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National Highway Traffic Safety Administration

Analysis of Fatal Crash Data

Vermont: 2009-2013

A Summary of Motor Vehicle Fatal Crash and Fatality Data from the Fatality Analysis Reporting System (FARS)

Vermont

About this Report

This document presents information describing the motor vehicle fatal crashes and fatalities that occurred in the State of Vermont in the years 2009-2013. It also provides selected fatal crash and fatality data for all of NHTSA's Region 1 and for the U.S. The purpose of this report is to supplement traffic safety performance measures available on the NHTSA website with additional information to provide a more in-depth profile of a State's traffic fatality characteristics and trends from 2009 through 2013.

This report presents primarily FARS data that are reflective of the standard core measures agreed upon by NHTSA and GHSA. The data are presented in two basic formats: basic data plus trend analyses covering a five-year period, and detailed data findings in nine emphasis program areas. It is intended that, with this information, States will be better able to understand their fatality problems in terms of crash types, contributing factors, demographic groups, times, and locations associated with fatalities and fatal crashes over these five years.

The material is organized into the following major sections:

- **Basic Data**
- **Fatalities**
- **Alcohol-Impaired Driving Fatalities and Alcohol-Impairment-Related Fatal Crashes and Fatalities**
- **Speeding-Related Fatal Crashes and Fatalities**
- **Motorcycle Fatal Crashes and Fatalities**
- **Occupant Restraint**
- **Pedestrian and Bicyclist Fatal Crashes and Fatalities**
- **Young Drivers Fatal Crashes and Fatalities**
- **Older Drivers Fatal Crashes and Fatalities**
- **Distraction (2010-2013 only)**

The majority of the tables and figures in this report are based on data from NHTSA's Fatality Analysis Reporting System (FARS) which includes main, auxiliary, and multiple imputation tables. All FARS tables that were updated for a given year by NHTSA were reimported into the database. Data presented in this book for the years 2010, 2011, and 2012 have been revised to reflect recent updates released by NHTSA.

Population data reflect the U.S. Census Bureau's Estimates found at http://www.census.gov. These data sources are subject to revision over time, resulting in small differences when comparing statistics generated at different times. The main link to the Census data sources used is: http://www.census.gov/popest/data/index.html. Population data used in last year's data books came from 2000-2010 intercensal estimates, as opposed to vintage data which was used for 2012 and 2013 because they are not census years. Please see appendix for more information.

Other population data sources were accessed for National data[1] (divided into State-level groupings); for data by County[2]; for data by State, race, and Hispanic origin[3], and for data by State, single year of age and sex. It was necessary to obtain geographic locator codes for converting county/city codes in FARS to county/city names[4].

Finally, helmet laws were imported from the table at: http://www.ghsa.org/html/stateinfo/laws/helmet_laws.html, and occupant restraint use summary data were imported from the table at: http://www.ghsa.org/html/stateinfo/laws/seatbelt_laws.html.

Small differences may arise in various tables and figures due to rounding. For example, monthly alcohol-impairment-related fatalities, based on NHTSA's multiple imputation method, may not sum exactly to the annual total for this reason.

The electronic copy of this report submitted to NHTSA will be supplemented with a copy on CD. A printed version will be submitted upon request.

Cover art copied with permission from the photo library of the AAA Foundation for Traffic Safety is gratefully acknowledged.

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[1] http://www.census.gov/popest/data/national/totals/2013/files/NST_EST2013_ALLDATA.csv

[2] http://www.census.gov/popest/data/counties/totals/2013/files/CO-EST2013-Alldata.csv

[3] http://www.census.gov/popest/data/state/asrh/2013/files/SC-EST2013-alldata6.csv

[4] Source: (http://www.gsa.gov/graphics/ogp/FRPP_GLC_UnitedStates.xls): http://www.gsa.gov/portal/content/102761

DATA BOOK DEFINITIONS

Fatality: Any police reported crash on a public traffic way in which a driver, occupant, motorcycle rider, pedestrian, or bicyclist is killed or dies within 30 days of the crash.

"Alcohol Impairment-Related" Fatalities (Old Definition): Any fatality occurring on a public traffic way where the known BAC of an involved driver, motorcycle operator, pedestrian or bicyclist is .01 or higher. For purposes of the Data Book, this definition will be limited to an *imputed* BAC of *.08 or higher* and will apply to *all participants* in a crash.

"Alcohol-Impaired Driving" Fatalities (New Definition): Any fatality occurring on a public traffic way where the *imputed* BAC of at least one of the drivers (including motorcycle operators) is .08 or higher.

Speed Related Fatal Crashes and Fatalities: A fatal crash or fatality on a public traffic way is considered to be speeding-related if the driver was charged with a speeding-related offense *or* if an officer indicated that racing, driving too fast for conditions, or exceeding the posted speed limit was a contributing factor in the crash. Beginning in 2009, a new variable replaced all previous speeding driver-related factors to indicate whether a driver's speed was related to the crash (as identified by law enforcement). In addition to the actions listed above, the new variable includes: speed greater than reasonable or prudent (even if not necessarily over the limit), and exceeding special limit (e.g., for trucks, buses, at night, etc.).

Motorcycle Rider Fatal Crashes and Fatalities: A motorcycle rider or motorcyclist (these terms are interchangeable) fatality refers to any individual on a motorcycle (including both operators and passengers) who is killed in a crash on a public traffic way. The definition of a motorcycle includes: mopeds, scooters, two- or three-wheeled motorcycles, off-road motorcycles, mini bikes, and pocket bikes, but NOT all terrain vehicles (ATVs).

Occupant Restraint Use: Known restraint use (including improper use prior to 2010 and misuse of restraint system/helmet 2010 and later) among occupants of a passenger vehicle involved in a crash on a public traffic way. Passenger vehicles include cars and light trucks (pickup, utility, van, and other). Only fatally-injured occupants are considered in the Data Books.

Pedestrian and Bicyclist Fatal Crashes and Fatalities: A pedestrian is any person on foot, walking, running, jogging, hiking, sitting or lying down who is involved in a motor vehicle fatal crash on a public traffic way. Bicyclists and other cyclists include riders of two-wheel non- motorized vehicles, tricycles, and unicycles powered solely by pedals who are involved in a motor vehicle fatal crash on a public traffic way.

Young Driver Fatal Crashes and Fatalities: Any fatal crash or fatality on a public traffic way involving a driver between the ages of 16 and 20 years old.

Older Driver Fatal Crashes and Fatalities: Any fatal crash or fatality on a public traffic way involving a driver age 65 or older.

Distracted Driving Fatal Crashes and Fatalities: Any fatal crash or fatality on a public traffic way with one or more distractions reported. Reported distractions may include operating a vehicle in a careless or inattentive manner. Behaviors reported as distractions include: the use of car/cell phones, text messaging, fax, GPS/head-up display systems, DVD player and other manual and cognitive distractions such as reading, eating, talking, adjusting the radio, etc. Beginning in 2010, many elements that were encoded as fields in the vehicle table were broken out into a separate *Distraction* table.

Sources: NHTSA Traffic Safety Fact Sheets, Research Notes, State Traffic Safety Information Web Site Footnotes, and FARS User Manual and Auxiliary Table User Manual

Executive Summary

Total Deaths. Over the period from 2009 through 2013, there were 346 *motor vehicle-related* deaths in Vermont, an average of about 69 deaths annually. Over this period, however, there was considerable variation, with declines in 2010 and 2011 (-19 total); a sharp increase in 2012 (+22); and another decline in 2013 (-8). This left 69 deaths in 2013, 5 fewer than in 2009 (-7%) and about the same number as the average of the first 4 years (69).

A linear regression analysis showed a decline of 0.4 deaths annually, with very low predictive value ($R^2 = 0.01$). A *3-year moving average* showed an increase of 1 death in 2012 (+1.5%) and a decline of 1 death in 2013 (-0.6%). There were decreases in 6 of 10 categories examined from 2009 through 2013, and in 6 of 10 categories from 2012 through 2013. The substantial increase in 2012 (+22) is the strongest indication of upward pressure on deaths, but the elevated level in 2013 is also of concern, in spite of the modest decline in that final year.

Population-based fatality rate. Vermont's *population* remained relatively unchanged during this period. As a result, changes in the *population-based* fatality rate were nearly identical to changes in deaths; *relative to 2009* (-7%); and *relative to the 4-year average* (-0.5%).

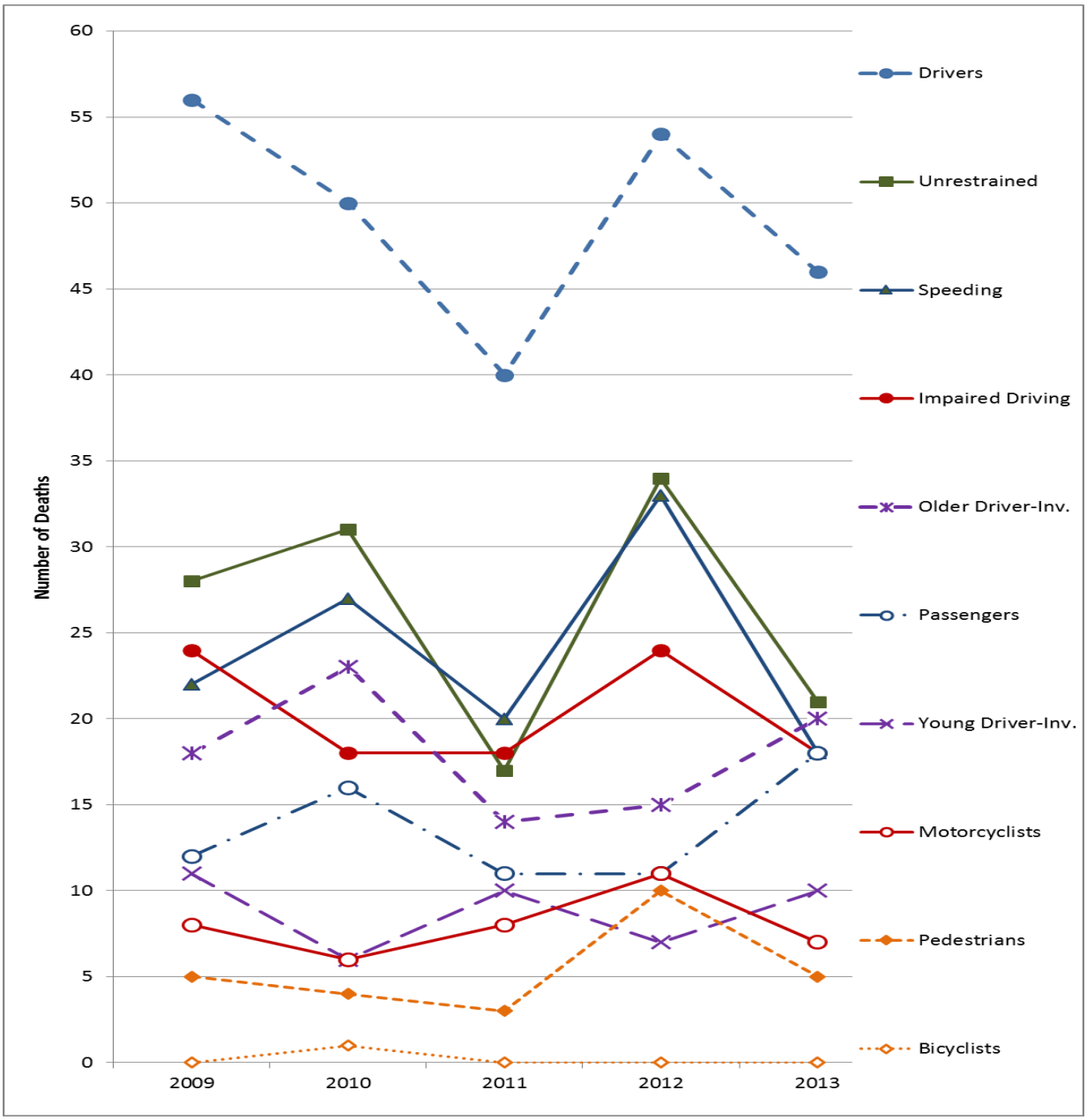
[*See Tables 1 and 29 in the full report; as well as Figures 1 and 2 for trends in total deaths and population-based fatality rate.*]

Major Contributors to Fatalities and Trends in Vermont

Driver/Operator fatalities accounted for the largest proportion of fatalities, about 71% of total deaths over the five-year period, and about 3.6 times as many deaths as among ***passengers*** (20%). *Driver* deaths declined in 2010 and 2011 (-16 total); increased in 2012 (+14); and then declined again in 2013 (-8). This left 46 *driver* deaths in 2013, 10 fewer than in 2009 (-18%) and 4 fewer than the average of the first four years (-8%). *Passenger* deaths followed a different pattern, with an increase in 2010 (+4); a decline in 2011 (-5); no change in 2012; and then another increase in 2013 (+7). As a result, there were 18 passenger deaths in 2013, six more than in 2009 (+50%) and 5 more than the average of the first four years (+44%).

The next largest categories (after *driver* deaths) were behavior related; they included ***unrestrained occupant*** deaths (38% of total); ***speed-related*** deaths (35%); and ***alcohol impaired driving*** deaths (29%)**.** *Unrestrained occupant* deaths varied considerable from year to year, increasing in 2010 (+3); decreasing in 2011 (-14); increasing again in 2012 (+17); and declining again in 2013 (-13). This alternating pattern left 21 *unrestrained* deaths in 2013, seven fewer that in 2009 (-25%) and about 7 fewer than the average of the first four years (-24%).

The pattern for *speed related* deaths was similar to that for *unrestrained occupants*, with an increase in 2010 (+5); a decrease in 2011 (-7); another increase in 2012 (+13); and another decline in 2013 (-15). This alternating pattern left 18 *speed-related* deaths in 2013, six fewer than in 2009 (-25%) and 3 fewer than the average of the first 4 years (-14%).



Fatality Trends in Vermont: 2009 through 2013, by Category

Impaired driving deaths varied less dramatically from year to year than *unrestrained* or *speed-related* deaths. There was a moderate decline in 2010 (-6); no change in 2011; and a moderate increase in 2012 (+6) that brought such deaths back to their 2009 level. Another decline in 2013 (-6) left 18 *impaired driving* deaths in that final year, 6 fewer than in 2009 (-25%) and 3 fewer than the average of the previous 4 years (-14%). There were several similarities among these behavioral categories: all three declined modestly in 2013 relative to 2009, and relative to the 4-year average (2008-2012). In addition, each category had similar levels in the final year, ranging from 18 to 21 deaths.

[*See Table 4, as well as Figures 3 and 4 for alcohol impaired driving deaths; see Table 8, as well as Figures 5 and 6 for speed-related deaths; and see Table 11 and Figures 7 and 8 for unrestrained occupant deaths.*]

Two age-related categories accounted for the next largest proportions of total deaths. ***Older driver-involved*** deaths accounted for 26%, while ***young-driver involved*** deaths accounted for 13% (*passenger* deaths were in between with 20%). *Older driver-involved* deaths increased in every year except 2011, when they declined by 9. The total increase for 2010, 2012, and 2013 (combined) was 11 deaths. Thus, there were 2 more deaths in 2013 (20) than in 2009 (+11%) and about 2 more than the average of the prior 4 years (+14%). *Young driver-involved* deaths remained relatively stable over the entire period, with no single, year-to-year variation greater than one death. There were 10 *young driver-involved* deaths in 2013, one fewer than in 2009 (11) but one more than the average of the first 4 years (9).

Three non-occupant categories accounted for a total of 20% of all deaths. ***Motorcyclists*** accounted for 12%; ***pedestrians*** accounted for 8%; and ***bicyclists*** accounted for less than 1%. *Motorcyclists* accounted for an average of 8 deaths annually. Starting with 8 deaths in 2009, such deaths declined by 2 in 2010; increased by 2 in 2011; increased by 4 in 2012 (the peak year for total deaths); and then declined by 4 in 2013. This left 7 such deaths in 2013, 12.5% fewer than in 2009 and 15% fewer than the average of the previous 4 years. *Pedestrians* accounted for 8% of all deaths and there were notable changes over time, with very slight decreases in 2010 and 2011 (-2 total); a substantial increase in 2012 (+7); and a substantial decline in 2013 (-5). There were 5 *pedestrian* deaths in 2013, the same as in 2009, and about one fewer than the average of the first 4 years (-9%). *Bicyclists* accounted for the fewest deaths, with one death over the 5-year period; that death occurred in 2010.

[See *Table 23 and Figures 15 and 16 for young driver-involved deaths; and see Table 26 and Figures 17 and 18 for older driver-involved deaths. Among non-occupants, see Table 14 and Figures 9 and 10 for motorcyclist deaths; Table 17 and Figures 11 and 12 for pedestrian deaths; and Table 20 and Figures 13 and 14 for bicyclist deaths*.]

Summary

Total deaths remained relatively constant over the first half of the 5-year period, but there was a notable decline in 2011 (-16) followed by an even larger increase in 2012 (+22). The average number of deaths in the last 2 years of this period was the same as the average in the first 2 years (73); and both the linear trend line and the 3-year moving average suggested little change over time. Overall, the largest declines (relative to 2009) were in the three behavioral categories – *unrestrained occupant* deaths (-25%); *impaired driving* deaths (-25%); and *speed-related* deaths (-18%). The next largest declines were in *driver* deaths (-18%); *motorcyclist* deaths (-12.5%); and *young driver-involved* deaths (-9%). The largest increases were in *passenger* deaths (+50%). As of 2013, there was little evidence of upward pressure on deaths – except for the increase in 2012.

BASIC DATA AND TREND ANALYSES

BASIC DATA AND TREND ANALYSES

About This Section

This Section contains basic information about the motor vehicle fatalities that occurred in Vermont from 2009 through 2013. It is organized according to the following 10 topics:

- **Total Fatalities**
- **Alcohol-Impaired Driving Fatalities**
- **Speeding-related Fatalities**
- **Unbelted Passenger Vehicle Occupant Fatalities**
- **Motorcycle Rider Fatalities**
- **Pedestrian Fatalities**
- **Bicyclist Fatalities**
- **Fatalities Involving Young Drivers**
- **Fatalities Involving Older Drivers**
- **Distraction**

Each of these subsections includes a five-year data table for the State, showing the number of annual fatalities, along with fatality rate: deaths per 100,000 population. The table also shows the percentage of total fatalities in the State accounted for by each category and the State's percentage of all such fatalities in the Region. Two additional tables contain similar data and trends for the Region and the Nation, respectively.

Graphs showing Vermont's trends are also provided in each section. For each category, these graphs show five years of data for: 1) *number* of fatalities; and 2) the *population-based fatality rate*. Each graph includes a linear trendline and a 3-year moving average line. Linear trends are projected out three years to show the expected outcomes if the existing trend were to continue beyond the last year for which data are available.

Much of the data included in this report can also be found on the NHTSA Web site and are easily accessible for future updating. This can be done by logging on to the site at http://www-fars.nhtsa.dot.gov/Main/index.aspx. Although queries cannot be run across multiple years, there is a wealth of information that may be obtained by running single year queries. Mapping data are also available, and result sets from a query may be exported to a variety of formats. There are many other areas within which to obtain data, and it is suggested that the user explore that system to become familiar with this valuable resource.

Total Fatalities

Table 1 shows basic data on Vermont fatalities from 2009 through 2013. It indicates that annual motor vehicle fatalities fluctuated, ranging from a low of 55 fatalities in 2011 to a high of 77 fatalities in 2012. The 2013 count (69 fatalities) represents little change (a 0.4% decrease) when compared to the average of the prior four years, but a 6.8% decrease when compared to the count in 2009 (74 fatalities). During the 2009-2013 period, Vermont's *population* showed little change (a 0.1% increase in 2013 when compare to the prior four years). Similarly, the State's *population-based fatality rate* (expressed as the number of deaths per 100,000 population) fell by just 0.5% in 2013 (11.01) when compared to the 2009-2012 average (11.07), but decreased by a larger, 7.0% in 2013 when compared to 2009 (11.84).

The data in Table 1 show that in 2013, Vermont accounted for 4.3% of the *population* in Region 1, and 6.8% of the Region's *fatalities*. Vermont's proportion of the Region's population remained relatively stable throughout the period observed. To compare, the State's proportion of the Region's fatalities in 2013 showed little change when compared with the prior four years, but *decreased* by 9.1% when compared with the 2009 proportion (7.5%).

A comparison of Vermont data with the Regional data (Table 2) and National data (Table 3) indicates that Vermont's 2009-2013 population-based fatality rate (11.05 per 100,000 residents) was higher than both the Regional rate (7.03) and the National rate (10.65) during the same years.

Table 1. Vermont Basic Data

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Total Fatalities	74	71	55	77	69	-6.76%	-0.36%
Population	624,817	625,960	626,431	626,011	626,630	0.29%	0.13%
Pop. Rate* **	11.84	11.34	8.78	12.30	11.01	-7.03%	-0.49%
Pct of Region Fatalities	7.47%	6.49%	5.84%	7.26%	6.79%	-9.14%	0.18%
Pct of Region Population	4.34%	4.33%	4.32%	4.30%	4.29%	-1.19%	-0.83%

***Fatality rate per 100,000 population

Table 2 shows that total annual motor vehicle fatalities fluctuated in Region 1, decreasing by 0.5% in 2013 when compared to the 2009-2012 average, but increasing by 2.6% in 2013 when compared to 2009. The population-based fatality rate also fluctuated, dropping by 1.5% in 2013 when compared to the prior four years, but *rising* 1.1% in 2013 when compared to 2009. During the same timeframe, the Region's population increased slightly (by 1.0% in 2013 when compared to the prior four-year average).

Table 2. Region 1 Basic Data

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Total Fatalities	990	1,094	942	1,060	1,016	2.63%	-0.54%
Population	14,403,575	14,457,499	14,492,360	14,562,704	14,618,806	1.49%	0.97%
Pop. Rate* **	6.87	7.57	6.50	7.28	6.95	1.12%	-1.49%

***Fatality rate per 100,000 population

Table 3 shows that Nationwide, fatalities declined slightly overall, with the Nation's fatalities decreasing by 1.7% and population-based fatality rate decreasing by 3.5%, each in 2013 when compared to the respective 2009-2012 average.

Table 3. Nationwide Basic Data

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change 2013 vs. prior 4-yr Avg.
Total Fatalities	33,883	32,999	32,479	33,782	32,719	-3.44%	-1.70%
Population (thousands)	306,772	309,350	311,592	313,914	316,129	3.05%	1.84%
Pop. Rate* **	11.05	10.67	10.42	10.76	10.35	-6.29%	-3.48%

*** Fatality rate per 100,000 population

Figure 1 shows total deaths for each year, a three-year moving average, and the linear trend in total fatalities for Vermont. If the linear trend were to continue, traffic-related fatalities would amount to **68.0** in 2014, **67.6** in 2015, and **67.2** in 2016. These figures have been extended by one decimal place to better illustrate the change. The calculated R^2 value for this trendline is 0.01.[5] The three-year moving average, represented by the red line, shows mild fluctuations throughout the period, resulting in a slight decline overall.

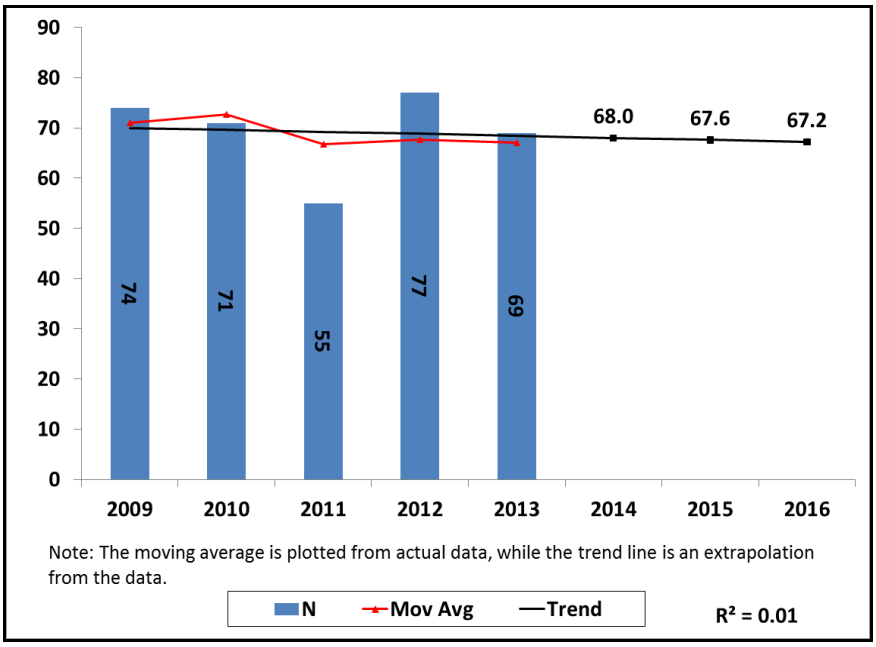


Figure 1. Vermont Total Fatalities

[5] The R^2 value is called the *coefficient of determination*. It is a measure of how much of the change in fatalities is accounted for by a unit change over time. A high value of R^2 (up to a maximum of 1.0) would indicate that time (i.e., year) accounts for a good deal of the variability in – and may be regarded as a good predictor of – fatalities. A low value of R^2 (closer to 0.0) indicates that time is a relatively poor predictor of fatalities. See the Appendix for a more complete discussion of linear trendlines and this coefficient.

Figure 2 presents the trend in the *population-based* fatality rate for Vermont. If this trend were to continue, there would be **10.84** deaths per 100,000 population in 2014, **10.77** in 2015, and **10.70** in 2016. Here the R^2 value is 0.01 and the three-year moving average shows a similar pattern as that seen in Figure 1.

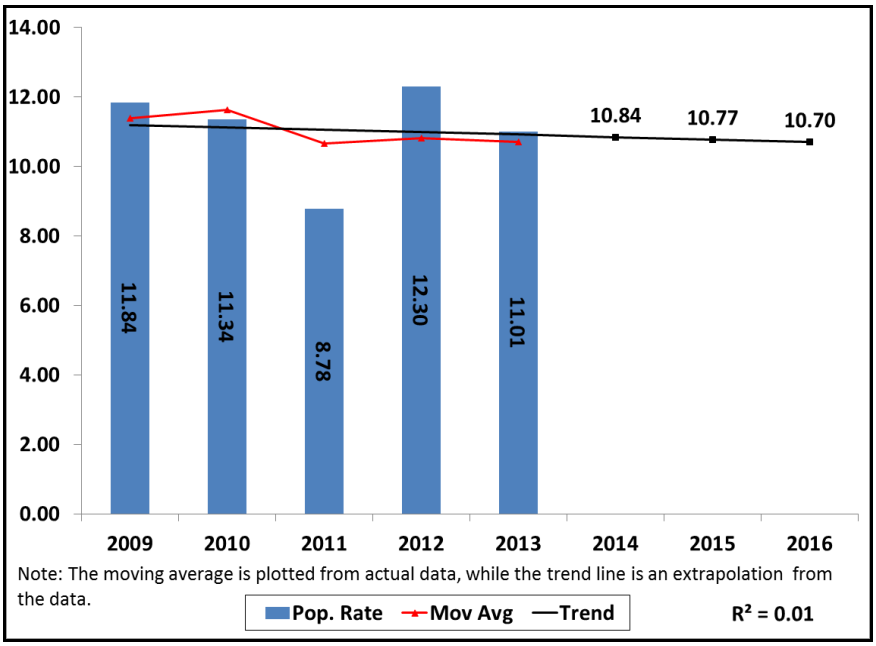


Figure 2. Vermont Total Fatalities, Population Rate

Alcohol-Impaired Driving Fatalities

Table 4 shows that in Vermont, the number of alcohol-impaired driving fatalities fluctuated throughout the five-year period (2009-2013), but ultimately decreased. The 2013 total (18 deaths) represents a 14.3% decrease compared to the 2009-2012 average (21 deaths), and a 25.0% decrease from the 2009 total (24 deaths). Vermont's alcohol-impaired *population-based* fatality rate followed a similar pattern as the number of fatalities, with the 2013 rate (2.87 deaths per 100,000 population) representing a 14.4% decrease when compared to the 2009-2012 average (3.36), and a 25.2% decrease when compared to the rate in 2009 (3.84).

The alcohol-impaired percent of total deaths is a key index of the problem of alcohol-impaired driving fatalities. In Vermont, this proportion decreased by 14.0% in 2013 (26.1%) when compared to the average of the previous four years (30.3%), and decreased by 19.6% in 2013 when compared to the 2009 proportion (32.4%).

Table 4 shows that Vermont's proportion of the Region's alcohol-impaired deaths similarly decreased, by 18.3% in 2013 (5.0%) when compared to the 2009-2012 average (6.1%), but by a larger, 30.6% in 2013 when compared to 2009 (7.1%).

Table 4. Vermont Alcohol-Impaired Driving Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	24	18	18	24	18	-25.00%	-14.29%
Pop. Rate**	3.84	2.88	2.87	3.83	2.87	-25.22%	-14.40%
Pct of Total	32.43%	25.35%	32.73%	31.17%	26.09%	-19.57%	-13.98%
Pct of Region	7.14%	4.85%	5.73%	6.61%	4.96%	-30.58%	-18.30%

**Fatality rate per 100,000 population

Table 5 provides alcohol-impaired fatality data for the entire Region and Table 6 provides such data for the Nation. Over the entire five-year period, the alcohol-impaired *population-based* fatality rate in Vermont (3.26 deaths per 100,000 residents) was higher than the rate for Region 1 (2.41), but slightly lower than the National rate (3.28).

With regard to change, Table 5 shows that in Region 1, the number of alcohol-impaired driving fatalities increased in 2013, by 4.9% when compared to the 2009-2012 average, and by 8.0% when compared to the 2009 proportion. During the same timeframe, Region 1's population-based fatality rate increased by 3.9%, and the Region's alcohol-impaired percent of total deaths increased by 5.5%.

Table 5. Region 1 Alcohol-Impaired Driving Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	336	371	314	363	363	8.04%	4.91%
Pop. Rate**	2.33	2.57	2.17	2.49	2.48	6.45%	3.91%
Pct of Total	33.94%	33.91%	33.33%	34.25%	35.73%	5.27%	5.48%

**Fatality rate per 100,000 population

Table 6 indicates that Nationwide, in 2013 alcohol-impaired deaths declined by 1.9% and the alcohol-impaired population-based fatality rate dropped by 3.7%, each when comparing the 2013 figures to the 2009-2012 averages. The Nation's alcohol-impaired percent of total deaths showed minimal change during the five years.

Table 6. Nationwide Alcohol-Impaired Driving Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	10,759	10,136	9,865	10,336	10,076	-6.35%	-1.93%
Pop. Rate**	3.51	3.28	3.17	3.29	3.19	-9.12%	-3.70%
Pct of Total	31.75%	30.72%	30.37%	30.60%	30.80%	-3.02%	-0.23%

** Fatality rate per 100,000 population

Figure 3 shows the downward trend in Vermont's *alcohol-impaired driving fatalities*. If this trend were to continue, there would be **19** such fatalities in 2014, **18** in 2015, and **17** in 2016. The R^2 value for this trendline is 0.08 and the three-year moving average (red line) initially decreases, and rises thereafter.

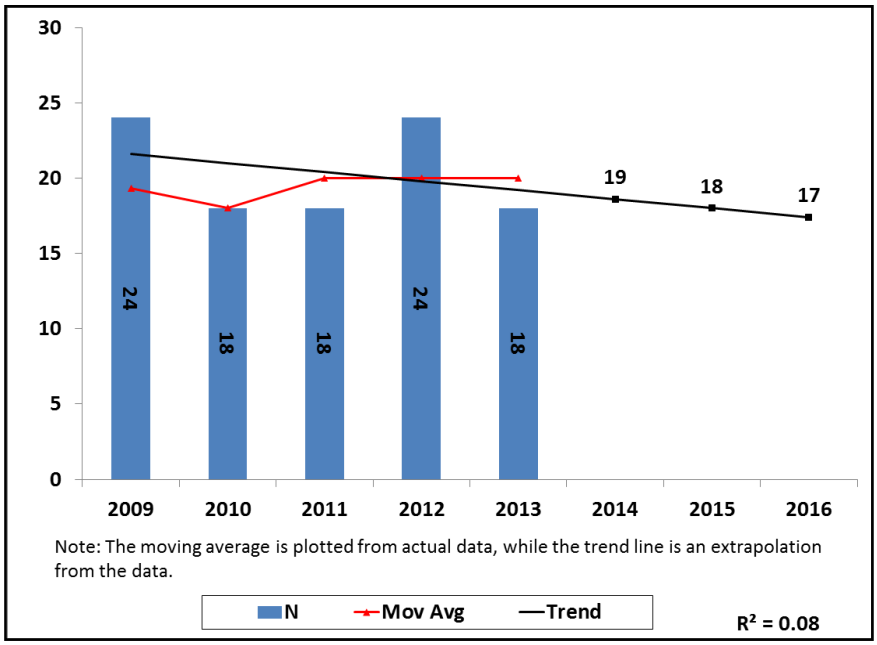


Figure 3. Vermont Alcohol-Impaired Driving Fatalities

The *population-based rate* seen in Figure 4 also shows the downward trend, projecting to **2.97** deaths (per 100,000 residents) in 2014, **2.87** in 2015, and **2.77** in 2016. The R^2 value for this trendline is 0.09 and the moving average initially drops and then shows increases throughout the rest of the period.

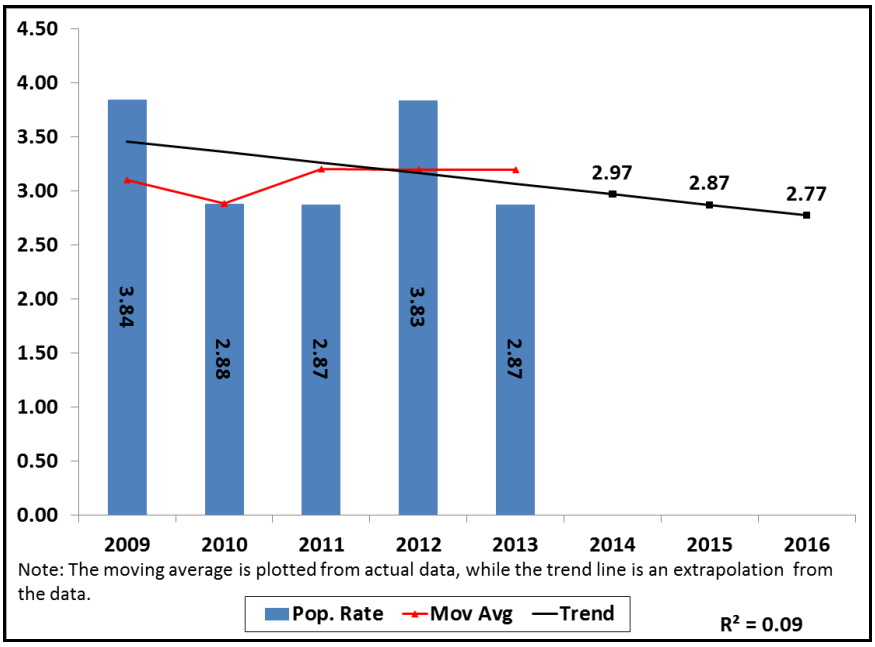


Figure 4. Vermont Alcohol-Impaired Driving Fatalities, Population Rate

BAC reporting rates for Vermont, the U.S., and the "Best State(s)" are presented in Table 7. Throughout the five-year period, Vermont's average *rate of BAC reporting for surviving drivers* was 33.3%, slightly higher than the rate of reporting in the Nation (31.2%), and both much lower than that of the best State for the given period (87.1%). Clearly, there is a large range of testing and reporting. Vermont reported BACs for 34.9% of *surviving* drivers in 2013, compared with an average of 32.9% across the prior four-year period, representing a 6.1% increase in this index for the State.

Vermont had a much higher rate of reporting for *fatally-injured drivers*, averaging 90.7% over the five-year period, and was higher than that of the Nation, which reported BACs for 75.4% of fatally-injured drivers during the same years. By comparison, the best State provided BACs for 96.4% of fatally-injured drivers. Throughout the 2009-2013 period, Vermont saw a 2.1% decrease in the percentage of *killed* drivers for which there was a reported BAC, when comparing the 2013 proportion (89.1%) to the average of the prior four years (91.0%).

Among *all drivers involved* in fatal crashes (i.e., fatally injured and surviving) from 2009 through 2013, the average percentages with reported BACs were 65.8% in Vermont, 52.1% throughout the U.S., and 90.2% in the best State. Vermont experienced a 5.3% decrease in this index in 2013 (62.9%) when compared to the prior four years (66.5%).

Table 7. BAC Reporting Rates for Drivers and Motorcycle Operators

		2009	2010	2011	2012	2013
Surviving Drivers and Operators						
Total	**VT**	41	37	26	42	43
	U.S.	23,502	23,527	23,025	24,174	23,703
Total with BAC Reported	**VT**	10	17	8	13	15
	U.S.	7,188	7,927	7,484	7,569	6,630
% with BAC Reported	**VT**	24.4%	45.9%	30.8%	31.0%	34.9%
	U.S.	30.6%	33.7%	32.5%	31.3%	28.0%
	Best State*	85.8%	92.3%	87.9%	85.4%	80.3%
Killed Drivers and Operators						
Total	**VT**	56	50	40	54	46
	U.S.	21,835	21,072	20,815	21,490	20,871
Total with BAC Reported	**VT**	53	43	36	50	41
	U.S.	16,753	16,405	15,846	16,097	14,905
% with BAC Reported	**VT**	94.6%	86.0%	90.0%	92.6%	89.1%
	U.S.	76.7%	77.9%	76.1%	74.9%	71.4%
	Best State*	100.0%	100.0%	98.3%	94.7%	95.1%
All Drivers and Operators						
Total	**VT**	97	87	66	96	89
	U.S.	45,337	44,599	43,840	45,664	44,574
Total with BAC Reported	**VT**	63	60	44	63	56
	U.S.	23,941	24,332	23,330	23,666	21,535
% with BAC Reported	**VT**	64.9%	69.0%	66.7%	65.6%	62.9%
	U.S.	52.8%	54.6%	53.2%	51.8%	48.3%
	Best State*	89.9%	91.1%	92.9%	91.4%	85.2%

* Best State: highest percents could be in different States for different categories

Speeding-Related Fatalities

A speeding-related fatality is defined as one that occurred in a crash where a driver was charged with a speeding-related offense or where an officer indicated that racing, driving too fast for conditions, or exceeding the posted speed limit was a contributing factor.

Table 8 shows that there were 22 speeding-related fatalities in Vermont in 2009, with this number fluctuating, but ultimately decreasing to its lowest level of the period in 2013. The 18 speeding-related fatalities in Vermont in 2013 represents a 29.4% decrease compared to the average of the prior four years (26), and an 18.2% decrease when compared to the 2009 total. The population-based fatality rate followed a similar pattern as the number of fatalities. Vermont's 2013 speeding-related population-based fatality rate (2.87 deaths per 100,000 population) is 29.5% lower than the 2009-2012 average (4.07), and 18.4% lower than the 2009 rate (3.52).

In 2009, 29.7% of all traffic fatalities in Vermont were speeding-related, with this number decreasing to its lowest level of the period in 2013. The 2013 percentage (26.1%) represents a decrease of 29.2% compared the average of the previous four years (36.8%), and a decrease of 12.3% compared to the proportion in 2009. Throughout the five-year period, Vermont accounted for 6.8% of Region 1's speeding-related traffic fatalities. The 2013 proportion (5.9%) represents a 15.1% decrease when compared to the prior four-year average (7.0%), and a 7.9% decrease when compared to the 2009 proportion (6.5%).

Table 8. Vermont Speeding-Related Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	22	27	20	33	18	-18.18%	-29.41%
Pop. Rate**	3.52	4.31	3.19	5.27	2.87	-18.42%	-29.50%
Pct of Total	29.73%	38.03%	36.36%	42.86%	26.09%	-12.25%	-29.16%
Pct of Region	6.45%	6.55%	5.78%	9.22%	5.94%	-7.92%	-15.14%

**Fatality rate per 100,000 population

Table 9 shows that from 2009 through 2013, the number of *speeding-related fatalities* decreased throughout Region 1, by 16.8% in 2013 when compared to the prior four years; the population-based death rate also decreased Regionally (by 17.6%). The Region's proportion of speeding-related fatalities to total fatalities also fell during the five years, decreasing by 16.4% in 2013 when compared to the respective 2009-2012 average.

Table 9. Region 1 Speeding-Related Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	341	412	346	358	303	-11.14%	-16.82%
Pop. Rate**	2.37	2.85	2.39	2.46	2.07	-12.45%	-17.61%
Pct of Total	34.44%	37.66%	36.73%	33.77%	29.82%	-13.42%	-16.37%

**Fatality rate per 100,000 population

As shown in Table 10, speeding-related fatalities ultimately decreased throughout the U.S., by 7.4% in 2013 when compared to the prior four-year average. The *population-based fatality rate* decreased Nationally as well, falling by 9.0% during the same timeframe. The Nation's *speeding-related percent of total deaths* averaged 30.8% during the 2009-2013 period, with this proportion decreasing by 5.7% in 2013 when compared to the 2009-2012 average.

Table 10. Nationwide Speeding-Related Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	10,664	10,508	10,001	10,329	9,613	-9.86%	-7.35%
Pop. Rate**	3.48	3.40	3.21	3.29	3.04	-12.52%	-9.03%
Pct of Total	31.47%	31.84%	30.79%	30.58%	29.38%	-6.65%	-5.74%

** Fatality rate per 100,000 population

Figure 5 shows the trend in Vermont's speeding-related fatalities. If this trend were to continue, the number of such fatalities would be **23.4** in 2014, **23.2** in 2015, and **23.0** in 2016. These figures have been extended by one decimal place to better illustrate the change. The R^2 value for this projection is 0.00. The three-year moving average fluctuates throughout the period.

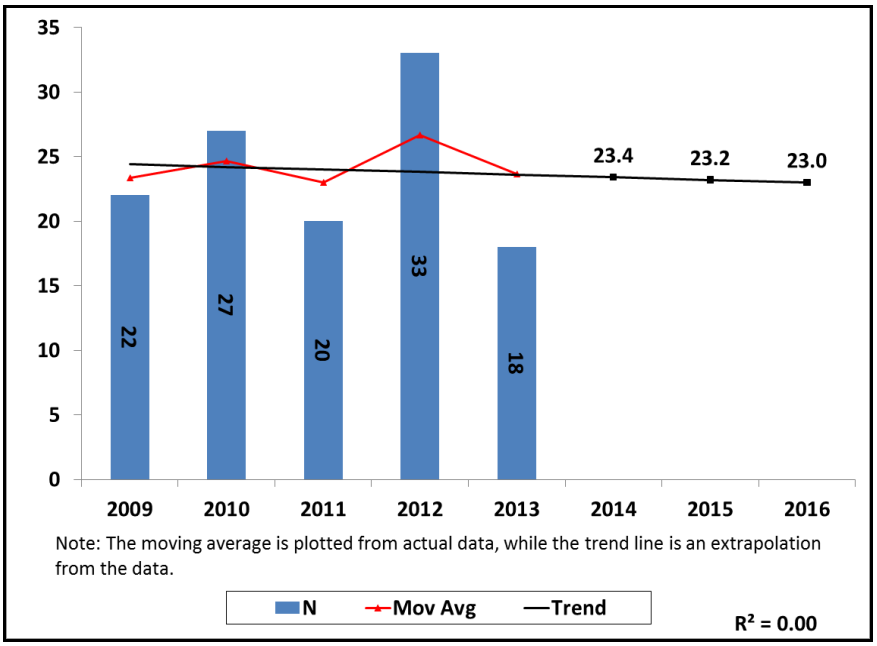


Figure 5. Vermont Speeding-Related Fatalities

Figure 6 presents a pattern similar to that seen in the preceding chart: a slightly declining linear trend and a fluctuating three-year moving average. Here the linear trend projects **3.73** deaths (per 100,000 population) in 2014, **3.70** in 2015, and **3.66** in 2016. The R^2 value for this trendline is 0.00.

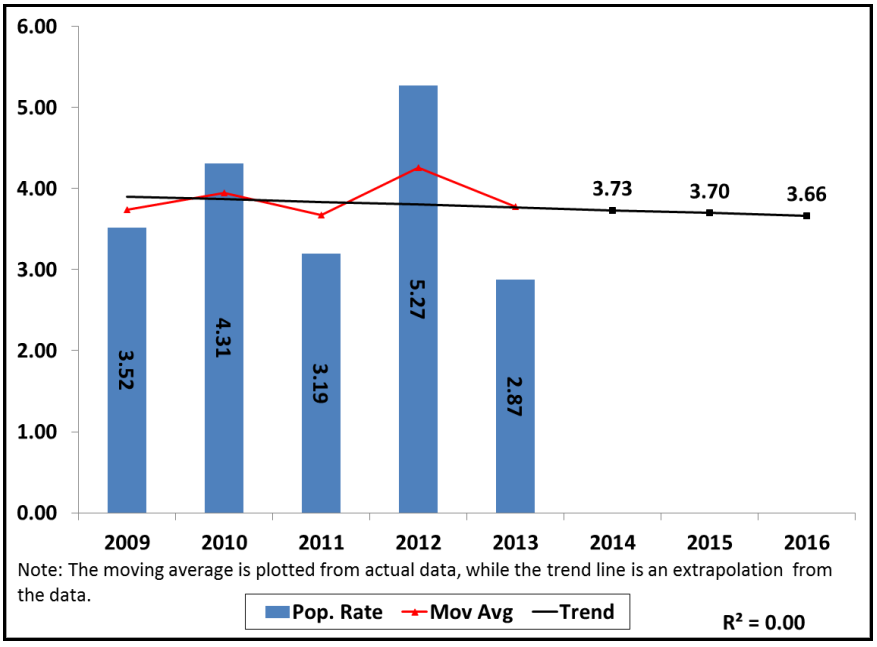


Figure 6. Vermont Speeding-Related Fatalities, Population Rate

Unbelted Passenger Vehicle Occupant Fatalities

Table 11 shows the numbers and rates of *unbelted passenger vehicle occupants* (i.e. occupants of passenger cars, light trucks, and vans) killed in Vermont from 2009 through 2013. The number fluctuated throughout the period, ranging from a low of 17 fatalities in 2011 to a high of 34 fatalities in 2012. The 2013 count (21 deaths) represents a 23.6% decrease compared to the 2009-2012 average (28 deaths), and a 25.0% decrease from the 2009 total (28 deaths).

Vermont's 2009-2013 population-based unbelted fatality rate (4.19 deaths per 100,000 population) is higher than the rates for both Region 1 (2.31) and the National (3.36) during the same years. Vermont's population-based unbelted fatality rate decreased in 2013 (3.35), by 23.7% compared to the 2009-2012 average (4.39), and by 25.4% compared to the 2009 rate (4.49).

In Vermont, *observed seat belt use* showed little change (a 0.1% increase in 2013 when compared to 2009-2012 average) during the five years, ranging from 84.2% in 2012 to 85.3% in 2009.

In Vermont, unbelted fatalities represented 37.8% *of all traffic-related deaths* in 2009, with this proportion fluctuating throughout the period, but ultimately decreasing in 2013. The value in 2013 (30.4%) represents a 23.4% decrease from the prior four-year average (39.7%), and a 19.6% decrease from the 2009 proportion. During the 2009-2013 period, Vermont represented 7.8% of all unbelted fatalities in Region 1, with this proportion ultimately decreasing, by 20.3% in 2013 (6.5%) when compared to the 2009-2012 average (8.2%).

Table 11. Vermont Unbelted Passenger Vehicle Occupant Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	28	31	17	34	21	-25.00%	-23.64%
Pop. Rate**	4.49	4.97	2.72	5.43	3.35	-25.35%	-23.71%
Pct of Total	37.84%	43.66%	30.91%	44.16%	30.43%	-19.57%	-23.36%
Pct of Region	8.14%	8.96%	5.30%	10.06%	6.50%	-20.12%	-20.27%
Observed Belt Use	85.3%	85.2%	84.7%	84.2%	84.9%	-0.47%	0.06%

**Fatality rate per 100,000 population

Table 12 presents data for such fatalities in Region 1. These data indicate that unbelted occupant fatalities decreased Regionally, by 4.2% in 2013 when compared to the prior four years, and by 6.1% in 2013 when compared to 2009. Similarly, the Region's population-based unbelted fatality rate decreased, by 5.1% in 2013 when compared to the 2009-2012 average. Unbelted deaths accounted for 32.8% of the Region's total traffic-related fatalities during the 2009-2013 period. The 2013 percent of total deaths represents a 3.7% decline in this proportion compared to the average of the prior four years, and an 8.5% decline compared to the 2009 proportion.

Table 12. Region 1 Unbelted Passenger Vehicle Occupant Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	344	346	321	338	323	-6.10%	-4.23%
Pop. Rate**	2.39	2.39	2.21	2.32	2.21	-7.49%	-5.14%
Pct of Total	34.75%	31.63%	34.08%	31.89%	31.79%	-8.51%	-3.71%

**Fatality rate per 100,000 population

Table 13 shows that Nationally, the number of unbelted occupant deaths declined overall, from 11,545 in 2009 to a five-year low of 9,580 in 2013. The 2013 total represents a 10.3% decrease from the 2009-2012 average, and a 17.0% decrease when compared to the 2009 total. Unbelted fatalities accounted for 31.5% of the Nation's traffic-related deaths during the 2009-2013 period. This proportion decreased successively during the five years, with the 2013 proportion representing an 8.8% decrease when compared to the 2009-2012 average.

Table 13. Nationwide Unbelted Passenger Vehicle Occupant Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	11,545	10,590	10,215	10,370	9,580	-17.02%	-10.30%
Pop. Rate**	3.76	3.42	3.28	3.30	3.03	-19.48%	-11.92%
Pct of Total	34.07%	32.09%	31.45%	30.70%	29.28%	-14.07%	-8.75%

**Fatality rate per 100,000 population

The five-year trends in the *number* and *rate* of *unbelted occupant* fatalities in Vermont are shown in Figures 7 and 8. With regard to fatalities (Figure 7), the linear trend projects **23** such deaths in 2014, **22** deaths in 2015, and **21** deaths in 2016. The calculated R^2 value for this trendline is 0.06. The three-year moving average fluctuates throughout the period.

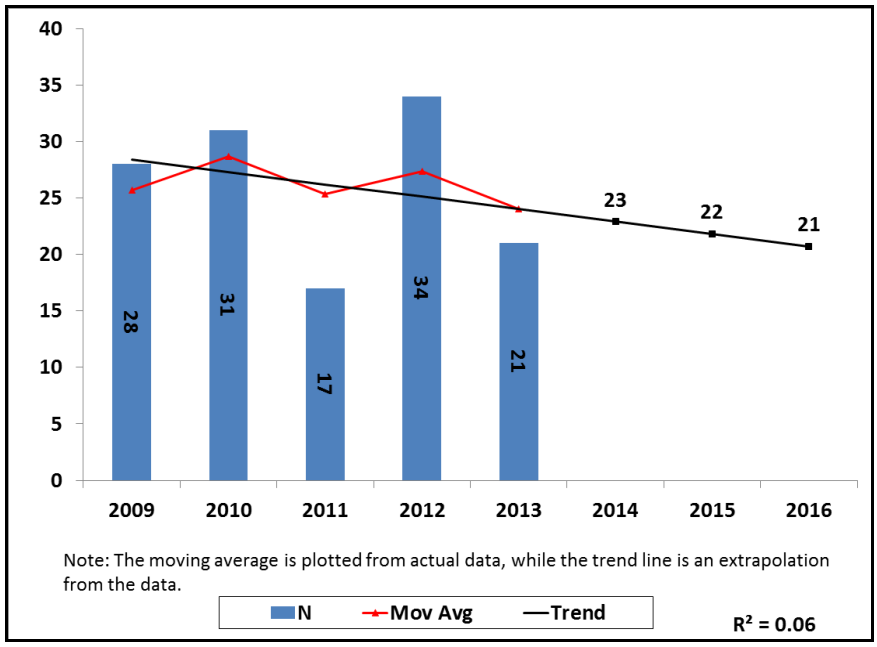


Figure 7. Vermont Unbelted Passenger Vehicle Occupant Fatalities

Figure 8 shows the declining trend for the *population-based* fatality rate for unbelted fatalities in Vermont. If this linear trend were to continue, the State's unbelted death rate would be **3.65** (deaths per 100,000 residents) in 2014, **3.47** in 2015, and **3.29** in 2016. Here, the R^2 value is also 0.06 and the moving average shows a similar pattern as that seen in Figure 7, above.

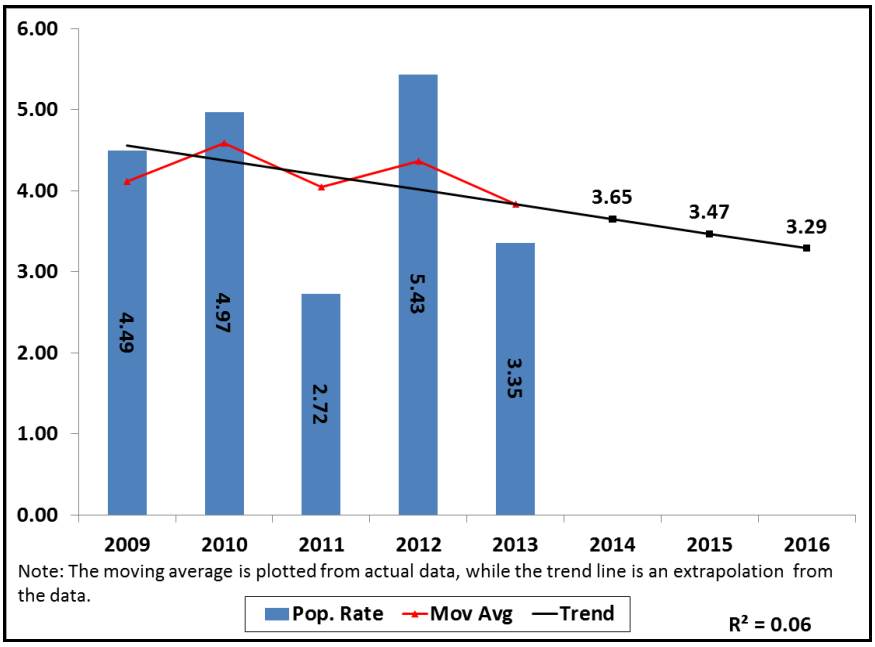


Figure 8. Vermont Unbelted Passenger Vehicle Occupant Fatalities, Population Rate

Motorcycle Rider Fatalities

Motorcycle riders include both operators and passengers of a motorcycle. The term "motorcyclist" also includes both the operator and the passenger.

Table 14 shows that during the 2009-2013 period in Vermont, the *number of motorcyclist deaths* fluctuated year-by-year, ranging from a low of 6 deaths in 2010 to a high of 11 deaths in 2011. The count in 2013 (7 fatalities) represents a 15.2% decrease when compared to the prior four-year average (8 fatalities), and a 12.5% decrease compared to the 2009 total (8 fatalities).

Vermont's *population-based motorcyclist death rate* followed a similar pattern as the number of fatalities, fluctuating each year, but ultimately decreasing in 2013. The 2013 rate (1.12 deaths per 100,000 population) represents a 15.2% decrease when compared to the 2009-2012 average (1.32), and a 12.9% decrease when compared to 2009 (1.28). The population-based motorcyclist death rate in Vermont for all five years (1.28 deaths per 100,000 residents) is higher than the Regional rate (1.11), but both are lower than the National rate (1.49) during the same timeframe.

In Vermont, the motorcyclist *percent of total* traffic-related deaths fluctuated throughout the 2009-2013 period, decreasing by 14.8% in 2013 (10.1%) when compared to the 2009-2012

average (11.9%), and decreasing by 6.2% in 2013 when compared to the 2009 proportion (10.8%). Over all five years, Vermont motorcyclists comprised 5.0% of motorcyclists deaths in Region 1, with the 2013 percent (4.7%) representing a decrease of 6.3% when compared to the prior four-year average (5.0%), but little change (a 1.0% increase) when compared to the 2009 figure.

Unhelmeted motorcyclists accounted for 2 of Vermont's motorcyclist fatalities in 2009, with this increasing in 2013 (2 fatalities) by 60.0% when compared to the 2009-2012 average (1 fatality), but showing no change when compared to the number in 2009. As a percentage of all motorcyclist deaths in the State, unhelmeted motorcyclists accounted for an average of 17.5% during the 2009-2013 period, with the 2013 proportion (28.6%) representing an 88.6% increase compared to the prior four years (15.2%), but a smaller, 14.3% increase when compared to the 2009 proportion (25.0%). This is with the understanding that there were relatively few unhelmeted motorcyclist fatalities in Vermont during the 2009-2013 period, so the percent change is sensitive to small differences.

Table 14. Vermont Motorcycle Rider Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	8	6	8	11	7	-12.50%	-15.15%
Pop. Rate*	1.28	0.96	1.28	1.76	1.12	-12.91%	-15.24%
Pct of Total	10.81%	8.45%	14.55%	14.29%	10.14%	-6.16%	-14.84%
Pct of Region	4.65%	3.31%	6.20%	6.25%	4.70%	1.01%	-6.32%
Unhelmeted Fatalities	2	0	1	2	2	0.00%	60.00%
Pct Unhelmeted Fatalities	25.00%	0.00%	12.50%	18.18%	28.57%	14.29%	88.57%

* Fatality rate per 100,000 population

Table 15 provides data for such fatalities in Region 1. The number motorcyclist fatalities fluctuated across the Region during the five-year period, but ultimately decreased in 2013. The 2013 total (149 deaths) represents a 9.4% decrease when compared to the 2009-2012 average (165), and a 13.4% decrease when compared to the 2009 count (172). The population-based fatality rate followed a similar pattern as the number of fatalities, decreasing by 10.3% in 2013 (1.02 deaths per 100,000 population) when compared to the prior four years (1.14), and falling by 14.7% in 2013 when compared to the 2009 proportion (1.19).

The Regional *motorcyclist percent of total deaths* decreased as well, by 8.9% in 2013 (14.7%) compared to the 2009-2012 average (16.1%). The Region's number of unhelmeted deaths decreased during the five-year period (by 14.7% in 2013 when compared to the 2009-2012 average); the Region's proportion motorcyclist fatalities that were *unhelmeted* decreased by 5.8% during the same timeframe.

Table 15. Region 1 Motorcycle Rider Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	172	181	129	176	149	-13.37%	-9.42%
Pop. Rate*	1.19	1.25	0.89	1.21	1.02	-14.65%	-10.29%
Pct of Total	17.37%	16.54%	13.69%	16.60%	14.67%	-15.59%	-8.93%
Unhelmeted Fatalities	79	85	63	73	64	-18.99%	-14.67%
Pct Unhelmeted Fatalities	45.9%	47.0%	48.8%	41.5%	43.0%	-6.48%	-5.79%

* Fatality rate per 100,000 population

As seen in Table 16, Nationally, the number of motorcyclist fatalities and the population-based fatality rate showed minimal change in 2013 when compared to the 2009-2012 average, and the Nation's motorcyclist percent of total deaths increased slightly. During the same timeframe, throughout the U.S. the number of unhelmeted deaths decreased slightly (by 3.4%), as did the Nation's proportion of motorcyclist deaths that were *unhelmeted* (a 3.7% decrease).

Table 16. Nationwide Motorcycle Rider Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	4,469	4,518	4,630	4,986	4,668	4.45%	0.37%
Pop. Rate*	1.46	1.46	1.49	1.59	1.48	1.36%	-1.45%
Pct of Total	13.19%	13.69%	14.26%	14.76%	14.27%	8.17%	2.11%
Unhelmeted Fatalities	1,915	1,868	1,852	2,039	1,854	-3.19%	-3.36%
Pct Unhelmeted Fatalities	42.85%	41.35%	40.00%	40.89%	39.72%	-7.31%	-3.72%

* Fatality rate per 100,000 population

The next two figures present annual and projected motorcycle fatalities and population-based fatality rates for Vermont. Figure 9 shows an increasing linear trend that projects **8.9** deaths in 2014, **9.2** in 2015, and **9.5** in 2016. The R^2 value for this trendline is 0.06. The three-year moving average initially declines, but increases throughout the rest of the period.

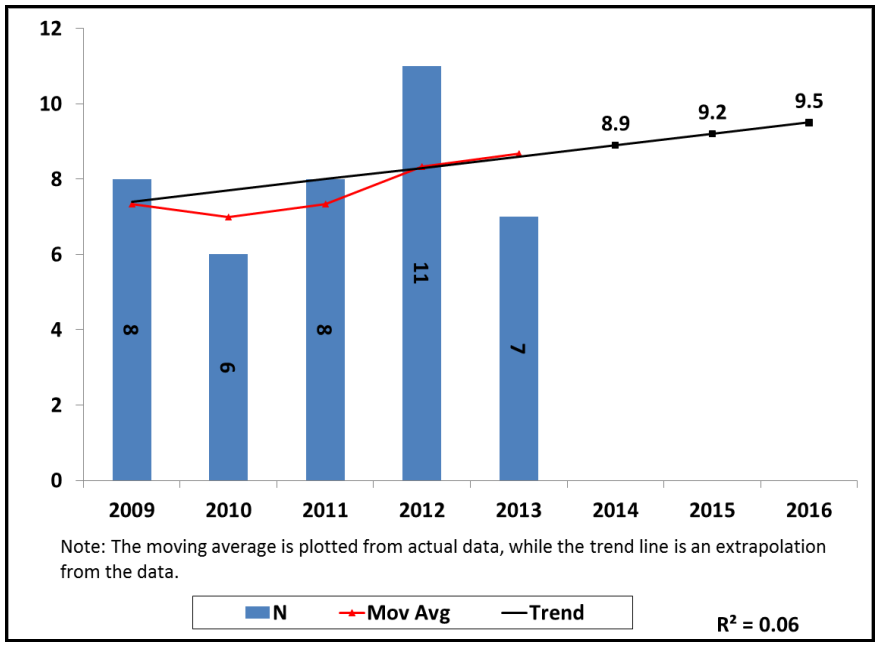


Figure 9. Vermont Motorcycle Rider Fatalities

Figure 10 shows a similar trend for Vermont's population-based fatality rate for motorcyclists. If this trend were to continue, there would be **1.42** such deaths per 100,000 residents in 2014, **1.47** deaths in 2015, and **1.51** in 2016. The R^2 value for this trendline is 0.06 and the three-year moving average shows a similar pattern to that seen in Figure 9.

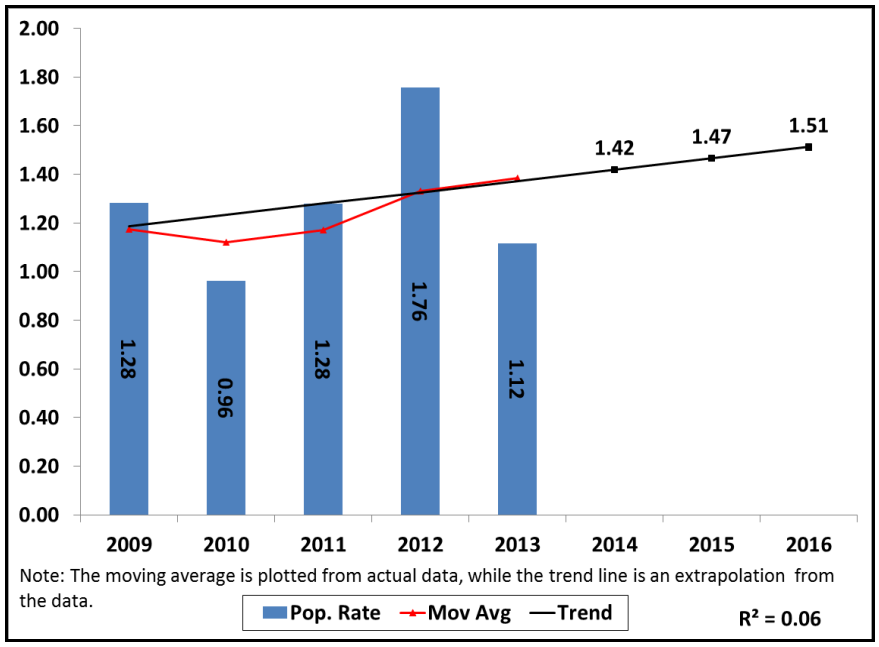


Figure 10. Vermont Motorcycle Rider Fatalities, Population Rate

Pedestrian Fatalities

Table 17 shows the *number* and *rate* of pedestrian deaths in Vermont, both of which fluctuated during the 2009-2013 period, ranging from 3 deaths in 2011 to 10 deaths in 2012. The number of pedestrians deaths in Vermont in 2013 (5) represents a 9.1% decrease when compared to the prior four-year average (6), but no change when compared to the 2009 figure. The State's population-based pedestrian fatality rate also fell by 9.2% in 2013 (0.80 deaths per 100,000 population) when compared to the prior four-year average (0.88), but showed little change (a 0.3% decrease) when compared to the 2009 rate. Over all five years, Vermont's population-based death rate for pedestrians (0.86) was lower than that seen for Region 1 (0.95), and both were lower than that of the U.S. as a whole (1.44).

Throughout the five years shown in Table 17, pedestrians accounted for 7.8% of all traffic-related deaths in Vermont, with this number fluctuating throughout the 2009-2013 period. The 2013 percentage (7.3%) represents an 8.8% decrease in this index when compared to the 2009-2012 average (7.9%), but a 7.3% *increase* when compared to the 2009 proportion (6.8%).

Vermont pedestrian fatalities accounted for 3.9% of all Region 1 pedestrian deaths throughout the 2009-2013 period, with the percentage in 2013 (3.4%) representing a decrease of 15.3%

when compared to the prior four years (4.0%), and a decrease of 23.3% when compared to 2009 (4.5%).

Table 17. Vermont Pedestrian Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	5	4	3	10	5	0.00%	-9.09%
Pop. Rate*	0.80	0.64	0.48	1.60	0.80	-0.29%	-9.21%
Pct of Total	6.76%	5.63%	5.45%	12.99%	7.25%	7.25%	-8.76%
Pct of Region	4.46%	2.70%	2.36%	6.37%	3.42%	-23.29%	-15.32%

* Fatality rate per 100,000 population

Table 18 shows that the number of pedestrian fatalities ultimately increased across Region 1, by 7.4% in 2013 when compared to the average of the prior four years, and by 30.4% in 2013 when compared to 2009. The Regional population-based fatality rate increased in 2013 as well (by 6.3%), as did the Region's proportion of pedestrian fatalities to total traffic fatalities (a 7.9% increase). Again, these changes in 2013 are relative to the respective prior four-year average. Throughout the 2009-2013 period, pedestrians accounted for 13.5% of the Region's traffic-related deaths, 13.5% of the Nation's, and 7.8% of Vermont's.

Table 18. Region 1 Pedestrian Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	112	148	127	157	146	30.36%	7.35%
Pop. Rate*	0.78	1.02	0.88	1.08	1.00	28.44%	6.33%
Pct of Total	11.31%	13.53%	13.48%	14.81%	14.37%	27.02%	7.93%

* Fatality rate per 100,000 population

Table 19 indicates that Nationwide, pedestrians accounted for an average of 4,484 deaths throughout the 2009-2013 period. Nationwide, pedestrian fatalities increased by 7.1% and the population-based fatality rate increased by 5.2%, each in 2013 when compared to the respective 2009-2012 average. Across the U.S., pedestrians accounted for 13.5% of all 2009-2013 traffic-related fatalities, with the 2013 proportion representing a 9.0% increase when compared to the average of the prior four years.

Table 19. Nationwide Pedestrian Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs.2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	4,109	4,302	4,457	4,818	4,735	15.23%	7.09%
Pop. Rate*	1.34	1.39	1.43	1.53	1.50	11.82%	5.15%
Pct of Total	12.13%	13.04%	13.72%	14.26%	14.47%	19.33%	8.95%

*Fatality rate per 100,000 population

The trends in the *numbers* and *rates* of pedestrian fatalities in Vermont are shown in Figures 11 and 12, respectively. Figure 11 shows an increasing linear trend for the *number* of pedestrian deaths, projecting **7.2** such deaths in each 2014, **7.8** in 2015, and **8.4** in 2016. The R^2 value for this trendline is 0.12. The three-year moving average increases throughout the period.

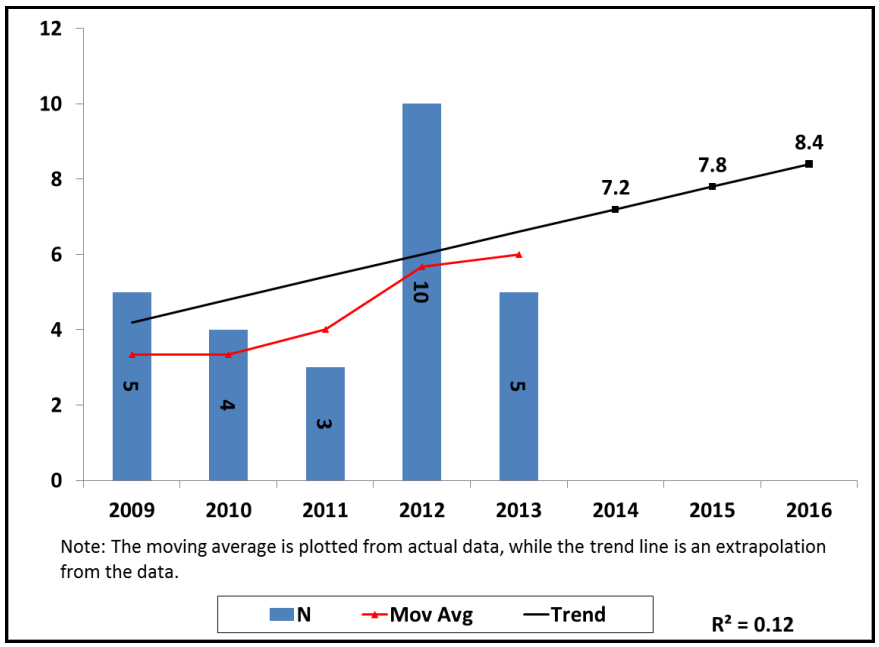


Figure 11. Vermont Pedestrian Fatalities

Figure 12 shows an upward trend for Vermont's *population-based pedestrian fatality rate*, projecting **1.15** deaths per 100,000 residents in 2014, **1.24** in 2015, and **1.34** in 2016. Here, the R^2 value is 0.12 and the three-year moving average shows a steady incline.

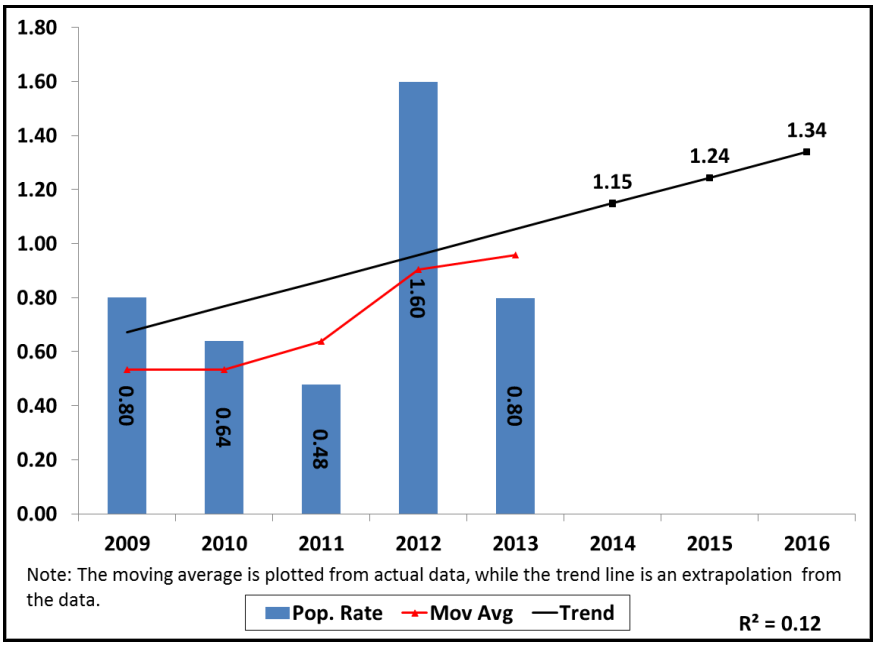


Figure 12. Vermont Pedestrian Fatalities, Population Rate

Bicyclist Fatalities

Table 20 presents the number and rate of bicyclist fatalities in Vermont for the 2009-2013 period. Tables 21 and 22 provide such data for Region 1 and the U.S., respectively. Throughout all five years, bicyclist fatalities accounted for 0.3% of all traffic-related fatalities in Vermont; 1.7% across the Region; and 2.1% Nationwide.

There was just one bicyclist fatality in Vermont during the 2009-2013 period, with this death occurring in 2010. In respect to change, all indices (i.e. the number of fatalities, the population-based fatality rate,) show decreases of 100.0% in 2013 when compared to their respective four-year averages. This is with the understanding that as there were relatively few bicyclist fatalities in Vermont during the 2009-2013 period, the percent change is sensitive to small differences.

To compare, bicyclist fatalities increased by 21.2% Regionally and by 11.4% Nationally, each in 2013 when compared to the respective prior four-year average. Similarly, the Region experienced a 20.1% increase in the bicyclist population-based fatality rate when comparing 2013 with the 2009-2012 average, while the Nation saw a 9.4% increase in this index.

Throughout the entire 2009-2013 period, Vermont bicyclists accounted for 1.2% of all bicyclist fatalities across Region 1.

Table 20. Vermont Bicyclist Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	0	1	0	0	0	N/A	-100.00%
Pop. Rate*	0.00	0.16	0.00	0.00	0.00	N/A	-100.00%
Pct of Total	0.00%	1.41%	0.00%	0.00%	0.00%	N/A	-100.00%
Pct of Region	0.00%	5.56%	0.00%	0.00%	0.00%	N/A	-100.00%

* Fatality rate per 100,000 population

Table 21. Region 1 Bicyclist Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	8	18	17	23	20	150.00%	21.21%
Pop. Rate*	0.06	0.12	0.12	0.16	0.14	146.32%	20.05%
Pct of Total	0.81%	1.65%	1.80%	2.17%	1.97%	143.60%	21.87%

* Fatality rate per 100,000 population

Table 22. Nationwide Bicyclist Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	628	623	682	734	743	18.31%	11.44%
Pop. Rate*	0.20	0.20	0.22	0.23	0.24	14.81%	9.42%
Pct of Total	1.85%	1.89%	2.10%	2.17%	2.27%	22.52%	13.37%

* Fatality rate per 100,000 population

Figure 13 and Figure 14 show trends in the *number* and *rate* of bicyclist fatalities in Vermont. Figure 13 shows no values for 2014, 2015, and 2016 because the model used for the linear trend generates negative numbers. The R^2 value for this trendline is 0.13. The three-year moving average shows an increase in the middle of the period.

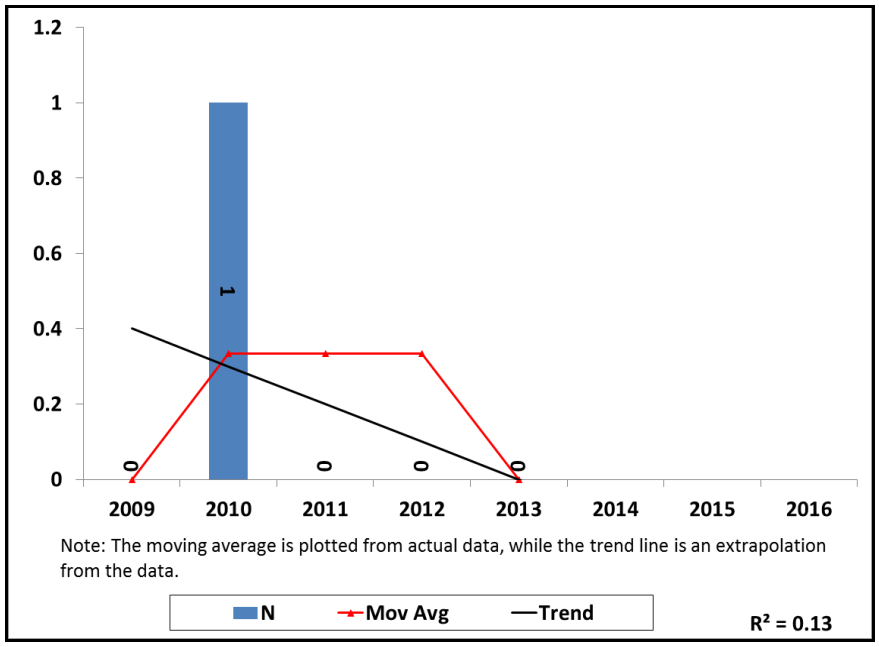


Figure 13. Vermont Bicyclist Fatalities

Figure 14 shows a similar pattern for Vermont's population-based bicyclist fatality rate. No value is shown for 2014, 2015, and 2015 because the model used for the linear trend generates a negative number. The R^2 value for this trendline is 0.13 and the three-year moving average follows the same pattern as that above.

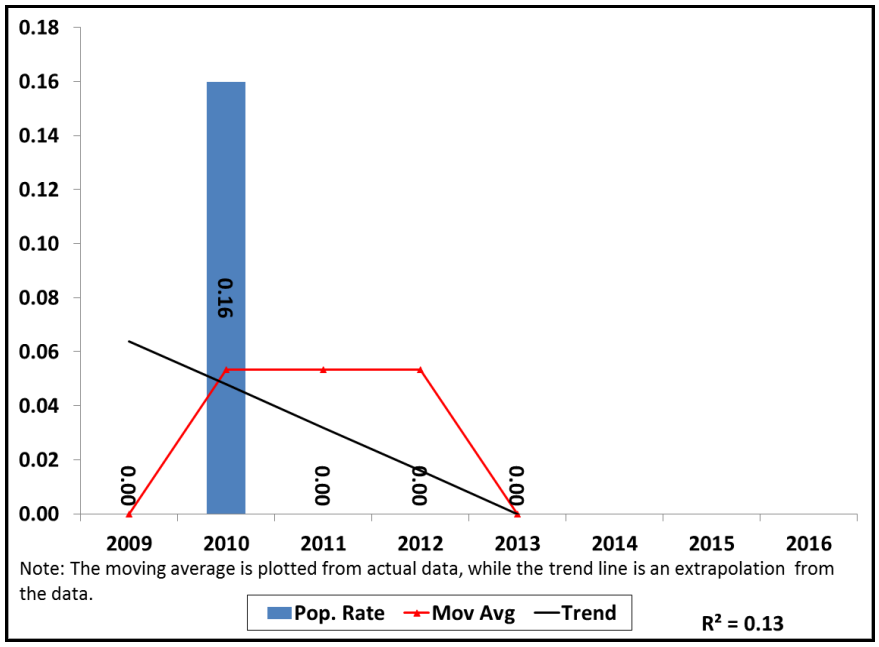


Figure 14. Vermont Bicyclist Fatalities, Population Rate

Fatalities Involving Young Drivers

Table 23 shows the number of fatalities (all ages) resulting from Vermont crashes involving a driver between 16 and 20 years of age. In 2009, there were 11 such deaths, with this number fluctuating throughout the five-year period. The number of young driver-involved deaths in 2013 (10) represents a 17.7% increase compared to the 2009-2012 average (9), but a 9.1% *decrease* compared to the 2009 total.

In Vermont, the young driver-involved population-based fatality rate followed a similar pattern as the number of fatalities, with the 2013 rate (1.60 deaths per 100,000 population) representing a 17.5% increase when compared to the prior four-year average (1.36), but a 9.4% *decrease* from the 2009 rate (1.76). Throughout the five-year period, the young driver-involved population-based death rate in Vermont (1.41 deaths per 100,000 residents) was higher than the 2009-2013 Regional rate (0.94), but both were lower than the National rate (1.54).

In 2009, 14.9% of all traffic-related fatalities in Vermont involved young drivers, with this proportion similarly fluctuating throughout the 2009-2013 period. The 2013 proportion (14.5%) represents an 18.1% increase compared to the 2009-2012 average (12.3%), but a 2.5% *decrease* compared to the 2009 proportion. Vermont's young driver-involved fatalities increased as a percent of such deaths across Region 1, by 27.1% in 2013 (7.8%) when compared to the prior four years (6.2%), but by a smaller, 8.7% when compared to 2009 (7.2%). During all five years, Vermont accounted for 6.5% Region 1's young driver-involved fatalities.

Table 23. Vermont Young Driver-Involved Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	11	6	10	7	10	-9.09%	17.65%
Pop. Rate*	1.76	0.96	1.60	1.12	1.60	-9.35%	17.49%
Pct of Total	14.86%	8.45%	18.18%	9.09%	14.49%	-2.50%	18.07%
Pct of Region	7.19%	4.11%	7.81%	5.56%	7.81%	8.66%	27.07%

* Fatality rate per 100,000 population

Table 24 shows that young driver-involved deaths decreased Regionally. The 2013 total represents a 7.4% decrease from the prior four-year average, and a 16.3% decrease from the 2009 total. In 2013, the Region's population-based young driver-involved fatality rate was 0.88; this represents an 8.3% decrease compared to the 2009-2012 average, and a 17.6% decrease from the 2009 rate. Young driver-involved fatalities accounted for 15.5% of all Region 1 traffic-related deaths in 2009, with this percentage ultimately decreasing. The 2013 proportion of 12.6% represents a decrease of 6.9% compared to the prior four-year average, and a decrease of 18.5% compared to the 2009 proportion.

Table 24. Region 1 Young Driver-Involved Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	153	146	128	126	128	-16.34%	-7.41%
Pop. Rate*	1.06	1.01	0.88	0.87	0.88	-17.57%	-8.30%
Pct of Total	15.45%	13.35%	13.59%	11.89%	12.60%	-18.48%	-6.91%

* Fatality rate per 100,000 population

Table 25 shows that young driver-involved fatalities also decreased Nationally, by 14.2% in 2013 compared to the 2009-2012 average, and by 23.4% in 2013 when compared to the 2009 total; this number decreased successively each year.

The young driver-involved population-based fatality rate decreased Nationally as well, by 15.7% in 2013 when compared to the prior four years, and by 25.6% in 2013 when compared to that in 2009. Again, this figure decreased year-by-year throughout the period observed.

Young driver-involved deaths accounted for 14.5% of all deaths across the U.S. from 2009 through 2013, declining from 16.4% in 2009 to 13.0% in 2013.

Table 25. Nationwide Young Driver-Involved Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	5,544	4,936	4,726	4,596	4,248	-23.38%	-14.19%
Pop. Rate*	1.81	1.60	1.52	1.46	1.34	-25.64%	-15.74%
Pct of Total	16.36%	14.96%	14.55%	13.60%	12.98%	-20.65%	-12.70%

* Fatality rate per 100,000 population

Figure 15 shows the trend in Vermont's young driver-involved fatalities. If this trend were to continue, there would be **8.5** such fatalities in 2014, **8.4** in 2015, and **8.3** in 2016. These figures have been extended by one decimal place to better illustrate the change. The calculated R^2 value for this trendline is 0.01. The three-year moving average indicates a downward trend, despite an increase at the end of the period.

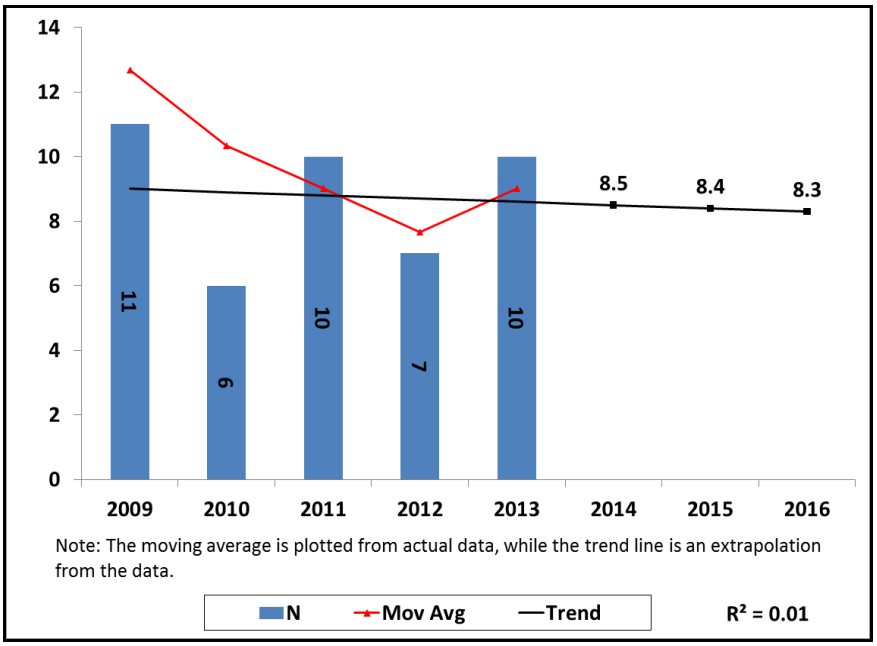


Figure 15. Vermont Young Driver-Involved Fatalities

Figure 16 presents the trend for the population-based fatality rate. The linear trendline projects **1.35** deaths per 100,000 residents in 2014, **1.34** in 2015, and **1.32** in 2016. Here, the R^2 value is 0.01. The three-year moving average shows a similar pattern as that seen in Figure 15.

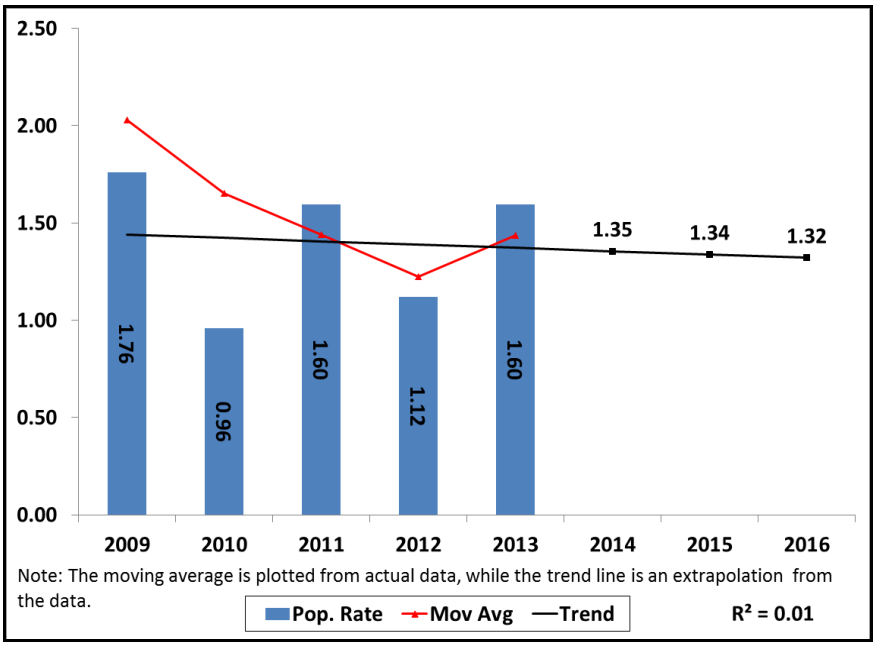


Figure 16. Vermont Young Driver-Involved Fatalities, Population Rate

Fatalities Involving Older Drivers (Ages 65 and Above)

Tables 26, 27, and 28 show the numbers and rates of fatalities in crashes involving drivers ages 65 and above in Vermont, across Region 1, and throughout the U.S., respectively.

Table 26 shows that the number of older driver-involved deaths in Vermont fluctuated somewhat throughout the period ranging from a high of 23 fatalities in 2010 to a low of 14 fatalities in 2011. The 2013 total (20) represents a 14.3% increase when compared to the prior four-year average (17.5), and an 11.1% increase when compared to the count in 2009 (18).

Vermont's older driver-involved population-based fatality rate varied as well, but ultimately increased. The 2013 rate (3.19) is 14.1% higher than the 2009-2012 average (2.80), and 10.8% higher than the 2009 rate (2.88). Vermont's older driver-involved population death rate for all five years (2.88 deaths per 100,000 population) is higher than both the Regional rate (1.38) and the National rate (1.86) for the same timeframe.

Table 26 shows that in Vermont, the older driver proportion of all fatalities fluctuated throughout the five-year period, from a high of 32.4% in 2010 to a low of 19.5% in 2012. The 2013 proportion (29.0%) represents a 14.7% increase compared to the prior four-year average (25.3%), and a 19.2% increase compared to the 2009 value (24.3%).

Vermont's older driver-involved deaths accounted for 9.0% of such deaths across Region 1 during the 2009-2013 period, with this proportion fluctuating throughout the five years. The 2013 value (9.3%) shows a 4.1% increase when compared to the prior four years (8.9%), but a 9.0% *decrease* when compared to the 2009 proportion (10.2%).

Overall, these data indicate that in Vermont, the number of older driver-involved fatalities followed a different pattern that than seen for total fatalities, which showed little change in 2013 when compared to the prior four years. In 2013, the number of Vermont's older driver-involved fatalities increased (by 14.3%), as did the State's older driver-involved *proportion of total deaths* (14.7%) (see Table 1).

Table 26. Vermont Older Driver-Involved Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	18	23	14	15	20	11.11%	14.29%
Pop. Rate*	2.88	3.67	2.23	2.40	3.19	10.79%	14.14%
Pct of Total	24.32%	32.39%	25.45%	19.48%	28.99%	19.16%	14.70%
Pct of Region	10.17%	11.33%	7.87%	6.55%	9.26%	-8.95%	4.10%

* Fatality rate per 100,000 population

Table 27 shows that for Region 1, the number of older driver-involved deaths fluctuated throughout the period, but ultimately increased. The 2013 total represents a 9.4% increase from the 2009-2012 average, and a larger, 22.0% increase from the 2009 total.

In Region 1, the older driver-involved population-based fatality rate fluctuated somewhat as well, but again ultimately increased. The 2013 rate (per 100,000 residents) represents an 8.7% increase when compared to the prior four-year average, and a 20.2% increase compared to the 2009 value.

Overall, older driver-involved deaths accounted for 19.7% of all 2009-2013 traffic-related fatalities in Region 1, with this proportion ultimately increasing in 2013. The 2013 proportion represents a 10.4% increase compared to the 2009-2012 average, and an 18.9% increase compared to the 2009 proportion.

Table 27. Region 1 Older Driver-Involved Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	177	203	178	229	216	22.03%	9.78%
Pop. Rate*	1.23	1.40	1.23	1.57	1.48	20.24%	8.73%
Pct of Total	17.88%	18.56%	18.90%	21.60%	21.26%	18.91%	10.38%

* Fatality rate per 100,000 population

Table 28 shows that Nationwide, the fatality count ultimately *increasing* to its highest point of the period in 2013. The 2013 number is 4.7% higher than the average of the prior four years, and 7.1% higher than the 2009 count.

The U.S. population-based fatality rate followed a similar pattern as the number of fatalities, fluctuating mildly but peaking in 2013. The 2013 rate of 1.90 deaths per 100,000 population represents an increase of 2.8% from the 2009-2012 average, and an increase of 4.0% from the 2009 value.

Throughout the five years, older driver-involved deaths accounted for 17.5% all traffic deaths in the U.S., with this proportion increasing throughout the period, by 6.5% in 2013 compared to the prior four-year average, and by 11.0% in 2013 when compared to the 2009 value.

Table 28. Nationwide Older Driver-Involved Fatalities

	2009	2010	2011	2012	2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Fatalities	5,613	5,782	5,636	5,940	6,014	7.14%	4.72%
Pop. Rate*	1.83	1.87	1.81	1.89	1.90	3.97%	2.83%
Pct of Total	16.57%	17.52%	17.35%	17.58%	18.38%	10.96%	6.54%

*Fatality rate per 100,000 population

Figure 17 shows the trend for Vermont's older driver-involved fatalities. If this trend were to continue, there would be **16.8** such fatalities in 2014, **16.4** in 2015, and **16.0** in 2016. These figures have been extended by one decimal place to better illustrate change. The calculated R^2 value for this trendline is 0.03, and the three-year moving average initially increases, but falls throughout the rest of the period

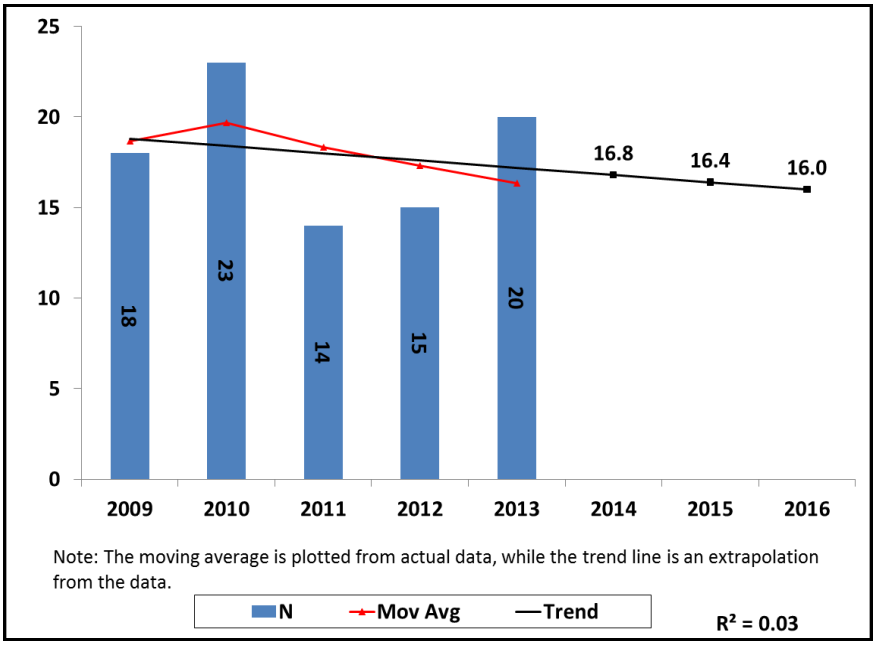


Figure 17. Vermont Older Driver-Involved Fatalities

Figure 18 shows a declining trend for Vermont's older driver-involved population-based fatality rate. If this trend were to continue, there would be **2.68** fatalities per 100,000 population in 2014, **2.61** in 2015, and **2.55** in 2016. The R^2 value here is 0.03. The three-year moving average follows a similar pattern as that seen in the previous figure.

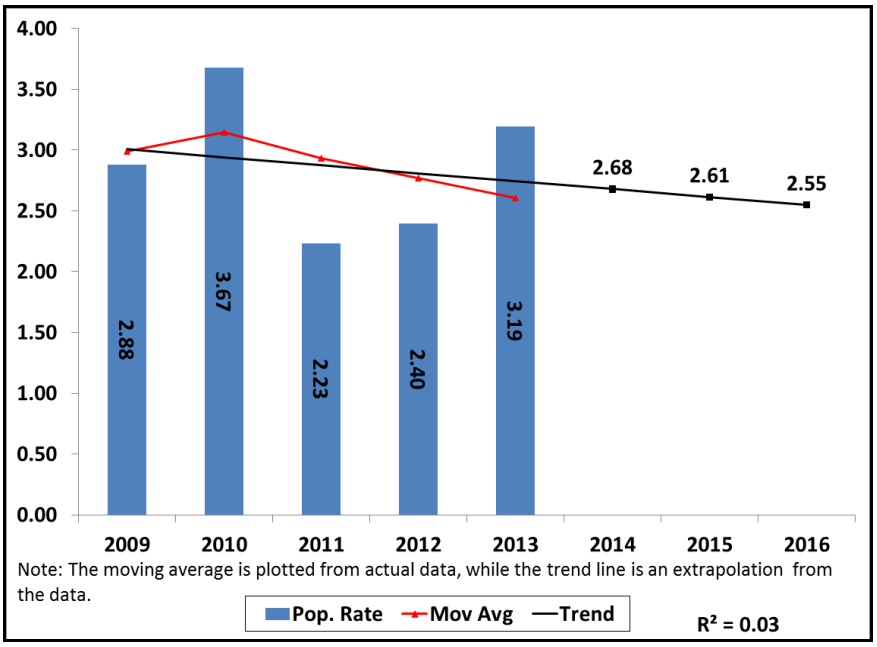


Figure 18. Vermont Older Driver-Involved Fatalities, Population Rate

EMPHASIS AREA DATA PROFILES

I. FATALITIES

FATALITIES – KEY FINDINGS

In the period 2009-2013:

- Overall fatalities showed little change in Vermont (decreasing by 0.4%) and across Region 1 (decreasing by 0.5%), but decreased slightly throughout the U.S. as a whole (-1.7%). In 2013, Vermont saw the largest decreases in bicyclist fatalities (-100.0%), speeding fatalities (-29.4%), and unrestrained occupant fatalities (-23.6%). During the same years, the State saw the largest increases in passenger fatalities (+44.0%), young driver-involved fatalities (+17.7%), and older driver-involved fatalities (+14.3%) (Table 29).
- Of the 14 counties in the State, five counties accounted for the majority (55.2%) of fatalities during the 2009-2013 period: Rutland (12.4%); Chittenden (11.6%); Windsor (11.0%); Orleans (10.4%); and Washington (9.8%) (Table 30).
- The five counties that averaged the highest population-based fatality rates during the five-year period (per 100,000 population) were: Orleans (26.49); Rutland (14.04); Windsor (13.46); Caledonia (12.83); and Windham (12.67) (Table 31).
- Persons ages 55-64 constituted a plurality of fatalities in Vermont for the years 2009 through 2013 (15.0%). In contrast, throughout the Region and the Nation, persons ages 25-34 made up the plurality of fatalities (15.8% and 17.1%, respectively). In Vermont, however, persons ages 21-24 had the highest population-based fatality rate, with 25.69 fatalities per 100,000 population. Males constituted 64.7% of Vermont's traffic-related fatalities, compared to 70.5% in Region 1, and 70.4% Nationwide (Table 32).
- At the time this report was produced, 2013 race and Hispanic origin data were not available (Table 33).
- The largest percentage of 2009-2013 traffic fatalities occurred on arterial roads, in Vermont (38.2%), across Region 1 (32.5%), and throughout the U.S. as a whole (44.0%). In Vermont, collector roads saw the next highest proportion (30.4%), followed by local roads (19.7%). In Vermont and across the Nation, the smallest proportion of traffic-related fatalities occurred on interstates/expressways (11.6% and 16.0%, respectively); in Region 1, such fatalities were least frequent on collector roads (11.7%) (Table 34).

Table 29. Fatalities by Type

	2009	2010	2011	2012	2013	Total 2009 - 2013	% Change: 2013 vs. 2009	% Change: 2013 vs. prior 4-yr Avg.
Total Fatalities†								
Vermont	74	71	55	77	69	346	-6.76%	-0.36%
Region	990	1,094	942	1,060	1,016	5,102	2.63%	-0.54%
U.S.	33,883	32,999	32,479	33,782	32,719	165,862	-3.44%	-1.70%
Driver Fatalities*								
Vermont	56	50	40	54	46	246	-17.86%	-8.00%
Region	667	728	643	698	680	3,416	1.95%	-0.58%
U.S.	21,835	21,072	20,815	21,490	20,871	106,083	-4.41%	-2.03%
Passenger Fatalities*								
Vermont	12	16	11	11	18	68	50.00%	44.00%
Region	201	192	148	174	163	878	-18.91%	-8.81%
U.S.	7,097	6,761	6,256	6,436	6,111	32,661	-13.89%	-7.93%
Motorcyclist Fatalities								
Vermont	8	6	8	11	7	40	-12.50%	-15.15%
Region	172	181	129	176	149	807	-13.37%	-9.42%
U.S.	4,469	4,518	4,630	4,986	4,668	23,271	4.45%	0.37%
Pedestrian Fatalities								
Vermont	5	4	3	10	5	27	0.00%	-9.09%
Region	112	148	127	157	146	690	30.36%	7.35%
U.S.	4,109	4,302	4,457	4,818	4,735	22,421	15.23%	7.09%
Bicyclist Fatalities								
Vermont	0	1	0	0	0	1	N/A	-100.00%
Region	8	18	17	23	20	86	150.00%	21.21%
U.S.	628	623	682	734	743	3,410	18.31%	11.44%
Impaired Driving Fatalities								
Vermont	24	18	18	24	18	102	-25.00%	-14.29%
Region	336	371	314	363	363	1,747	8.04%	4.91%
U.S.	10,759	10,136	9,865	10,336	10,076	51,172	-6.35%	-1.93%
Speeding Fatalities								
Vermont	22	27	20	33	18	120	-18.18%	-29.41%
Region	341	412	346	358	303	1,760	-11.14%	-16.82%
U.S.	10,664	10,508	10,001	10,329	9,613	51,115	-9.86%	-7.35%
Unrestrained Occupant Fatalities								
Vermont	28	31	17	34	21	131	-25.00%	-23.64%
Region	344	346	321	338	323	1,672	-6.10%	-4.23%
U.S.	11,545	10,590	10,215	10,370	9,580	52,300	-17.02%	-10.30%
Young Driver-Involved Fatalities								
Vermont	11	6	10	7	10	44	-9.09%	17.65%
Region	153	146	128	126	128	681	-16.34%	-7.41%
U.S.	5,544	4,936	4,726	4,596	4,248	24,050	-23.38%	-14.19%
Older Driver-Involved Fatalities								
Vermont	18	23	14	15	20	90	11.11%	14.29%
Region	177	203	178	229	216	1,003	22.03%	9.78%
U.S.	5,613	5,782	5,636	5,940	6,014	28,985	7.14%	4.72%

* Fatality types cross multiple categories; therefore, some fatalities contribute to multiple categories (rows) in this table.
† Total includes unknown occupant fatalities

Table 30. Fatalities by County

County	2009	2010	2011	2012	2013	Total 2009 - 2013 N	Total 2009 - 2013 %
Addison	6	2	2	4	4	**18**	**5.2%**
Bennington	7	4	4	4	2	**21**	**6.1%**
Caledonia	2	10	2	5	1	**20**	**5.8%**
Chittenden	5	13	7	10	5	**40**	**11.6%**
Essex	0	1	0	1	1	**3**	**0.9%**
Franklin	8	4	4	6	6	**28**	**8.1%**
Grand Isle	0	2	2	0	0	**4**	**1.2%**
Lamoille	5	2	1	3	4	**15**	**4.3%**
Orange	5	1	5	1	6	**18**	**5.2%**
Orleans	6	10	4	9	7	**36**	**10.4%**
Rutland	11	7	7	9	9	**43**	**12.4%**
Washington	8	3	9	10	4	**34**	**9.8%**
Windham	7	4	1	6	10	**28**	**8.1%**
Windsor	4	8	7	9	10	**38**	**11.0%**
Total	**74**	**71**	**55**	**77**	**69**	**346**	**100.0%**

Table 31. Fatality Rates by County

County	2009	2010	2011	2012	2013
Addison	16.28	5.43	5.44	10.89	10.87
Bennington	18.84	10.78	10.82	10.90	5.46
Caledonia	6.41	32.05	6.42	16.07	3.21
Chittenden	3.21	8.30	4.44	6.31	3.13
Essex	0.00	15.88	0.00	16.06	16.10
Franklin	16.80	8.37	8.31	12.44	12.42
Grand Isle	0.00	28.71	28.86	0.00	0.00
Lamoille	20.67	8.12	4.05	12.02	15.96
Orange	17.26	3.46	17.24	3.46	20.75
Orleans	22.03	36.72	14.72	33.20	25.76
Rutland	17.76	11.37	11.42	14.79	14.85
Washington	13.48	5.04	15.09	16.82	6.74
Windham	15.75	8.99	2.26	13.64	22.80
Windsor	7.05	14.12	12.35	16.01	17.84
County Average	**11.84**	**11.34**	**8.78**	**12.30**	**11.01**

Table 32. Fatalities by Age Group and Sex: Totals 2009-2013

	Fatalities by Age					Fatalities by Age and Sex					
	Vermont			Region	U.S.	Vermont				Region % Males	U.S. % Males
	(N=346)	%	Pop. Rate*	(N=5,102)	(N=165,862)	Females		Males			
Age Group			Per 100k			N	%	N	%		
<5	4	1.2%	2.50	0.7%	1.2%	0	0.0%	4	100.0%	48.6%	54.2%
5-9	2	0.6%	1.16	0.6%	1.1%	1	50.0%	1	50.0%	65.5%	55.3%
10-15	4	1.2%	1.72	1.2%	2.0%	1	25.0%	3	75.0%	61.3%	58.3%
16-20	36	10.4%	14.66	10.7%	10.3%	7	19.4%	29	80.6%	71.8%	67.8%
21-24	43	12.4%	25.69	12.1%	10.1%	12	27.9%	31	72.1%	74.8%	75.1%
25-34	41	11.8%	11.91	15.8%	17.1%	10	24.4%	31	75.6%	76.4%	74.9%
35-44	32	9.2%	7.92	11.6%	13.7%	12	37.5%	20	62.5%	74.7%	73.5%
45-54	50	14.5%	9.76	15.0%	15.5%	18	36.0%	32	64.0%	75.1%	73.7%
55-64	52	15.0%	11.90	12.1%	12.3%	19	36.5%	33	63.5%	71.4%	72.8%
65-74	32	9.2%	13.31	8.3%	7.7%	12	37.5%	20	62.5%	62.7%	65.3%
75+	50	14.5%	24.11	11.8%	8.9%	30	60.0%	20	40.0%	53.8%	56.9%
Unknown	0	0.0%	N/A	0.1%	0.2%	0	N/A	0	N/A	83.3%	68.3%
Total	**346**	**100.0%**	**11.07**	**100.0%**	**100.0%**	**122**	**35.3%**	**224**	**64.7%**	**70.5%**	**70.4%**

Highlighting is to help reader identify cells with higher numbers/percentages/population rates

*Fatality rate based on intercensal estimates (2009-2011) and vintage data (2012 and 2013)

Table 33. Fatalities by Race and Hispanic Origin

	Vermont				
Race	2009	2010	2011	2012	2013
White	70	71	52	76	N/A
Black	1	0	3	1	N/A
American Indian	0	0	0	0	N/A
Asian	0	0	0	0	N/A
Pacific Islander	0	0	0	0	N/A
All Other Races	0	0	0	0	N/A
Mixed Race	0	0	0	0	N/A
Unknown	3	0	0	0	N/A
Hispanic**	0	0	2	0	N/A
Total	74	71	55	77	N/A

**Hispanic is an ethnic, not racial, designation. Because a Hispanic fatality may be of any race, or may not have had their race recorded, Hispanic fatalities do not contribute to the "Total" calculation.

[At the time this report was produced, 2013 race and Hispanic origin data were not available.]

Table 34. Fatalities by Road Type

	Vermont					Total 2009 - 2013		
	2009	2010	2011	2012	2013	VT	Region	U.S.
	(N=74)	(N=71)	(N=55)	(N=77)	(N=69)	(N=346)	(N=5,102)	(N=165,862)
Road Type								
Interstate/Expressway	11	9	6	10	4	11.56%	22.60%	16.01%
Arterial	27	24	21	32	28	38.15%	32.46%	43.96%
Collector	17	24	20	22	22	30.35%	11.72%	19.30%
Local	18	14	8	13	15	19.65%	32.22%	19.90%
Unknown	1	0	0	0	0	0.29%	1.00%	0.82%
Total	**74**	**71**	**55**	**77**	**69**	**100.00%**	**100.00%**	**100.00%**

Highlighting is to help the reader identify cells with higher numbers/percentages.

II. ALCOHOL-IMPAIRED DRIVING FATALITIES AND ALCOHOL-IMPAIRMENT-RELATED FATAL CRASHES AND FATALITIES

ALCOHOL-IMPAIRED DRIVING FATALITIES AND ALCOHOL-IMPAIRMENT-RELATED FATAL CRASHES AND FATALITIES – KEY FINDINGS

In the period 2009-2013:

- In Vermont, the percentage of traffic fatalities that involved alcohol-impaired driving was below the percentages for Region 1 throughout the five-year period (2009-2012), and below that of the Nation in 2010 and 2013. In 2013, alcohol-impaired driving fatalities accounted for 26.1% of all fatalities in Vermont, representing a 14.0% decrease in this proportion when compared to the prior four years (Table 4 and Figure 19).
- The counties with the most alcohol-impaired driving fatalities throughout the 2009-2013 period were: Orleans (13); Chittenden (10); Franklin (10); and Washington (10). Both Washington (-55.6%) and Orleans (-27.3%) experienced decreases in such deaths in 2013 (when compared to the 2009-2012 average), while Chittenden and Franklin each experienced no change in this index during the same time period (Table 35).
- Throughout the five years, the counties with the highest percentage of fatalities involving alcohol-impaired driving were: Orange (50.0%); Caledonia (45.0%); Lamoille (40.0%); and Orleans (36.1%) (Table 35).
- In 2013, the counties with the highest alcohol-impaired population-based fatality rates (per 100,000 population) were: Essex (16.10); Orange (13.83); Orleans (7.36); and Rutland (4.95) (Table 36).
- In Vermont, 65.4% of alcohol-impairment-related fatal crashes occurred between 6 p.m. and 3 a.m.; 60.0% occurred on Fridays, Saturdays, and Sundays. Similarly, in the Region 1 and the U.S. as a whole, the majority of such crashes occurred between 6 p.m. and 3 a.m. (66.3% Regionally and 65.1% Nationally) and on Fridays, Saturdays, and Sundays (61.6% Regionally and 60.6% Nationally) (Table 37).
- For the years 2009 through 2013, 32% of Vermont's fatalities were associated with a blood alcohol concentration of at least 0.08; this is slightly lower than the percentages for Region 1 (37%) and for the U.S. as a whole (35%) during the same years (Table 38).
- NHTSA's alcohol imputation data estimate BACs where no test results are available. These data show that during the 2009-2013 period, 22.3% of *drivers* and *operators* involved in fatal crashes in Vermont had a BAC of at least 0.08. This percentage is similar to those seen for Region 1 (24.9%) and for the Nation (21.5%) (Table 39).
- In Vermont, the proportion of drivers/operators involved in fatal crashes that had a BAC of 0.08 or above was lower than the percentage of the Region in 2010, 2012, and 2013, and below that of the Nation in 2010 and 2013 (Figure 20).
- Throughout the 2009-2013 period in Vermont, local roads were associated with the largest proportion of alcohol-impaired driving fatalities (34.7%), followed by collector roads (33.7%), and then arterial roads (21.8%). During these years, local roads accounted for the greatest proportion of such fatalities across Region 1 (36.4%), as did arterial roads throughout the Nation (37.7%). In the State and the Nation, the smallest proportion of alcohol-impaired driving fatalities occurred on expressways/interstates (9.9% and 14.9%, respectively); Regionally, such crashes were least frequent on collector roads (11.1%) (Table 40).

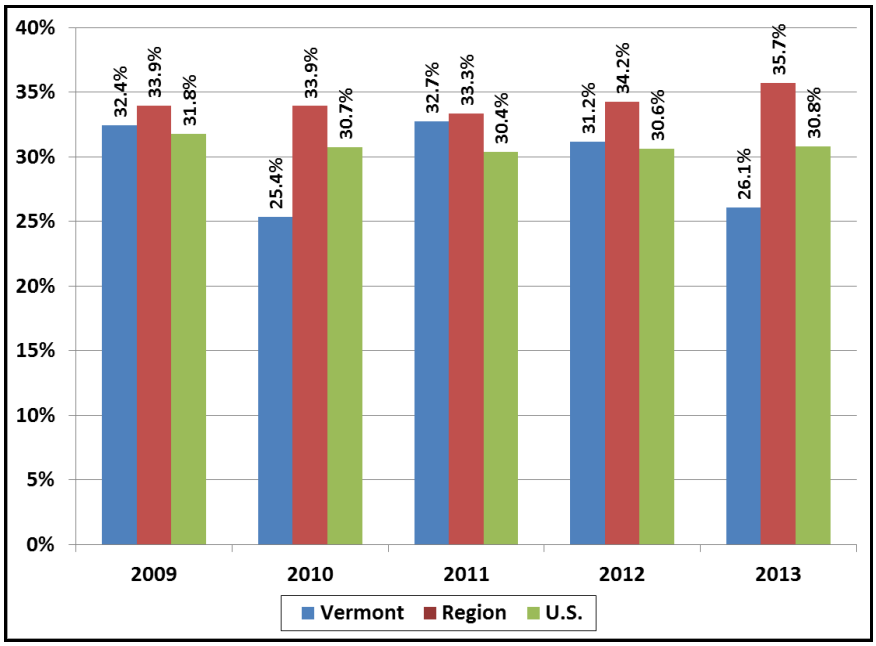


Figure 19. Alcohol-Impaired Driving Fatalities as Percent of Total Fatalities

Table 35. Alcohol-Impaired Driving Fatalities by County

Alcohol-Impaired Driving (A-I) Fatalities*						Total A-I Fatalities	Total Fatalities	% A-I	% Change: 2013 vs. prior 4-yr Avg.
County	2009	2010	2011	2012	2013				
Addison	0	0	1	1	0	**2**	**18**	**11.1%**	-100.0%
Bennington	2	1	1	2	0	**6**	**21**	**28.6%**	-100.0%
Caledonia	1	4	1	3	0	**9**	**20**	**45.0%**	-100.0%
Chittenden	0	4	2	2	2	**10**	**40**	**25.0%**	0.0%
Essex	0	0	0	0	1	**1**	**3**	**33.3%**	N/A
Franklin	5	1	1	1	2	**10**	**28**	**35.7%**	0.0%
Grand Isle	0	0	0	0	0	**0**	**4**	**0.0%**	N/A
Lamoille	2	1	1	1	1	**6**	**15**	**40.0%**	-20.0%
Orange	1	1	3	0	4	**9**	**18**	**50.0%**	220.0%
Orleans	2	4	1	4	2	**13**	**36**	**36.1%**	-27.3%
Rutland	3	0	0	2	3	**8**	**43**	**18.6%**	140.0%
Washington	2	0	3	4	1	**10**	**34**	**29.4%**	-55.6%
Windham	4	1	1	1	1	**8**	**28**	**28.6%**	-42.9%
Windsor	2	0	3	1	1	**7**	**38**	**18.4%**	-33.3%
Totals	**24**	**17**	**18**	**22**	**18**	**99**	**346**	**28.6%**	**-11.1%**

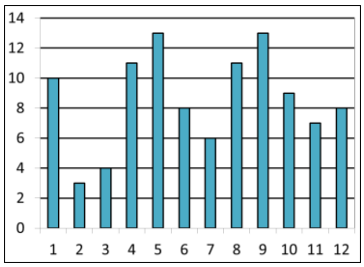
Table 36. Alcohol-Impaired Driving Fatalities by County: Rate per 100,000 Population

County	2009	2010	2011	2012	2013
Addison	0.00	0.00	2.72	2.72	0.00
Bennington	5.38	2.70	2.70	5.45	0.00
Caledonia	3.20	12.82	3.21	9.64	0.00
Chittenden	0.00	2.55	1.27	1.26	1.25
Essex	0.00	0.00	0.00	0.00	16.10
Franklin	10.50	2.09	2.08	2.07	4.14
Grand Isle	0.00	0.00	0.00	0.00	0.00
Lamoille	8.27	4.06	4.05	4.01	3.99
Orange	3.45	3.46	10.34	0.00	13.83
Orleans	7.34	14.69	3.68	14.76	7.36
Rutland	4.84	0.00	0.00	3.29	4.95
Washington	3.37	0.00	5.03	6.73	1.69
Windham	9.00	2.25	2.26	2.27	2.28
Windsor	3.53	0.00	5.29	1.78	1.78
County Average	**3.84**	**2.72**	**2.87**	**3.51**	**2.87**

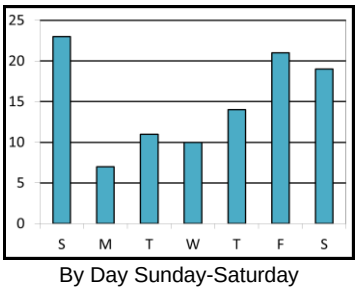
Table 37. Alcohol-Impairment-Related* Fatal Crashes by Month, Day of Week, and Time of Day: Totals 2009-2013

	Vermont (N=103)		Region (N=1,749)	U.S. (N=53,776)
	N	%	%	%
MONTH				
January	10	9.7%	6.6%	7.4%
February	3	2.9%	5.1%	6.7%
March	4	3.9%	6.1%	7.8%
April	11	10.7%	8.1%	8.1%
May	13	12.6%	8.7%	8.9%
June	8	7.8%	8.2%	8.6%
July	6	5.8%	10.4%	9.3%
August	11	10.7%	10.9%	9.3%
September	13	12.6%	9.7%	8.7%
October	9	8.7%	8.7%	9.1%
November	7	6.8%	8.7%	8.3%
December	8	7.8%	8.7%	7.9%
DAY OF WEEK				
Sunday	23	21.9%	21.8%	21.3%
Monday	7	6.7%	8.8%	9.8%
Tuesday	11	10.5%	9.6%	9.0%
Wednesday	10	9.5%	8.1%	9.6%
Thursday	14	13.3%	11.8%	11.0%
Friday	21	20.0%	15.3%	15.3%
Saturday	19	18.1%	24.5%	24.0%
TIME OF DAY				
Midnight-3am	22	21.2%	28.5%	25.0%
3am-6am	8	7.7%	11.4%	13.0%
6am-9am	3	2.9%	3.7%	4.4%
9am-Noon	4	3.8%	2.5%	2.5%
Noon-3pm	4	3.8%	4.3%	4.3%
3pm-6pm	13	12.5%	11.3%	9.5%
6pm-9pm	25	24.0%	17.2%	18.0%
9pm-Midnight	21	20.2%	20.6%	22.1%
Unknown	4	3.8%	0.6%	1.1%

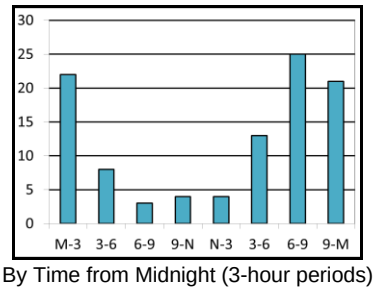
***Based on fatal crashes in which any crash participant had a BAC of 0.08 or above. Total fatal crashes may differ slightly depending on grouping (month, day, time) due to imputation method.**



By Month



By Day Sunday-Saturday



By Time from Midnight (3-hour periods)

Table 38. Fatalities by the Highest BAC in the Crash*

	Vermont					Total 2009 - 2013		
	2009	2010	2011	2012	2013	VT	Region	U.S.
	(N=74)	(N=71)	(N=55)	(N=77)	(N=69)	(N=346)	(N=5,102)	(N=165,862)
BAC								
0.00	61%	65%	58%	60%	64%	62%	56%	59%
0.01 - 0.07	5%	10%	9%	3%	7%	7%	7%	6%
0.08+	34%	25%	33%	38%	28%	32%	37%	35%

*Data based on all crash participants.

Based on NHTSA's alcohol imputation data. Rounding may cause the sum of sub-categories to differ slightly from total values

Table 39. BACs of Drivers/Operators Involved in Fatal Crashes

	2009	2010	2011	2012	2013	Total 2009 - 2013
VT	**(N=97)**	**(N=87)**	**(N=66)**	**(N=96)**	**(N=89)**	**(N=435)**
BAC						
0.00	72.2%	75.9%	68.2%	74.0%	74.2%	73.1%
0.01-0.07	4.1%	6.9%	4.5%	3.1%	6.7%	5.1%
0.08+	24.7%	17.2%	27.3%	24.0%	19.1%	22.3%
Region	**(N=1,326)**	**(N=1,416)**	**(N=1,228)**	**(N=1,414)**	**(N=1,311)**	**(N=6,695)**
BAC						
0.00	70.9%	69.6%	71.1%	70.6%	68.3%	70.1%
0.01-0.07	5.1%	5.6%	4.0%	5.2%	5.5%	5.1%
0.08+	24.0%	24.9%	25.0%	24.2%	26.3%	24.9%
U.S.	**(N=45,337)**	**(N=44,599)**	**(N=43,840)**	**(N=45,664)**	**(N=44,574)**	**(N=224,014)**
BAC						
0.00	73.5%	74.4%	75.1%	74.9%	74.6%	74.5%
0.01-0.07	4.4%	4.1%	3.8%	3.9%	4.1%	4.1%
0.08+	22.1%	21.5%	21.2%	21.2%	21.2%	21.5%

*Based on NHTSA's alcohol imputation data. Rounding may cause the sum of sub-categories to differ slightly from total values

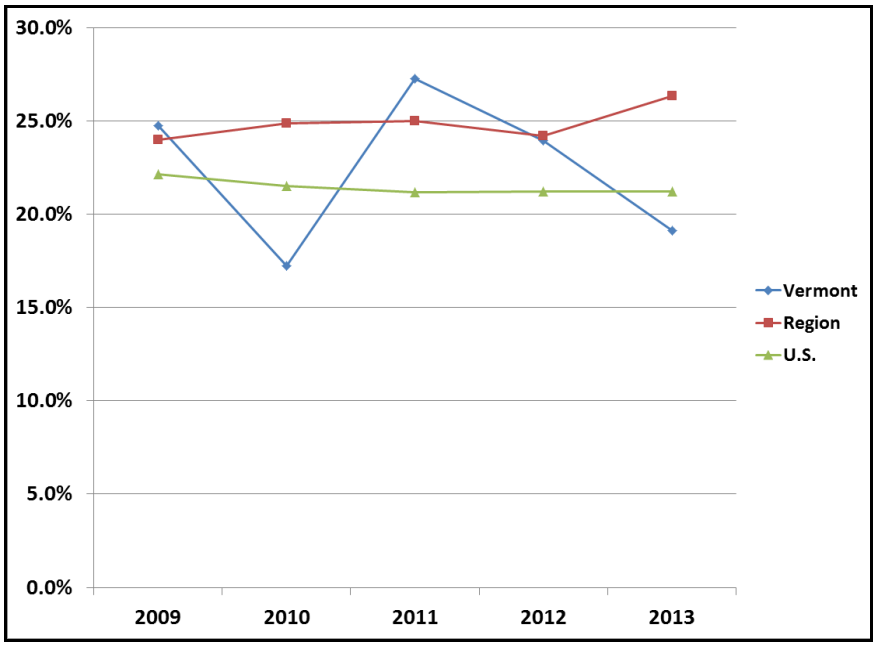


Figure 20. Percent of Drivers/Operators with BAC ≥ 0.08

Table 40. Alcohol-Impaired Driving Fatalities by Road Type

	Vermont					Total 2009 - 2013		
	2009	2010	2011	2012	2013	VT	Region	U.S.
	(N=24)	(N=17)	(N=18)	(N=24)	(N=18)	(N=101)	(N=1,749)	(N=51,174)
Road Type								
Interstate/Expressway	5	1	2	2	0	9.90%	23.79%	14.91%
Arterial	4	4	4	5	5	21.78%	27.96%	37.66%
Collector	6	6	9	8	5	33.66%	11.09%	22.06%
Local	9	6	3	9	8	34.65%	36.36%	24.40%
Unknown	0	0	0	0	0	0.00%	0.80%	0.97%
Total	**24**	**17**	**18**	**24**	**18**	**100.00%**	**100.00%**	**100.00%**

Highlighting is to help the reader identify cells with higher numbers/percentages.

II. SPEEDING-RELATED CRASHES

SPEEDING-RELATED CRASHES – KEY FINDINGS

In the period 2009-2013:

- The percentage of speeding-related fatalities in Vermont was below the proportion for Region 1 in 2009, 2011, and 2013, but *above* that of the Nation for three years of the period (2010-2012). In 2013, 26.1% of Vermont's traffic fatalities were recorded as speeding-related, compared to 29.8% for Region 1, and 29.4% Nationwide (Figure 21).
- The counties that accounted for the highest percentages of speeding-related fatalities in Vermont during the 2009-2013 period were: Orleans (13.3%); Washington (11.7%); and Chittenden (10.8%) (Table 41).
- Vermont's speeding-related population-based fatality rate decreased by 29.5% in 2013 (2.87 fatalities per 100,000 population) compared to the average of the previous four years (4.07). The counties with the highest speeding-related population-based fatality rates during the 2009-2013 period were: Orleans (11.77); Caledonia (7.06); and Lamoille (6.48) (Table 8 and Table 42).
- A plurality of Vermont's 2009-2013 speeding-related fatalities occurred on roads with a speed limit of 50 mph (39.2%), but on roads with a speed limit of 30 mph or less in Region 1 (31.5%). In the U.S. as a whole, the highest proportion of speeding-related fatalities occurred on roads with speed limits of 55 mph (26.7%) (Table 43).
- From 2009 through 2013, the most speeding-related fatalities in Vermont occurred on the State's collector roads (34.3%), on local roads across the Region (39.2%), and on arterial roads throughout the U.S. as a whole (36.7%). In the State and the Nation, the smallest portion of speeding-related fatalities occurred on interstates/expressways (10.8% and 16.4%, respectively); Regionally, such fatalities were least frequent on collector roads (12.3%) (Table 44).
- Throughout the five years in Vermont, the majority of speeding-related fatal crashes occurred on Fridays, Saturdays, and Sundays (56.1%), as they did across Region 1 (57.3%) and throughout the Nation (54.3%). In Vermont, the highest concentration speeding-related fatal crashes occurred between the hours of 6 p.m. and 9 p.m. (20.6%), but between the hours of midnight and 3 a.m. across the Region (23.3%) and throughout the U.S. as a whole (17.9%) (Table 45).
- In Vermont, from 2009 through 2013, 20.2% of drivers involved in fatal crashes (any type of fatal crash) had previous speeding convictions, a percentage higher than that seen for both Region 1 (16.6%) and the U.S. as a whole (17.2%) during the same years (Table 46).
- In Vermont, those ages 21-24, 35-44 and 45-54 each constituted large proportions of drivers involved in a fatal crash (any type) with a previous speeding conviction (17.0% each). To compare, those ages 25-34 accounted for the plurality of speeding-involved fatal crashes across Region 1 (26.1%) and throughout the U.S. as a whole (26.2%). Males accounted for 72.7% of the State's drivers involved in fatal crashes with previous speeding convictions, 81.3% of the Region's, and 78.5% of the Nation's (Table 47).

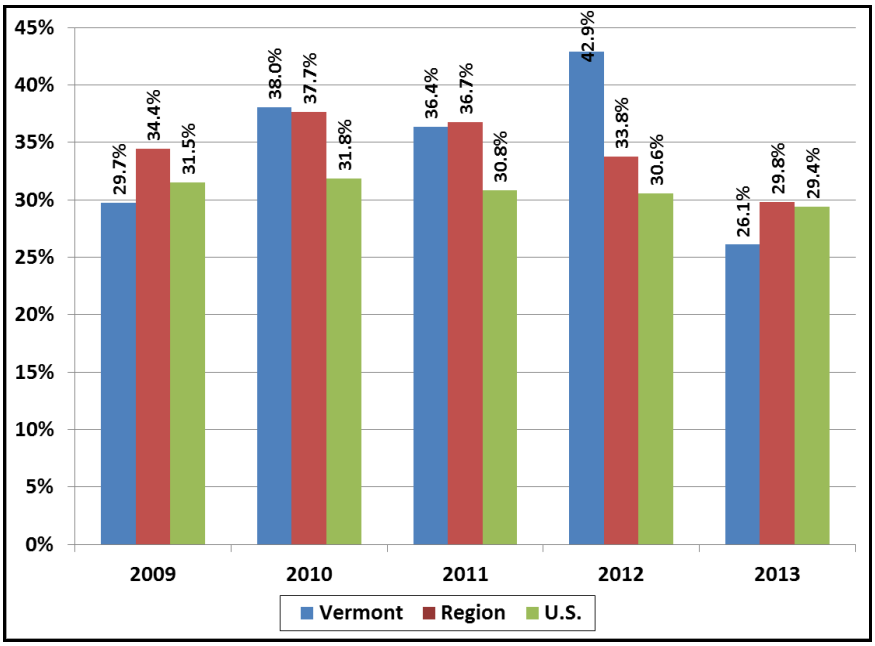


Figure 21. Speeding-Related Fatalities As Percent of Total Fatalities

Table 41. Speeding-Related Fatalities by County

Speed-Related Fatalities						Total 2009 - 2013		% Change: 2013 vs. prior 4-yr Avg.
County	2009	2010	2011	2012	2013	N	%	
Addison	0	0	0	1	0	**1**	**0.8%**	-100.0%
Bennington	3	0	3	1	0	**7**	**5.8%**	-100.0%
Caledonia	1	7	0	3	0	**11**	**9.2%**	-100.0%
Chittenden	0	3	3	5	2	**13**	**10.8%**	-27.3%
Essex	0	1	0	0	1	**2**	**1.7%**	300.0%
Franklin	3	2	1	3	2	**11**	**9.2%**	-11.1%
Grand Isle	0	0	0	0	0	**0**	**0.0%**	N/A
Lamoille	3	2	0	2	1	**8**	**6.7%**	-42.9%
Orange	0	0	3	0	2	**5**	**4.2%**	166.7%
Orleans	2	6	1	4	3	**16**	**13.3%**	-7.7%
Rutland	2	1	4	3	0	**10**	**8.3%**	-100.0%
Washington	3	2	3	4	2	**14**	**11.7%**	-33.3%
Windham	3	2	1	1	4	**11**	**9.2%**	128.6%
Windsor	2	1	1	6	1	**11**	**9.2%**	-60.0%
Totals	**22**	**27**	**20**	**33**	**18**	**120**	**100.0%**	**-29.4%**

Table 42. Speeding-Related Fatalities by County: Rate per 100,000 Population

County	2009	2010	2011	2012	2013
Addison	0.00	0.00	0.00	2.72	0.00
Bennington	8.08	0.00	8.11	2.73	0.00
Caledonia	3.20	22.43	0.00	9.64	0.00
Chittenden	0.00	1.91	1.90	3.15	1.25
Essex	0.00	15.88	0.00	0.00	16.10
Franklin	6.30	4.18	2.08	6.22	4.14
Grand Isle	0.00	0.00	0.00	0.00	0.00
Lamoille	12.40	8.12	0.00	8.01	3.99
Orange	0.00	0.00	10.34	0.00	6.92
Orleans	7.34	22.03	3.68	14.76	11.04
Rutland	3.23	1.62	6.53	4.93	0.00
Washington	5.05	3.36	5.03	6.73	3.37
Windham	6.75	4.49	2.26	2.27	9.12
Windsor	3.53	1.77	1.76	10.67	1.78
County Average	**3.52**	**4.31**	**3.19**	**5.27**	**2.87**

Table 43. Speeding-Related Fatalities by Posted Speed Limit

	Vermont					Total 2009 - 2013**		
	2009	2010	2011	2012	2013	VT	Region	U.S.
	(N=22)	(N=27)	(N=20)	(N=33)	(N=18)	(N=120)	(N=1,760)	(N=51,115)
Posted Speed								
30 or less	3	1	1	4	3	10.0%	31.5%	12.5%
35	5	3	6	6	6	21.7%	16.2%	12.4%
40	2	5	4	4	0	12.5%	9.1%	7.2%
45	0	1	0	0	0	0.8%	11.5%	14.5%
50	9	11	8	13	6	39.2%	8.9%	4.5%
55	2	0	0	0	0	1.7%	7.7%	26.7%
60	0	0	0	0	0	0.0%	0.6%	3.5%
65+	1	5	1	5	3	12.5%	9.5%	15.3%
No Limit	0	1	0	1	0	1.7%	1.0%	0.3%
Unknown/Not Reported	0	0	0	0	0	0.0%	3.9%	3.1%
Total	**22**	**27**	**20**	**33**	**18**	**100.0%**	**100.0%**	**100.0%**

*****Highlighting is to help the reader identify cells with higher numbers/percentages. Starting in 2010, the 'Unknown' category also includes 'Not Reported' speed limits

**See note in appendix on speed limits in 2010.

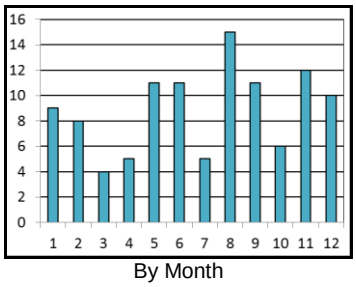
Table 44. Speeding-Related Fatalities by Road Type

	Vermont					Total 2009 - 2013		
	2009	2010	2011	2012	2013	VT	Region	U.S.
	(N=22)	(N=27)	(N=20)	(N=33)	(N=18)	(N=120)	(N=1,760)	(N=51,115)
Road Type								
Interstate/Expressway	1	4	1	5	3	10.8%	18.9%	16.4%
Arterial	5	9	4	11	3	28.4%	28.9%	36.7%
Collector	6	8	10	11	8	34.3%	12.3%	21.6%
Local	10	6	5	6	4	26.5%	39.2%	24.3%
Unknown	0	0	0	0	0	0.0%	0.7%	1.0%
Total	**22**	**27**	**20**	**33**	**18**	**100.0%**	**100.0%**	**100.0%**

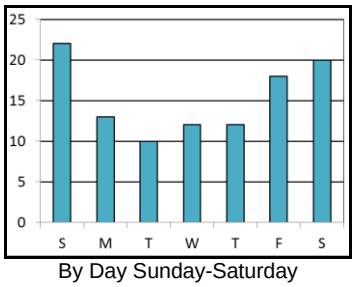
Highlighting is to help the reader identify cells with higher numbers/percentages.

Table 45. Speeding-Related Fatal Crashes by Month, Day of Week, and Time of Day: Totals 2009-2013

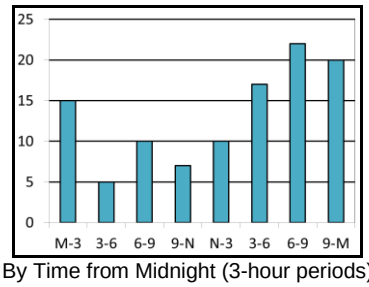
	Vermont (N=107)		Region (N=1,609)	U.S. (N=45,927)
	N	%	%	%
MONTH				
January	9	8.4%	7.6%	7.5%
February	8	7.5%	5.2%	6.8%
March	4	3.7%	6.6%	7.7%
April	5	4.7%	7.5%	8.3%
May	11	10.3%	9.2%	9.0%
June	11	10.3%	8.9%	8.8%
July	5	4.7%	9.9%	9.3%
August	15	14.0%	10.6%	9.4%
September	11	10.3%	9.4%	8.6%
October	6	5.6%	8.6%	8.6%
November	12	11.2%	8.6%	8.0%
December	10	9.3%	7.7%	8.1%
DAY OF WEEK				
Sunday	22	20.6%	20.6%	18.6%
Monday	13	12.1%	10.9%	11.5%
Tuesday	10	9.3%	10.9%	10.8%
Wednesday	12	11.2%	9.6%	11.1%
Thursday	12	11.2%	11.2%	12.2%
Friday	18	16.8%	14.7%	14.8%
Saturday	20	18.7%	22.0%	20.9%
TIME OF DAY				
Midnight-3am	15	14.0%	23.3%	17.9%
3am-6am	5	4.7%	8.4%	9.7%
6am-9am	10	9.3%	6.5%	8.2%
9am-Noon	7	6.5%	6.5%	7.7%
Noon-3pm	10	9.3%	8.5%	10.8%
3pm-6pm	17	15.9%	14.2%	14.2%
6pm-9pm	22	20.6%	15.0%	15.2%
9pm-Midnight	20	18.7%	17.3%	15.7%
Unknown	1	0.9%	0.3%	0.7%



By Month



By Day Sunday-Saturday



By Time from Midnight (3-hour periods)

Table 46. Drivers Involved in Fatal Crashes with Previous Speeding Convictions*

	Drivers with previous speeding convictions**						
	2009	2010	2011	2012	2013	Total 2009 - 2013	
	%	%	%	%	%	N	%
Vermont	24.7%	21.8%	19.7%	14.6%	20.2%	88	20.2%
Region	19.4%	17.4%	17.6%	13.4%	15.5%	1,112	16.6%
U.S.	18.4%	18.1%	17.7%	16.4%	15.6%	38,609	17.2%

*Recorded speeding convictions that occurred within three years prior to the crash

** Counts exclude instances in which no occupant could be identified as a driver.

Table 47. Drivers Involved in Fatal Crashes with Previous Speeding Convictions by Age Group and Sex: Totals 2009-2013

	Vermont		Region	U.S.	Vermont				Region % Males	U.S. % Males
	(N=88)	%	(N=1,112)	(N=38,609)	Females		Males			
Age Group					N	%	N	%		
16-20	12	13.6%	12.4%	10.4%	2	16.7%	10	83.3%	85.5%	77.4%
21-24	15	17.0%	22.9%	17.7%	4	26.7%	11	73.3%	83.1%	77.8%
25-34	13	14.8%	26.1%	26.2%	3	23.1%	10	76.9%	79.3%	77.1%
35-44	15	17.0%	15.0%	17.9%	5	33.3%	10	66.7%	76.6%	78.7%
45-54	15	17.0%	13.2%	14.6%	2	13.3%	13	86.7%	82.3%	80.3%
55-64	6	6.8%	5.5%	8.3%	2	33.3%	4	66.7%	90.2%	80.5%
65+	12	13.6%	4.8%	4.8%	6	50.0%	6	50.0%	75.5%	82.4%
Unknown	0	0.0%	0.1%	0.0%	0	N/A	0	N/A	0.0%	40.0%
Total	**88**	**100.0%**	**100.0%**	**100.0%**	**24**	**27.3%**	**64**	**72.7%**	**81.3%**	**78.5%**

*****Highlighting is to help the reader identify cells with higher numbers/percentages.

IV. MOTORCYCLE CRASHES

MOTORCYCLE CRASHES – KEY FINDINGS

In the period 2009-2013:

- In Vermont, the percentage of fatalities that were motorcyclists remained below the proportions for the Region and the Nation throughout the five-year period (2009-2013), except in 2011. In 2013, 10.1% of Vermont's traffic fatalities were motorcyclists, compared to 14.7% in Region 1, and 14.3% Nationwide (Figure 22).
- The majority of 2009-2013 motorcycle fatal crashes in occurred on Fridays, Saturdays, and Sundays in Vermont (76.9%), across Region 1 (58.6%), and throughout the Nation (56.8%); the highest proportions of these crashes occurred on Saturdays in each of these three jurisdictions. Across the State, Region, and Nation, the majority of such crashes occurred between the hours of noon and 9 p.m. (71.7%, 60.8%, and 57.1%, respectively). In all three jurisdictions, June, July, and August were the months with the most motorcycle fatal crashes (58.9% for the State, 52.1% for the Region, and 38.4% Nationwide) (Table 48).
- During the five-year period, 30.0% of Vermont's motorcyclist fatalities were between the ages of 45 and 54. In both the Region and the Nation, the plurality of motorcyclist fatalities were also between the ages of 45 and 54 (at 23.8% and 22.2%, respectively). Males accounted for 82.5% of the State's motorcyclist fatalities, 91.2% in Region 1 and 90.6% in the U.S. as a whole (Table 49).
- Vermont law requires helmet use of *all riders*. From 2009 through 2013, 17.5% of Vermont's motorcyclist fatalities were *not* using a helmet. This percentage is considerably lower than the percentages of nonuse seen for Region 1 (45.1%) and the U.S. as a whole (40.9%) during the same years. In Vermont, those ages 65 and older accounted for the largest percentage of fatally-injured motorcyclists who were unhelmeted (60.0%) (Table 50).
- During the 2009-2013 period in Vermont, 42.4% of all fatally-injured motorcycle operators who were tested for BAC had a BAC of at least 0.01; this percentage is slightly higher than those seen for Region 1 (41.9%) and for the U.S. as a whole (38.8%). In Vermont, those ages 35-44 had the largest proportion of motorcycle operators that had a BAC of at least 0.01 (5 deaths, 100.0%) (Table 51).
- Throughout the five years (2009-2013) in Vermont, 45.7% of all motorcycle operators were killed in a crash where speeding was a factor, compared to 41.1% across Region 1 and 38.5% Nationwide. In Vermont, those ages 35-44 had the largest proportion of motorcycle operators killed in a crash that involved speeding (5 deaths, 83.3%) (Table 51).
- In fatal crashes involving motorcycles in Vermont, 67.5% of motorcycle operators had at least one driver factor reported, versus 40.0% of the operators of other vehicles. Throughout the five years, *driving too fast* was the most commonly reported driver factor for motorcyclists in Vermont (37.5%). For the operators of other vehicles, *driving too fast* (15.0%) was also the most reported driver factor (Table 52).

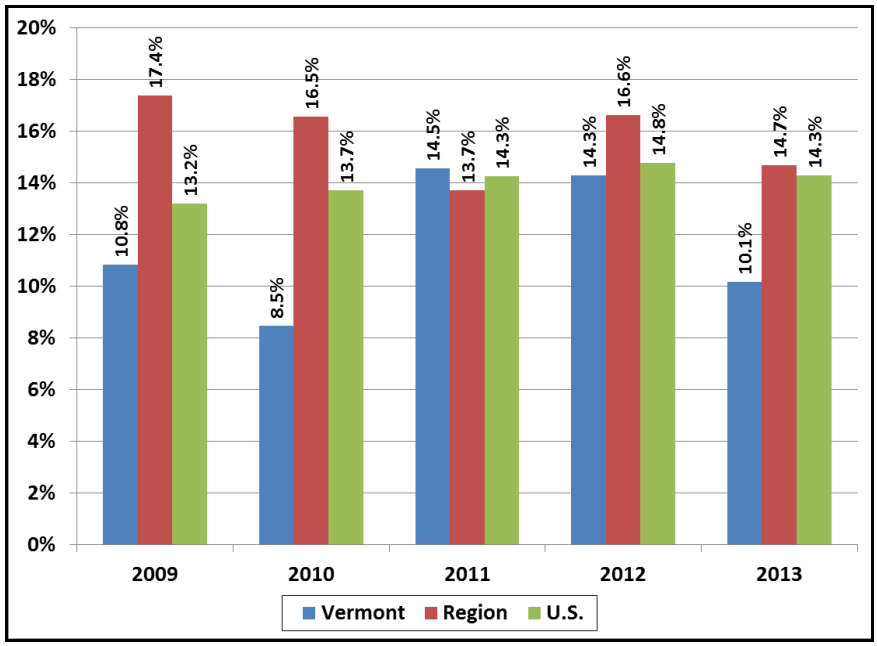
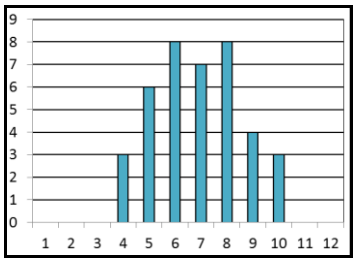


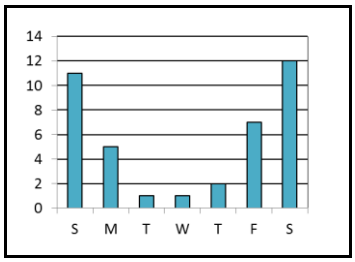
Figure 22. Motorcyclist Fatalities as Percent of Total Fatalities

Table 48. Motorcycle Fatal Crashes by Month, Day of Week, and Time of Day: Totals 2009-2013

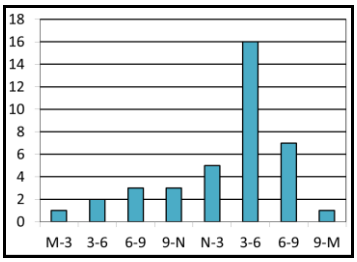
	Vermont (N=39)		Region (N=790)	U.S. (N=22,632)
	N	%	%	%
MONTH				
January	0	0.0%	0.5%	3.1%
February	0	0.0%	0.4%	3.4%
March	0	0.0%	3.3%	6.4%
April	3	7.7%	7.7%	9.1%
May	6	15.4%	12.4%	11.5%
June	8	20.5%	15.9%	12.4%
July	7	17.9%	17.6%	12.7%
August	8	20.5%	18.6%	13.3%
September	4	10.3%	12.2%	11.4%
October	3	7.7%	7.2%	8.5%
November	0	0.0%	3.4%	5.3%
December	0	0.0%	0.8%	2.8%
DAY OF WEEK				
Sunday	11	28.2%	20.6%	18.8%
Monday	5	12.8%	11.3%	10.1%
Tuesday	1	2.6%	9.0%	9.9%
Wednesday	1	2.6%	11.3%	11.2%
Thursday	2	5.1%	9.9%	12.0%
Friday	7	17.9%	14.2%	15.3%
Saturday	12	30.8%	23.8%	22.7%
Unknown	0	0.0%	0.0%	0.0%
TIME OF DAY				
Midnight-3am	1	2.6%	8.9%	9.5%
3am-6am	2	5.1%	3.9%	4.0%
6am-9am	3	7.7%	5.1%	5.6%
9am-Noon	3	7.7%	8.4%	9.0%
Noon-3pm	5	12.8%	15.9%	16.1%
3pm-6pm	16	41.0%	23.8%	21.3%
6pm-9pm	7	17.9%	21.1%	19.7%
9pm-Midnight	1	2.6%	12.5%	14.2%
Unknown	1	2.6%	0.4%	0.6%



By Month



By Day Sunday-Saturday



By Time from Midnight (3-hour periods)

Table 49. Motorcyclist Fatalities by Age Group and Sex: Totals 2009-2013

Fatalities by Age					Fatalities by Age and Sex					
	Vermont		Region	U.S.	Vermont				Region % Males	U.S. % Males
	(N=40)	%	(N=807)	(N=23,271)	Females		Males			
Age Group					**N**	**%**	**N**	**%**		
< 16	0	0.0%	0.4%	0.4%	0	N/A	0	N/A	100.0%	83.7%
16-20	1	2.5%	5.2%	4.9%	0	0.0%	1	100.0%	88.1%	90.3%
21-24	3	7.5%	11.9%	9.8%	0	0.0%	3	100.0%	94.8%	93.5%
25-34	6	15.0%	20.4%	20.3%	2	33.3%	4	66.7%	92.1%	93.0%
35-44	6	15.0%	18.0%	19.3%	0	0.0%	6	100.0%	92.4%	88.7%
45-54	12	30.0%	23.8%	22.2%	2	16.7%	10	83.3%	87.5%	88.1%
55-64	7	17.5%	14.6%	16.3%	2	28.6%	5	71.4%	90.7%	90.5%
65-74	5	12.5%	4.7%	5.4%	1	20.0%	4	80.0%	94.7%	93.5%
75+	0	0.0%	1.0%	1.3%	0	N/A	0	N/A	100.0%	96.3%
Unknown	0	0.0%	0.0%	0.0%	0	N/A	0	N/A	N/A	66.7%
Total	**40**	**100.0%**	**100.0%**	**100.0%**	**7**	**17.5%**	**33**	**82.5%**	**91.2%**	**90.6%**

*****Highlighting is to help the reader identify cells with higher numbers/percentages.

Table 50. Motorcyclist Fatalities by Age Group and Helmet Use*: Totals 2009-2013

Age Group	Motorcyclist Fatalities	Helmet Used		Helmet Not Used	
		N	%	N	%
<16	0	0	0.0%	0	0.0%
16-20	1	1	100.0%	0	0.0%
21-24	3	3	100.0%	0	0.0%
25-34	6	6	100.0%	0	0.0%
35-44	6	6	100.0%	0	0.0%
45-54	12	9	75.0%	3	25.0%
55-64	7	6	85.7%	1	14.3%
65+	5	2	40.0%	3	60.0%
Unknown	0	0	N/A	0	N/A
VT**	40	33	82.5%	7	17.5%
Region	807	401	49.7%	364	45.1%
U.S.	23,271	13,163	56.6%	9,528	40.9%

*Helmet use percentage based on total fatalities.

**State law requires use by *all riders*.

Table 51. Motorcycle Operator Fatalities: Operator Alcohol Involvement and Crash-Level Speed Involvement: Totals 2009-2013

Age Group	MC Operator Fatalities	BAC ≥ 0.01*			Speeding Involved**	
		# Tested	# ≥ 0.01	%	#	%
<16	0	0	0	N/A	0	N/A
16-20	1	1	0	0.0%	0	0.0%
21-24	3	3	1	33.3%	1	33.3%
25-34	4	4	2	50.0%	3	75.0%
35-44	6	5	5	100.0%	5	83.3%
45-54	11	11	6	54.5%	5	45.5%
55-64	6	5	0	0.0%	1	16.7%
65+	4	4	0	0.0%	1	25.0%
Unknown	0	0	0	N/A	0	N/A
VT	35	33	14	42.4%	16	45.7%
Region	757	609	255	41.9%	311	41.1%
U.S.	21,765	16,965	6,583	38.8%	8,385	38.5%

* Based on actual state BAC data

**Refers to entire crash event.

Table 52. Fatal Crashes Involving Motorcycles: Operator Factors

	2009		2010		2011		2012		2013		Total 2009 - 2013	
	MC (N=9)	Other Op (N=5)	MC (N=6)	Other Op (N=3)	MC (N=8)	Other Op (N=1)	MC (N=11)	Other Op (N=7)	MC (N=6)	Other Op (N=4)	MC (N=40)	Other Op (N=20)
Factors	%*	%*	%*	%*	%*	%*	%*	%*	%*	%*	%*	%*
None reported	44.4%	40.0%	50.0%	66.7%	0.0%	0.0%	18.2%	71.4%	66.7%	75.0%	32.5%	60.0%
One or more factors reported	55.6%	60.0%	50.0%	33.3%	100.0%	100.0%	81.8%	28.6%	33.3%	25.0%	**67.5%**	**40.0%**
Top Factors**												
Driving too fast for conditions and/or in excess of posted speed limit	11.1%	20.0%	16.7%	0.0%	50.0%	100.0%	72.7%	14.3%	16.7%	0.0%	**37.5%**	**15.0%**
Failure to remain in proper lane	0.0%	40.0%	33.3%	0.0%	75.0%	0.0%	18.2%	0.0%	16.7%	0.0%	27.5%	10.0%
Inattentive (2006-2009), Distracted (2010 and later), Careless (2012)***	11.1%	20.0%	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	10.0%
Operating vehicle in erratic, reckless manner	11.1%	0.0%	16.7%	33.3%	0.0%	0.0%	9.1%	0.0%	0.0%	25.0%	7.5%	10.0%
Operator inexperience	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.1%	0.0%	0.0%	0.0%	2.5%	0.0%
Failure to yield	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%	14.3%	0.0%	0.0%	0.0%	10.0%

*Driver may have multiple factors reported. Highlighting is to help reader distinguish MC operator percentages from Other operator percentages.

Percentages based on **total operators/drivers at the vehicle level. 'None reported' includes instances in which a violation, driver factor, distraction, or speeding was marked as 'Unknown', 'Not Reported', or where data are missing.

***Prior to 2010, Inattentive was a single element—Inattentive/Careless (Talking, Eating, Car Phones, etc.). In 2010, many individual factors that had been subsumed the Inattentive element were broken out into their own separate categories, as Distraction became an entirely new table in FARS. In 2012, Careless was added as a new variable.

V. RESTRAINT USE

OCCUPANT RESTRAINT – KEY FINDINGS

In the period 2009-2013:

- In Vermont, observed seat belt usage ranged between 84.2% (2012) and 85.3% (2009) during the five-year period, while the National rate ranged from 84.0% (2009 and 2011) to 87.0% (2013) (Figure 23).
- Vermont has a primary seat belt law for all occupants under the age of 18, and a secondary seat belt law for all occupants ages 18 and older.
- In Vermont, restraint use among fatally-injured passenger vehicle occupants was higher that of the Region during each of the five years (2009-2013), except in 2012, and *lower* than that of the Nation for three years of the period (2009, 2010, and 2012), for *all* crashes. For *night* crashes, the proportion for the State was below that of the Region and the Nation throughout the five-year period (2009-2013), except in 2011. In every year, in every jurisdiction (State, Region, Nation), restraint use among fatally-injured passenger vehicle occupants in crashes occurring at night was lower than restraint use as a whole (Table 53).
- In Vermont, the highest percentages of fatally injured occupants *not* wearing their seat belts were ages 5-9 (100.0%), followed by those ages 21-24 (76.3%) and 25-34 (73.3%). When looking at restraint *use* among fatally-injured passenger vehicle occupants, restraint use was highest among those ages 4 and younger (100.0%), 75 and older (78.6%), and those ages 10-15 (66.7%) (Table 54).
- During the 2009-2013 period in Vermont, half (50.9%) of all fatally-injured occupants of *cars* used restraints, compared to 16.1% of fatally-injured occupants of *pickup trucks*, and 50.9% of those in the *other (incl. SUV)* category. In terms of change, for the *car* vehicle category, the percentage of restraint use by fatally-injured occupants in Vermont increased by 29.5% in 2013 (when compared to the average of the previous four years); during the same timeframe, restraint use for the *pickup* category decreased by 100.0% Statewide, and restraint use for the *other (incl. SUV)* category increased by 28.6% (Table 55).

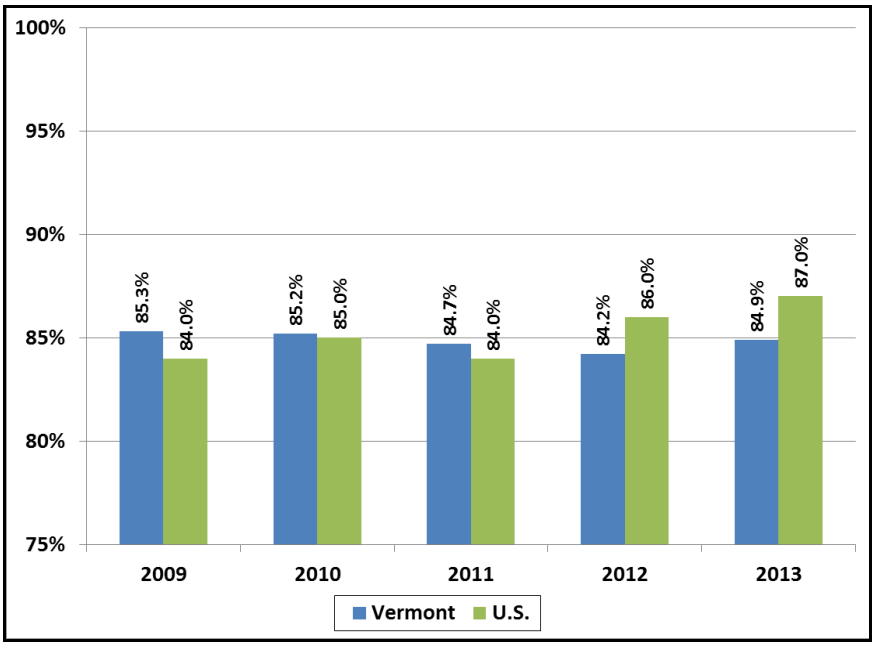


Figure 23. Observed Seat Belt Usage Rates, 2009-2013

Table 53. Restraint Use of Fatally-Injured Passenger Vehicle Occupants

	2009	2010	2011	2012	2013
Restraint Used					
Vermont	40.7%	41.8%	57.1%	32.7%	54.9%
Region	34.2%	37.5%	36.6%	38.3%	40.4%
U.S.	43.5%	44.8%	44.4%	44.7%	46.3%
Restraint Used Night*					
Vermont	9.1%	21.7%	35.0%	18.8%	20.0%
Region	26.4%	26.1%	30.8%	29.5%	23.6%
U.S.	32.2%	32.3%	33.3%	33.6%	33.7%

Restraint use percentage based on all fatalities

*In crashes that occurred between 8 pm and 4 am.

Table 54. Fatally-Injured Passenger Vehicle* Occupants, Restraint Use by Age Group: Totals 2009-2013

Age Group	Occupant Restraint Usage			
	N	Used	Not Used	Unknown
<5	4	100.0%	0.0%	0.0%
5-9	1	0.0%	100.0%	0.0%
10-15	3	66.7%	33.3%	0.0%
16-20	31	29.0%	61.3%	9.7%
21-24	38	23.7%	76.3%	0.0%
25-34	30	20.0%	73.3%	6.7%
35-44	20	25.0%	70.0%	5.0%
45-54	30	56.7%	40.0%	3.3%
55-64	34	50.0%	50.0%	0.0%
65-74	21	57.1%	42.9%	0.0%
75+	42	78.6%	16.7%	4.8%
Unknown	0	0.0%	N/A	N/A
VT**	254	44.9%	51.6%	3.5%
Region	3,392	37.4%	49.3%	13.3%
U.S.	109,947	44.7%	47.6%	7.7%

* Automobiles, SUVs, and Pickup Trucks

** The State has a secondary seat belt law for all occupants age 18 and older. Primary seat belt laws apply to passengers under the age of 18 only.

Highlighting is to help reader identify cells discussed in the text.

Table 55. Restraint Use of Fatally-Injured Occupants by Passenger Vehicle Type*

	2009	2010	2011	2012	2013	Total 2009 - 2013	% Change: 2013 vs. Prior 4-yr Avg.
Cars							
Vermont	42.1%	52.9%	60.0%	40.6%	63.3%	50.9%	29.5%
Region	42.1%	47.0%	45.4%	48.2%	47.0%	46.0%	3.0%
U.S.	53.9%	55.7%	54.5%	54.9%	57.1%	55.2%	4.3%
Pickup							
Vermont	33.3%	0.0%	16.7%	22.2%	0.0%	16.1%	-100.0%
Region	30.2%	23.9%	28.8%	26.7%	38.1%	29.2%	39.0%
U.S.	32.5%	35.0%	35.2%	35.2%	37.2%	35.0%	8.0%
Other (incl. SUV)							
Vermont	66.7%	33.3%	80.0%	20.0%	64.3%	50.9%	28.6%
Region	39.1%	43.8%	38.5%	40.2%	46.3%	41.9%	14.6%
U.S.	42.7%	43.2%	43.9%	44.2%	45.9%	43.9%	5.5%

* Where restraint use is known

VI. PEDESTRIAN AND BICYCLIST CRASHES

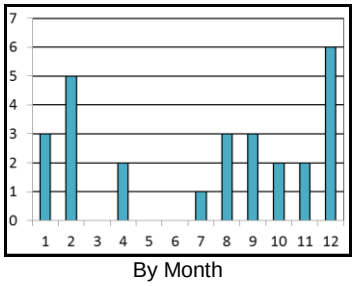
PEDESTRIAN AND BICYCLIST CRASHES – KEY FINDINGS

In the period 2009-2013:

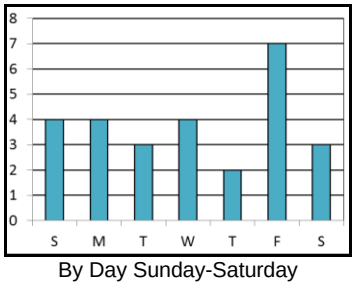
- The plurality of pedestrian fatal crashes occurred between 6 p.m. and 9 p.m. in Vermont (37.0%), in Region 1 (24.9%), and throughout the Nation (25.3%). Such crashes were most frequent on Fridays in the State (25.9%) and across the Region (17.1%), but on Saturdays throughout the U.S. as a whole (17.4%). In all three jurisdictions (State, Region, Nation), December was the month with the most pedestrian fatal crashes (22.2%, 16.5%, and 11.0%, respectively) (Table 56).
- The 10 cities with the largest number of pedestrian fatalities in Vermont accounted for 63.0% of all pedestrian fatalities in the State. Rutland was the city with the highest pedestrian fatality count during the 2009-2013 period (5 fatalities and 18.5% of the total) (Table 57).
- Throughout the five years, persons ages 75 and older constituted a plurality of pedestrian fatalities in Vermont (29.6%) and across the Region (17.2%). Nationally, the highest proportion of pedestrian fatalities were ages 45-54 (19.3%) (Table 58).
- From 2009 through 2013, males represented 51.9% of the State's pedestrian fatalities, 64.2% of the Region's, and 69.0% of the Nation's (Table 58).
- During the five-year period, 26.3% of pedestrians killed in Vermont with a known BAC had a BAC of 0.08 or greater, compared to 22.9% for Region 1 and 38.0% for the U.S. as a whole. In Vermont, among fatally injured pedestrians with a known BAC, a BAC of at least 0.08 was *most common* in the 45-54 age group (100.0%). In Region 1, those ages 35-44 had the *highest* percentage (41.7%), as did those ages 25-34 Nationwide (52.1%) (Table 59).
- From 2009 through 2013, there was 1 bicyclist fatality in Vermont, which occurred in 2010. As there were no bicyclist fatalities in 2013, such fatalities in Vermont showed a decrease of 100.0% when compared to the prior four years. In contrast, in 2013 bicyclist fatalities rose by 21.2% Regionally and 11.4% Nationwide (Table 60).

Table 56. Pedestrian Fatal Crashes by Month, Day of Week, and Time of Day: Totals 2009-2013

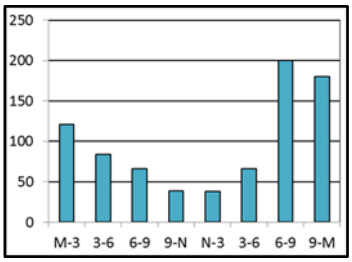
	Vermont (N=27)		Region (N=686)		U.S. (N=22,077)	
	N	%	N	%	N	%
MONTH						
January	3	11.1%	53	7.7%	1903	8.6%
February	5	18.5%	38	5.5%	1701	7.7%
March	0	0.0%	46	6.7%	1742	7.9%
April	2	7.4%	37	5.4%	1536	7.0%
May	0	0.0%	46	6.7%	1533	6.9%
June	0	0.0%	41	6.0%	1460	6.6%
July	1	3.7%	55	8.0%	1637	7.4%
August	3	11.1%	59	8.6%	1657	7.5%
September	3	11.1%	59	8.6%	1928	8.7%
October	2	7.4%	58	8.5%	2250	10.2%
November	2	7.4%	81	11.8%	2306	10.4%
December	6	22.2%	113	16.5%	2424	11.0%
DAY OF WEEK						
Sunday	4	14.8%	84	12.2%	3095	14.0%
Monday	4	14.8%	90	13.1%	2831	12.8%
Tuesday	3	11.1%	94	13.7%	2823	12.8%
Wednesday	4	14.8%	87	12.7%	2877	13.0%
Thursday	2	7.4%	98	14.3%	3009	13.6%
Friday	7	25.9%	117	17.1%	3595	16.3%
Saturday	3	11.1%	116	16.9%	3847	17.4%
TIME OF DAY						
Midnight-3am	2	7.4%	54	7.9%	2664	12.1%
3am-6am	1	3.7%	44	6.4%	2118	9.6%
6am-9am	3	11.1%	78	11.4%	1997	9.0%
9am-Noon	1	3.7%	45	6.6%	1201	5.4%
Noon-3pm	5	18.5%	64	9.3%	1258	5.7%
3pm-6pm	4	14.8%	125	18.2%	2267	10.3%
6pm-9pm	10	37.0%	171	24.9%	5579	25.3%
9pm-Midnight	1	3.7%	103	15.0%	4877	22.1%
Unknown	0	0.0%	2	0.3%	116	0.5%



By Month



By Day Sunday-Saturday



By Time from Midnight (3-hour periods)

Table 57. Pedestrian Fatalities by Top Cities

City	2009	2010	2011	2012	2013	Total 2009 - 2013 N	%
Rutland	0	1	0	3	1	5	18.5%
Brattleboro	0	0	0	2	1	3	11.1%
South Burlington	1	1	0	0	0	2	7.4%
Hartford	0	0	0	1	0	1	3.7%
Middlebury	0	0	1	0	0	1	3.7%
Berlin	0	0	1	0	0	1	3.7%
Woodstock	0	0	1	0	0	1	3.7%
Bristol	0	0	0	1	0	1	3.7%
Burlington	0	0	0	1	0	1	3.7%
Mendon	0	0	0	1	0	1	3.7%
Total Top Cities	**1**	**2**	**3**	**9**	**2**	**17**	**63.0%**
All Pedestrian Fatalities	**5**	**4**	**3**	**10**	**5**	**27**	**100%**

Table 58. Pedestrian Fatalities by Age Group and Sex: Totals 2009-2013

	Fatalities by Age				Fatalities by Age and Sex					
	Vermont		Region	U.S.	Vermont				Region % Males	U.S.% Males
	(N=27)	%	(N=690)	(N=22,418)	Females		Males			
Age Group					N	%	N	%		
<5	0	0.0%	1.6%	2.0%	0	N/A	0	N/A	63.6%	61.2%
5-9	0	0.0%	1.2%	1.6%	0	N/A	0	N/A	100.0%	61.8%
10-15	0	0.0%	2.3%	2.7%	0	N/A	0	N/A	56.3%	59.5%
16-20	1	3.7%	6.2%	5.7%	1	100.0%	0	0.0%	74.4%	69.9%
21-24	2	7.4%	6.5%	6.9%	1	50.0%	1	50.0%	62.2%	72.6%
25-34	2	7.4%	9.4%	14.0%	0	0.0%	2	100.0%	70.8%	71.8%
35-44	2	7.4%	11.7%	13.3%	0	0.0%	2	100.0%	71.6%	70.2%
45-54	2	7.4%	15.7%	19.3%	2	100.0%	0	0.0%	66.7%	72.8%
55-64	5	18.5%	15.5%	15.0%	1	20.0%	4	80.0%	63.6%	71.6%
65-74	5	18.5%	12.2%	9.0%	3	60.0%	2	40.0%	50.0%	64.8%
75+	8	29.6%	17.2%	10.2%	5	62.5%	3	37.5%	59.7%	58.5%
Unknown	0	0.0%	0.4%	0.5%	0	N/A	0	N/A	66.7%	75.0%
Total	**27**	**100.0%**	**100.0%**	**100.0%**	**13**	**48.1%**	**14**	**51.9%**	**64.2%**	**69.0%**

Highlighting is to help reader identify cells with higher numbers/percentages

Table 59. Pedestrian Fatalities by Age Group With BAC: Totals 2009-2013

Age Group	Vermont		0.08 or greater	Region 0.08 or greater	U.S. 0.08 or greater
	N ≥ 0.08	N	N=5 of 19*	N=114 of 498*	N=5,900 of 15,547*
<16	**0**	**0**	N/A	0.00%	2.39%
16-20	**0**	**1**	0.00%	13.51%	26.99%
21-24	**1**	**2**	50.00%	40.54%	51.79%
25-34	**1**	**2**	50.00%	39.22%	52.10%
35-44	**0**	**1**	0.00%	41.67%	49.05%
45-54	**2**	**2**	100.00%	38.96%	50.62%
55-64	**1**	**4**	25.00%	17.72%	35.85%
65+	**0**	**7**	0.00%	3.73%	9.63%
Unknown	**0**	**0**	N/A	N/A	52.31%
Total	**5**	**19**	**26.32%**	**22.89%**	**37.95%**

*Persons with known BACs

Highlighting is to help reader identify cells with higher percentages.

Table 60. Bicyclist Fatalities

	2009	2010	2011	2012	2013	Total 2009- 2013	% Change: 2013 vs. prior 4-yr Avg.
Vermont	0	1	0	0	0	1	-100.00%
Region	8	18	17	23	20	86	21.21%
U.S.	628	623	682	734	743	3,410	11.44%

VII. YOUNG DRIVERS

YOUNG DRIVERS – KEY FINDINGS

In the period 2009-2013:

- In Vermont, the number of fatal crashes involving young drivers (16-20 years old) increased in 2013, by 37.9% when compared to the prior four-year average. In contrast, Region 1 and the U.S. as a whole each experienced decreases in this index (-6.8% and -14.4%, respectively). The number of *young drivers killed* also increased in Vermont, by 11.1% in 2013 when compared to the 2009-2012 average. In contrast, decreases were experienced across Region 1 (-5.8%) and throughout the Nation (-17.8%) (Table 61).
- In Vermont, the proportion of fatalities that were young drivers fluctuated with respect to the proportion of such fatalities across Region 1 and the Nation during the five years (2009-2013). The State was above both the Region and the Nation for three years of the period (2009, 2011, and 2013), and below both in 2012 and 2012. In 2013, 7.2% of Vermont's traffic fatalities were young drivers, compared to 6.0% for Region 1 and 5.0% Nationwide (Figure 24).
- Throughout the five years, the highest proportion of fatal crashes involving young drivers occurred between midnight and 3 a.m. in Vermont (20.5%) and across Region 1 (19.1%), but between 3 p.m. and 6 p.m. throughout the U.S. as a whole (17.0%). When looking at the days of the week, for each jurisdiction (State, Region, and Nation), the majority of fatal crashes involving young drivers occurred on Fridays, Saturdays, and Sundays (61.5% in Vermont, 55.0% Regionally, and 52.7% Nationwide) (Table 62).
- In Vermont, at least one driver-related factor was reported for 84.6% of young drivers involved in fatal crashes during the five-year period. *Driving too fast* was the most frequently reported factor for young drivers (38.5%) (Table 63).
- In Vermont, a larger percentage of young drivers who were involved in fatal crashes had previous speeding convictions (30.8) than did drivers of all ages (20.2%). To compare, slightly more young drivers had previous speeding convictions in Region 1 and the Nation (21.8% Regionally and 18.3% Nationally) than did drivers of all ages (16.6% in Region 1 and 17.2% across the Nation) (Table 64).
- From 2009 through 2013, a larger percentage of Vermont's young drivers who were involved in a fatal crash had a previous crash recorded (15.4%) than did all drivers (9.4%). This pattern is similar to that observed for Region 1 and the Nation, where younger drivers (15.0% Regionally and 13.0% Nationally) were more likely to have a previous crash recorded than drivers of all ages (12.9% in Region 1 and 11.4% across the Nation) (Table 64).
- Young drivers themselves accounted for the largest proportion of fatalities in Vermont's young driver-involved fatal crashes (52.3%), as they did across Region 1 (47.0%) and throughout the Nation (40.3%) during the same years (2009-2013). In Vermont, young drivers' passengers represented 31.8% of the fatalities in such crashes, and other road users accounted for 15.9% (Table 65).
- In Vermont, five counties accounted for 70.5% of all young driver-involved fatalities during the five-year period: Orleans (20.5%); Franklin (13.6%); Rutland (13.6%); Bennington (11.4%); and Chittenden (11.4%) (Table 66).
- During the 2009-2013 period, a large proportion of Vermont's young driver-involved fatalities occurred on each collector roads and local roads (31.8% each). Regionally, such

crashes were most frequent on local roads (38.0%), as they were on arterial roads throughout the U.S. as a whole (42.6%). From 2009 through 2013, the smallest proportion of young driver-involved fatal crashes in Vermont and the Nation occurred interstates/expressways (6.8% and 12.3%, respectively); Regionally, such crashes were least frequent on collector roads (12.3%) (Table 67).

Table 61. Fatal Crashes and Fatalities of Young Drivers

	2009	2010	2011	2012	2013	Total 2009 - 2013	% Change: 2013 vs. prior 4-year Avg.
Vermont							
Fatal Crashes	10	5	7	7	10	39	37.93%
Young Drivers Killed	7	3	6	2	5	23	11.11%
Region							
Fatal Crashes	140	134	112	116	117	619	-6.77%
Young Drivers Killed	71	68	64	56	61	320	-5.79%
U.S.							
Fatal Crashes	4,871	4,348	4,176	4,111	3,746	21,252	-14.41%
Young Drivers Killed	2,302	1,917	1,970	1,848	1,651	9,688	-17.83%

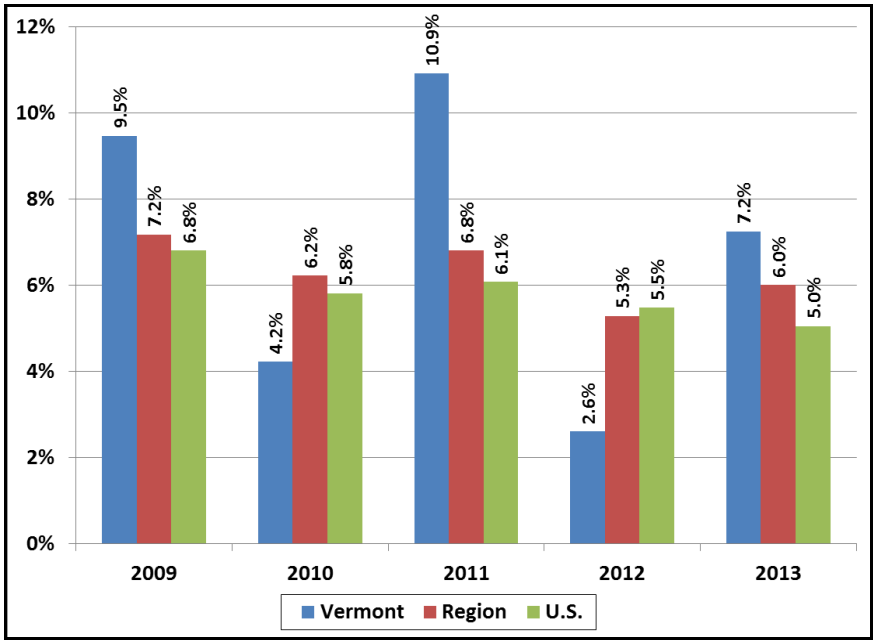
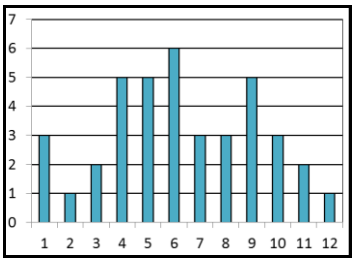


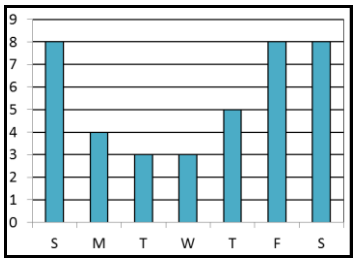
Figure 24. Young Driver Fatalities as Percent of Total

Table 62. Young Driver-Involved Fatal Crashes by Month, Day of Week, and Time of Day: Totals 2009-2013

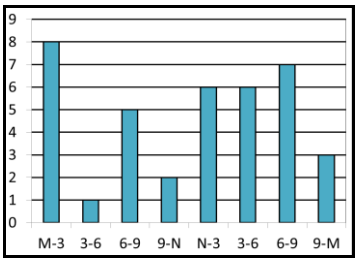
	Vermont (N=39)		Region (N=619)	U.S. (N=21,252)
	N	%	%	%
MONTH				
January	3	7.7%	6.0%	7.0%
February	1	2.6%	3.6%	6.3%
March	2	5.1%	6.8%	7.7%
April	5	12.8%	8.4%	8.2%
May	5	12.8%	9.7%	9.0%
June	6	15.4%	9.0%	9.3%
July	3	7.7%	10.3%	9.7%
August	3	7.7%	10.8%	9.3%
September	5	12.8%	9.4%	8.7%
October	3	7.7%	10.7%	8.9%
November	2	5.1%	7.9%	8.1%
December	1	2.6%	7.4%	7.6%
DAY OF WEEK				
Sunday	8	20.5%	17.1%	17.6%
Monday	4	10.3%	10.0%	12.0%
Tuesday	3	7.7%	10.7%	11.7%
Wednesday	3	7.7%	11.8%	11.6%
Thursday	5	12.8%	12.4%	12.2%
Friday	8	20.5%	16.6%	15.5%
Saturday	8	20.5%	21.3%	19.6%
TIME OF DAY				
Midnight-3am	8	20.5%	19.1%	13.6%
3am-6am	1	2.6%	9.0%	8.3%
6am-9am	5	12.8%	7.4%	9.1%
9am-Noon	2	5.1%	6.5%	7.2%
Noon-3pm	6	15.4%	12.9%	11.8%
3pm-6pm	6	15.4%	14.1%	17.0%
6pm-9pm	7	17.9%	14.4%	16.4%
9pm-Midnight	3	7.7%	16.5%	16.1%
Unknown	1	2.6%	0.2%	0.5%



By Month



By Day Sunday-Saturday



By Time from Midnight (3-hour periods)

Table 63. Driver Factors of Young Drivers Involved in Fatal Crashes

Factors	2009 (N=10) %*	2010 (N=5) %*	2011 (N=7) %*	2012 (N=7) %*	2013 (N=10) %*	Total 2009 - 2013 (N=39) %*
None reported	0.0%	20.0%	14.3%	14.3%	30.0%	15.4%
One or more factors reported	100.0%	80.0%	85.7%	85.7%	70.0%	84.6%
Top Factors						
Driving too fast for conditions and/or in excess of posted speed limit	40.0%	40.0%	57.1%	28.6%	30.0%	38.5%
Inattentive (2006-2009), Distracted (2010 and later), Careless (2012)**	30.0%	0.0%	28.6%	14.3%	0.0%	15.4%
Driving in an erratic, reckless manner	0.0%	40.0%	28.6%	28.6%	40.0%	25.6%
Failure to keep in proper lane	50.0%	40.0%	42.9%	0.0%	30.0%	33.3%
Failure to yield	0.0%	0.0%	0.0%	14.3%	10.0%	5.1%

*Driver may have multiple factors reported

**Prior to 2010, Inattentive was a single element—Inattentive/Careless (Talking, Eating, Car Phones, etc.). In 2010, many individual factors that had been subsumed in the Inattentive element were broken out into their own separate categories, as Distraction became an entirely new table in FARS. In 2012, Careless was added as a new variable.

Highlighting is to help reader identify most common factors.

Table 64. Previous Speeding Convictions and Previous Crashes for Young Drivers versus All Drivers: Totals 2009-2013

	Vermont				Region		U.S.	
	Young drivers		All drivers		Young drivers	All drivers	Young drivers	All drivers
	(N=39)	%	(N=435)	%	(N=633)	(N=6,695)	(N=22,009)	(N=224,014)
Previous Speeding*	12	30.8%	88	20.2%	21.8%	16.6%	18.3%	17.2%
Previous Crash Recorded**	6	15.4%	41	9.4%	15.0%	12.9%	13.0%	11.4%

*Convictions recorded within three years prior to the fatal crash; counts exclude instances in which no person was identified as a driver.
**Crashes recorded within three years prior to the fatal crash; counts exclude instances in which no person was identified as a driver.
Highlighting is to help reader identify young drivers

Table 65. Fatalities in Young Driver-Involved Crashes, by Person Type

Victims	2009 (N=11)	2010 (N=6)	2011 (N=10)	2012 (N=7)	2013 (N=10)	VT 2009-2013 % (N=44)	Region 2009-2013 % (N=681)	U.S. 2009-2013 % (N=24,050)
Young Drivers	7	3	6	2	5	52.3%	47.0%	40.3%
Passengers	2	3	3	2	4	31.8%	22.8%	24.6%
Other Road Users	2	0	1	3	1	15.9%	30.2%	35.1%

Table 66.Young Driver-Involved Fatalities by County

County	2009	2010	2011	2012	2013	Total 2009 - 2013 N	Total 2009 - 2013 %	% Change: 2013 vs. prior 4-yr Avg.
Addison	1	0	0	1	0	**2**	**4.5%**	-100.0%
Bennington	1	0	3	1	0	**5**	**11.4%**	-100.0%
Caledonia	0	0	0	0	0	**0**	**0.0%**	N/A
Chittenden	0	0	1	2	2	**5**	**11.4%**	166.7%
Essex	0	0	0	0	0	**0**	**0.0%**	N/A
Franklin	1	1	0	0	4	**6**	**13.6%**	700.0%
Grand Isle	0	0	0	0	0	**0**	**0.0%**	N/A
Lamoille	1	0	0	1	0	**2**	**4.5%**	-100.0%
Orange	0	0	1	0	0	**1**	**2.3%**	-100.0%
Orleans	2	4	1	1	1	**9**	**20.5%**	-50.0%
Rutland	3	0	2	1	0	**6**	**13.6%**	-100.0%
Washington	2	0	0	0	0	**2**	**4.5%**	-100.0%
Windham	0	1	0	0	3	**4**	**9.1%**	1100.0%
Windsor	0	0	2	0	0	**2**	**4.5%**	-100.0%
Total	**11**	**6**	**10**	**7**	**10**	**44**	**100.0%**	**17.6%**

Table 67. Young Driver-Involved Fatalities by Road Type

	Vermont					Total 2009 - 2013		
	2009	2010	2011	2012	2013	VT	Region	U.S.
	(N=11)	(N=6)	(N=10)	(N=7)	(N=10)	(N=44)	(N=681)	(N=24,050)
Road Type								
Interstate/Expressway	0	1	1	1	0	6.82%	18.50%	12.28%
Arterial	8	1	1	1	2	29.55%	29.66%	42.63%
Collector	1	1	5	4	3	31.82%	12.33%	21.16%
Local	2	3	3	1	5	31.82%	38.03%	23.07%
Unknown	0	0	0	0	0	0.00%	1.47%	0.87%
Total	**11**	**6**	**10**	**7**	**10**	**100.00%**	**100.00%**	**100.00%**

Highlighting is to help the reader identify cells with higher numbers/percentages.

VIII. OLDER DRIVERS

OLDER DRIVERS – KEY FINDINGS

In the period 2009-2013:

- In Vermont, the number of fatal crashes involving drivers ages *65-74* decreased by 31.4% in 2013 when compared to the prior four-year average. However, Region 1 and the Nation each experienced increases in this index (a 1.6% increase for Region 1 and a 10.4% increase Nationwide). Driver fatalities for the *65-74* age group *increased* in Vermont, by 5.3%. In Region 1 and the U.S., the increase in the number of drivers ages *65-74* killed was larger than the increase in the number of fatal crashes during the same timeframe (a 15.3% increase in such fatalities in Region 1 and an 11.9% increase Nationwide) (Table 68).
- In Vermont, the proportion of traffic fatalities that were drivers ages *65-74* remained above that of both Region 1 and the Nation throughout the five-year period (2009-2013). In 2013, 7.2% of Vermont's traffic fatalities were drivers ages *65-74*, compared to 6.1% in Region 1 and 5.6% Nationwide (Figure 25).
- In 2013, the number of fatal crashes involving drivers ages *75 and older* increased in Vermont (by 57.1%), as they did throughout Region 1 (by 10.1%); Nationwide, there was little change in this index (a 0.6% decrease). In Vermont, the number of drivers ages *75 and older* killed showed no change. To compare, such deaths increased by 9.8% in Region 1, and showed little change Nationwide (+0.5%) (Table 69).
- In Vermont, the proportion of traffic fatalities that were drivers ages *75 and older* was above that of the Region and the Nation for three years of the period (2009, 2010, and 2013), and below both in 2011 and 2012. In 2013, 8.7% of Vermont's traffic fatalities were drivers ages *75 and older*, compared to 8.6% in Region 1 and 6.3% Nationwide (Figure 26).
- Drivers ages *65-74* made up the plurality of fatalities in Vermont's fatal crashes involving drivers of this age group (49.0%), as they did in Region 1 (56.2%) and throughout the U.S. (51.7%) during the same years (2009-2013). In Vermont, passengers of drivers ages *65-74* represented 20.4% of the fatalities in such crashes, and other road users represented 30.6% (Table 70).
- From 2009 through 2013, drivers ages *75 and older* constituted a majority of fatalities in Vermont's fatal crashes involving drivers of this age group (67.4%), as they did in Region 1 (64.9%) and the Nation (64.2%) during the same years (2009-2013). In Vermont, passengers of drivers ages *75 and older* represented 20.9% of the fatalities in such crashes, and other road users represented 11.6% (Table 71).
- During the five-year period in Vermont, 61.0% of fatal crashes involving drivers ages *65-74* occurred between 9 a.m. and 6 p.m. Similarly, from 2009 through 2013, 65.4% of such crashes occurred during these same hours across Region 1, as did 61.6% Nationwide. Fatal crashes involving drivers ages *65-74* were most frequent on Thursdays, Fridays, and Sundays in the State (65.9%), on Fridays, Saturdays, and Sundays across the Region (46.4%), and on Thursdays, Fridays, and Saturdays throughout the Nation (46.6%) (Table 72).
- In Vermont, 79.5% of crashes that involved drivers ages *75 and older* occurred between 9 a.m. and 6 p.m. Similarly, in Region 1, 74.9% of crashes that involved drivers in this age group occurred between 9 a.m. and 6 p.m., as did 72.8% Nationwide. Fatal crashes involving drivers ages *75 and older* were most frequent on Thursdays in the State (23.1%), on

Tuesdays across the Region (16.0%), and on Fridays throughout the Nation (15.9%) (Table 73).

- During the 2009-2013 period, the largest proportion of fatalities involving drivers ages *65-74* occurred on the State's arterial roads (52.5%), as they did in Region 1 (42.0%) and throughout the Nation (52.6%). From 2009 through 2013, the smallest proportion of fatal crashes involving drivers ages *65-74* occurred on local roads in Vermont (2.5%) and the Nation (13.7%), but on collector roads in Region 1 (10.5%) (Table 74).
- During the 2009-2013 period, the highest proportion of fatalities involving drivers ages *75 and older* occurred on the State's arterial roads (56.3%), as was the case across the Region (43.3%) and throughout the Nation (55.8%). The smallest proportion of such crashes occurred on interstates/expressways in Vermont (3.1%), across the Region (13.1%), and throughout the Nation (10.3%) (Table 75).

Table 68. Fatal Crashes and Fatalities Involving Drivers Ages 65-74

	2009	2010	2011	2012	2013	Total 2009 - 2013	% Change: 2013 vs. prior 4-yr Avg.
Vermont							
Fatal Crashes	7	9	8	11	6	41	-31.4%
Drivers Ages 65-74 Killed	5	5	4	5	5	24	5.3%
Region							
Fatal Crashes	81	80	88	117	93	459	1.6%
Drivers Ages 65-74 Killed	53	47	52	63	62	277	15.3%
U.S.							
Fatal Crashes	2,765	2,814	2,869	3,124	3,194	14,766	10.4%
Drivers Ages 65-74 Killed	1,566	1,566	1,673	1,771	1,839	8,415	11.9%

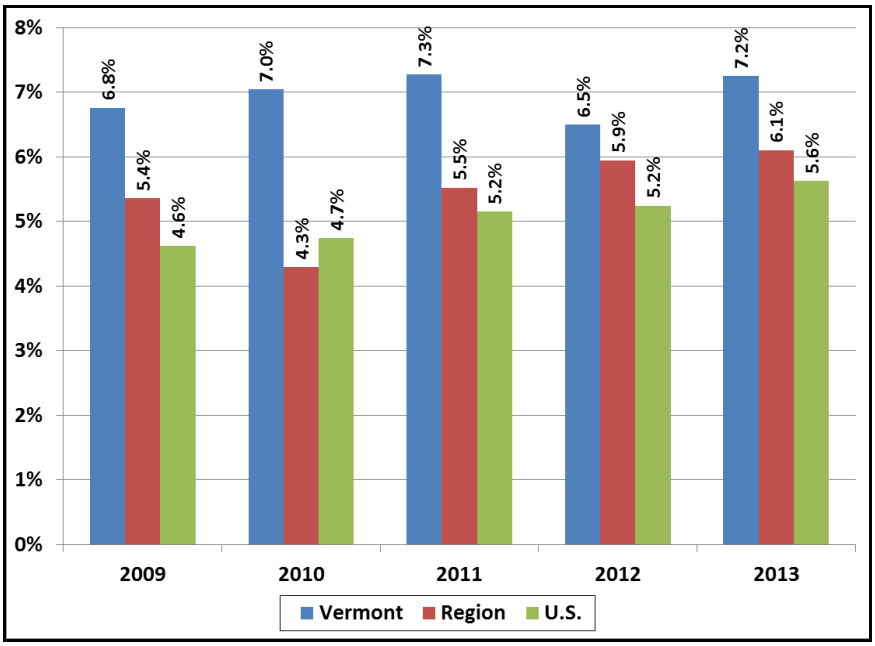


Figure 25. Driver Ages 65-74 Fatalities as Percent of Total Fatalities

Table 69. Fatal Crashes and Fatalities Involving Drivers Ages 75 and Older

	2009	2010	2011	2012	2013	Total 2009 - 2013	% Change: 2013 vs. prior 4-yr Avg.
Vermont							
Fatal Crashes	8	12	4	4	11	39	57.1%
Drivers Ages 75 and Older Killed	8	9	3	4	6	30	0.0%
Region							
Fatal Crashes	86	112	90	108	109	505	10.1%
Drivers Ages 75 and Older Killed	69	92	68	88	87	404	9.8%
U.S.							
Fatal Crashes	2,495	2,614	2,457	2,492	2,500	12,558	-0.6%
Drivers Ages 75 and Older Killed	2,036	2,129	2,012	2,003	2,055	10,235	0.5%

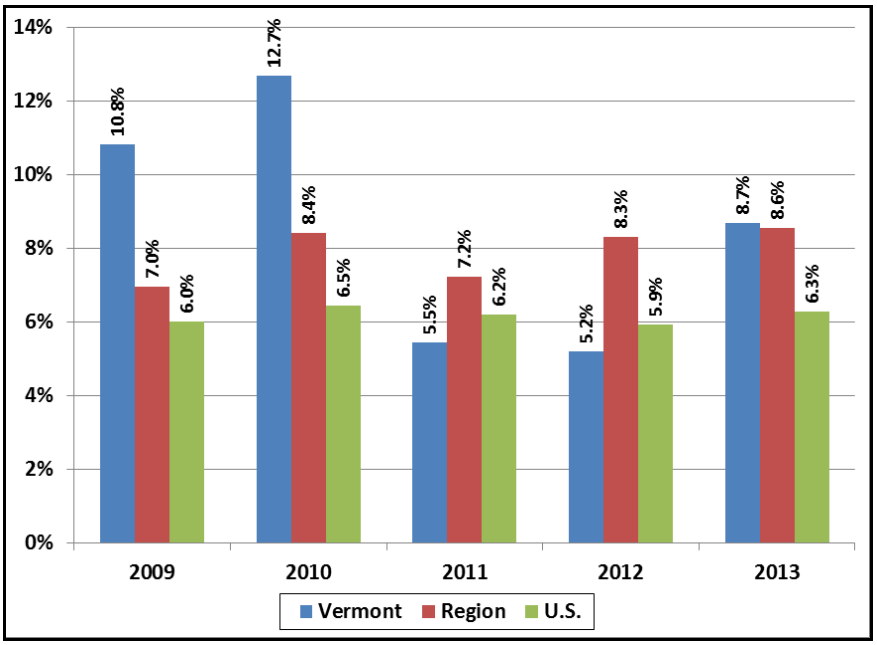


Figure 26. Driver Ages 75 and Older Fatalities as Percent of Total Fatalities

Table 70. Fatalities In Older Driver-Involved Crashes (Ages 65-74), by Person Type

Victims	2009 (N=8)	2010 (N=11)	2011 (N=10)	2012 (N=11)	2013 (N=9)	VT 2009-2013 % (N=49)	Region 2009-2013 % (N=493)	U.S. 2009-2013 % (N=7,854)
Older Drivers (Ages 65-74)	5	5	4	5	5	49.0%	56.2%	51.7%
Passengers of Older Drivers (Ages 65-74)	1	2	3	2	2	20.4%	9.9%	11.9%
Other Road Users	2	4	3	4	2	30.6%	33.9%	36.3%

Totals may exceed number of fatalities because one crash may include multiple older drivers in different age groups.

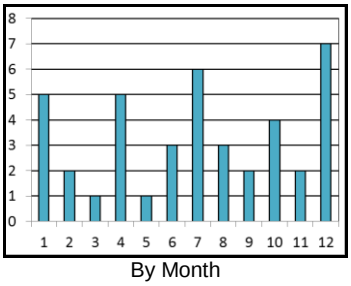
Table 71. Fatalities In Older Driver-Involved Crashes (Ages 75 and Older), by Person Type

Victims	2009 (N=10)	2010 (N=13)	2011 (N=4)	2012 (N=5)	2013 (N=11)	VT 2009-2013 % (N=43)	Region 2009-2013 % (N=541)	U.S. 2009-2013 % (N=13,671)
Older Drivers (Ages 75+)	8	9	3	4	5	67.4%	64.9%	64.2%
Passengers of Older Drivers (Ages 75+)	2	1	1	1	4	20.9%	15.2%	15.3%
Other Road Users	0	3	0	0	2	11.6%	20.0%	20.4%

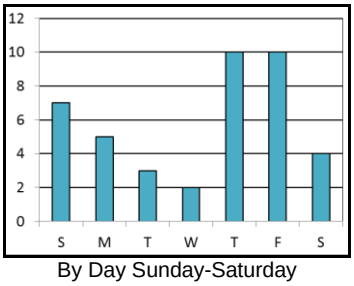
Totals may exceed number of fatalities because one crash may include multiple older drivers in different age groups.

Table 72. Fatal Crashes Involving Drivers Ages 65-74 by Month, Day of Week, and Time of Day: Totals 2009-2013

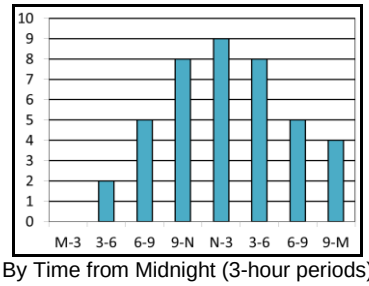
	Vermont (N=41)		Region (N=459)	U.S. (N=14,766)
	N	%	%	%
MONTH				
January	5	12.2%	6.3%	7.2%
February	2	4.9%	3.9%	6.4%
March	1	2.4%	6.1%	7.4%
April	5	12.2%	7.6%	8.0%
May	1	2.4%	7.4%	8.1%
June	3	7.3%	9.6%	8.8%
July	6	14.6%	10.2%	9.4%
August	3	7.3%	9.4%	9.4%
September	2	4.9%	8.7%	9.0%
October	4	9.8%	10.9%	8.9%
November	2	4.9%	7.2%	8.7%
December	7	17.1%	12.6%	8.7%
DAY OF WEEK				
Sunday	7	17.1%	14.6%	11.9%
Monday	5	12.2%	12.4%	13.5%
Tuesday	3	7.3%	14.4%	13.9%
Wednesday	2	4.9%	12.6%	14.2%
Thursday	10	24.4%	14.2%	14.7%
Friday	10	24.4%	16.8%	16.5%
Saturday	4	9.8%	15.0%	15.4%
TIME OF DAY				
Midnight-3am	0	0.0%	1.7%	2.7%
3am-6am	2	4.9%	2.8%	3.4%
6am-9am	5	12.2%	7.2%	9.8%
9am-Noon	8	19.5%	17.9%	17.4%
Noon-3pm	9	22.0%	22.7%	22.5%
3pm-6pm	8	19.5%	24.8%	21.7%
6pm-9pm	5	12.2%	15.7%	14.6%
9pm-Midnight	4	9.8%	7.0%	7.5%
Unknown	0	0.0%	0.2%	0.4%



By Month



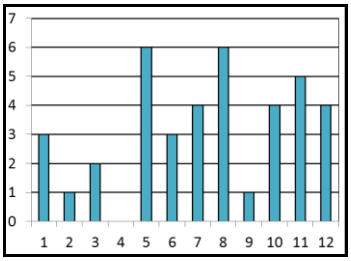
By Day Sunday-Saturday



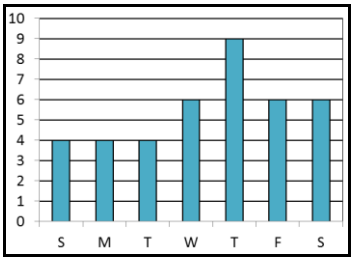
By Time from Midnight (3-hour periods)

Table 73. Fatal Crashes Involving Drivers Ages 75 and Older by Month, Day of Week, and Time of Day: Totals 2009-2013

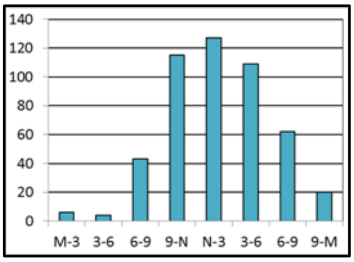
	Vermont (N=39)		Region (N=505)	U.S. (N=12,558)
	N	%	%	%
MONTH				
January	3	7.7%	6.5%	7.9%
February	1	2.6%	5.9%	6.3%
March	2	5.1%	5.9%	7.7%
April	0	0.0%	7.7%	8.4%
May	6	15.4%	9.3%	8.4%
June	3	7.7%	8.7%	8.5%
July	4	10.3%	9.1%	8.4%
August	6	15.4%	11.1%	8.7%
September	1	2.6%	5.1%	8.9%
October	4	10.3%	8.5%	8.8%
November	5	12.8%	10.1%	9.1%
December	4	10.3%	11.9%	9.0%
DAY OF WEEK				
Sunday	4	10.3%	12.3%	11.2%
Monday	4	10.3%	14.9%	14.7%
Tuesday	4	10.3%	16.0%	15.4%
Wednesday	6	15.4%	14.5%	15.1%
Thursday	9	23.1%	15.4%	15.0%
Friday	6	15.4%	13.9%	15.9%
Saturday	6	15.4%	13.1%	12.8%
TIME OF DAY				
Midnight-3am	0	0.0%	0.4%	1.0%
3am-6am	0	0.0%	1.8%	1.6%
6am-9am	6	15.4%	9.7%	8.9%
9am-Noon	12	30.8%	21.8%	22.5%
Noon-3pm	9	23.1%	28.5%	27.4%
3pm-6pm	10	25.6%	24.6%	22.9%
6pm-9pm	2	5.1%	10.1%	11.2%
9pm-Midnight	0	0.0%	2.8%	4.0%
Unknown	0	0.0%	0.4%	0.4%



By Month



By Day Sunday-Saturday



By Time from Midnight (3-hr periods)

Table 74. Fatalities Involving Drivers Ages 65-74 by Road Type

	Vermont					Total 2009 - 2013		
	2009	2010	2011	2012	2013	VT	Region	U.S.
	(N=8)	(N=11)	(N=10)	(N=11)	(N=9)	(N=49)	(N=493)	(N=16,269)
Road Type								
Interstate/Expressway	3	2	1	0	0	15.0%	21.1%	15.4%
Arterial	2	6	5	8	8	52.5%	42.0%	52.6%
Collector	3	2	4	3	1	30.0%	10.5%	17.8%
Local	0	1	0	0	0	2.5%	25.4%	13.7%
Unknown	0	0	0	0	0	0.0%	1.0%	0.6%
Total	8	11	10	11	9	100%	100%	100%

Highlighting is to help the reader identify cells with higher numbers/percentages.

Table 75. Fatalities Involving Drivers Ages 75 and Older by Road Type

	Vermont					Total 2009 - 2013		
	2009	2010	2011	2012	2013	VT	Region	U.S.
	(N=10)	(N=13)	(N=4)	(N=5)	(N=11)	(N=43)	(N=541)	(N=13,671)
Road Type								
Interstate/Expressway	0	1	0	0	1	3.1%	13.1%	10.3%
Arterial	7	4	3	4	6	56.3%	43.3%	55.8%
Collector	1	6	1	1	2	28.1%	13.3%	17.4%
Local	2	2	0	0	2	12.5%	28.7%	15.5%
Unknown	0	0	0	0	0	0.0%	1.7%	0.8%
Total	10	13	4	5	11	100%	100%	100%

Highlighting is to help the reader identify cells with higher numbers/percentages.

IX. DISTRACTION (2010-2013 ONLY)

DISTRACTION – KEY FINDINGS

- Note: This is the fourth year that Distractions were gathered in a separate table; no historical data are available before 2010.
- In 2013, fatal crashes where at least one distraction was reported for at least one vehicle accounted for 1.6% of Vermont's total fatal crashes for the year, a percentage lower that seen for Region 1 (9.7%) and for the U.S. as a whole (11.6%). In Vermont, the one fatal crash in 2013 where a distraction was recorded represents a decrease of 82.4% in this index when compared to the average of the prior three years (Table 76).
- Of the 18 fatal crashes in Vermont from 2010 through 2013 where at least one vehicle had at least one distraction recorded, 27.8% were recorded as involving a *cell phone,* and 22.2% were recorded as *distraction/inattention, details unknown* (Table 77).
- From 2010 through 2013, *distraction/inattention, details unknown* was most frequently recorded in fatal crashes where at least one vehicle had a least one distraction recorded in Region 1 (35.2%) and across the Nation (46.4%) (Table 77).

Table 76. Distracted Fatal Crashes (2010-2013 only)

	2010		2011		2012		2013		% Change: 2013 vs. 2010	% Change: 2013 vs. Prior 3-Yr Avg.
	Crashes	% of Total Crashes	Crashes	% of Total Crashes	Crashes	% of Total Crashes	Crashes	% of Total Crashes		
Vermont (N=244)	**8**	**12.70%**	**5**	**10.42%**	**4**	**5.71%**	**1**	**1.59%**	**-87.50%**	**-82.35%**
Region (N=3,853)	**134**	**13.12%**	**98**	**11.07%**	**94**	**9.43%**	**92**	**9.68%**	**-31.34%**	**-15.34%**
Nation (N=121,226)	**3527**	**11.64%**	**3497**	**11.71%**	**3653**	**11.78%**	**3479**	**11.57%**	**-1.36%**	**-2.25%**

One or more distractions reported

Table 77. Distracted Fatal Crashes by Behavior (2010-2013 only)

Distraction*		2010	2011	2012	2013	2010 - 2013 Total
No Driver Present	**Vermont**	0.00%	20.00%	0.00%	0.00%	5.56%
	Region	3.73%	9.18%	6.38%	7.61%	6.46%
	Nation	5.81%	5.92%	6.46%	6.67%	6.22%
Unaware/Did not see	**Vermont**	12.50%	20.00%	0.00%	0.00%	11.11%
	Region	40.30%	20.41%	17.02%	9.78%	23.68%
	Nation	26.79%	22.96%	10.18%	11.01%	17.68%
Distracted by Outside Person/Object/Event	**Vermont**	12.50%	20.00%	0.00%	0.00%	11.11%
	Region	2.99%	8.16%	11.70%	5.43%	6.70%
	Nation	5.78%	5.38%	5.26%	5.40%	5.45%
Other Distraction	**Vermont**	0.00%	0.00%	0.00%	0.00%	0.00%
	Region	14.18%	9.18%	6.38%	7.61%	9.81%
	Nation	6.72%	7.35%	6.35%	4.74%	6.29%
Distracted by Other Occupants	**Vermont**	0.00%	20.00%	25.00%	0.00%	11.11%
	Region	1.49%	5.10%	4.26%	6.52%	4.07%
	Nation	4.68%	3.89%	4.05%	4.20%	4.20%
Distracted by Objects in Vehicle/Vehicle Controls	**Vermont**	12.50%	0.00%	0.00%	0.00%	5.56%
	Region	5.22%	2.04%	3.19%	5.43%	4.07%
	Nation	4.34%	4.20%	4.46%	4.11%	4.28%
Eating/Drinking/Smoking	**Vermont**	37.50%	0.00%	0.00%	0.00%	16.67%
	Region	2.24%	2.04%	2.13%	2.17%	2.15%
	Nation	1.87%	1.94%	1.48%	1.44%	1.68%
Cell Phone	**Vermont**	25.00%	20.00%	50.00%	0.00%	27.78%
	Region	6.72%	11.22%	11.70%	13.04%	10.29%
	Nation	10.38%	10.12%	10.40%	11.81%	10.67%
Distraction/Inattention, Details Unknown**	**Vermont**	12.50%	20.00%	25.00%	100.00%	22.22%
	Region	23.88%	34.69%	40.43%	46.74%	35.17%
	Nation	37.62%	41.72%	53.52%	52.66%	46.43%

*Percentage of distracted crashes in which the distraction was recorded in at least one vehicle.
**This category includes the variables: Distraction (Distracted), Details Unknown; Distraction/Inattention; Distraction/Careless; Careless/Inattentive; and Inattention (Inattentive), Details Unknown, as per 2012 FARS User Manual.
Each crash may have involved multiple distractions (distractions recorded at the vehicle level).

APPENDIX: DATA BOOK CHANGES RELATED TO FARS 2013

Basic Data Moving Average

In the basic data section, the moving average is an average of the current year and the previous two years. Thus, the moving average for the first year in this data's books discussion, 2009, is an average of the values of 2007, 2008, and 2009.

Basic Data Linear Trend Line

In the basic data section, a linear trendline is also provided to show, in the simplest terms, whether the past trends (usually in fatalities) have been up, down, or flat. A linear trendline is often used as a predictive tool as well, but the reliability of its predictions depends on how much of the variation in variable "Y" (e.g., fatalities) is accounted for by change in variable "X" (e.g., year). The R^2 value for the linear trendline provides an index of that reliability. An R^2 value of 1.00 indicates that *all* of the variation in "Y" is accounted for by change in "X". On the other hand, an R^2 value of 0.00 indicates that *none* of the variability in Y is accounted for by a unit change in X, i.e., fatalities vary totally independently of time. The predictions (i.e., future fatality counts) that are provided for the linear trendline assume a high R^2 value *and* they assume an environment in which there is constancy with regard to important factors (e.g., the legal environment, current enforcement practices, the economy, etc.). To the extent that these assumptions are accurate, the reliability of the linear estimates is high. To the extent that these conditions are not met, the reliability of these estimates deteriorates.

In general, States have been encouraged to examine the *linear trends* and the *three-year moving averages* in their data over the most recent five-year period as a precursor to establishing goals and performance measures. This has been common practice for several years.

Consistent with these recommendations, we provide the linear trendline (as well as the three-year moving average) for each fatality area that we examine *and* we extend the linear trendline for three years beyond the last data point.

When presenting these predictions, however, we also note the R^2 value of the linear trendline (i.e., the reliability or robustness of the trendline) as well as any other factors that might affect the reliability/validity of the linear trendline as a predictor (e.g., an expected change in the economy).

Speed Limits

In the 2010 FARS database, speed limits were changed from a crash to a pre-crash level variable. Thus, each crash could have multiple speed limits – as many speed limits as there were cars in the crash, provided that each car was travelling on a different roadway prior to the critical pre-crash event. However, to allow us to look at speed limits at the crash level, we took the *maximum* speed limit of all the vehicles involved in the crash, setting that as the crash-level speed limit.

Beginning in 2010, an additional speed limit data element, 'Not Reported', began usage. 'Not Reported' and 'Unknown' were collapsed together into one category for 2010 and later.

Motorcycle Helmet Use

Beginning in 2010, FARS reporting differentiates compliant helmets and those that do not meet regulatory requirements. Prior to 2010, motorcyclists' use of compliant and use of non-compliant helmets both were likely reported as "Helmet Used." Starting in 2010, non-compliant helmets were no longer reported as "Helmet Used."

Census Data

Population data were drawn from the U.S. Census Bureau's vintage estimates for 2007 through 2009. For 2010, 2011, and 2012, and 2013 post-census intercensal data, as opposed to vintage data, were used. The methodology behind intercensal data may be found here:

http://www.census.gov/popest/methodology/2000-2010_Intercensal_Estimates_Methodology.pdf

http://www.census.gov/popest/methodology/2013-est-relnotes.pdf

Inattention (Distraction) Driver Factors

Beginning in 2010, many elements that previously had been encoded at the vehicle/driver level were broken out into separate tables (e.g., the new *Distraction* and *Violation* tables).

In Tables 52 (Fatal Crashes Involving Motorcycles – Operator Factors) and 63 (Driver Factors of Young Drivers Involved in Fatal Crashes), for the years 2007 through 2009, *Inattentive* was a single element – *Inattentive/Careless (Talking, Eating, Car Phones, etc.)*. However, in 2010, many individual factors that had been subsumed under the *Inattentive* data element were broken out into their own separate categories, as *Distraction* became an entirely new table in FARS.

In 2010, there were many more categories of *Inattention* (e.g., *Driver Distracted By Moving Object in Vehicle, Smoking Related Distraction*, etc.) to be found in the *Distraction* table. Thus, if *any* of these *Distraction* data elements were used in a crash (with the exception of *Not Reported* and *Unknown if Distracted*), the driver was considered to have been *Inattentive* (see Tables 52 and 63).