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of Transportation

**National Highway  
Traffic Safety  
Administration**



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May 2020

# **Geospatial Summary of Crash Fatalities**

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## 1. Executive Summary

Rural areas account for 71 percent of the Nation’s public road miles and see nearly half of crash fatalities. With vast road miles to consider, this report quantifies the extent of fatalities in the first 15 miles outside of urban areas (UAs).

- Fifty-nine percent of rural crash fatalities occur within 5 miles of UAs; this density tapers as distance from UAs increases. This distribution varies across States.
- Half of crash fatalities occur in UAs (50%).
- Almost 80 percent of fatalities occur in UAs and the 5 surrounding miles (79%).

While total crash fatalities increased 11 percent from 2010 to 2018, fatalities within UAs increased 20 percent (14,988 in 2010, 17,975 in 2018). The percentage of crash fatalities within UAs also increased 4 percentage points, 46 percent to 50 percent.

Some crash factors show up more prominently in certain locations. Fatalities in crashes involving rollovers and large trucks report lower percentages in UAs but higher than National percentages in the 10- to 15-mile buffers in rural areas. Fatalities in crashes involving motorcycles, pedalcyclists, and pedestrians report higher percentages in UAs.

## 2. Background and Introduction

NHTSA’s Fatality Analysis Reporting System (FARS) started collecting latitude and longitude data in 2001. NHTSA annually releases traffic safety fact sheets on the Rural/Urban Comparison (<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812741>). The most recent 5-year average shows approximately a 50-50 split in rural and urban motor vehicle (MV) traffic fatalities, specifically 48 and 51, respectively, seen in Table 1.

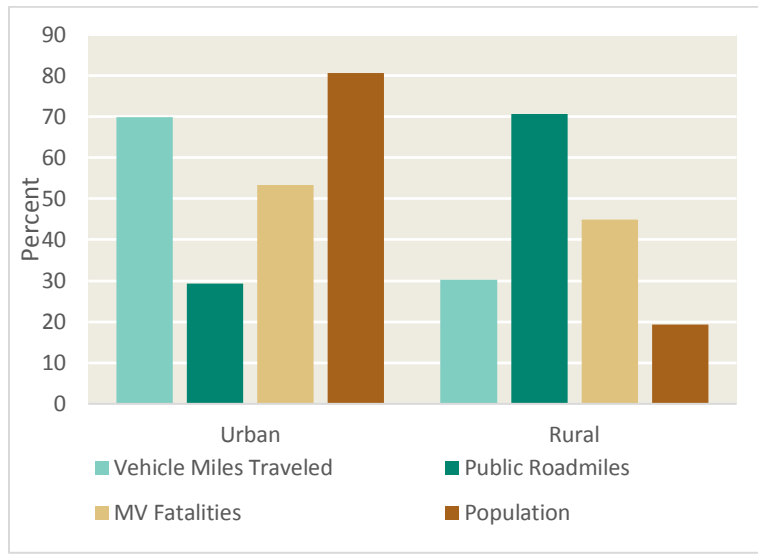
*Table 1. Crash Fatalities by Location\* in FARS and Year, 2014-2018*

<b>YEAR</b>	<b>RURAL (%)</b>	<b>URBAN (%)</b>
<b>2018</b>	44.9	53.3
<b>2017</b>	46.4	53.3
<b>2016</b>	48.5	51.2
<b>2015</b>	49.9	49.5
<b>2014</b>	51.3	48.6

Source: FARS 2014-2017, FARS 2018 Annual Report File

\*Unknowns not shown, totals do not sum to 100 percent.

Figure 1. People and Roads by Location, 2018



Sources: FARS 2018 ARF; 2010 Census; FHWA OHPI, Highway Statistics

Rural areas see nearly half of crash fatalities and account for 71 percent of the Nation’s public road miles, shown in Figure 1. With vast road miles to consider, this report quantifies the extent of fatalities in the first 15 miles outside of UAs. This report is an update to a 2009 NHTSA report, *Geospatial Analysis of Rural Motor Vehicle Traffic Fatalities* (Subramanian, 2009).

National and overall State summaries are presented in the following sections. Fatality percentages are reported in 2.5-mile increments out to 15 miles outside of UAs. Crash factor-related subcategories of interest are presented as a national summary. State by State tables can be found in the Appendix.

### 3. Data and Methods

Table 2. Percentage of Fatal Crashes With Valid Latitude and Longitude Information by Year, 2010-2018

FARS Year	Useable Lat/Long Data (%)
2010	98.8
2011	98.6
2012	98.9
2013	98.8
2014	99.5
2015	99.6
2016	99.6
2017	99.5
2018	99.2

Source: FARS 2010-2017, FARS 2018 Annual Report File

FARS is a nationwide census of fatal crashes on public roadways in which the fatality occurred within 30 days of the crash. This report uses FARS 2010-2017 and the 2018 FARS Annual Report File (ARF). The analysis uses the latitude-longitude data as reported in FARS; less than 1 percent of the data reported is not usable in geospatial analysis and was omitted. Examples of unusable latitude and longitude are those falling outside of the United States, not reported, not available, or reported as “unknown.” Table 2 shows the percentage of crashes with usable latitude and longitude data for the study years.

Every 10 years the Census Bureau delineates UAs and makes them available via TIGER/Line shapefiles.

“The Census Bureau's urban areas represent densely developed territory, and encompass residential, commercial, and other non-residential urban land uses. For the 2010 Census, an urban area will comprise a densely settled core of census tracts and/or census blocks that meet minimum population density requirements, along with adjacent territory containing non-residential urban land uses as well as territory with low population density included to link outlying densely settled territory with the densely settled core. To qualify as an urban area, the territory identified according to criteria must encompass at least 2,500 people, at least 1,500 of whom reside outside institutional group quarters.

The Census Bureau identifies two types of urban areas:

- Urbanized Areas of 50,000 or more people;
- Urban clusters (UCs) of at least 2,500 and less than 50,000 people.”  
(Census, 2012)

This report uses the term urban areas to include both urbanized areas and urban clusters.

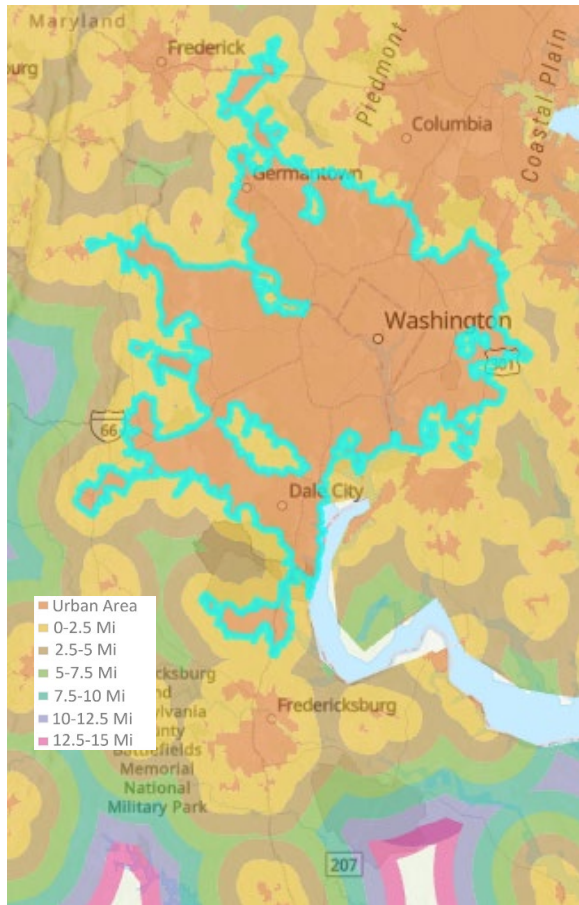
NHTSA used Esri ArcGIS Pro software to generate buffers around Census-defined UAs in 2.5 mile increments, out to 15 miles. As an example, the various UAs surrounding the Washington, DC – VA – MD Urbanized Area (highlighted), and their buffers and their relationships are seen below in Figure 2. Using the FARS latitude-longitude data each crash was assigned a value indicating its proximity to an urban area as follows.

- Urban Area
- 0-2.5 Miles Outside UA
- 2.5-5 Miles Outside UA
- 5-7.5 Miles Outside UA
- 7.5-10 Miles Outside UA
- 10-12.5 Miles Outside UA
- 12.5-15 Miles Outside UA
- 15+ Miles Outside UA

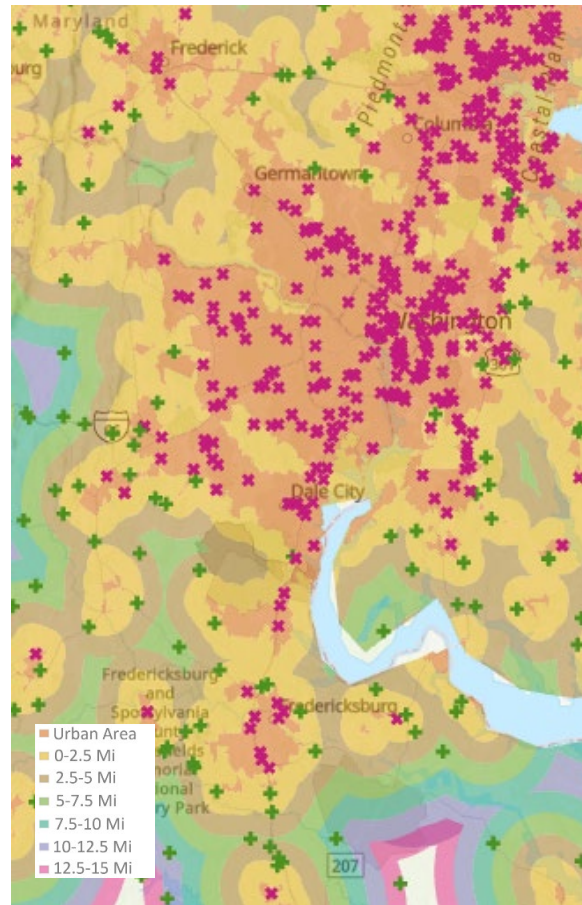


Figure 3 illustrates this for the Washington, DC, area with the binary Rural / Urban classification of a crash indicated by color.

*Figure 2. Washington, DC – VA – MD Urbanized Area and Surrounding Urban Areas With Incremental 2.5-Mile Buffers*



*Figure 3. Fatal Crash Locations (Rural/Urban) With Urban Areas and Incremental 2.5 Mile Buffers near Washington, DC, 2018*



Source: Census TIGER/Line Urban Area 2010, FARS 2018 ARF

Fatality percentage summaries will be reported for these spatial categories throughout the remainder of this report.

All 50 States are included in both FARS and TIGER. Washington, DC, is an entirely urban area, so all its fatalities occur in an urban area.

The results section summarizes these sub-categories of interest.

- Rollover-involved fatalities
- Large-truck-involved fatalities
- Single-passenger vehicle (PV) crash fatalities
- Fatalities on U.S. and State highways

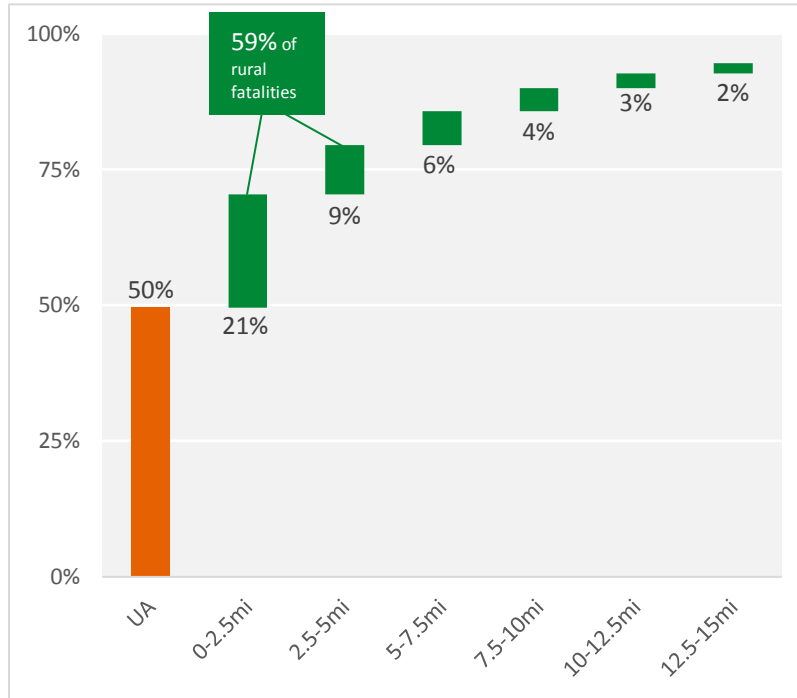
- Unrestrained fatalities
- Distraction-involved fatalities
- Speeding-related fatalities
- Weekend fatalities
- Fatalities on interstates
- Alcohol-impaired-driving fatalities
- Nighttime fatalities
- Crash fatalities involving motorcycles, pedalcyclists and pedestrians

State by State tables are available in the Appendix.

## 4. Results

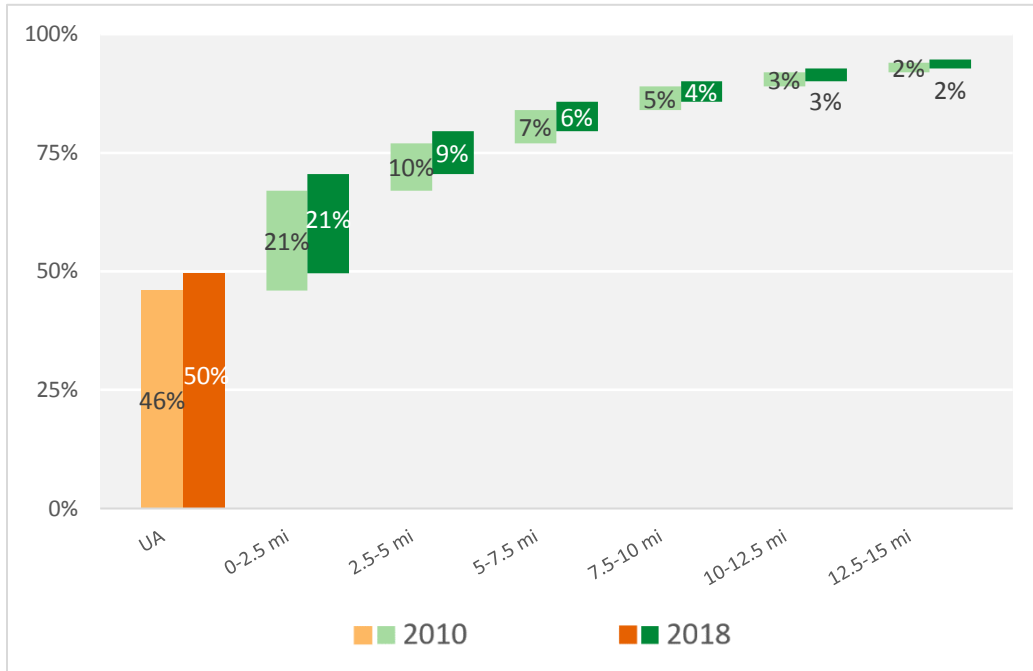
Fifty-nine percent of rural crash fatalities occur within 5 miles of UAs; this density tapers as distance from UAs increases, shown in Figure 4. Half of crash fatalities occur in UAs (50%). Forty-one percent of rural fatalities occur within 2.5 miles of UAs. Almost 80 percent of fatalities occur in UAs and the 5 surrounding miles (79%).

*Figure 4. Crash Fatalities by Incremental 2.5-Mile Buffers, 2018*



Source: FARS 2018 ARF, Census TIGER/Line Urban Area 2010

Figure 5. Crash Fatalities by Incremental 2.5-Mile Buffers, 2010 and 2018



Sources: 2010 FARS, 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

### Change Over Time: 2010-2018

While total crash fatalities increased 11 percent from 2010 to 2018, fatalities within UAs increased 20 percent (14,988 in 2010, 17,975 in 2018). The percentage of crash fatalities within UAs also increased 4 percentage points, 46 percent to 50 percent, seen in Figure 5. Across all years, 21 percent of fatalities occurred in the 2.5 miles outside of UAs, seen in Table 3. Excluding the increase in fatalities in UAs the overall spatial distribution of crashes has remained similar over the time considered.

Table 3. Percentages of Crash Fatalities Across Incremental 2.5-Mile Buffers by Year, 2010-2018

	2010		2011		2012		2013		2014		2015		2016		2017		2018	
	%	Cum%	%	Cum%	%	Cum%	%	Cum%	%	Cum%	%	Cum%	%	Cum%	%	Cum%	%	Cum%
Urban Areas	46	46	47	47	47	47	48	48	48	48	48	48	49	49	50	50	50	50
0-2.5 Mi	21	67	21	68	21	68	20	69	21	69	21	69	21	70	21	71	21	70
2.5-5 Mi	10	77	10	78	10	78	9	78	9	78	10	79	9	79	9	80	9	79
5-7.5 Mi	7	84	7	84	7	85	7	85	7	85	6	85	6	86	6	86	6	86
7.5-10 Mi	5	89	5	89	5	89	5	89	5	89	5	90	4	90	4	90	4	90
10-12.5 Mi	3	92	3	92	3	92	3	92	3	92	3	93	3	93	3	93	3	93
12.5-15 Mi	2	94	2	94	2	95	2	94	2	94	2	95	2	95	2	95	2	95
15+ Mi	6	100	6	100	5	100	6	100	6	100	5	100	5	100	5	100	5	100

Sources: 2010-2017 FARS, 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

## **Variation Across States, 2018**

Fifty-nine percent of rural fatalities nationwide occur within the first 5 miles outside UAs. This varies across the States, as can be seen in Figure 6. The first column lists each State with a color to the left. In the second column, in the same color is the percentage of rural fatalities occurring within 5 miles of UAs. The national value of 59.3 percent is shown as a dashed line. The third column represents the number of fatalities within 5 miles of UAs. The map in the far right column highlights each State and fills in cumulatively from the top.

With low percentages of rural fatalities occurring in the first 5 miles outside UA States like Wyoming (16%, 16 fatalities), North Dakota (20%, 19 fatalities), and Montana (24%, 36 fatalities) are seen at the top. Texas is highlighted with the median value of 56 percent and the highest count of 1,051 fatalities. Higher percentages of rural fatalities occurring in the first 5 miles outside UAs are seen in States like New Jersey (97%, 106 fatalities) and Delaware (95%, 40 fatalities) at the bottom. Washington, D.C. is at the very bottom, undefined as all their fatalities occur in UAs.

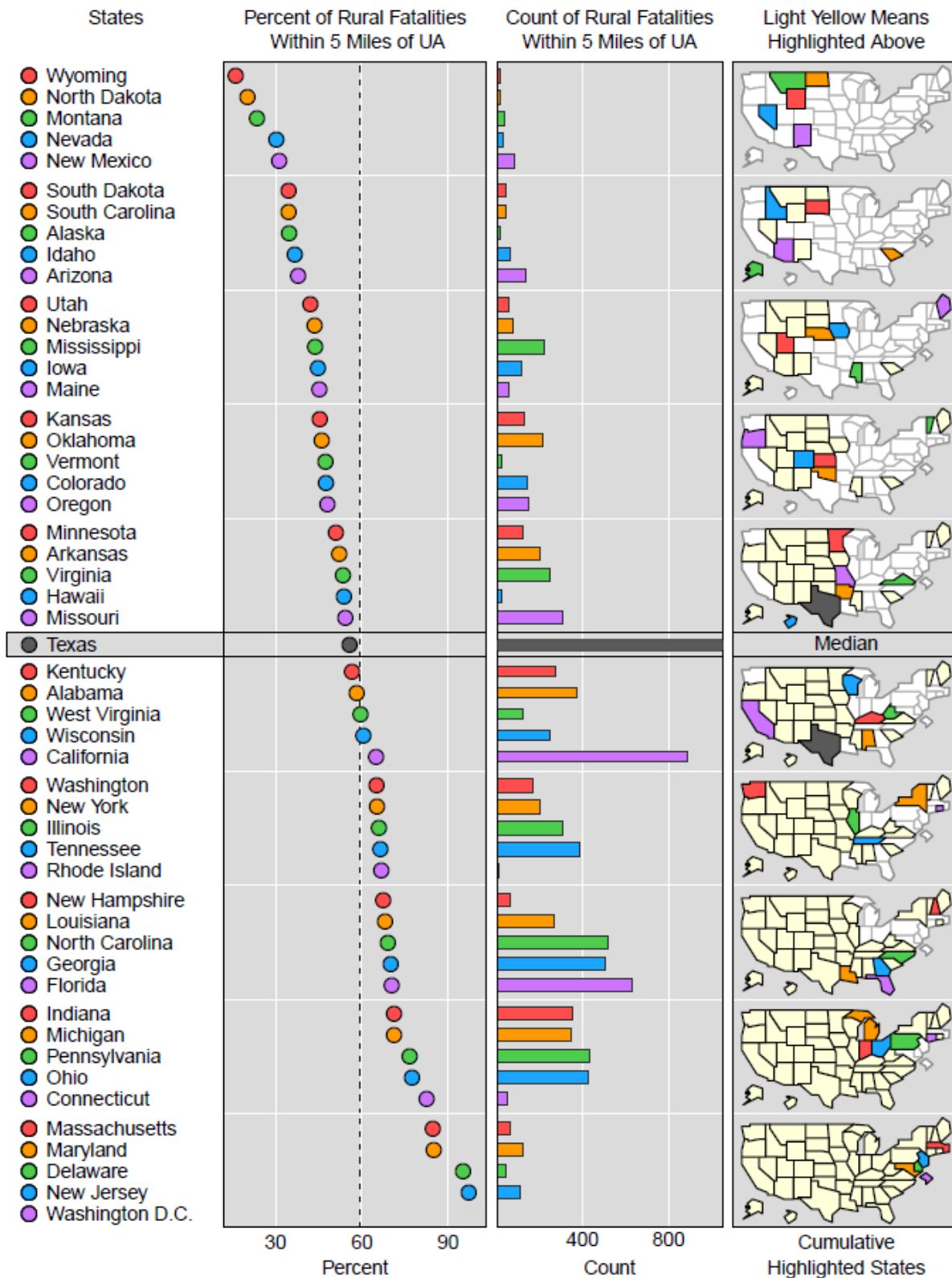
A detailed State summary can be found in Table A1 in the appendix.

## **Subcategories of Interest, 2018**

Various crash attributes related to the people (occupants, non-occupants, drivers), vehicles (large trucks, passenger vehicles, motorcycles) and roadways (interstates, U.S./State highways) involved are more prominent in certain areas. The spatial distribution of crash fatalities within the first 15 miles of UAs associated with a variety of subcategories is shown in Figure 7. The subcategories are ordered by ascending percentages of fatalities within UAs, with the total crash fatality distribution near the center. Fatalities in crashes involving rollovers and large trucks report lower percentages in UAs but higher percentages in the 10- to 15-mile buffers. Fatalities in crashes involving motorcycles, pedalcyclists, and pedestrians report high percentages in UAs.

These attributes also vary widely across the Nation. A detailed State summary on each of the attributes in Figure 7 can be found in the appendix.

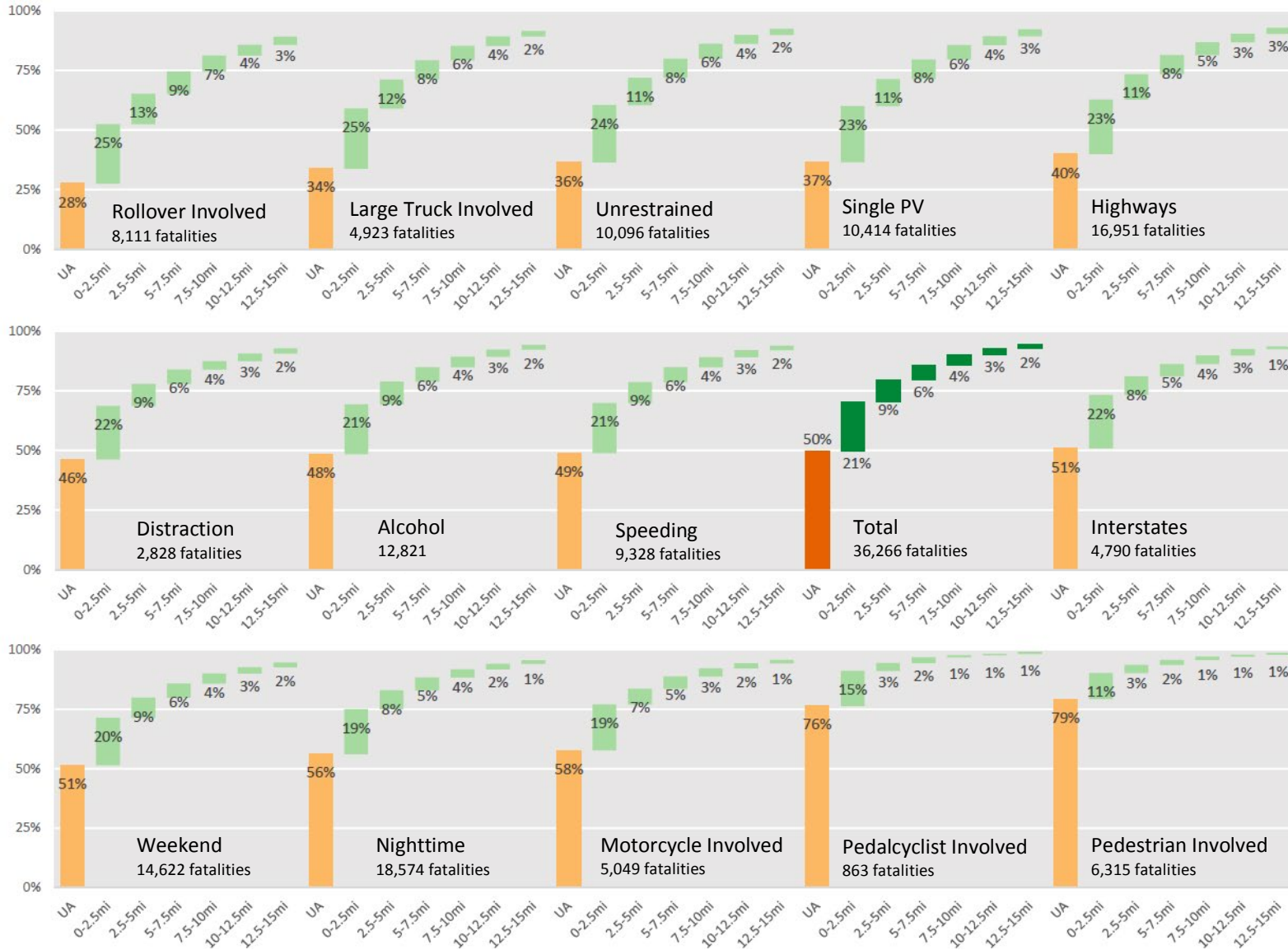
Figure 6. Rural Crash Fatalities Within 5 Miles of Urban Areas, 2018



Note: National value of 59.3% is shown above as a dashed line.

Source: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

Figure 7. Spatial Distribution of Crash Fatalities With Known Locations, by Areas of Interest, 2018



Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

## 5. Discussion and Limitations

All latitudes and longitudes are projected as reported in FARS. This report uses the Census 2010 UAs and all location coding is made on a national level. FARS code urbanicity is based on Federal Highway Administration definitions. These definitions vary slightly and latitude/longitude reporting varies across States (see Table A16), as such counts and percentages of rural and urban crashes in this report may differ slightly from those reported in FARS.

While UAs account for 3.1 percent of the total land area, without a complete national roadway network, NHTSA has no way to quantify the roadway or lane miles in each of the various buffers. So, while we report 59 percent of rural fatalities occur within the 5 miles adjacent to UAs we are unable to quantify the road mileage within these areas.

Census UAs are only updated every 10 years. The urban population saw growth from 2000 to 2010 as 9.7 percent U.S. total population growth (Census, 2012), as has been the trend for the last century. This suggests the further we get from the Census data year, the less accurate is that year's representation. Consider 2010: The 2010 UAs are accurate for 2010 FARS, but by 2018 the 2010 UAs may be less representative of the 2018 population.

It should be noted that due to the density and size of some States, they were fully enveloped by various buffers (Delaware – 10-mile buffer; New Jersey – 12.5-mile buffer; Rhode Island – 15-mile buffer; Massachusetts - 15-mile buffer). Please see Figures 2 and 3 for how these buffers relate.



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## Appendix

Table A-1. Percentages of Crash Fatalities by Buffers Around Urban Areas by State, 2018

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	33	58	72	81	88	91	95
Alaska	39	54	60	61	63	64	64
Arizona	60	72	75	80	83	86	88
Arkansas	26	53	65	75	85	89	92
California	62	80	87	90	93	94	95
Colorado	52	69	75	80	82	85	88
Connecticut	79	95	96	97	98	100	100
Delaware	62	93	98	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	71	87	92	95	97	98	99
Georgia	52	75	86	92	95	98	99
Hawaii	67	81	85	89	90	91	91
Idaho	24	43	52	56	63	68	73
Illinois	55	74	85	92	97	99	100
Indiana	42	69	83	92	97	99	99
Iowa	19	37	55	69	79	87	92
Kansas	30	52	62	71	80	85	90
Kentucky	33	58	71	80	89	94	98
Louisiana	49	73	84	90	92	95	97
Maine	9	35	50	64	73	78	80
Maryland	72	89	96	98	100	100	100
Massachusetts	78	94	97	98	100	100	100
Michigan	50	74	86	91	93	96	97
Minnesota	37	57	69	78	85	88	90
Mississippi	25	47	58	70	81	87	92
Missouri	39	60	72	81	87	93	95
Montana	16	31	36	43	50	54	58
Nebraska	25	47	58	67	73	81	86
Nevada	70	77	79	82	84	87	87
New Hampshire	39	73	80	85	91	93	96
New Jersey	81	98	99	100	100	100	N/A
New Mexico	35	50	55	60	64	67	71
New York	65	82	88	92	97	98	99
North Carolina	46	70	83	91	96	98	99
North Dakota	10	20	29	33	38	48	51
Ohio	48	75	88	94	98	100	100
Oklahoma	30	53	62	74	82	88	93
Oregon	37	59	67	71	76	81	85
Pennsylvania	52	79	89	95	98	99	100
Rhode Island	79	88	93	100	100	100	100
South Carolina	41	66	78	87	92	95	96
South Dakota	8	22	40	45	48	53	63
Tennessee	45	70	81	88	95	97	99
Texas	48	69	77	84	88	91	94
Utah	49	63	70	74	77	80	84
Vermont	19	50	57	69	78	84	94
Virginia	43	63	74	83	89	92	96
Washington	53	76	84	87	90	92	94
West Virginia	29	61	71	80	86	90	93
Wisconsin	30	59	72	82	88	91	93
Wyoming	11	19	25	31	33	37	39
<b>U.S.</b>	<b>50</b>	<b>70</b>	<b>79</b>	<b>86</b>	<b>90</b>	<b>93</b>	<b>95</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

*Table A-2. Percentages of Fatalities in Crashes Involving Rollover by Buffers Around Urban Areas by State, 2018*

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	21	49	63	76	85	91	93
Alaska	25	46	63	63	67	67	67
Arizona	30	47	53	61	68	77	79
Arkansas	15	41	50	62	75	79	87
California	35	61	72	79	83	86	88
Colorado	28	50	56	64	68	71	78
Connecticut	77	92	97	97	97	100	100
Delaware	58	92	100	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	49	73	81	88	90	95	96
Georgia	32	61	77	86	92	96	98
Hawaii	56	56	56	56	67	67	67
Idaho	9	24	36	39	46	54	62
Illinois	23	51	73	85	94	97	99
Indiana	21	51	77	91	98	99	99
Iowa	10	23	45	59	73	85	90
Kansas	15	31	43	55	72	76	81
Kentucky	17	40	59	77	90	95	98
Louisiana	37	67	79	87	90	96	98
Maine	0	26	44	60	70	77	79
Maryland	56	85	95	95	97	97	97
Massachusetts	57	91	92	94	98	100	100
Michigan	32	63	78	84	89	93	95
Minnesota	23	43	60	67	77	78	80
Mississippi	18	42	58	68	81	88	94
Missouri	20	43	56	69	78	88	90
Montana	6	16	20	26	35	39	43
Nebraska	3	35	45	52	53	65	72
Nevada	35	45	49	56	59	61	61
New Hampshire	48	63	74	78	89	93	100
New Jersey	59	96	99	100	100	100	N/A
New Mexico	14	31	37	44	46	50	57
New York	41	69	77	88	91	92	95
North Carolina	26	55	72	88	95	98	99
North Dakota	6	10	23	29	35	48	52
Ohio	28	65	80	89	98	100	100
Oklahoma	14	40	53	65	76	84	91
Oregon	8	35	45	53	62	68	72
Pennsylvania	31	67	82	92	97	99	100
Rhode Island	89	100	100	100	100	100	100
South Carolina	21	52	67	81	86	93	93
South Dakota	2	13	36	41	44	48	59
Tennessee	29	59	70	79	89	93	97
Texas	28	50	62	71	77	81	87
Utah	22	34	50	56	65	70	77
Vermont	6	65	65	71	76	76	88
Virginia	28	47	62	75	83	89	96
Washington	31	61	70	77	83	88	90
West Virginia	22	49	61	67	74	81	87
Wisconsin	18	44	63	75	83	87	90
Wyoming	5	18	25	31	33	36	40
<b>U.S.</b>	<b>28</b>	<b>52</b>	<b>65</b>	<b>75</b>	<b>81</b>	<b>86</b>	<b>89</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

*Table A-3. Percentages of Fatalities in Crashes Involving Large Trucks by Buffers Around Urban Areas by State, 2018*

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	31	52	72	80	85	93	94
Alaska	10	40	40	50	50	50	50
Arizona	44	56	62	71	79	80	83
Arkansas	14	37	56	73	87	91	95
California	43	64	77	83	87	88	91
Colorado	31	49	64	70	71	76	80
Connecticut	74	97	97	97	97	97	97
Delaware	47	93	100	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	53	78	85	90	93	94	95
Georgia	43	72	84	91	95	98	99
Hawaii	43	57	57	71	71	86	86
Idaho	23	45	53	57	64	68	70
Illinois	41	64	79	87	94	98	99
Indiana	27	62	77	90	97	99	99
Iowa	6	27	44	60	67	78	92
Kansas	17	40	46	57	70	76	87
Kentucky	34	65	76	82	91	96	98
Louisiana	31	65	79	85	88	93	97
Maine	13	31	44	63	69	69	69
Maryland	59	80	94	99	100	100	100
Massachusetts	66	91	94	94	100	100	100
Michigan	39	71	88	91	94	95	98
Minnesota	23	50	59	64	80	86	89
Mississippi	14	41	46	62	76	83	90
Missouri	26	52	71	78	88	95	95
Montana	6	35	41	47	53	53	59
Nebraska	8	20	35	47	61	73	78
Nevada	38	46	50	50	58	67	67
New Hampshire	14	59	68	73	77	82	86
New Jersey	70	97	99	100	100	100	N/A
New Mexico	16	31	37	43	47	53	57
New York	65	81	93	98	99	99	100
North Carolina	38	66	79	86	94	97	99
North Dakota	3	10	23	33	43	53	57
Ohio	35	68	87	92	99	100	100
Oklahoma	12	44	50	63	75	83	90
Oregon	25	55	65	76	79	82	82
Pennsylvania	46	76	87	94	96	99	99
Rhode Island	100	100	100	100	100	100	100
South Carolina	34	57	73	84	89	93	93
South Dakota	4	11	30	33	33	37	41
Tennessee	41	67	79	88	96	98	99
Texas	27	53	63	73	79	85	89
Utah	30	49	68	70	70	73	73
Vermont	9	36	45	64	91	91	100
Virginia	30	51	64	78	89	94	94
Washington	31	56	79	82	85	90	92
West Virginia	15	44	60	73	85	88	90
Wisconsin	18	52	73	84	89	95	96
Wyoming	3	3	10	17	21	24	24
<b>U.S.</b>	<b>34</b>	<b>59</b>	<b>71</b>	<b>79</b>	<b>85</b>	<b>89</b>	<b>91</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

*Table A-4. Percentages of Unrestrained Crash Fatalities by Buffers Around Urban Areas by State, 2018*

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	25	51	67	77	83	87	91
Alaska	10	48	52	52	52	57	57
Arizona	48	65	70	75	79	86	86
Arkansas	19	40	56	68	83	87	90
California	46	71	80	85	89	90	92
Colorado	39	59	66	73	76	79	83
Connecticut	69	93	94	94	96	99	99
Delaware	45	91	100	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	58	79	86	91	93	97	98
Georgia	38	64	78	86	92	96	98
Hawaii	75	81	81	81	88	94	94
Idaho	16	39	47	53	60	66	73
Illinois	39	65	77	89	95	97	100
Indiana	33	64	79	89	98	100	100
Iowa	17	34	52	66	78	85	91
Kansas	23	47	60	67	83	88	92
Kentucky	27	54	66	76	88	93	99
Louisiana	33	65	77	85	89	95	96
Maine	4	26	38	56	66	70	70
Maryland	70	87	95	95	98	98	98
Massachusetts	70	95	97	99	99	100	100
Michigan	35	61	80	87	90	94	95
Minnesota	26	49	64	72	84	87	88
Mississippi	17	38	50	65	80	86	92
Missouri	32	52	66	77	84	90	92
Montana	7	22	26	31	40	45	49
Nebraska	18	42	52	62	69	81	86
Nevada	55	62	64	74	76	76	76
New Hampshire	36	71	84	86	95	95	97
New Jersey	73	93	99	100	100	100	N/A
New Mexico	13	26	31	38	43	48	53
New York	48	66	74	79	95	97	97
North Carolina	41	66	82	91	95	97	99
North Dakota	3	15	23	31	38	41	46
Ohio	40	72	87	92	99	100	100
Oklahoma	20	40	55	67	80	86	93
Oregon	19	46	59	69	79	83	88
Pennsylvania	43	74	87	93	97	99	99
Rhode Island	69	77	85	100	100	100	100
South Carolina	28	58	73	84	89	94	95
South Dakota	3	11	31	39	39	46	59
Tennessee	34	66	76	85	92	95	97
Texas	39	60	70	78	82	88	91
Utah	45	59	69	73	78	82	86
Vermont	10	47	50	57	70	80	90
Virginia	29	51	66	77	85	90	94
Washington	39	69	76	79	82	86	88
West Virginia	23	56	70	74	83	90	94
Wisconsin	25	52	69	78	84	87	90
Wyoming	16	27	40	44	47	49	53
<b>U.S.</b>	<b>36</b>	<b>60</b>	<b>72</b>	<b>80</b>	<b>86</b>	<b>90</b>	<b>92</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

*Table A-5. Percentages of Single- Passenger Vehicle-Involved Crash Fatalities by Buffers Around Urban Areas by State, 2018*

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	25	52	67	79	85	89	91
Alaska	30	48	65	65	70	70	70
Arizona	43	56	62	66	72	77	78
Arkansas	19	45	56	66	76	81	88
California	49	71	79	85	88	90	92
Colorado	35	56	60	68	72	75	80
Connecticut	76	91	93	93	93	100	100
Delaware	42	89	100	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	57	76	84	91	94	97	98
Georgia	38	60	77	85	91	95	97
Hawaii	64	73	73	77	82	82	82
Idaho	17	30	38	45	53	62	67
Illinois	41	67	80	89	94	97	100
Indiana	37	64	78	89	98	99	99
Iowa	26	39	51	64	78	85	90
Kansas	23	42	52	63	76	82	87
Kentucky	19	43	61	73	88	94	98
Louisiana	35	63	74	83	87	93	97
Maine	6	31	47	65	74	76	77
Maryland	63	86	92	95	98	98	98
Massachusetts	69	93	95	97	99	100	100
Michigan	36	68	82	87	91	95	97
Minnesota	34	54	73	78	83	85	86
Mississippi	20	42	55	66	78	84	92
Missouri	27	49	61	74	82	89	91
Montana	10	20	25	36	44	48	51
Nebraska	25	54	63	68	70	82	86
Nevada	45	58	61	66	69	70	70
New Hampshire	38	75	87	90	96	98	100
New Jersey	71	93	99	100	100	100	N/A
New Mexico	11	29	34	41	45	49	58
New York	42	64	73	82	93	96	98
North Carolina	38	65	80	90	94	97	99
North Dakota	7	17	30	33	37	47	50
Ohio	44	73	86	93	98	100	100
Oklahoma	18	40	55	69	78	85	92
Oregon	15	41	53	60	69	75	78
Pennsylvania	40	72	87	94	98	100	100
Rhode Island	88	94	100	100	100	100	100
South Carolina	27	54	68	80	86	93	95
South Dakota	6	17	30	35	37	43	61
Tennessee	29	63	75	84	91	94	97
Texas	40	60	70	78	84	88	92
Utah	33	43	51	57	64	74	80
Vermont	8	54	54	65	73	81	92
Virginia	27	49	64	75	83	88	95
Washington	42	66	71	77	81	85	88
West Virginia	24	56	66	72	82	89	93
Wisconsin	28	52	68	80	85	87	90
Wyoming	10	27	32	34	37	37	41
<b>U.S.</b>	<b>37</b>	<b>60</b>	<b>71</b>	<b>79</b>	<b>86</b>	<b>89</b>	<b>92</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

*Table A-6. Percentages of Crash Fatalities on U.S./State Highways by Buffers Around Urban Areas by State, 2018*

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	25	49	67	76	84	88	94
Alaska	24	38	46	46	49	51	51
Arizona	32	45	50	58	64	71	76
Arkansas	21	45	58	68	80	86	90
California	39	62	74	81	85	88	90
Colorado	39	59	66	70	73	78	84
Connecticut	72	93	95	96	97	99	99
Delaware	65	97	99	100	100	N/A	N/A
District of Columbia	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Florida	72	86	90	94	96	98	98
Georgia	44	68	80	90	94	97	99
Hawaii	55	72	76	82	84	85	85
Idaho	12	31	41	45	54	60	65
Illinois	49	71	80	89	96	98	100
Indiana	27	61	79	88	95	99	99
Iowa	15	36	54	69	78	84	92
Kansas	10	34	48	57	68	76	85
Kentucky	30	56	69	79	89	94	98
Louisiana	43	68	80	88	91	94	96
Maine	9	30	48	60	71	75	77
Maryland	67	86	95	98	100	100	100
Massachusetts	76	95	97	99	100	100	100
Michigan	46	73	85	91	93	95	97
Minnesota	28	46	57	70	77	79	82
Mississippi	19	41	51	65	76	83	91
Missouri	20	43	60	72	83	91	93
Montana	4	20	27	31	38	43	48
Nebraska	17	40	52	62	66	73	79
Nevada	57	64	66	69	72	76	76
New Hampshire	19	60	73	80	88	90	95
New Jersey	76	97	99	100	100	100	N/A
New Mexico	20	37	40	47	53	56	61
New York	51	76	82	88	97	98	99
North Carolina	35	62	77	88	93	96	98
North Dakota	9	15	18	25	31	38	42
Ohio	34	67	84	91	97	100	100
Oklahoma	15	40	50	65	77	83	91
Oregon	29	49	57	62	66	73	78
Pennsylvania	49	79	88	94	98	99	100
Rhode Island	76	83	90	100	100	100	100
South Carolina	41	65	78	88	92	95	97
South Dakota	4	14	37	42	45	49	59
Tennessee	43	67	81	88	96	98	98
Texas	34	57	67	77	82	86	90
Utah	41	59	66	71	76	79	84
Vermont	13	34	47	66	76	82	92
Virginia	39	62	70	81	88	92	95
Washington	48	68	79	84	87	89	91
West Virginia	29	60	73	82	88	92	94
Wisconsin	26	58	71	83	89	92	93
Wyoming	5	14	20	26	29	30	33
<b>U.S.</b>	<b>40</b>	<b>63</b>	<b>73</b>	<b>81</b>	<b>87</b>	<b>90</b>	<b>93</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

*Table A-7. Percentages of Distracted Driving Involved Fatalities by Buffers Around Urban Areas by State, 2018*

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	35	57	70	81	89	89	93
Alaska	20	60	60	80	80	80	80
Arizona	70	83	83	83	88	90	90
Arkansas	38	63	69	88	88	94	94
California	65	77	84	89	92	94	95
Colorado	16	47	55	64	67	71	82
Connecticut	100	100	100	100	100	100	100
Delaware	40	100	100	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	62	83	90	94	96	97	98
Georgia	43	80	94	97	97	98	100
Hawaii	73	73	77	77	77	81	81
Idaho	35	43	61	65	74	83	87
Illinois	45	63	82	89	89	100	100
Indiana	35	65	81	96	100	100	100
Iowa	14	52	67	71	71	90	90
Kansas	18	38	51	62	70	77	82
Kentucky	36	62	71	80	86	92	98
Louisiana	51	75	84	91	95	97	98
Maine	0	17	50	67	67	100	100
Maryland	73	85	93	100	100	100	100
Massachusetts	86	97	97	100	100	100	100
Michigan	42	73	94	96	97	97	99
Minnesota	34	50	59	66	78	78	84
Mississippi	33	44	56	89	89	100	100
Missouri	32	51	65	76	85	92	94
Montana	29	71	71	71	71	71	71
Nebraska	25	50	67	83	83	83	83
Nevada	67	67	67	67	67	67	67
New Hampshire	50	63	75	88	88	88	88
New Jersey	73	97	100	100	100	100	N/A
New Mexico	28	43	47	52	55	58	64
New York	70	88	94	95	99	99	100
North Carolina	57	79	86	91	93	95	99
North Dakota	0	0	20	20	40	40	40
Ohio	37	78	87	94	96	98	100
Oklahoma	37	55	67	76	82	86	90
Oregon	35	59	68	79	82	88	91
Pennsylvania	54	82	92	93	96	99	100
Rhode Island	N/A	N/A	N/A	N/A	N/A	N/A	N/A
South Carolina	31	53	68	75	79	93	94
South Dakota	0	0	33	33	33	33	50
Tennessee	38	74	78	80	96	98	98
Texas	46	71	80	87	91	93	95
Utah	39	56	61	67	67	67	83
Vermont	0	100	100	100	100	100	100
Virginia	46	63	80	85	94	96	98
Washington	51	76	85	87	89	89	92
West Virginia	29	57	64	71	71	79	79
Wisconsin	26	54	68	75	79	88	88
Wyoming	0	20	20	20	20	20	20
<b>U.S.</b>	<b>46</b>	<b>69</b>	<b>78</b>	<b>84</b>	<b>87</b>	<b>91</b>	<b>93</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile



*Table A-8. Percentages of Alcohol-Impaired Driving Fatalities by Buffers Around Urban Areas by State, 2018*

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	36	63	75	83	87	91	95
Alaska	22	32	38	38	41	41	41
Arizona	46	58	61	74	76	83	86
Arkansas	25	64	73	78	88	92	95
California	57	80	88	91	93	95	95
Colorado	54	68	71	77	83	86	87
Connecticut	76	95	97	97	97	100	100
Delaware	60	93	100	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	68	85	90	94	96	98	98
Georgia	51	74	84	91	94	97	98
Hawaii	81	84	86	91	93	93	93
Idaho	23	38	42	48	49	58	65
Illinois	54	76	84	91	95	98	99
Indiana	45	76	89	93	99	100	100
Iowa	24	38	66	76	87	91	92
Kansas	32	59	69	74	82	87	91
Kentucky	30	51	64	83	93	98	100
Louisiana	48	70	80	86	88	94	97
Maine	11	40	51	60	74	79	79
Maryland	73	87	97	98	99	99	99
Massachusetts	81	95	96	98	100	100	100
Michigan	53	73	82	89	91	95	96
Minnesota	36	54	64	75	79	82	84
Mississippi	16	34	46	60	77	83	90
Missouri	44	63	78	85	89	92	94
Montana	11	24	27	31	40	46	51
Nebraska	22	53	61	62	72	88	94
Nevada	69	78	81	84	85	90	90
New Hampshire	36	80	86	89	98	100	100
New Jersey	84	96	100	100	100	100	N/A
New Mexico	27	44	52	55	59	62	70
New York	55	72	77	82	95	96	98
North Carolina	44	67	81	91	97	99	99
North Dakota	7	13	23	23	40	50	50
Ohio	59	82	91	94	99	100	100
Oklahoma	32	50	59	73	76	80	86
Oregon	33	53	62	66	79	83	86
Pennsylvania	46	75	88	94	97	99	100
Rhode Island	72	80	80	100	100	100	100
South Carolina	43	67	80	89	92	96	96
South Dakota	6	21	69	71	71	74	86
Tennessee	49	70	80	88	95	97	99
Texas	49	69	79	85	89	92	94
Utah	38	46	84	86	87	88	89
Vermont	12	35	41	47	53	59	65
Virginia	44	60	71	79	84	88	96
Washington	55	75	80	82	85	90	91
West Virginia	29	50	71	77	84	90	94
Wisconsin	27	61	77	84	87	88	91
Wyoming	8	19	30	30	32	35	41
<b>U.S.</b>	<b>48</b>	<b>69</b>	<b>79</b>	<b>85</b>	<b>89</b>	<b>92</b>	<b>94</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

*Table A-9. Percentages of Speeding-Related Crash Fatalities by Buffers Around Urban Areas, 2018, by State*

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	26	54	69	79	85	89	93
Alaska	33	52	57	60	62	62	62
Arizona	54	67	71	76	81	85	89
Arkansas	25	56	64	73	83	89	93
California	69	83	87	92	94	95	96
Colorado	53	70	73	78	81	83	86
Connecticut	79	97	98	98	98	100	100
Delaware	48	88	97	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	75	87	93	96	97	99	100
Georgia	60	79	90	95	96	98	99
Hawaii	69	82	88	92	94	96	96
Idaho	22	37	41	50	57	59	72
Illinois	58	78	87	92	96	98	99
Indiana	43	68	82	94	98	99	99
Iowa	29	48	58	68	84	87	92
Kansas	41	60	68	73	78	87	89
Kentucky	30	62	78	85	93	97	99
Louisiana	46	77	84	88	90	95	99
Maine	2	43	55	71	76	86	88
Maryland	73	89	94	97	98	98	98
Massachusetts	80	95	97	98	100	100	100
Michigan	49	74	84	89	91	95	96
Minnesota	42	65	73	81	85	86	88
Mississippi	40	56	71	83	92	96	96
Missouri	41	61	72	81	86	92	95
Montana	18	34	39	43	49	55	60
Nebraska	28	55	59	62	79	86	86
Nevada	71	76	80	83	84	88	88
New Hampshire	42	73	80	86	93	96	96
New Jersey	86	95	100	100	100	100	N/A
New Mexico	29	41	48	52	56	60	66
New York	56	73	79	86	95	97	98
North Carolina	54	78	89	94	96	98	99
North Dakota	5	13	23	25	33	48	50
Ohio	42	71	88	94	99	100	100
Oklahoma	39	59	67	81	85	89	93
Oregon	27	42	51	56	67	73	76
Pennsylvania	40	73	84	93	97	99	100
Rhode Island	92	96	96	100	100	100	100
South Carolina	35	63	76	85	90	95	97
South Dakota	8	21	50	54	58	60	65
Tennessee	47	74	84	91	96	99	100
Texas	47	68	76	84	88	91	94
Utah	44	61	64	71	73	74	83
Vermont	16	52	60	64	64	68	84
Virginia	44	64	74	84	89	92	95
Washington	56	78	83	88	90	92	93
West Virginia	32	63	77	84	90	92	93
Wisconsin	41	61	71	78	84	86	89
Wyoming	8	26	32	32	34	39	42
<b>Total</b>	<b>49</b>	<b>70</b>	<b>79</b>	<b>85</b>	<b>89</b>	<b>92</b>	<b>94</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

Table A-10. Percentages of Crash Fatalities on Interstates by Buffers Around Urban Areas by State, 2018

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	38	66	76	85	92	95	96
Alaska	21	38	41	41	45	48	48
Arizona	29	48	52	62	72	77	79
Arkansas	36	74	79	88	97	97	99
California	61	75	81	85	87	89	90
Colorado	40	62	67	73	74	77	82
Connecticut	88	100	100	100	100	100	100
Delaware	100	100	100	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	56	82	92	96	98	99	99
Georgia	62	86	94	95	97	98	98
Hawaii	78	100	100	100	100	100	100
Idaho	30	47	58	63	70	77	81
Illinois	47	72	83	90	96	99	100
Indiana	41	71	82	93	98	98	98
Iowa	24	46	59	71	78	88	93
Kansas	37	53	60	74	85	87	90
Kentucky	38	72	85	87	92	100	100
Louisiana	51	84	93	97	97	99	100
Maine	0	29	43	71	86	86	86
Maryland	82	93	97	97	97	97	97
Massachusetts	67	96	98	98	100	100	100
Michigan	66	88	95	98	99	100	100
Minnesota	61	74	97	97	97	100	100
Mississippi	30	57	73	80	89	90	91
Missouri	50	76	85	90	93	99	99
Montana	14	32	32	54	57	61	61
Nebraska	13	23	35	58	71	94	97
Nevada	39	61	63	80	83	85	85
New Hampshire	37	84	84	89	95	95	95
New Jersey	75	98	100	100	100	100	N/A
New Mexico	24	44	52	55	58	65	68
New York	70	91	96	100	100	100	100
North Carolina	65	86	94	97	100	100	100
North Dakota	0	7	14	14	21	50	50
Ohio	65	88	95	98	100	100	100
Oklahoma	38	62	66	81	87	95	97
Oregon	33	63	70	73	83	97	97
Pennsylvania	52	79	91	96	97	100	100
Rhode Island	92	92	92	100	100	100	100
South Carolina	40	65	74	79	84	90	91
South Dakota	7	20	53	53	53	53	73
Tennessee	44	72	78	88	94	95	100
Texas	58	79	85	88	91	93	94
Utah	40	53	64	69	69	71	73
Vermont	20	90	90	90	100	100	100
Virginia	56	75	84	89	95	97	97
Washington	53	78	84	89	91	94	96
West Virginia	36	78	80	87	96	98	98
Wisconsin	38	69	95	98	98	100	100
Wyoming	7	7	15	19	22	26	26
<b>U.S.</b>	<b>51</b>	<b>73</b>	<b>81</b>	<b>86</b>	<b>90</b>	<b>92</b>	<b>94</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

Table A-11. Percentages of Weekend Crash Fatalities by Buffers Around Urban Areas by State, 2018

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	33	59	67	76	84	88	93
Alaska	53	63	63	67	70	73	73
Arizona	57	70	72	76	80	83	86
Arkansas	28	55	62	74	84	89	93
California	62	80	87	90	93	94	95
Colorado	52	68	75	80	82	87	89
Connecticut	81	95	97	97	98	100	100
Delaware	57	87	98	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	74	87	92	95	97	98	99
Georgia	54	75	85	91	95	98	99
Hawaii	62	82	84	89	89	89	89
Idaho	29	46	54	62	67	76	80
Illinois	60	78	88	93	97	98	100
Indiana	48	74	85	92	97	99	100
Iowa	23	38	50	63	75	86	93
Kansas	30	51	60	70	77	82	87
Kentucky	31	61	72	83	91	96	99
Louisiana	50	73	81	88	91	95	97
Maine	9	51	62	72	83	85	87
Maryland	75	92	96	98	100	100	100
Massachusetts	82	94	95	97	99	100	100
Michigan	47	71	84	89	91	94	96
Minnesota	44	56	74	85	88	90	91
Mississippi	26	50	60	69	82	89	95
Missouri	42	62	74	83	88	93	95
Montana	21	29	33	40	49	57	63
Nebraska	25	49	60	71	78	83	83
Nevada	69	77	78	82	82	85	85
New Hampshire	43	76	78	83	96	100	100
New Jersey	85	98	100	100	100	100	N/A
New Mexico	38	51	55	63	68	72	75
New York	60	75	82	86	96	97	99
North Carolina	49	73	86	93	96	98	99
North Dakota	5	10	15	15	23	30	35
Ohio	54	78	90	94	98	100	100
Oklahoma	33	53	61	73	83	87	92
Oregon	33	57	65	69	76	80	84
Pennsylvania	53	78	87	94	98	100	100
Rhode Island	83	91	91	100	100	100	100
South Carolina	40	67	80	87	91	95	96
South Dakota	12	25	31	36	44	47	61
Tennessee	48	72	83	90	96	97	98
Texas	52	70	79	85	88	91	93
Utah	46	61	71	75	78	83	84
Vermont	8	44	44	60	64	80	84
Virginia	43	62	74	84	88	90	95
Washington	54	78	84	88	91	93	95
West Virginia	24	55	69	79	85	88	93
Wisconsin	26	56	70	80	87	91	93
Wyoming	8	15	21	25	27	31	35
<b>Total</b>	<b>51</b>	<b>71</b>	<b>80</b>	<b>86</b>	<b>90</b>	<b>93</b>	<b>95</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

Table A-12. Percentages of Nighttime Crash Fatalities by Buffers Around Urban Areas by State, 2018

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	35	59	71	80	87	91	94
Alaska	43	57	59	62	65	68	68
Arizona	65	77	79	84	87	89	91
Arkansas	34	60	70	79	90	91	94
California	69	85	91	93	95	96	96
Colorado	55	71	78	83	86	89	91
Connecticut	78	93	95	96	97	100	100
Delaware	72	96	100	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	73	88	93	97	98	99	99
Georgia	60	80	88	93	96	98	99
Hawaii	73	90	91	93	93	94	94
Idaho	28	49	56	62	66	74	79
Illinois	61	80	88	93	97	99	99
Indiana	51	76	86	94	99	100	100
Iowa	26	43	57	68	79	87	91
Kansas	33	54	64	72	82	86	89
Kentucky	35	62	73	85	92	96	99
Louisiana	53	80	87	92	94	97	98
Maine	19	42	54	67	83	83	83
Maryland	79	94	98	100	100	100	100
Massachusetts	80	95	96	98	99	100	100
Michigan	56	75	86	92	93	96	98
Minnesota	41	58	70	80	85	88	90
Mississippi	28	50	62	72	82	89	95
Missouri	48	66	76	83	88	93	94
Montana	23	36	41	44	52	59	62
Nebraska	30	51	61	70	73	82	88
Nevada	75	81	84	89	90	92	92
New Hampshire	44	75	86	89	97	98	100
New Jersey	86	98	100	100	100	100	N/A
New Mexico	41	55	59	65	67	69	73
New York	68	82	88	93	96	97	98
North Carolina	49	73	84	93	96	98	98
North Dakota	8	24	36	36	40	44	50
Ohio	56	81	92	96	99	100	100
Oklahoma	35	53	63	74	83	89	94
Oregon	42	62	70	74	80	86	88
Pennsylvania	57	82	91	96	99	99	100
Rhode Island	90	93	97	100	100	100	100
South Carolina	44	67	79	86	90	94	95
South Dakota	16	27	49	55	55	60	64
Tennessee	52	77	86	92	96	98	99
Texas	56	74	82	87	91	93	96
Utah	61	71	77	79	84	86	92
Vermont	10	43	52	52	62	71	81
Virginia	49	65	75	84	90	93	97
Washington	57	80	84	87	90	92	93
West Virginia	32	61	78	84	90	92	96
Wisconsin	36	62	78	86	90	92	94
Wyoming	11	24	31	31	33	38	42
U.S.	56	75	83	88	92	94	96

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

*Table A-13. Percentages Motorcycle-Involved Crash Fatalities by Buffers Around Urban Areas by State, 2018*

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	51	71	77	89	95	99	99
Alaska	36	50	57	57	57	57	57
Arizona	66	79	81	87	88	89	91
Arkansas	35	65	71	73	79	89	91
California	66	81	87	91	94	95	96
Colorado	61	78	80	82	84	89	91
Connecticut	76	100	100	100	100	100	100
Delaware	71	94	100	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	78	92	96	97	98	99	99
Georgia	64	82	90	96	98	99	99
Hawaii	69	83	91	91	91	91	91
Idaho	21	42	50	55	63	66	74
Illinois	61	80	85	94	99	100	100
Indiana	53	75	85	92	95	99	100
Iowa	20	39	55	70	77	89	93
Kansas	42	67	72	80	84	88	92
Kentucky	38	59	74	84	89	92	95
Louisiana	60	79	89	95	96	96	98
Maine	13	30	52	61	74	83	87
Maryland	79	89	98	100	100	100	100
Massachusetts	79	95	98	100	100	100	100
Michigan	51	73	83	92	93	96	98
Minnesota	42	63	67	85	87	87	93
Mississippi	40	63	67	77	88	95	98
Missouri	50	67	75	84	89	95	96
Montana	24	29	29	38	38	43	57
Nebraska	43	61	70	74	78	78	83
Nevada	69	75	76	78	80	86	86
New Hampshire	50	71	71	79	86	89	93
New Jersey	73	98	100	100	100	100	N/A
New Mexico	60	70	74	79	81	83	83
New York	68	87	91	94	99	99	99
North Carolina	47	71	85	91	95	97	97
North Dakota	19	19	19	19	19	25	25
Ohio	51	77	90	93	97	100	100
Oklahoma	45	66	71	83	88	94	96
Oregon	44	69	77	79	81	82	85
Pennsylvania	49	80	86	93	97	100	100
Rhode Island	82	94	100	100	100	100	100
South Carolina	60	82	94	95	98	98	100
South Dakota	25	44	56	56	75	75	81
Tennessee	45	70	78	85	95	99	99
Texas	62	82	88	92	95	96	97
Utah	57	72	74	79	79	79	79
Vermont	14	29	43	71	71	71	100
Virginia	56	74	78	87	95	95	98
Washington	57	73	80	82	86	87	89
West Virginia	41	64	77	87	92	92	92
Wisconsin	32	56	72	81	88	93	98
Wyoming	19	19	25	25	31	38	38
<b>Total</b>	<b>58</b>	<b>77</b>	<b>84</b>	<b>89</b>	<b>92</b>	<b>94</b>	<b>96</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

Table A-14. Percentages of Pedalcyclist-Involved Crash Fatalities by Buffers Around Urban Areas by State, 2018

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	22	67	89	89	89	89	89
Alaska	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arizona	67	95	95	95	95	95	95
Arkansas	33	100	100	100	100	100	100
California	83	96	97	99	99	99	100
Colorado	91	100	100	100	100	100	100
Connecticut	100	100	100	100	100	100	100
Delaware	67	100	100	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	88	96	98	99	99	100	100
Georgia	55	90	90	97	97	97	100
Hawaii	50	50	50	100	100	100	100
Idaho	50	100	100	100	100	100	100
Illinois	100	100	100	100	100	100	100
Indiana	74	87	91	96	100	100	100
Iowa	71	100	100	100	100	100	100
Kansas	20	60	60	60	60	80	80
Kentucky	70	90	100	100	100	100	100
Louisiana	48	69	72	83	86	86	90
Maine	0	50	50	50	100	100	100
Maryland	80	100	100	100	100	100	100
Massachusetts	67	100	100	100	100	100	100
Michigan	57	83	91	91	91	100	100
Minnesota	86	86	100	100	100	100	100
Mississippi	50	67	67	67	67	67	67
Missouri	100	100	100	100	100	100	100
Montana	100	100	100	100	100	100	100
Nebraska	100	100	100	100	100	100	100
Nevada	100	100	100	100	100	100	100
New Hampshire	89	100	100	100	100	100	100
New Jersey	82	91	100	100	100	100	N/A
New Mexico	86	93	100	100	100	100	100
New York	53	71	82	88	94	94	100
North Carolina	50	100	100	100	100	100	100
North Dakota	64	82	91	95	95	100	100
Ohio	69	88	88	94	100	100	100
Oklahoma	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oregon	67	78	100	100	100	100	100
Pennsylvania	89	100	100	100	100	100	100
Rhode Island	100	100	100	100	100	100	100
South Carolina	65	78	91	96	96	96	100
South Dakota	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tennessee	63	100	100	100	100	100	100
Texas	74	91	93	99	100	100	100
Utah	33	33	33	67	67	67	100
Vermont	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Virginia	67	83	83	83	92	92	100
Washington	88	94	100	100	100	100	100
West Virginia	80	100	100	100	100	100	100
Wisconsin	80	100	100	100	100	100	100
Wyoming	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>U.S.</b>	<b>76</b>	<b>91</b>	<b>94</b>	<b>97</b>	<b>98</b>	<b>98</b>	<b>99</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile

*Table A-15. Percentages of Pedestrian-Involved Crash Fatalities by Buffers Around Urban Areas by State, 2018*

State	Urban	Urban+2.5 mi	Urban+5 mi	Urban+7.5 mi	Urban+10 mi	Urban+12.5 mi	Urban+15 mi
Alabama	50	74	81	88	93	93	98
Alaska	86	86	86	93	93	93	93
Arizona	86	92	92	93	94	94	96
Arkansas	60	83	87	94	98	98	98
California	88	95	97	98	98	99	99
Colorado	89	95	96	97	97	97	100
Connecticut	95	100	100	100	100	100	100
Delaware	83	100	100	100	100	N/A	N/A
District of Columbia	100	N/A	N/A	N/A	N/A	N/A	N/A
Florida	88	94	96	98	98	99	99
Georgia	78	93	97	99	99	100	100
Hawaii	71	95	95	95	95	95	95
Idaho	76	88	88	94	94	100	100
Illinois	85	92	96	98	100	100	100
Indiana	69	81	91	97	99	100	100
Iowa	43	70	78	83	83	87	96
Kansas	76	76	79	79	86	90	90
Kentucky	63	87	91	95	96	96	100
Louisiana	69	89	95	97	98	98	99
Maine	57	71	71	71	71	71	71
Maryland	92	98	99	100	100	100	100
Massachusetts	96	99	99	99	100	100	100
Michigan	81	88	93	95	98	99	100
Minnesota	76	88	88	90	95	95	98
Mississippi	48	69	76	87	90	94	97
Missouri	74	86	89	94	96	98	99
Montana	60	67	80	80	80	80	80
Nebraska	67	71	75	79	83	92	96
Nevada	90	96	98	99	100	100	100
New Hampshire	67	100	100	100	100	100	100
New Jersey	97	99	100	100	100	100	N/A
New Mexico	65	82	83	87	87	90	90
New York	82	89	91	92	100	100	100
North Carolina	65	83	90	94	95	98	98
North Dakota	17	33	33	33	33	33	50
Ohio	76	94	98	100	100	100	100
Oklahoma	64	77	80	85	92	95	100
Oregon	85	94	96	96	96	97	97
Pennsylvania	85	95	98	100	100	100	100
Rhode Island	88	88	100	100	100	100	100
South Carolina	63	81	86	90	95	96	97
South Dakota	27	55	64	64	64	64	73
Tennessee	75	88	94	97	99	99	99
Texas	78	90	94	96	97	97	98
Utah	86	92	97	97	97	100	100
Vermont	83	100	100	100	100	100	100
Virginia	71	85	88	92	95	97	97
Washington	78	92	97	98	98	99	100
West Virginia	36	68	77	82	91	91	95
Wisconsin	67	91	95	98	98	98	98
Wyoming	17	50	50	50	50	67	67
<b>Total</b>	<b>79</b>	<b>90</b>	<b>94</b>	<b>96</b>	<b>97</b>	<b>98</b>	<b>99</b>

Sources: 2018 FARS ARF, 2010 Census Urban Area TIGER/Line Shapefile



Table A-16. Percentage of Fatal Crashes With Valid Latitude and Longitude Data by State, 2010-2018

State	2010	2011	2012	2013	2014	2015	2016	2017	2018
Alabama	99.9	100.0	100.0	99.9	99.7	99.6	99.8	99.9	100.0
Alaska	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.7	100.0
Arizona	93.2	92.5	94.4	94.1	92.7	94.6	96.6	95.4	89.3
Arkansas	100.0	99.8	99.6	100.0	100.0	100.0	100.0	100.0	100.0
California	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.9	100.0
Colorado	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Connecticut	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Delaware	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
District of Columbia	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Florida	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Georgia	89.8	99.0	98.7	98.6	99.4	99.7	99.9	99.8	99.6
Hawaii	98.2	94.8	94.7	91.4	100.0	100.0	99.1	100.0	100.0
Idaho	100.0	100.0	100.0	100.0	100.0	99.0	100.0	100.0	100.0
Illinois	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0
Indiana	97.4	98.7	98.8	99.2	100.0	99.9	99.6	99.8	99.5
Iowa	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Kansas	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.9
Kentucky	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Louisiana	100.0	100.0	99.8	99.8	100.0	99.9	99.9	100.0	100.0
Maine	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Maryland	99.4	98.9	98.9	100.0	99.8	100.0	99.6	99.2	100.0
Massachusetts	100.0	90.2	92.6	94.9	99.4	96.6	96.3	98.8	91.3
Michigan	99.9	99.9	99.8	100.0	100.0	100.0	100.0	100.0	100.0
Minnesota	100.0	100.0	98.9	100.0	99.4	99.5	99.7	100.0	99.7
Mississippi	99.8	100.0	99.8	99.8	99.8	100.0	100.0	99.8	99.8
Missouri	100.0	99.9	99.9	99.9	99.7	100.0	100.0	100.0	100.0
Montana	100.0	100.0	100.0	100.0	100.0	99.5	99.4	100.0	100.0
Nebraska	100.0	100.0	100.0	100.0	99.0	100.0	100.0	100.0	100.0
Nevada	100.0	99.6	99.2	98.0	100.0	100.0	99.0	99.3	99.0
New Hampshire	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
New Jersey	99.6	100.0	99.8	99.8	100.0	99.2	98.6	99.2	99.6
New Mexico	100.0	98.7	94.4	99.6	99.7	100.0	100.0	100.0	100.0
New York	91.7	92.9	90.9	84.6	96.8	94.0	96.6	94.1	93.3
North Carolina	95.6	82.7	92.5	93.5	96.3	99.9	98.4	97.4	96.1
North Dakota	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.2	100.0
Ohio	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0
Oklahoma	99.8	100.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0
Oregon	99.7	100.0	100.0	100.0	100.0	99.3	99.6	100.0	98.0
Pennsylvania	99.8	99.7	100.0	99.9	99.7	100.0	100.0	100.0	100.0
Rhode Island	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.4
South Carolina	99.9	100.0	100.0	100.0	100.0	100.0	99.8	100.0	100.0
South Dakota	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Tennessee	100.0	100.0	100.0	100.0	99.8	100.0	100.0	99.7	100.0
Texas	99.6	99.8	100.0	100.0	99.9	100.0	100.0	99.9	99.9
Utah	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Vermont	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Virginia	99.9	99.7	99.9	100.0	99.7	100.0	100.0	100.0	99.9
Washington	98.1	98.6	99.0	100.0	100.0	100.0	99.8	100.0	99.4
West Virginia	100.0	100.0	100.0	100.0	99.6	100.0	100.0	100.0	100.0
Wisconsin	100.0	100.0	100.0	100.0	100.0	99.8	99.8	100.0	100.0
Wyoming	97.1	100.0	97.3	100.0	100.0	100.0	100.0	100.0	100.0
U.S.	98.8	98.6	98.9	98.8	99.5	99.6	99.6	99.5	99.2

Source: FARS 2010-2017 Final File, 2018 FARS Annual Report File

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