U.S. Department of Transportation
National Highway Traffic Safety Administration

TRAFFIC SAFETY FACTS
Crash • Stats

NHTSA

DOT HS 812 586 | A Brief Statistical Summary | June 2018

Early Estimate of Motor Vehicle Traffic Fatalities for the First Quarter of 2018

Summary

A statistical projection of traffic fatalities for the first quarter of 2018 shows that an estimated 7,950 people died in motor vehicle traffic crashes. This represents a decrease of about 3.6 percent as compared to 8,250 fatalities that were projected to have occurred in the first quarter of 2017, as shown in Table 1. Preliminary data reported by the Federal Highway Administration (FHWA) shows that vehicle miles traveled (VMT) in the first 3 months of 2018 increased by about 2.5 billion miles, or about a 0.3-percent increase. Also shown in Table 1 are the fatality rates per 100 million VMT, by quarter. The fatality rate for the first quarter of 2018 decreased to 1.07 fatalities per 100 million VMT, down from the projected rate of 1.12 fatalities per 100 million VMT in the first quarter of 2017. The actual counts for 2017 and 2018 and the ensuing percentage change from 2017 to 2018 will be further revised as the annual reporting FARS files for 2017 are available later this year, as well as when the final file for 2017 and the annual reporting file for 2018 are available next year. These estimates will be further refined when the projections for the first 6 months of 2018 are released in late September.

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

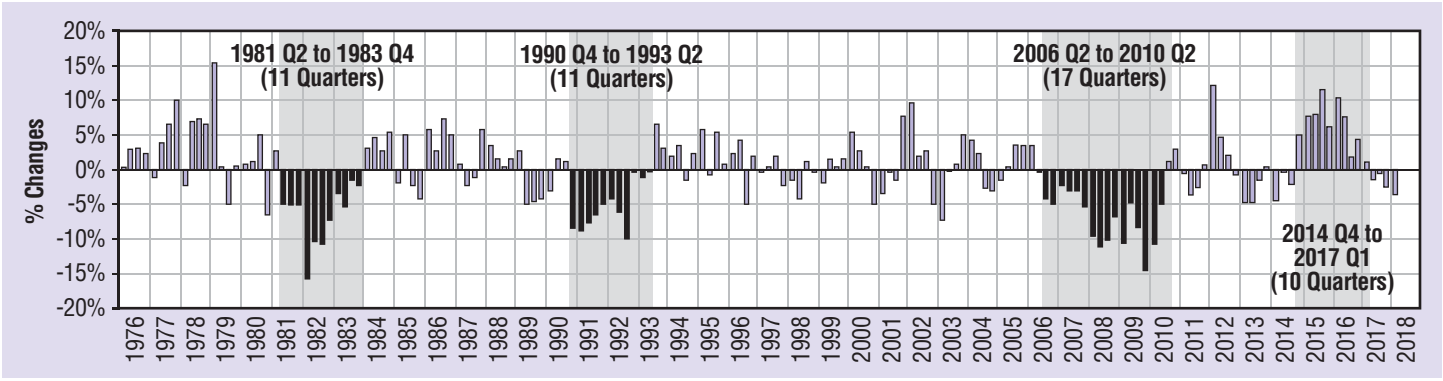
Quarter	1st Quarter (Jan–Mar)	2nd Quarter (Apr–Jun)	3rd Quarter (Jul–Sep)	4th Quarter (Oct–Dec)	Total (Full Year)
Fatalities and Percentage Change in Fatalities for the Corresponding Quarter From the Prior Year					
2006	9,558	10,942	11,395	10,813	42,708
2007	9,354 [-2.1%]	10,611 [-3.0%]	11,056 [-3.0%]	10,238 [-5.3%]	41,259 [-3.4%]
2008	8,459 [-9.6%]	9,435 [-11.1%]	9,947 [-10.0%]	9,582 [-6.4%]	37,423 [-9.3%]
2009	7,552 [-10.7%]	8,975 [-4.9%]	9,104 [-8.5%]	8,252 [-13.9%]	33,883 [-9.5%]
2010	6,755 [-10.6%]	8,522 [-5.0%]	9,226 [+1.3%]	8,496 [+3.0%]	32,999 [-2.6%]
2011	6,726 [-0.4%]	8,227 [-3.5%]	8,984 [-2.6%]	8,542 [+0.5%]	32,479 [-1.6%]
2012	7,521 [+11.8%]	8,612 [+4.7%]	9,171 [+2.1%]	8,478 [-0.7%]	33,782 [+4.0%]
2013	7,166 [-4.7%]	8,207 [-4.7%]	9,024 [-1.6%]	8,496 [+0.2%]	32,893 [-2.6%]
2014	6,856 [-4.3%]	8,179 [-0.3%]	8,799 [-2.5%]	8,910 [+4.9%]	32,744 [-0.5%]
2015	7,370 [+7.5%]	8,823 [+7.9%]	9,805 [+11.4%]	9,487 [+6.5%]	35,485 [+8.4%]
2016	8,128 [+10.3%]	9,502 [+7.7%]	9,988 [+1.9%]	9,843 [+3.8%]	37,461 [+5.6%]
2017†	*8,250 [+1.5%]*	*9,350 [-1.6%]*	*9,950 [-0.4%]*	*9,600 [-2.5%]*	*37,150 [-0.8%]*
2018†	*7,950 [-3.6%]*	–	–	–	–
Fatality Rate per 100 Million Vehicle Miles of Travel (VMT)					
2006	1.35	1.41	1.47	1.44	1.42
2007	1.31	1.35	1.41	1.37	1.36
2008	1.22	1.25	1.33	1.32	1.26
2009	1.09	1.16	1.17	1.12	1.15
2010	0.98	1.09	1.18	1.14	1.11
2011	0.98	1.09	1.18	1.17	1.10
2012	1.08	1.12	1.21	1.16	1.14
2013	1.04	1.07	1.17	1.15	1.10
2014	0.99	1.03	1.11	1.17	1.08
2015	1.03	1.08	1.20	1.21	1.15
2016	1.11	1.16	1.21	1.25	1.18
2017†	*1.12*	*1.12*	*1.19*	*1.20*	*1.16*
2018†	*1.07*	–	–	–	–

†2017 and 2018 statistical projections and rates based on these projections.
Source: Fatalities, 2005–2015 FARS Final File, 2016 FARS Annual Report File.
VMT: FHWA March 2018 Traffic Volume Trends for 2017 and 2018 VMT, 2016 Annual Highway Statistics Series.

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 increases/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. Also, more recently, the significant increase in fatalities occurred over 10 consecutive quarters ending after the first quarter of 2017.

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 2016, 2017 and 2018 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 final data for 2016 as well as the annual file for 2017 will be available in late fall of 2018 which usually results in the revision of fatality totals and the ensuing rates and percentage changes. In addition, the annual reporting file for 2018 will be available in late 2019 and will result in further revision of the rates and percentage changes.

From 2012 to 2014, since recording a significant increase of 11.8 percent during the first quarter of 2012, 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 in seven out of eight quarters (2013 Q4 was a slight increase) until the 4.9-percent increase reported for the fourth quarter of 2014. Fatalities have increased 10 consecutive quarters beginning with the fourth quarter of 2014, until the 1.6-percent decline seen in the second quarter of 2017. The fatality rates for second, third and fourth quarters of 2017 are projected to be lower than those for the corresponding quarters in 2016. Both fatalities and the fatality rate in the first quarter of 2018 showed a decrease as compared to the first quarter of 2017.

Data

The data used in this analysis comes from several sources: NHTSA's Fatality Analysis Reporting System (FARS), FastFARS (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 2015 and FARS Annual Report file in 2016 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 April 2018 are used. MFCs are reported mid-month for all prior months of the year. In order to estimate the traffic fatality counts for the first quarter of 2018, 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. The methodology used to generate the estimates for 2018 Q1 is the same as the one used by NHTSA to project the decrease in the fatalities for the whole of 2017 (*Early Estimates of Motor Vehicle Traffic Fatalities in 2017*, Report No. DOT HS 812 542).

Suggested APA Format Citation for this document:

National Center for Statistics and Analysis. (2018, June). *Early estimate of motor vehicle traffic fatalities for the first quarter of 2018* (Crash•Stats Brief Statistical Summary. Report No. DOT HS 812 586). Washington, DC: National Highway Traffic Safety Administration.

U.S. Department of Transportation

National Highway Traffic Safety Administration

For questions regarding the information presented in this document, please contact NCSAWEB@dot.gov. Access this Crash•Stats and other general information on traffic safety at www-nrd.nhtsa.dot.gov/CATS/index.aspx.