U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

TRAFFIC **S**AFETY **F**ACTS
Crash • Stats

NHTSA
★★★★★
www.nhtsa.gov

Early Estimate of Motor Vehicle Traffic Fatalities for the First Half (Jan–Jun) of 2014

Summary

A statistical projection of traffic fatalities for the first half of 2014 shows that an estimated 14,950 people died in motor vehicle traffic crashes. This represents a decrease of about 2.2 percent as compared to the 15,294 fatalities that were reported to have occurred in the first half of 2013, as shown in Table 1. Preliminary data reported by the Federal Highway Administration (FHWA) shows that vehicle miles traveled (VMT) in the first 6 months of 2014 increased by about 6.5 billion miles, or about a 0.4-percent increase.

Also shown in Table 1 are the fatality rates per 100 million VMT, by quarter. The fatality rate for the first half of 2014 decreased to 1.02 fatalities per 100 million VMT, down from 1.05 fatalities per 100 million VMT in the first half of 2013. The actual counts for 2013 and 2014 and the ensuing percentage change from 2013 to 2014 will be further revised when the final file for 2013 and the annual reporting file for 2014 are available later this year.

Table 1: Fatalities and Fatality Rate by Quarter, First Half, and the Percentage Change From the Corresponding Quarter or First Half in the Previous Year

Quarter	1st Quarter (Jan–Mar)	2nd Quarter (Apr–Jun)	3rd Quarter (Jul–Sep)	4th Quarter (Oct–Dec)	Total (Full Year)	1st Half (Jan–Jun)
Fatalities and Percentage Change in Fatalities for the Corresponding Quarter From the Prior Year						
2005	9,239	11,005	11,897	11,369	43,510	20,244
2006	9,558 [+3.5%]	10,942 [-0.6%]	11,395 [-4.2%]	10,813 [-4.9%]	42,708 [-1.8%]	20,500 [+1.3%]
2007	9,354 [-2.1%]	10,611 [-3.0%]	11,056 [-3.0%]	10,238 [-5.3%]	41,259 [-3.4%]	19,965 [-2.6%]
2008	8,459 [-9.6%]	9,435 [-11.1%]	9,947 [-10.0%]	9,582 [-6.4%]	37,423 [-9.3%]	17,894 [-10.4%]
2009	7,552 [-10.7%]	8,975 [-4.9%]	9,104 [-8.5%]	8,252 [-13.9%]	33,883 [-9.5%]	16,527 [-7.6%]
2010	6,755 [-10.6%]	8,522 [-5.0%]	9,226 [+1.3%]	8,496 [+3.0%]	32,999 [-2.6%]	15,277 [-7.6%]
2011	6,726 [-0.4%]	8,227 [-3.5%]	8,984 [-2.6%]	8,542 [+0.5%]	32,479 [-1.6%]	14,953 [-2.1%]
2012[a]	7,521 [+11.8%]	8,612 [+4.7%]	9,171 [+2.1%]	8,478 [-0.7%]	33,782 [+4.0%]	16,133 [+7.9%]
2013	7,128 [-5.2%]	8,166 [-5.2%]	8,971 [-2.2%]	8,454 [-0.3%]	32,719 [-3.1%]	15,294 [-5.2%]
2014[b]	6,850 [-3.9%]	8,100 [-0.8%]	—	—	—	14,950 [-2.2%]
Fatality Rate per 100 Million Vehicle Miles of Travel (VMT)						
2005	1.32	1.42	1.54	1.54	1.46	1.37
2006	1.35	1.41	1.47	1.44	1.42	1.38
2007	1.31	1.35	1.41	1.37	1.36	1.33
2008	1.22	1.25	1.33	1.32	1.26	1.23
2009	1.09	1.16	1.17	1.12	1.15	1.13
2010	0.98	1.09	1.18	1.14	1.11	1.04
2011	0.98	1.09	1.18	1.17	1.10	1.04
2012[a]	1.08	1.12	1.21	1.16	1.14	1.10
2013	1.03	1.06	1.16	1.15	1.10	1.05
2014[b]	1.00	1.04	—	—	—	1.02

[a] A marginal part of the increase is attributed to 2012 being a leap year.
[b] 2014 statistical projections and rates based on these projections.

VMT: FHWA June 2014 Traffic Volume Trends, August 2014.
Source: Fatalities: 2005-2012 FARS Final File, 2013 FARS Annual Report File

Figure 1 shows the historical trend of the percentage change every quarter from the same quarter in the previous year, going back to 1976. NHTSA has fatality data going back to 1975, and the shading in the chart depicts the years during which there were significant number of consecutive quarters with declines as compared to the corresponding quarters of the previous years. The declines during the early 1980s and 1990s lasted 11 consecutive quarters, while the most recent decline occurred over 17 consecutive quarters ending in the second quarter of 2010.

Figure 1: Percentage Change in Fatalities in Every Quarter as Compared to the Fatalities in the Same Quarter During the Previous Year
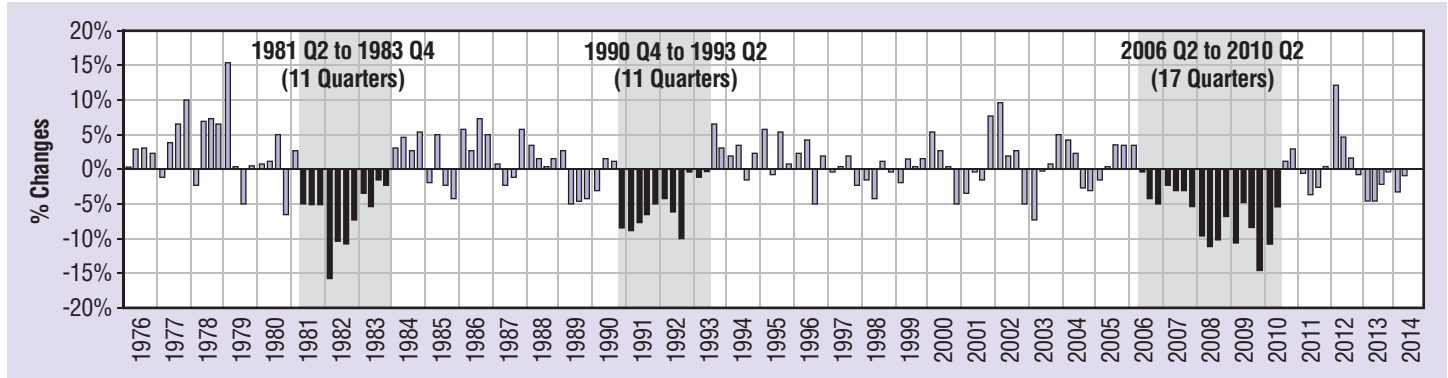
Discussion

The National Highway Traffic Safety Administration is continuing to gather/finalize data on crash fatalities for 2013 and 2014 using information from police accident reports and other sources. It is too soon to speculate on the contributing factors or potential implications of any changes in deaths on our roadways. The annual reporting file for 2014 will be available in late 2015 and will result in the revision of the rates and percentage changes.

In 2012, since recording a significant increase of 11.8 percent during the first quarter, the magnitude of the increases steadily declined during each subsequent quarter. Fatalities are reported to have increased by about 4.7 percent in the second quarter and by about 2.1 percent in the third quarter of 2012. Subsequently, beginning with the fourth quarter of 2012, fatalities have declined seven consecutive quarters through the second quarter of 2014. The fatality rates per 100 million in 2013 VMT, when compared to the rates for the corresponding quarters in 2012, are lower for all four quarters of 2013. In the first two quarters of 2014, both fatalities and the fatality rate per 100 million VMT have declined as compared to the corresponding quarters in 2013.

Data

The data used in this analysis comes from several sources: NHTSA's Fatality Analysis Reporting System (FARS), Fast-FARS (FF), and Monthly Fatality Counts (MFC); and from FHWA's VMT estimates. FARS is a census of fatal traffic crashes in the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a trafficway and must result in the death of at least one person (occupant of a vehicle or a nonoccupant) within 30 days of the crash. FARS final files from January 2003 to December 2011 and FARS Annual Report file in 2012 are used. The FF program is designed as an Early Fatality Notification System to capture fatality counts from States more rapidly and in real-time. It aims to provide near-real-time notification of fatality counts from all jurisdictions reporting to FARS. The MFC data provides monthly fatality counts by State through sources that are independent from the FastFARS or FARS systems. MFCs from January 2003 up to July 2014 are used. MFCs are reported mid-month for all prior months of the year.

In order to estimate the traffic fatality counts for each month of 2014, time series cross-section regression was applied to analyze the data with both cross-sectional values (by NHTSA region) and time series (by month), to model the relationship among FARS, MFC and FF, the details of which are available in a companion Research Note (Statistical Methodology to Make Early Estimates of Motor Vehicle Traffic Fatalities, DOT HS 811 123). The methodology used to generate the estimates for 2014 is the same as the one used by NHTSA to project the decline in the fatalities for the whole of 2013 (*Early Estimates of Motor Vehicle Traffic Fatalities in 2013*, DOT HS 812 024).

Suggested APA Format Citation for this document:

National Center for Statistics and Analysis. (2015, January). Early Estimate of Motor Vehicle Traffic Fatalities for the First Half (Jan–Jun) of 2014. (Crash•Stats Brief Statistical Summary. Report No. DOT HS 812 093). Washington, DC: National Highway Traffic Safety Administration.