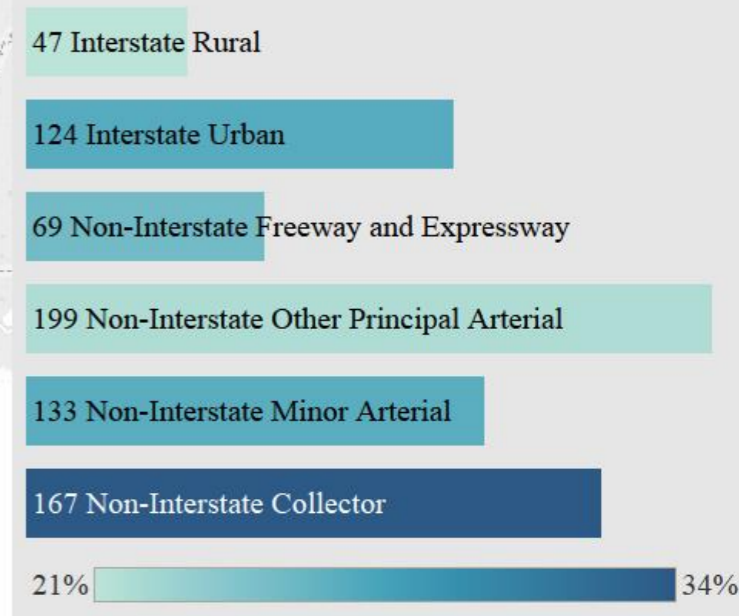
6. Hour of Day Filter (All)



State Breakdown of Traffic Fatalities by Speeding Involvement, 2016



Speeding-Related Fatalities Per Roadway Type in Texas



Texas Traffic Fatalities in 2016

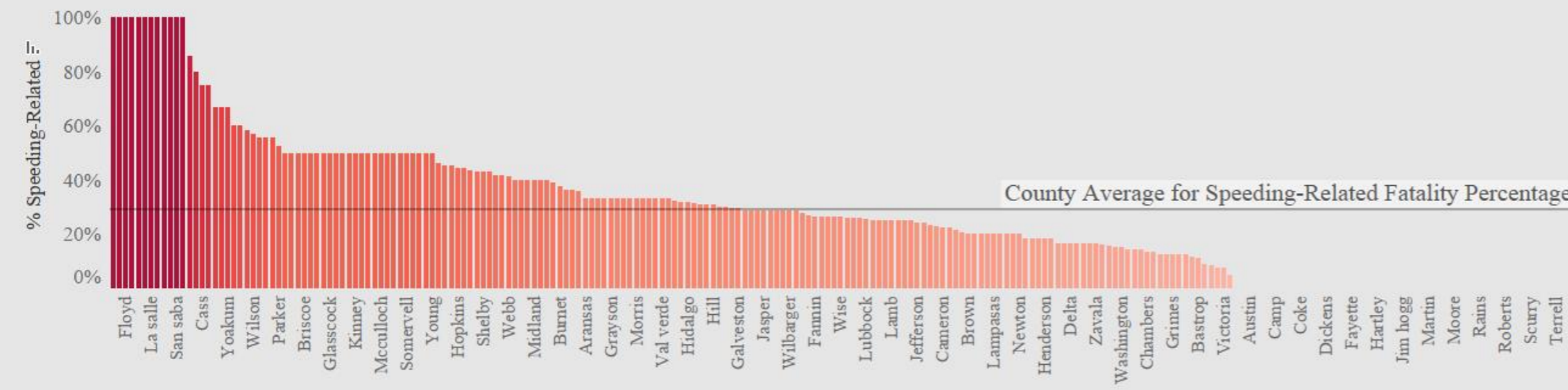
3,776

Texas Speeding-Related Fatalities

1,069

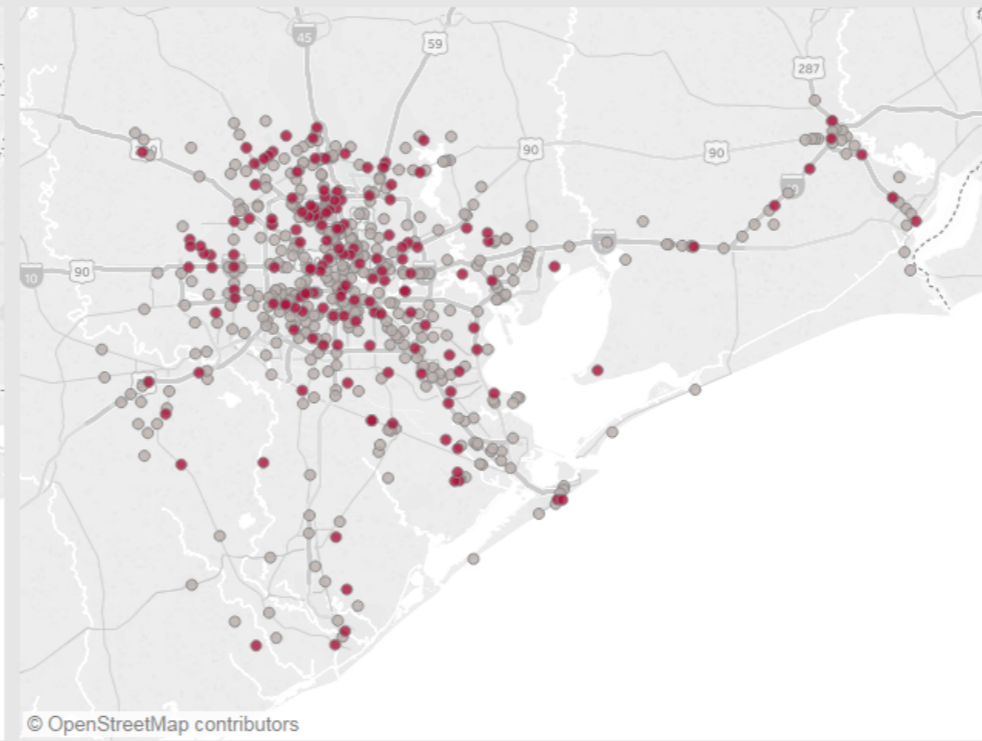
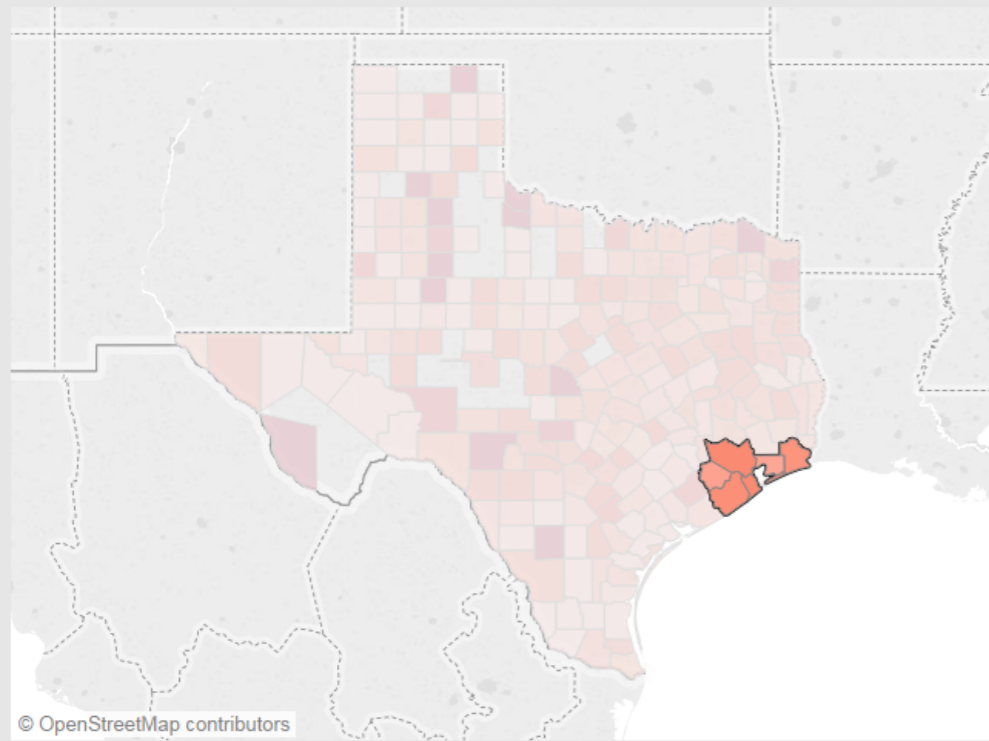
Texas % Speeding Related Fatalities

28%

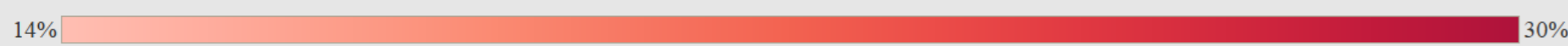
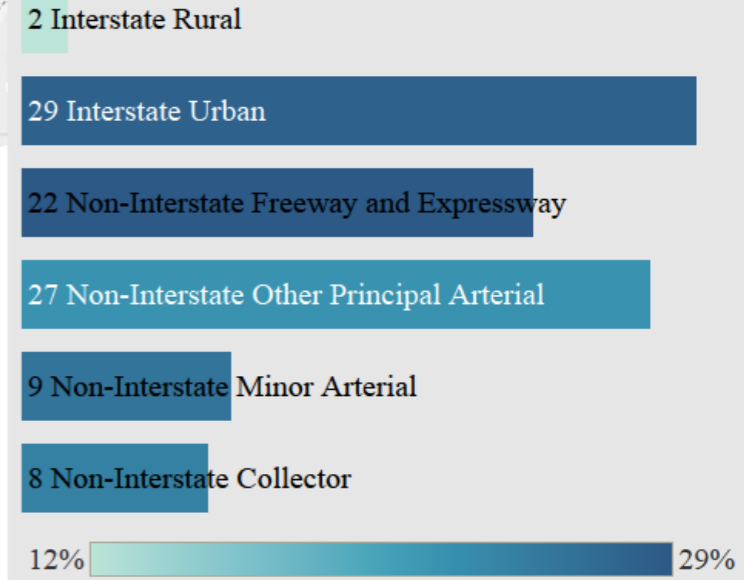


[Back to U.S. Dashboard](#)

State Breakdown of Traffic Fatalities by Speeding Involvement, 2016

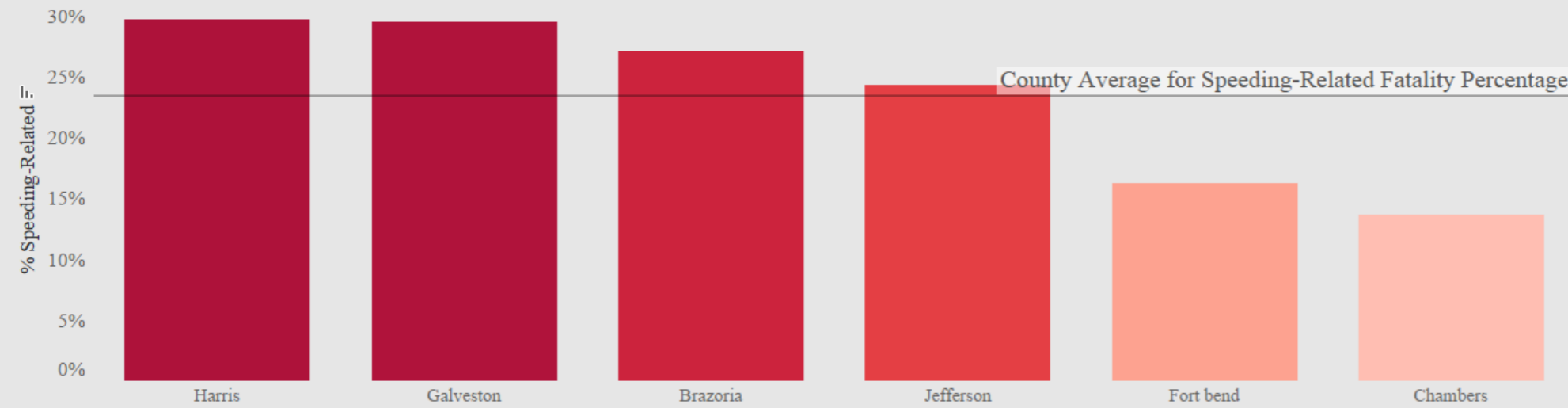


Speeding-Related Fatalities Per Roadway Type in Texas



Texas Traffic Fatalities in 2016

629



Texas Speeding-Related Fatalities

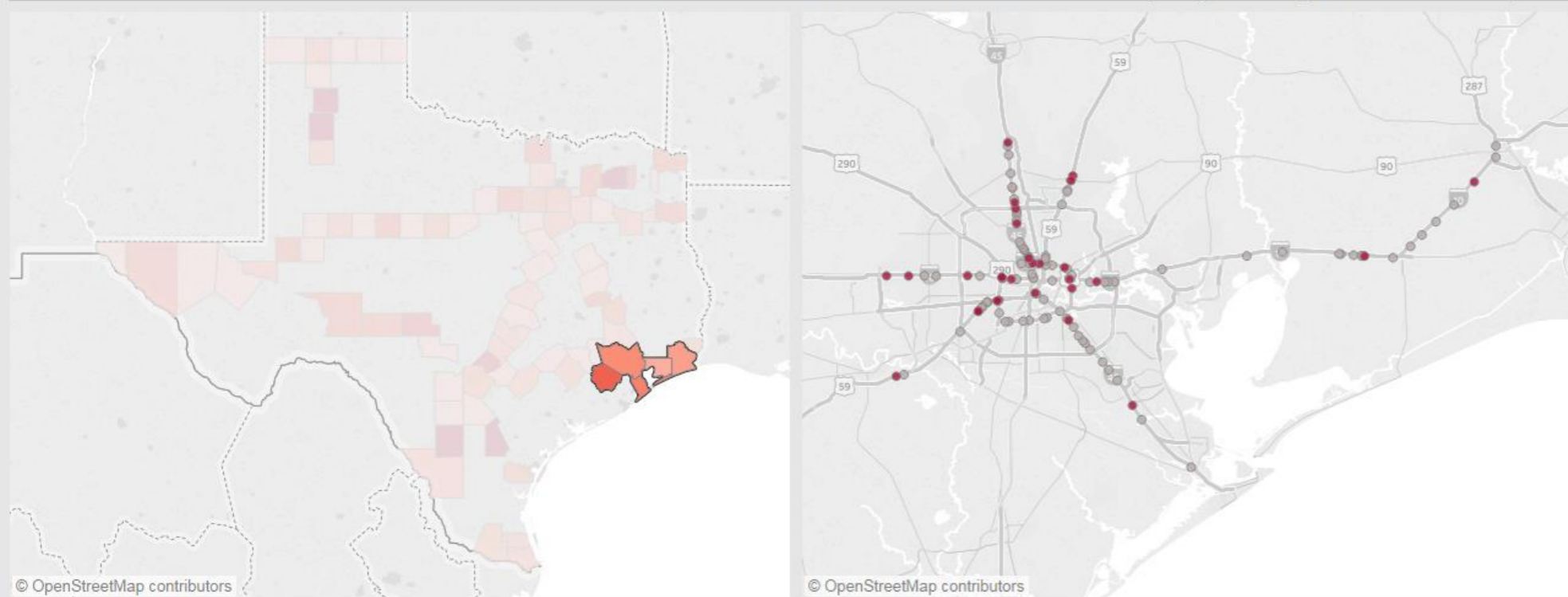
175

Texas % Speeding Related Fatalities

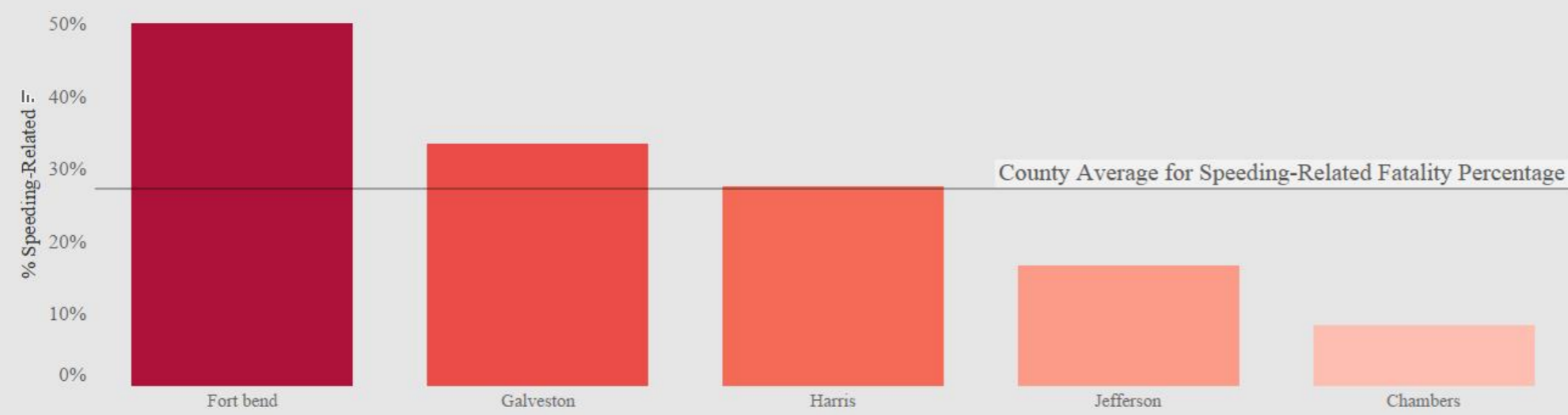
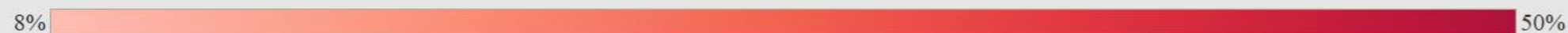
28%

[Back to U.S. Dashboard](#)

State Breakdown of Traffic Fatalities by Speeding Involvement, 2016



Speeding-Related Fatalities Per Roadway Type in Texas



Texas Traffic Fatalities in 2016

121

Texas Speeding-Related Fatalities

31

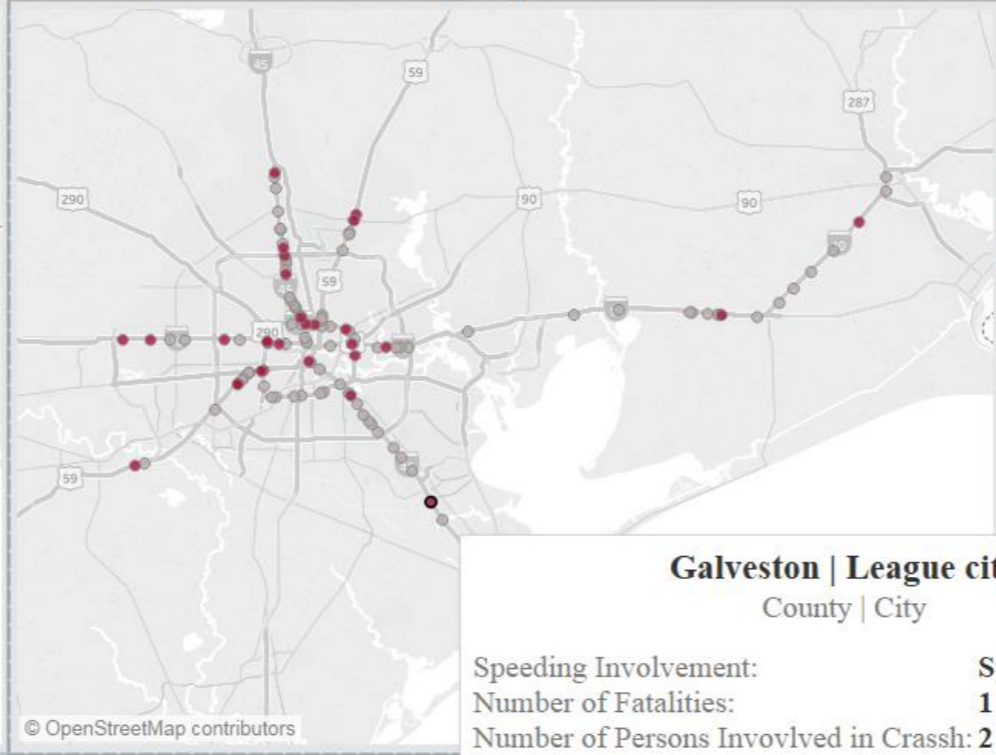
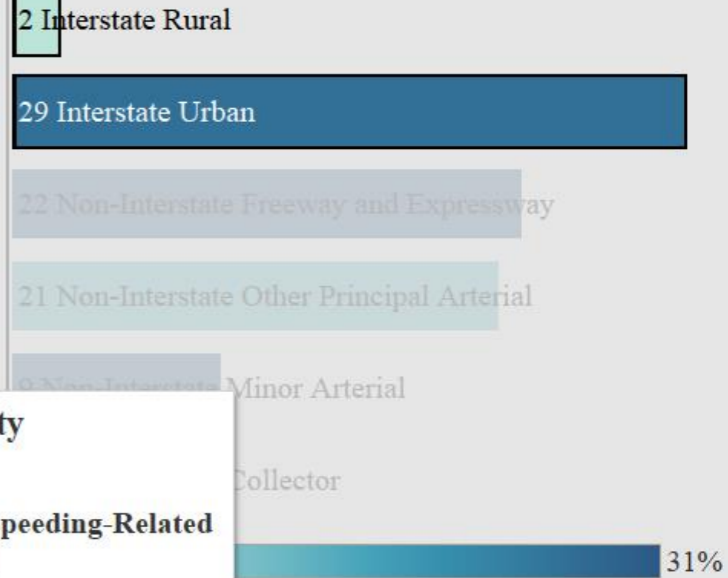
Texas % Speeding Related Fatalities

26%

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State Breakdown of Traffic Fatalities by Speeding Involvement, 2016

Speeding-Related Fatalities Per Roadway Type in Texas



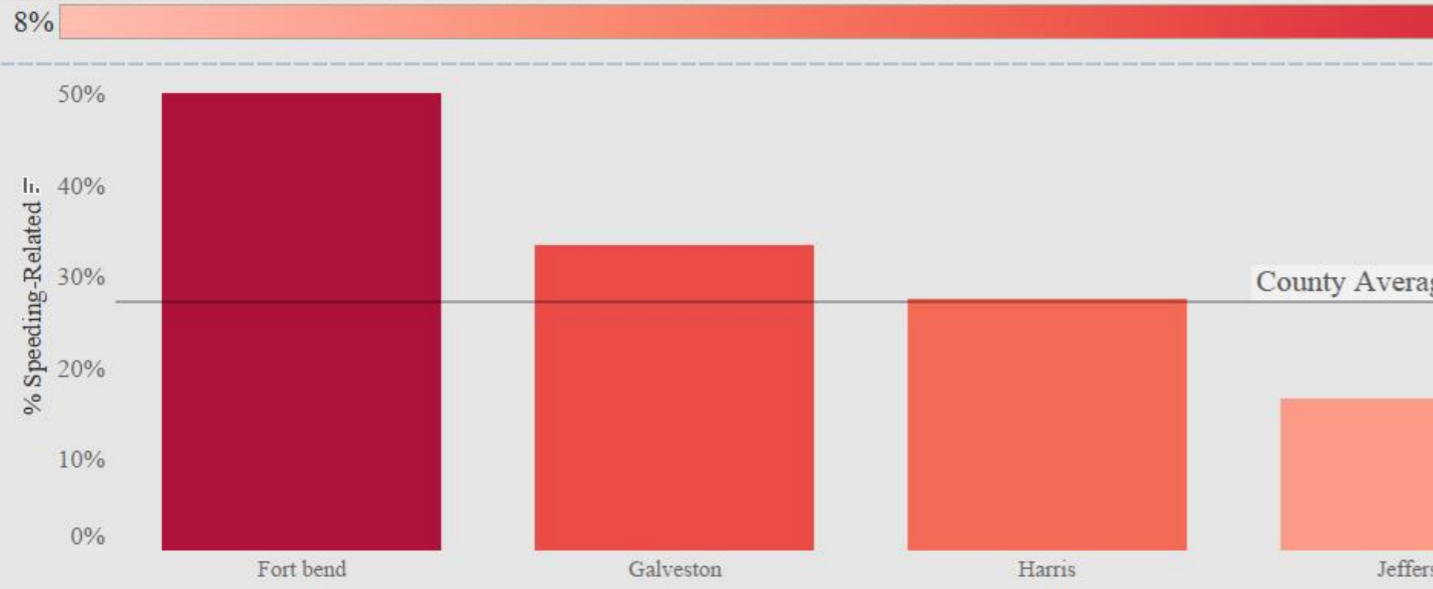
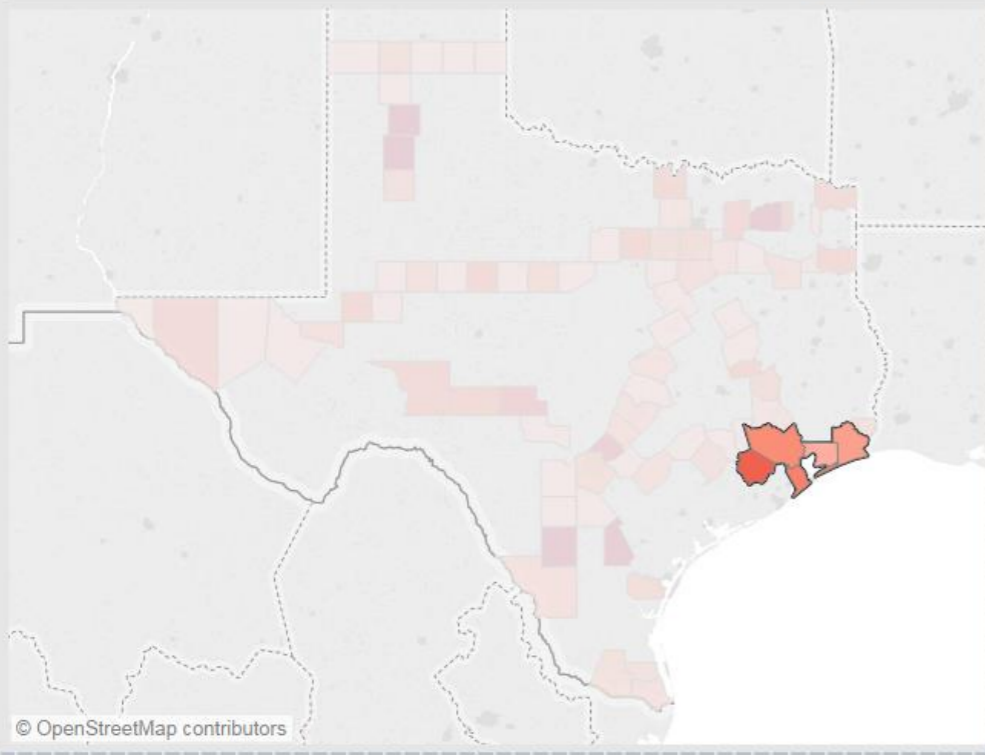
Galveston | League city
County | City

Speeding Involvement:	Speeding-Related
Number of Fatalities:	1
Number of Persons Involved in Crassh:	2
Time:	Sunday 21:58
Date:	1/24/2016
Roadway Functional Class:	Interstate Urban

Texas Traffic Fatalities in 2016

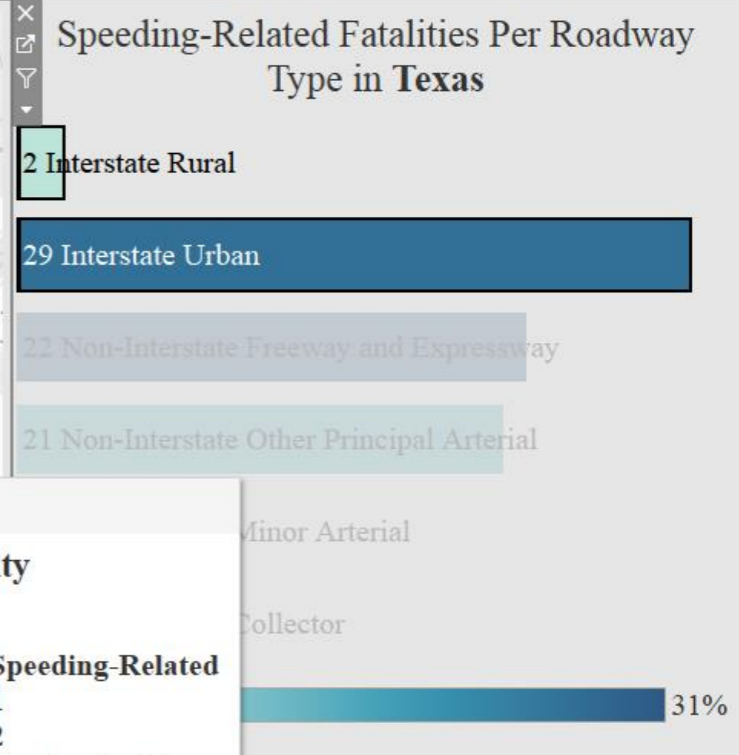
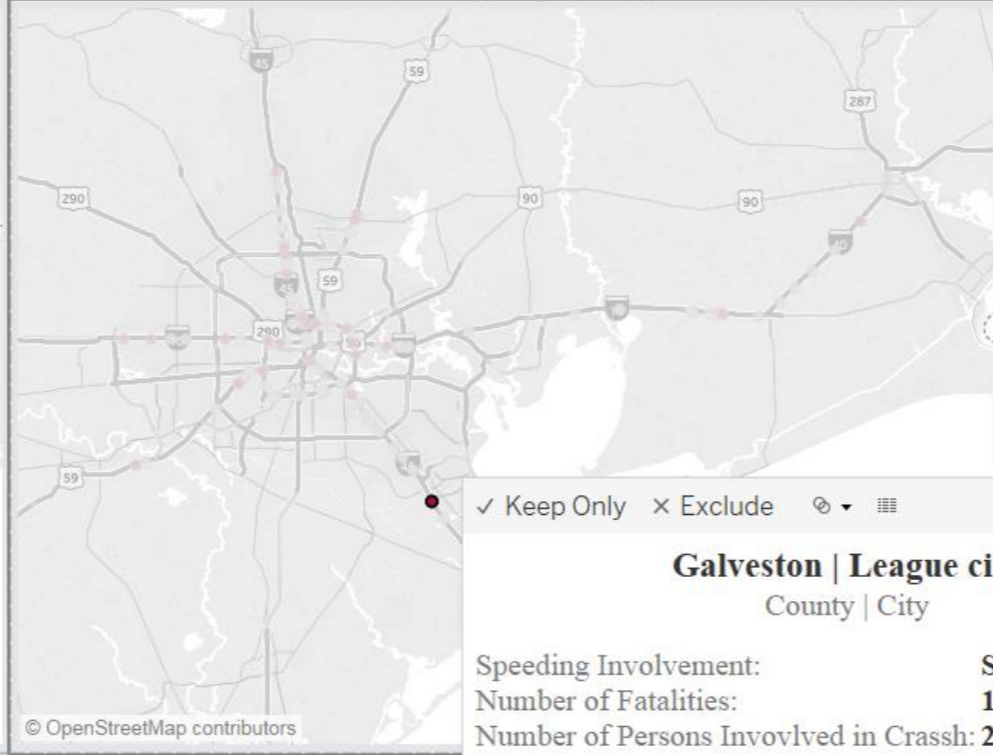
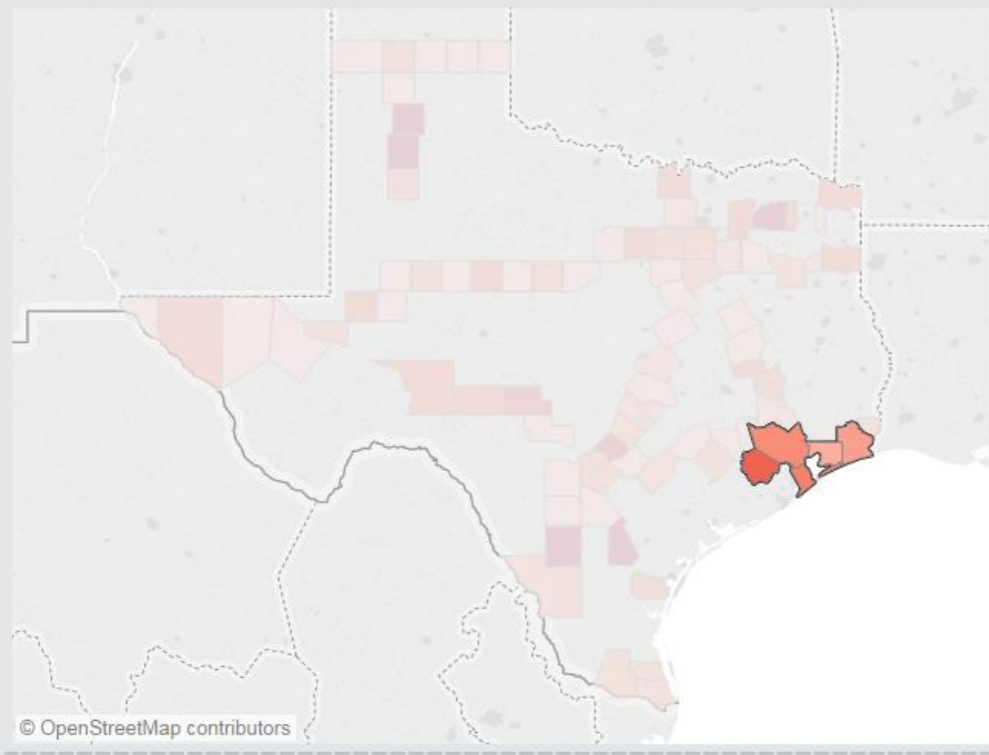
121

Texas Speeding-Related Fatalities	31
Texas % Speeding Related Fatalities	26%



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State Breakdown of Traffic Fatalities by Speeding Involvement, 2016



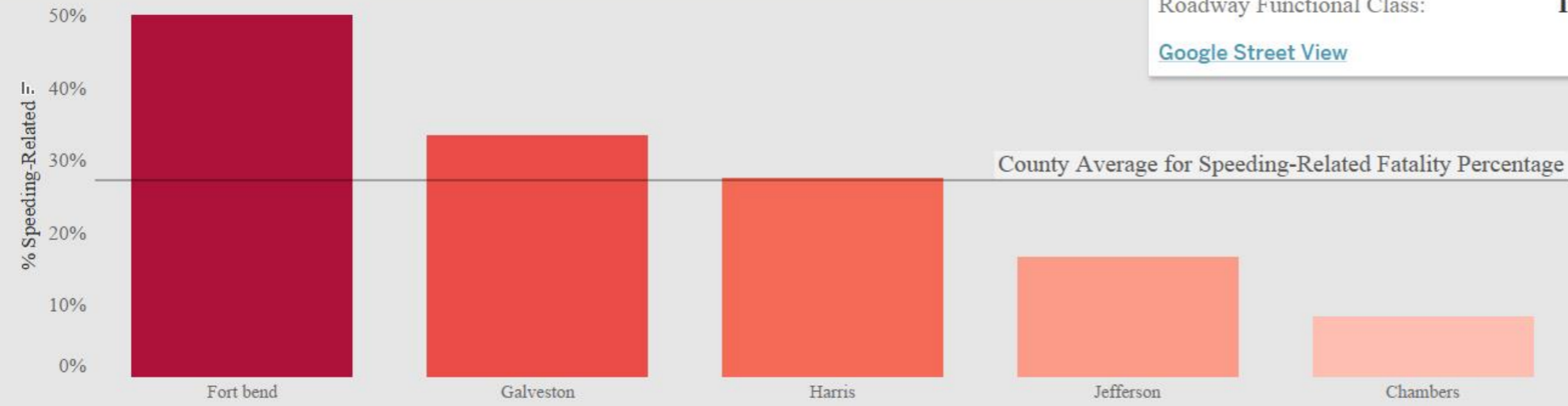
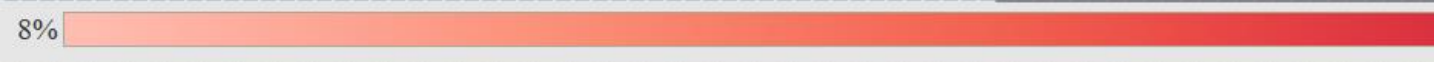
✓ Keep Only × Exclude

Galveston | League city

County | City

Speeding Involvement:	Speeding-Related
Number of Fatalities:	1
Number of Persons Involved in Crash:	2
Time:	Sunday 21:58
Date:	1/24/2016
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THANK YOU
