U.S. Department of Transportation

National Highway Traffic Safety Administration

TRAFFIC SAFETY FACTS
Crash • Stats

NHTSA
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Early Estimate of Motor Vehicle Traffic Fatalities for The First Half (January–June) of 2012

Summary

A statistical projection of traffic fatalities for the first half of 2012 shows that an estimated 16,290 people died in motor vehicle traffic crashes. This represents an increase of about 9.0 percent as compared to the estimated 14,950 fatalities that occurred in the first half of 2011, as shown in Table 1. Preliminary data reported by the Federal Highway Administration (FHWA) shows that vehicle miles traveled (VMT) in the first six months of 2012 increased by about 15.6 billion miles, or about a 1.1-percent increase. Also shown in Table 1 are the fatality rates per 100 million VMT, by quarter. The fatality rate for the first six months of 2012 is estimated to increase to 1.12 fatalities per 100 million VMT as compared to 1.04 fatalities per 100 million VMT during the first six months of 2011.

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/Half 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	6,729 [-10.9%]	8,506 [-5.2%]	9,202 [+1.1%]	8,448 [+2.4%]	32,885 [-2.9%]	15,235 [-7.8%]
2011†	6,720 [-0.1%]	8,230 [-3.2%]	8,970 [-2.5%]	8,390 [-0.7%]	32,310 [-1.7%]	14,950 [-1.1%]
2012†*	7,620 [+13.4%]	8,670 [+5.3%]	–	–	–	**16,290 [+9.0%]**
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	1.17	1.13	1.11	1.04
2011†	0.98	1.09	1.18	1.15	1.09	1.04
2012†*	1.10	1.14	–	–	–	**1.12**

†2011 and 2012 statistical projections and rates based on these projections.
*A marginal part of the increase is attributed to 2012 being a leap year.
Source: Fatalities: 2005-2009 FARS Final File, 2010 FARS Annual Report File   VMT: FHWA Traffic Volume Trends, June 2012

Figure 1 shows the trend of the percentage change every quarter from the same quarter in the previous year, going back to 1976. NHTSA has fatality data back to 1975, and the shading in the chart depicts the years during which there were significant consecutive year-to-year quarterly declines. The declines in 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
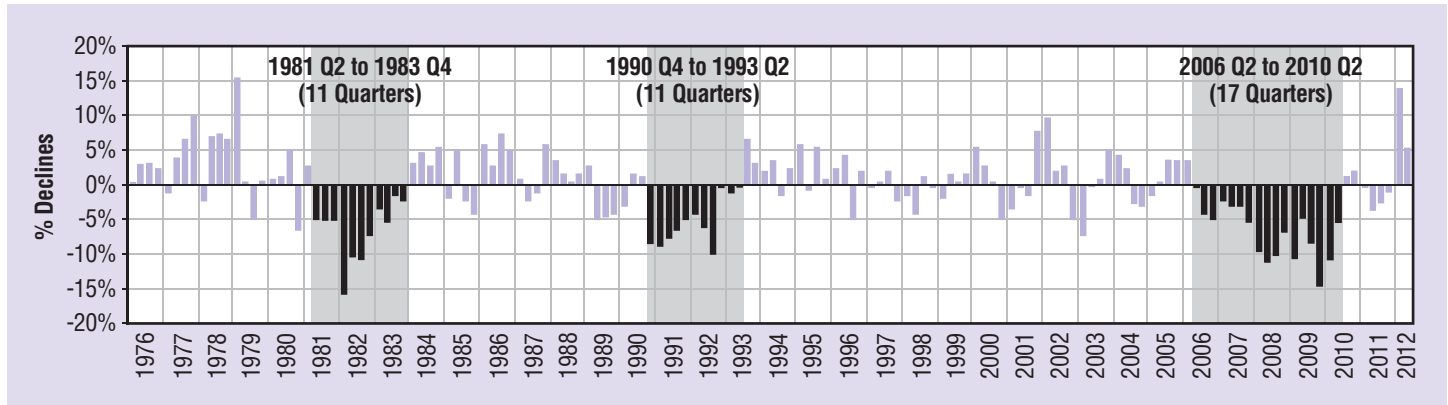
Discussion

The National Highway Traffic Safety Administration is continuing to gather data on crash fatalities for 2012 using information from police accident reports and other sources. While it is too soon to speculate on the contributing factors or potential implications of any increase in deaths on our roadways, it should be noted that the historic downward trend in traffic fatalities in the past several years—a pattern which has continued through the early estimates for 2011 released recently that show deaths at a 60-year low—means any comparison will be to an unprecedented low baseline figure. In fact, fatalities during the first half of the year have declined by about 27 percent from the recent high in 2006 to the low during the first half of 2011 (from 20,500 fatalities in 2006 to a projected 14,950 fatalities in 2011 during the first six months of the year).

The estimated 9.0-percent increase during the first half of 2012 represents the largest such increase during the first half of the year in recorded history (since 1975—the first year when NHTSA started collecting data on such crashes). The previous highest increase during the first half of a year was the 6.4-percent increase in fatalities reported in the first half of 1979 as compared to the fatalities reported during the first half of 1978. The significant increase in the first half of 2012 was largely driven by the estimated 13.5-percent increase in fatalities during the first quarter of 2012. Correspondingly, the fatalities during the second quarter are estimated to have increased by about 5.3 percent. The estimated fatality rates per 100 million VMT during the first and second quarters of 2012 were 1.10 and 1.14, respectively - levels last reported in 2009.

Data

The data used in this analysis comes from several sources, such as the Fatality Analysis Reporting System (FARS), Fast-FARS (FF), and Monthly Fatality Counts (MFC). 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 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 2009 and FARS Annual Report file in 2010 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 by electronically transmitting the data. 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 2012 are used. MFCs are reported mid-month for all prior months of the year. The VMT data was reported by FHWA.

In order to estimate the traffic fatality counts for the first six months of 2012, time series cross-section regression (TSCSR) 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 the first quarter is the same as the one used by NHTSA to project the decline in the fatalities for the whole of 2011 as compared to 2010 (*Early Estimates of Motor Vehicle Traffic Fatalities in 2011,* DOT HS 811 604) as well as projections of fatalities for the first quarter of 2012 (*Early Estimates of Motor Vehicle Traffic Fatalities in the 1st Quarter of 2012,* DOT HS 811 642).

Actual fatality counts from FARS for 2011 will be reported during late fall of 2012 while fatality counts for 2012 will be reported late fall of 2013. Also, VMT estimates are revised by FHWA as more data becomes available and may change the fatality rates reported in this document. NHTSA will release projections for the first nine months of 2012 in early December.