Traffic Safety Facts
CRASH•STATS

DOT HS 813 598   A Brief Statistical Summary   June 2024

Early Estimate of Motor Vehicle Traffic Fatalities for the First Quarter of 2024

Summary

A statistical projection of traffic fatalities for the first quarter of 2024 shows an estimated 8,650 people died in motor vehicle traffic crashes, a decrease of about 3.2 percent as compared to 8,935 fatalities projected to have occurred in 2023, as shown in Table 1. The first quarter of 2024 represents the eighth consecutive quarterly decline in fatalities beginning with the second quarter of 2022. Preliminary data reported by the Federal Highway Administration (FHWA) show that vehicle miles traveled (VMT) in the first 3 months of 2024 increased by about 4.7 billion miles, or about a 0.6-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 2024 decreased to 1.13 fatalities per 100 million VMT, down from the projected rate of 1.18 fatalities per 100 million VMT in the first quarter of 2023. For the NHTSA regional differences, 6 of the 10 regions are estimated to have decreases in fatalities and fatality rate per 100 million VMT in the first quarter of 2024 as compared to the first quarter of 2023. Also, 30 States and Puerto Rico are projected to have experienced decreases in fatalities. The fatality counts for 2023 and 2024 and the ensuing percentage change from 2023 to 2024 will be further revised when the Fatality Analysis Reporting System (FARS) Annual Reporting File for 2023 is available later this year, as well as when the Final File for 2023 and the Annual Reporting File for 2024 are available next year. These estimates will be further refined when the projections for the first 6 months of 2024 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

Year	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 and Total From the Previous Year					
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%]	9,486 [+6.5%]	35,484 [+8.4%]
2016	8,154 [+10.6%]	9,563 [+8.4%]	10,078 [+2.8%]	10,011 [+5.5%]	37,806 [+6.5%]
2017	8,301 [+1.8%]	9,460 [-1.1%]	10,081 [+0.0%]	9,631 [-3.8%]	37,473 [-0.9%]
2018	8,203 [-1.2%]	9,323 [-1.4%]	9,934 [-1.5%]	9,375 [-2.7%]	36,835 [-1.7%]
2019	7,832 [-4.5%]	9,193 [-1.4%]	9,994 [+0.6%]	9,336 [-0.4%]	36,355 [-1.3%]
2020	7,901 [+0.9%]	9,164 [-0.3%]	11,358 [+13.6%]	10,584 [+13.4%]	39,007 [+7.3%]
2021	8,906 [+12.7%]	11,149 [+21.7%]	11,828 [+4.1%]	11,347 [+7.2%]	43,230 [+10.8%]
2022	9,515 [+6.8%]	10,450 [-6.3%]	11,588 [-2.0%]	10,961 [-3.4%]	42,514 [-1.7%]
2023†	8,935 [-6.1%]	10,395 [-0.5%]	11,160 [-3.7%]	10,500 [-4.2%]	40,990 [-3.6%]
2024†	8,650 [-3.2%]	—	—	—	—

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Year	1st Quarter (Jan–Mar)	2nd Quarter (Apr–Jun)	3rd Quarter (Jul–Sep)	4th Quarter (Oct–Dec)	Total (Full Year)
Fatality Rate per 100 Million VMT					
2013	1.04	1.07	1.17	1.16	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	1.23	1.27	1.19
2017	1.12	1.13	1.21	1.20	1.17
2018	1.10	1.11	1.18	1.15	1.14
2019	1.05	1.09	1.18	1.14	1.11
2020	1.08	1.43	1.44	1.42	1.34
2021	1.28	1.38	1.41	1.42	1.38
2022	1.29	1.28	1.38	1.37	1.33
2023†	1.18	1.25	1.30	1.29	1.26
2024†	1.13	—	—	—	—

†2023, 2024 statistical projections and rates based on these projections.
Sources: Fatalities: 2013–2021 FARS Final File, 2022 FARS Annual Report File (ARF).
VMT: FHWA March 2024 Traffic Volume Trends (TVT) for 2023 and 2024 VMT.

Figure 1 shows the historical trend of the percentage change every quarter from the same quarter in the previous year, going back to 1981 (NHTSA has fatality data since 1975). The shading in the chart shows the years when there were significant numbers 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. More recently, the significant increases in fatalities occurred over 10 consecutive quarters ending after the first quarter of 2017. In addition, fatalities increased 7 consecutive quarters beginning with the third quarter of 2020, until the 6.3-percent decline seen in the second quarter of 2022. The third and fourth quarter of 2020 and the first and especially the second quarter of 2021 showed significant increases in fatalities as compared to the corresponding quarters of 2019 and 2020. The percentage increase in the second quarter of 2021 is actually the highest quarterly percentage increase in FARS data recorded history. As shown in the rightmost shading in the chart, the first quarter of 2024 represents the eighth consecutive quarterly decline in fatalities beginning with the second quarter of 2022.

Figure 1. Percentage Change in Fatalities in Every Quarter as Compared to the Fatalities in the Same Quarter During the Previous Year
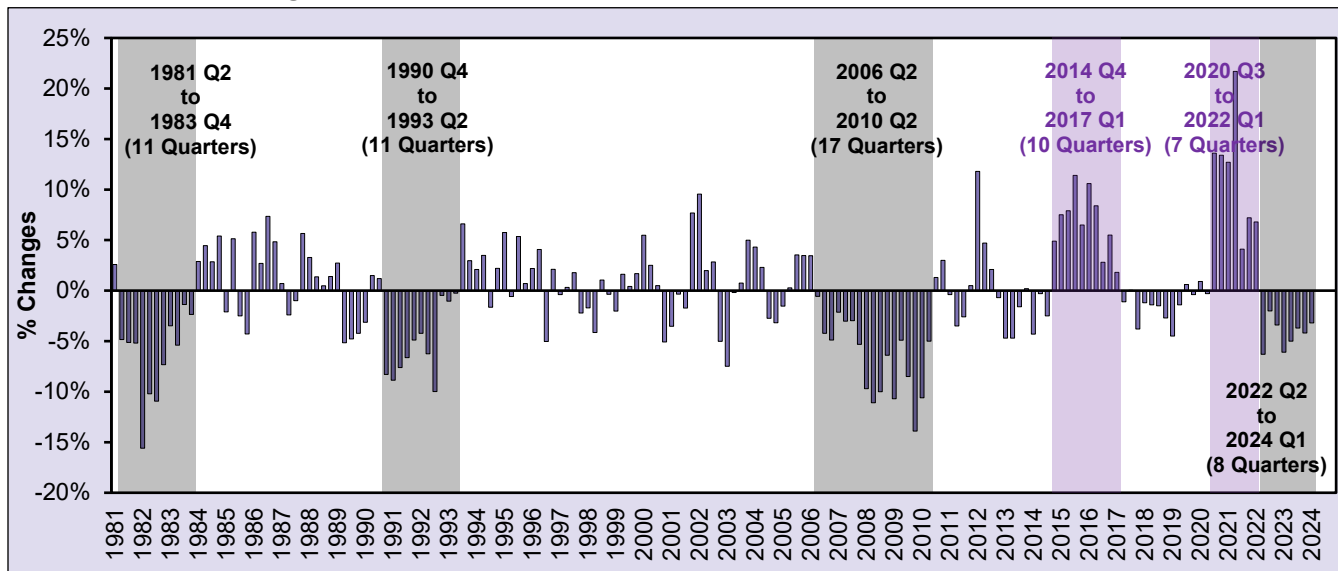
Sources: 1981–2021 FARS Final File, 2022 FARS ARF, 2023 and 2024 statistical projections.

The quarterly projections of fatalities, fatality rates, and VMT are further split into monthly estimates for 2023 and 2024, as shown in Table 2. In 2024 both fatalities and the fatality rate per 100 million VMT show decreases in January and February but increases in March, as compared to the corresponding month in 2023.

Table 2. Fatalities, VMT, Fatality Rate by Month or Quarter in 2024, and the Percentage Change in Fatalities and VMT From the Corresponding Month or Quarter in 2023

| Year	1st Quarter				2nd Quarter				3rd Quarter				4th Quarter			
	Jan	Feb	Mar	Total	Apr	May	Jun	Total	Jul	Aug	Sep	Total	Oct	Nov	Dec	Total
Fatalities in 2024 and Percentage Change in Fatalities for the Corresponding Month and Quarter From 2023																
2023†	3,035	2,875	3,025	8,935	3,365	3,550	3,480	10,395	3,685	3,760	3,715	11,160	3,815	3,330	3,355	10,500
2024†	2,750 -9.4%	2,760 -4.0%	3,140 3.8%	8,650 -3.2%	—	—	—	—	—	—	—	—	—	—	—	—
Fatality Rate per 100 Million VMT/VMT (in Billion) and Percentage Change in VMT																
2023†	1.22 249.2	1.22 235.4	1.11 273.7	1.18 758.3	1.30 258.2	1.23 289.6	1.22 285.6	1.25 833.4	1.27 289.8	1.29 290.9	1.34 278.0	1.30 858.7	1.34 284.0	1.26 265.1	1.27 263.6	1.29 812.7
2024†	1.11 247.1 -0.8%	1.15 240.3 2.1%	1.14 275.5 0.7%	1.13 762.9 0.6%	—	—	—	—	—	—	—	—	—	—	—	—

†2023, and 2024 statistical projections and rates based on these projections.
Sources: VMT: FHWA March 2024 TVT for 2023 and 2024 VMT.
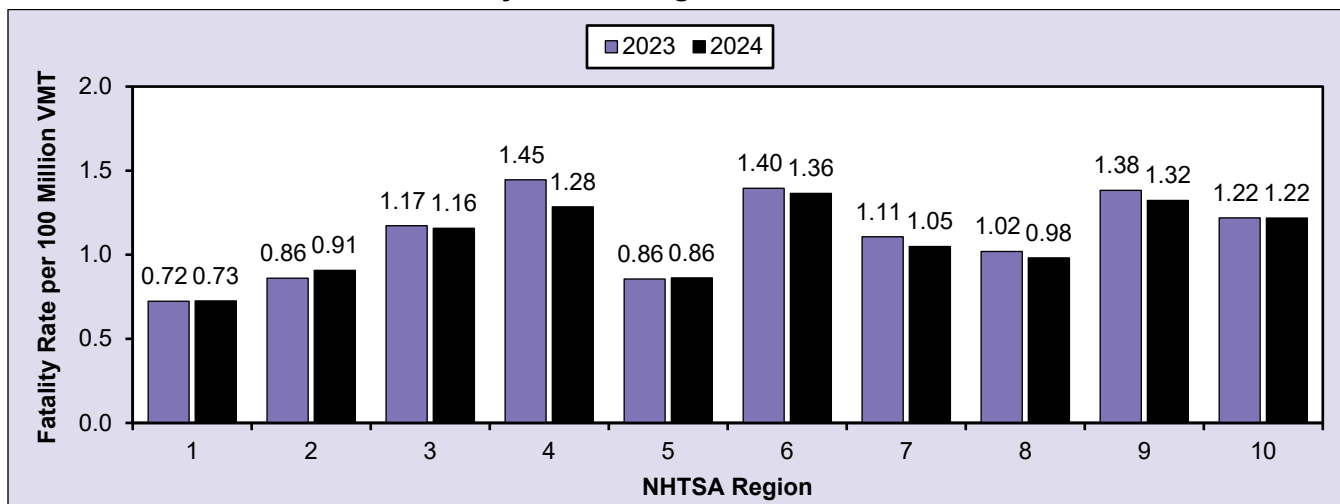
Regional Differences

The statistical procedures used in these projections were generated for each NHTSA administrative region and were collated to create the national estimate. This allows for the comparison of regional estimates in 2024 with the projected 2023 counts. As of 2024, Connecticut was moved from Region 2 to Region 1. In order to directly compare 2024 to 2023, estimates for Figures 2 and 3 were computed having Connecticut as part of Region 1 for both 2023 and 2024. Figure 2 shows the percentage change in estimated fatalities in the first quarter of 2024 from the projected fatalities in the same quarter of 2023 by NHTSA region; 6 of the 10 regions experienced decreases. Figure 3 shows the comparison of the estimated fatality rate per 100 million VMT in the first quarter of 2024 with the projected fatality rate per 100 million VMT in the same quarter of 2023, by NHTSA region; 6 of the 10 regions presented decreases. These estimates by NHTSA region shown in Figures 2 and 3 are subject to small changes as the FARS fatality counts for 2023 and 2024 are reported.

Figure 2. Percentage Change in Estimated Fatalities in First Quarter of 2024 From Projected Same Quarter of 2023 Fatality Counts, by NHTSA Region
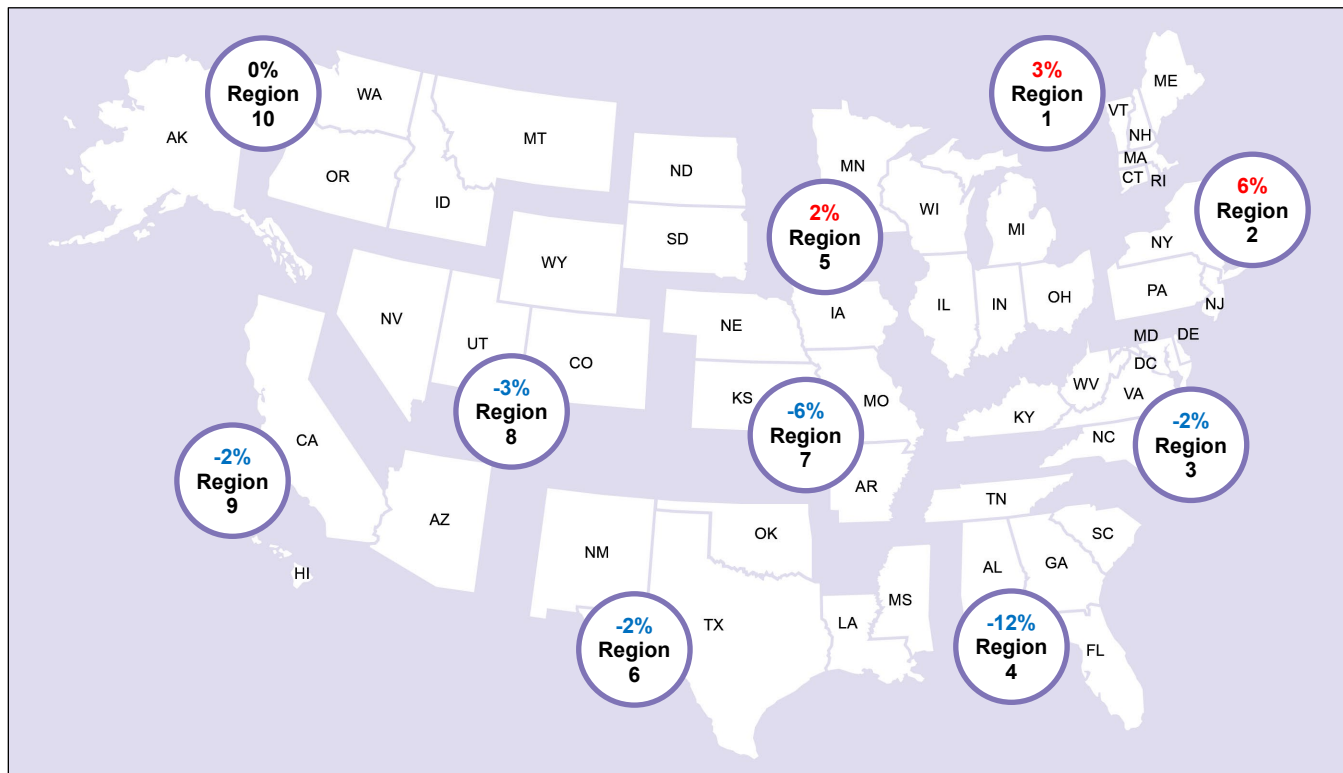
Sources: 2023 and 2024 statistical projections. Puerto Rico is not included in Region 2.

Figure 3. Comparison of Estimated Fatality Rate in First Quarter of 2024 With Projected Fatality Rate in the Same Quarter of 2023, by NHTSA Region

Source: FHWA March 2024 TVT for 2023 and 2024 VMT. Puerto Rico is not included in Region 2.

State Differences

Given the significant interest in the traffic safety community in estimated changes at the State level to assess emerging trends, NHTSA has developed a methodology in the third quarter of 2022 to generate such State-level estimates based on the most recent distribution of the fatalities by State in a NHTSA region and the month (see *Data and Methodology* section for more details). Table 3 shows the comparison of each State's estimate in the first quarter of 2024 with the projected fatality counts in the first quarter 2023 and the percentage change in 2024

from 2023; 30 States and Puerto Rico are projected to have experienced decreases in fatalities in 2024 as compared to 2023, while 1 State remained unchanged and 19 States and the District of Columbia are projected to have had increases in fatalities. Also, the estimates of the fatality rate per 100 million VMT by State in 2023 and 2024 are presented in Table 3 of this report. These estimates by State shown in Table 3 are subject to change slightly as fatality counts in FARS for 2023 and 2024 are reported, and as FHWA finalizes the State VMT estimates for 2023 and 2024.

Table 3. Estimated Fatalities in the First Quarter of 2024, and the Percentage Change in Estimated Fatalities From the Projected Fatalities in the Same Quarter of 2023, by State. The States' Estimates of the Fatality Rate per 100 VMT in 2023 and 2024 Are Also Presented.

State	Fatalities			Fatality Rate		State	Fatalities			Fatality Rate	
	2023	2024	Percent Change	2023	2024		2023	2024	Percent Change	2023	2024
Alabama	225	217	-3.6%	1.28	1.25	Nebraska	41	55	34.1%	0.86	1.13
Alaska	9	12	33.3%	0.76	0.99	Nevada	70	97	38.6%	1.10	1.48
Arizona	342	268	-21.6%	1.85	1.43	New Hampshire	22	21	-4.5%	0.74	0.68
Arkansas	144	106	-26.4%	1.57	1.17	New Jersey	119	161	35.3%	0.66	0.89
California	919	965	5.0%	1.28	1.31	New Mexico	86	99	15.1%	1.33	1.52
Colorado	136	129	-5.1%	1.08	1.03	New York	225	223	-0.9%	0.83	0.81
Connecticut	68	83	22.1%	1.00	1.17	North Carolina	350	356	1.7%	1.19	1.21
Delaware	35	24	-31.4%	1.37	0.94	North Dakota	16	15	-6.3%	0.80	0.74
D.C.	10	11	10.0%	1.15	1.29	Ohio	256	232	-9.4%	0.99	0.91
Florida	935	832	-11.0%	1.58	1.41	Oklahoma	144	145	0.7%	1.34	1.36
Georgia	385	306	-20.5%	1.22	0.97	Oregon	121	122	0.8%	1.48	1.52
Hawaii	21	27	28.6%	0.80	1.04	Pennsylvania	246	242	-1.6%	1.05	1.04
Idaho	41	31	-24.4%	0.95	0.71	Rhode Island	24	9	-62.5%	1.41	0.52
Illinois	252	268	6.3%	1.04	1.09	South Carolina	251	232	-7.6%	1.66	1.54
Indiana	180	156	-13.3%	0.83	0.71	South Dakota	21	18	-14.3%	1.01	0.83
Iowa	72	58	-19.4%	1.00	0.79	Tennessee	282	248	-12.1%	1.40	1.25
Kansas	87	68	-21.8%	1.20	0.95	Texas	982	960	-2.2%	1.37	1.31
Kentucky	162	159	-1.9%	1.41	1.40	Utah	61	53	-13.1%	0.75	0.65
Louisiana	177	166	-6.2%	1.24	1.19	Vermont	8	12	50.0%	0.47	0.70
Maine	14	29	107.1%	0.44	0.88	Virginia	196	199	1.5%	0.99	1.01
Maryland	137	128	-6.6%	1.00	0.95	Washington	160	157	-1.9%	1.24	1.21
Massachusetts	80	69	-13.8%	0.59	0.50	West Virginia	63	58	-7.9%	1.78	1.65
Michigan	200	215	7.5%	0.92	0.99	Wisconsin	94	94	0.0%	0.65	0.64
Minnesota	49	83	69.4%	0.40	0.64	Wyoming	33	16	-51.5%	1.76	0.82
Mississippi	186	181	-2.7%	1.94	1.90	**U.S. Total***	**8,935**	**8,650**	**-3.2%**	**1.18**	**1.13**
Missouri	170	198	16.5%	0.94	1.11	Puerto Rico	71	63	-11.3%	–	–
Montana	28	37	32.1%	0.98	1.27						

*Puerto Rico is not included.
Sources: 2023 and 2024 statistical projections.
VMT: FHWA March 2024 TVT for 2023 and 2024 VMT. Traffic Volume Trends for Puerto Rico is not available.

Discussion

During the COVID-19 pandemic, there were marked increases in fatalities and the fatality rate per 100 million VMT in 2020. The increased trend of fatalities in 2020 continued into 2021 and the first quarter of 2022. However, the second, third, and fourth quarters of 2022, all four quarters of 2023, plus the first quarter of 2024, have experienced eight consecutive quarterly declines in fatalities after seven consecutive quarters of year-to-year increases in fatalities, since the third quarter of 2020. The increased trend of the fatality rate per 100 million VMT

in 2020 continued into the first quarter of 2021, decreased in the second and the third quarters of 2021, and increased again in the first quarter of 2022. The second, third, and fourth quarters of 2022, all four quarters of 2023, plus the first quarter of 2024, also experienced eight consecutive quarterly decline in fatality rate per 100 million VMT. NHTSA is continuing to gather and finalize data on crash fatalities for 2022 and 2023 using information from police crash reports and other sources. The Final File for 2022 as well as the Annual Report File for 2023 will be available in the early part of 2025 which usually results in the minor revision of fatality totals and the ensuing fatality rates and percentage changes.

Data and Methodology

The data used in this analysis come from several sources: NHTSA's FARS, Early Notification (EN) data, and Monthly Fatality Counts (MFC) (the EN and MFC data are not available to the public); 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 2003 to 2021 and the FARS Annual Report File in 2022 are used to obtain the monthly fatality counts. The EN program is designed as an Early Fatality Notification System to capture fatality counts from States more rapidly and provide near-real-time notification of fatality counts from all jurisdictions reporting to FARS. The MFC data provide monthly fatality counts by State through sources that are independent from the EN or FARS systems. MFCs from January 2003 up to March 2024 are used. MFCs are reported midmonth for all prior months of the year. To estimate the traffic fatality counts for 2024, the time series cross-section regression procedure 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 EN, the details of which are available in a Research Note (*Statistical Methodology to Make Early Estimates of Motor Vehicle Traffic Fatalities,* Report No. DOT HS 811 123). Furthermore, after the projected fatality counts for NHTSA Region r and the month m (F_Est_{mr}) are obtained, the estimated fatality counts for a State st in Region r and the month m ($F\_Est_{st|mr}$) are calculated. Each State receives a proportion of the projected fatality counts for the Region using the most recent relative proportion of fatalities in each State st for Region r and month m found in the Early Notification data. This can be expressed as $F\_Est_{st|mr} = (F_{st|mr} / \sum_{all\ States\ in\ r} F_{st|mr}) \times F\_Est_{mr}$, where $F_{st|mr}$ is the latest fatal count in the Early Notification data for State st in Region r and month m. That is, the inflation rate for all States within a region is assumed to be the same as the inflation rate of that region. For example, the estimated motor vehicle traffic fatalities for Arizona in Region 9 (*Arizona, California, Hawaii*) and the month m is: $F\_Est_{AZ|m9} = (F_{AZ|m9} / (F_{AZ|m9} + F_{CA|m9} + F_{HI|m9})) \times F\_Est_{m9}$.

The methodology used to generate the national, regional, and State-level estimates for the first quarter of 2024 is the same as the one used by NHTSA to project the motor vehicle traffic fatalities for 2023 (*Early Estimates of Motor Vehicle Traffic Fatalities in 2023*, Report No. DOT HS 813 561).

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U.S. Department of Transportation

National Highway Traffic Safety Administration

For questions regarding the information presented in this report, please contact NCSARequests@dot.gov. This Crash•Stats and other general information on traffic safety can be found at https://crashstats.nhtsa.dot.gov/.

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