DOT HS 813 660   November 2024
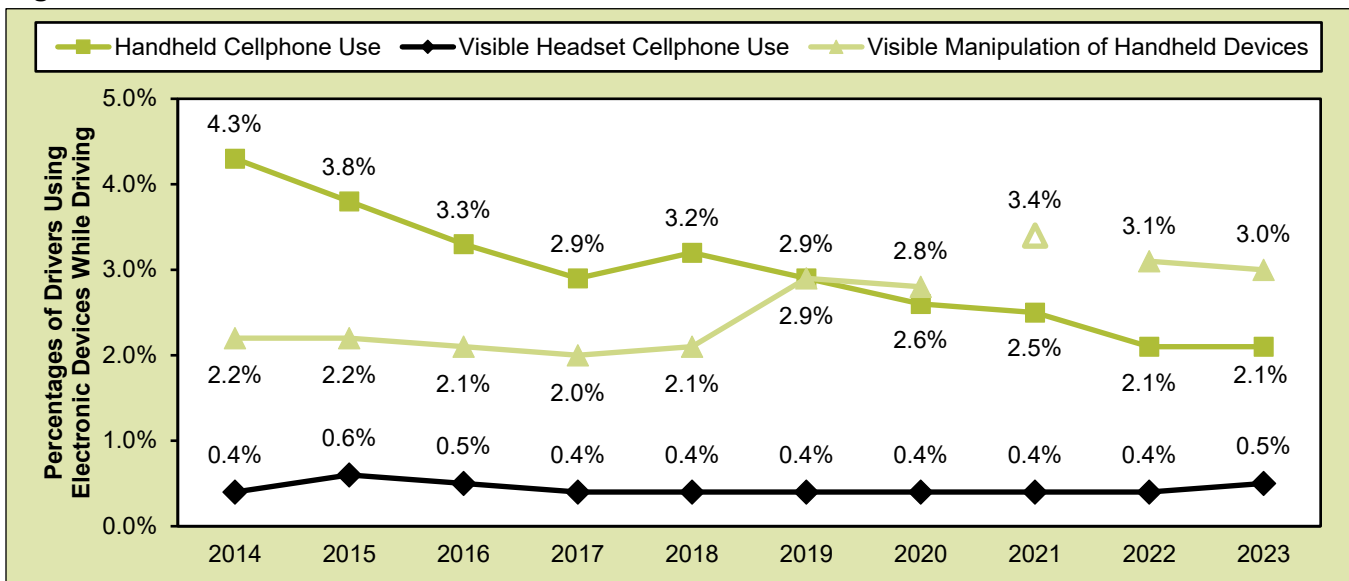
Driver Electronic Device Use in 2023

Summary

The percentage of passenger vehicle drivers talking on handheld phones in 2023 remained unchanged from the previous year's level of 2.1 percent (Figure 1 and Table 1). The percentage of drivers speaking with visible headsets while driving increased to 0.5 percent from the previous year's level of 0.4 percent (Figure 1 and Table 2). Drivers' visible manipulation of handheld devices decreased from 3.1 percent in 2022 to 3.0 percent in 2023 (Figure 1 and Table 3). In 2021 data collected for drivers visibly manipulating handheld devices while traveling included manipulating infotainment systems. This was an errant departure from the usual data collection protocol. For 2022 the data collection procedure reverted to excluding the manipulating infotainment systems. As such, the data point for visible manipulation of handheld devices in 2021 is not connected to the rest of the trend line. The National Highway Traffic Safety Administration does not know the extent to which manipulating infotainment systems contributed to the results for drivers visibly manipulating handheld devices. These results are from the National Occupant Protection Use Survey (NOPUS), which provides the only nationwide probability-based observed data on driver electronic device use in the United States. NHTSA's National Center for Statistics and Analysis (NCSA) conducts the NOPUS. The percentages in this research note are interpreted as the percentages of drivers nationwide during an average daylight moment.

Figure 1. Driver Use of Electronic Devices, 2014-2023

Note: Observed on-road driver electronic device use rates are not indicative of distraction rates in crashes. Distraction is a major cause of traffic crashes. Studies indicate that distraction due to cellphones causes 6 percent of all crashes, while all forms of distraction cause 29 percent of crashes (Blincoe et al., 2023).

Results

NOPUS observes three types of driver electronic device use while driving: "holding phones to their ears," "speaking with visible headsets on," and "visibly manipulating handheld devices." The results of these observations follow.

## Drivers Holding Phones to Their Ears While Driving

The percentages of drivers holding cellphones to their ears while driving remained unchanged as 2.1 percent in 2023 from 2022 year's level (Figure 1 and Table 1). This translates to an estimated 326,170 passenger vehicle drivers holding cellphones to their ears while driving during a typical daylight moment in 2023.

The 2023 NOPUS found that handheld cellphone use continued to be higher among female drivers than male drivers, and the difference between female and male drivers remained the same as last year (Figure 2 and Table 1). In previous years, handheld cellphone use was found to be highest among 16- to 24-year-old drivers and lowest among drivers 70 and older except for 2020. This trend remains the same in 2023 (Figure 3 and Table 1).

Figure 2. Driver Handheld Cellphone Use by Sex, 2014-2023
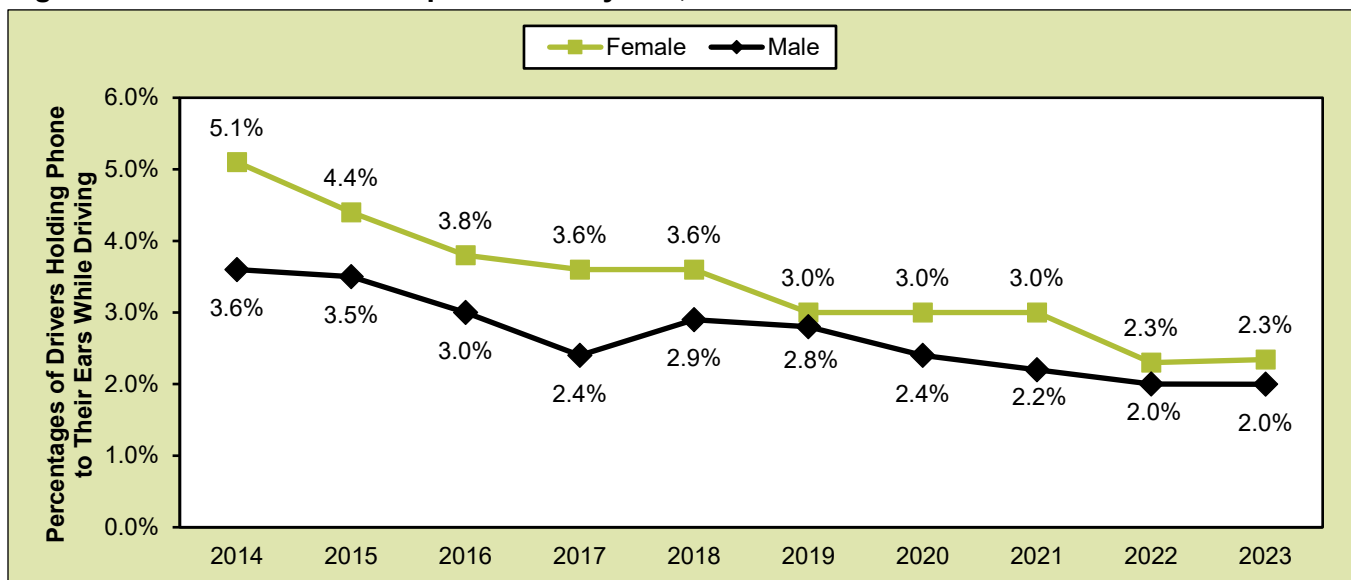
**Figure 3. Driver Handheld Cellphone Use by Age, 2014-2023**
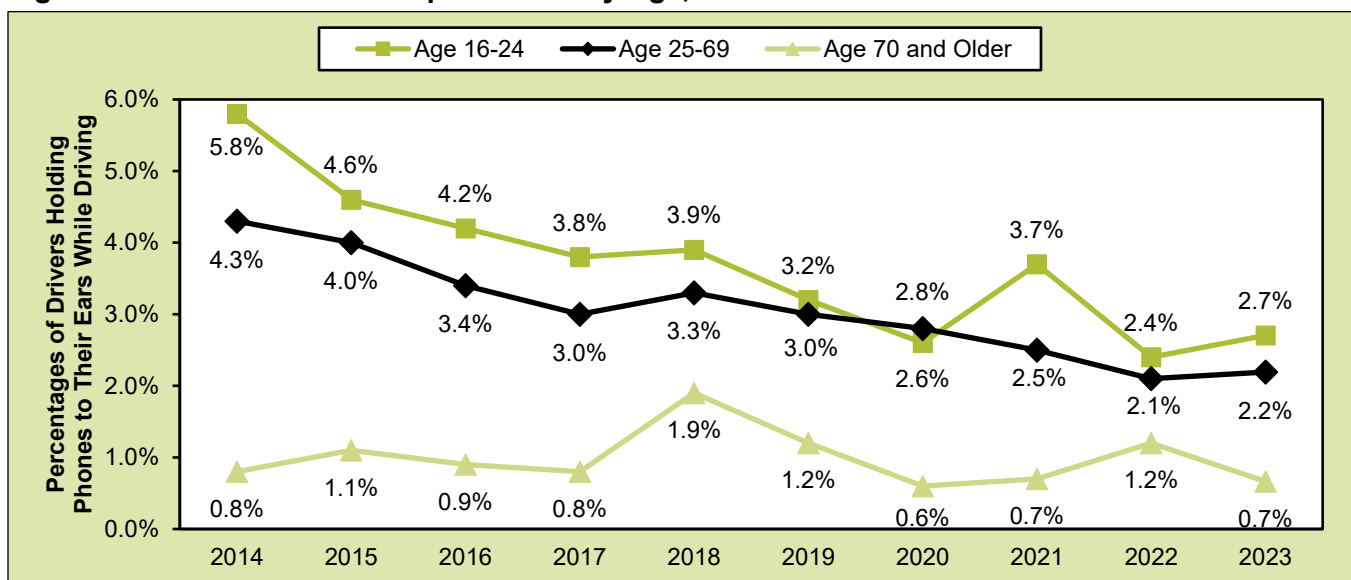
Drivers Speaking With Visible Headsets on While Driving

Table 2 shows the percentages of drivers speaking with visible headsets on while driving in 2022 and 2023, by major characteristics. No characteristic had a statistically significant change from the previous year.

The percentage of drivers speaking with visible headsets increased to 0.5 percent from previous year's 0.4 percent, as shown in Figure 1 and Table 2. This translates to an estimated 78,081 passenger vehicle drivers speaking with visible headsets on while driving during a typical daylight moment in 2023. Figure 4 shows the trend of drivers speaking with visible headsets for the three age groups over a 10-year period. There was no change in headset use from 2022 to 2023 for the age group 16 to 24, but the percentage increased from 0.4 percent to 0.5 percent for the age group 25 to 69.

**Figure 4. Drivers Speaking With Visible Headsets on by Age, 2014-2023**
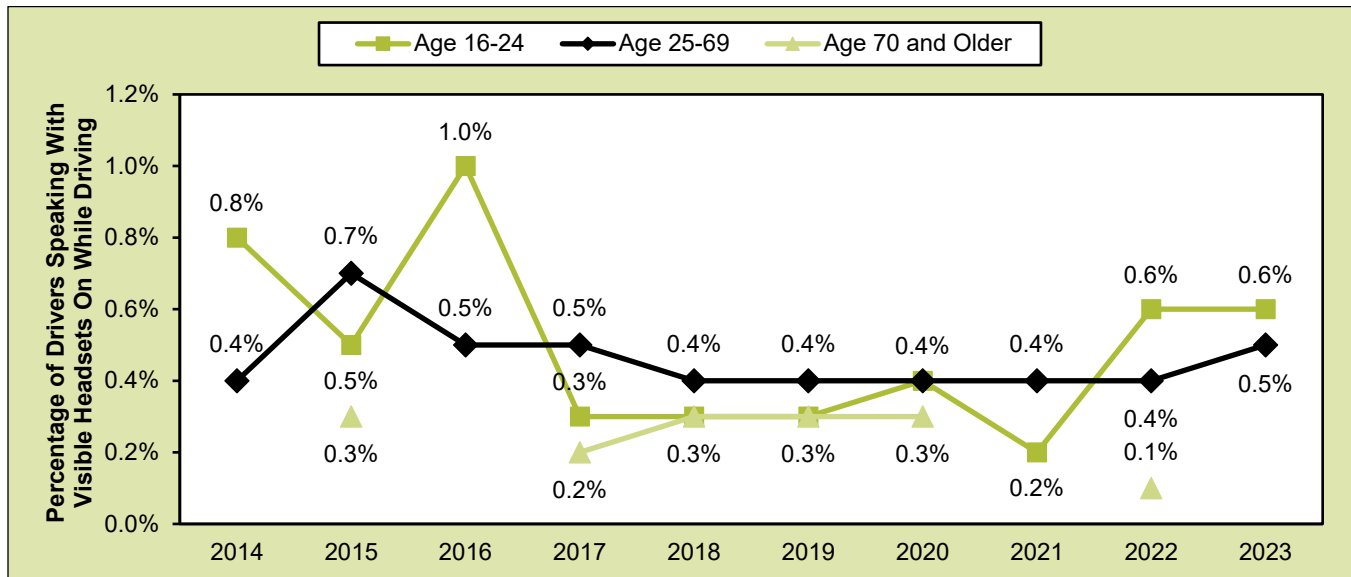
Note: Missing data points signify insufficient data to produce reliable estimates.

Drivers Visibly Manipulating Handheld Devices While Driving

The percentages of drivers visibly manipulating handheld devices while driving decreased from 3.1 percent in 2022 to 3.0 percent in 2023 (Figure 1 and Table 3); this was not a statistically significant decrease. This translates to an estimated 463,385 passenger vehicles drivers visibly manipulating handheld devices while driving during a typical daylight moment in 2023. Figure 5 shows that driver manipulation of handheld devices continued to be higher among 16- to 24-year-olds than other age groups. The estimated 7.7 percent of 16- to 24-year-old drivers visibly manipulating handheld devices in 2023 is the highest since NHTSA started collecting this data in 2005, showing an increasing trend since 2020. Table 3 shows the percentages of drivers visibly manipulating handheld devices in 2022 and 2023, by major characteristics. No characteristic had a statistically significant change from the previous year.

Figure 5. Drivers Visibly Manipulating Handheld Devices by Age, 2014-2023
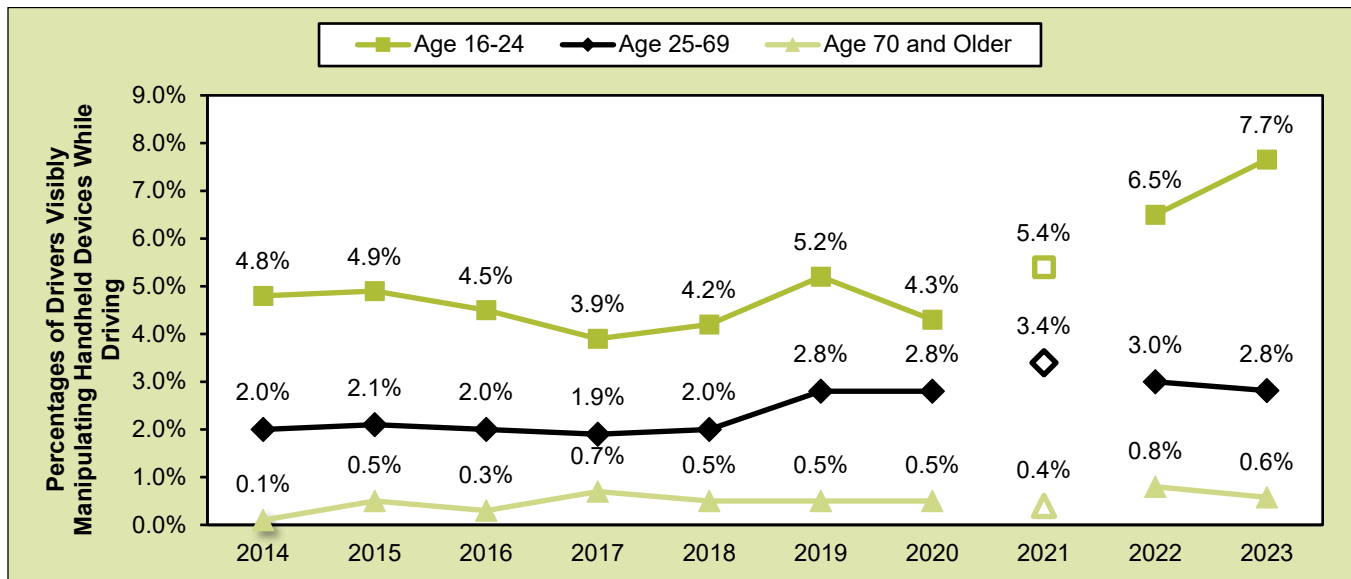
Table 1. Percentages of Drivers Holding Phones to Their Ears While Driving, by Major Characteristics

Driver Group[1]	2022		2023		2022-2023 Change		
	% of Drivers Holding Phones to Ears[2]	95% Confidence Interval[3]	% of Drivers Holding Phones to Ears[2]	95% Confidence Interval[3]	Change in Percentage Points[7]	95% Confidence Interval[4]	P Value[5]
All Drivers[6]	2.1%	(1.8, 2.5)	2.1%	(1.8, 2.6)	0.0	(-0.4, 0.5)	.84
Males	2.0%	(1.7, 2.3)	2.0%	(1.6, 2.5)	0.0	(-0.5, 0.5)	.94
Females	2.3%	(1.8, 2.8)	2.3%	(1.9, 2.9)	0.1	(-0.4, 0.6)	.74
Drivers in States with							
Primary Laws Banning Driver Hand-held Use	1.3%	(1.1. 1.6)	1.5%	(1.2, 1.8)	0.2	(-0.2, 0.5)	.33
No Such Laws	3.4%	(2.9, 3.9)	3.2%	(2.3, 4.4)	-0.1	(-1.2, 0.9)	.80
Drivers in States with							
Primary Laws Banning Driver Texting	1.9%	(1.6, 2.3)	2.0%	(1.7, 2.5)	0.2	(-0.3, 0.6)	.49
No Such Laws	4.5%	(3.5, 5.7)	3.7%	(1.5, 8.7)	-0.8	(-3.1, 1.6)	.51
Drivers by Age Groups[6]							
16-24	2.4%	(1.6, 3.4)	2.7%	(2.1, 3.4)	0.3	(-0.7, 1.3)	.49
25-69	2.1%	(1.8, 2.5)	2.2%	(1.8, 2.7)	0.1	(-0.4, 0.6)	.77
70 and Older	1.2%	(0.6, 2.2)	0.7%	(0.4, 1.2)	-0.5	(-1.4, 0.3)	.21
Drivers by Race[6]							
White	2.0%	(1.6, 2.3)	2.0%	(1.6, 2.4)	0.0	(-0.4, 0.4)	.94
Black	3.7%	(2.7, 4.9)	4.0%	(2.9, 5.4)	0.3	(-1.0, 1.6)	.66
Other Races	1.6%	(1.1, 2.4)	1.6%	(1.2, 2.3)	0.0	(-0.6, 0.6)	.95

Driver Group[1]	2022		2023		2022-2023 Change		
	% of Drivers Holding Phones to Ears[2]	95% Confidence Interval[3]	% of Drivers Holding Phones to Ears[2]	95% Confidence Interval[3]	Change in Percentage Points[7]	95% Confidence Interval[4]	P Value[5]
Drivers on							
Expressway Exit Ramps	1.9%	(1.5, 2.3)	2.0%	(1.5, 2.6)	0.1	(-0.5, 0.8)	.66
Other Surface Streets	2.2%	(1.9, 2.7)	2.2%	(1.8, 2.7)	0.0	(-0.6, 0.5)	.92
Drivers Traveling in							
Fast Traffic	2.1%	(1.7, 2.5)	2.1%	(1.7, 2.7)	0.0	(-0.6, 0.6)	.89
Medium Speed Traffic	2.3%	(1.9, 2.8)	2.3%	(1.7, 3.1)	0.0	(-0.8, 0.7)	.95
Slow Traffic	1.8%	(1.4, 2.4)	1.9%	(1.6, 2.3)	0.1	(-0.4, 0.6)	.81
Drivers Traveling in							
Heavy Traffic	1.9%	(1.6, 2.3)	2.2%	(1.8, 2.8)	0.3	(-0.3, 0.9)	.29
Moderately Dense Traffic	2.4%	(1.8, 3.0)	1.9%	(1.5, 2.5)	-0.5	(-1.3, 0.4)	.26
Light Traffic	2.3%	(1.6, 3.3)	1.9%	(1.4, 2.6)	-0.4	(-1.5, 0.6)	.43
Drivers Traveling Through							
Not Clear Weather Conditions	1.7%	(1.2, 2.4)	1.5%	(0.9, 2.6)	-0.2	(-1.1, 0.7)	.67
Clear Weather Conditions	2.1%	(1.8, 2.5)	2.2%	(1.8, 2.7)	0.1	(-0.4, 0.5)	.81
Drivers of							
Passenger Cars	2.2%	(1.7, 2.7)	2.3%	(1.8, 2.8)	0.1	(-0.6, 0.8)	.79
Vans and SUVS	1.9%	(1.5, 2.4)	2.0%	(1.7, 2.5)	0.2	(-0.4, 0.7)	.53
Pickup Trucks	2.4%	(1.9, 3.1)	2.1%	(1.6, 2.8)	-0.3	(-1.0, 0.4)	.40
Drivers in the							
Northeast	1.1%	(0.7, 1.8)	1.2%	(0.7, 2.0)	0.0	(-0.4, 0.5)	.93
Midwest	2.6%	(2.1, 3.3)	2.1%	(1.4, 3.2)	-0.5	(-1.1, 0.0)	.06
South	2.8%	(2.1, 3.6)	3.1%	(2.3, 4.3)	0.4	(-0.6, 1.4)	.44
West	1.3%	(0.8, 2.1)	1.3%	(0.9, 1.8)	0.0	(-0.6, 0.7)	.95
Drivers in							
Urban Areas	2.0%	(1.7, 2.4)	2.2%	(1.8, 2.7)	0.1	(-0.3, 0.6)	.54
Rural Areas	2.2%	(1.7, 2.8)	2.0%	(1.4, 2.9)	-0.2	(-1.1, 0.7)	.69
Drivers Traveling During							
Weekdays	2.2%	(1.9, 2.6)	2.3%	(1.8, 2.9)	0.1	(-0.4, 0.6)	.71
Rush Hours	2.2%	(1.7, 2.7)	2.2%	(1.7, 2.8)	0.0	(-0.6, 0.7)	.92
Non-Rush Hours	2.3%	(1.9, 2.8)	2.4%	(1.9, 3.2)	0.2	(-0.5, 0.8)	.61
Weekends	1.7%	(1.4, 2.1)	1.6%	(1.2, 2.2)	-0.1	(-0.6, 0.4)	.67
Drivers With							
No Passengers	2.5%	(2.1, 2.9)	2.6%	(2.1, 3.2)	0.1	(-0.5, 0.6)	.74
At Least One Passenger	1.0%	(0.8, 1.4)	1.0%	(0.7, 1.2)	-0.1	(-0.4, 0.3)	.74

Driver Group[1]	2022		2023		2022-2023 Change		
	% of Drivers Holding Phones to Ears[2]	95% Confidence Interval[3]	% of Drivers Holding Phones to Ears[2]	95% Confidence Interval[3]	Change in Percentage Points[7]	95% Confidence Interval[4]	*P* Value[5]
Drivers with							
No Passengers	2.5%	(2.1, 2.9)	2.6%	(2.1, 3.2)	0.1	(-0.5, 0.6)	.74
Passengers All Under Age 8	1.9%	(1.0, 3.4)	2.4%	(1.3, 4.2)	0.5	(-1.2, 2.3)	.54
Passengers All 8 and Older	0.9%	(0.6, 1.2)	0.9%	(0.6, 1.2)	0.0	(-0.4, 0.3)	.91
Some Passengers Under 8 and Some 8 or Older	1.7%	(0.7, 4.0)	0.5%	(0.2, 1.4)	-1.2	(-2.7, 0.3)	.12

[1] Drivers of passenger vehicles stopped at a stop sign or stoplight from 7 a.m. to 6 p.m.
[2] The percentages of drivers holding phones to their ears, based on the subjective assessments of roadside observers.
[3] The Wilson confidence interval is used in the estimated percentages in the driver group (e.g., drivers in urban areas), which is in the form: $\left\{(2n_{EFF}p + t^2) \pm t\sqrt{(t^2 + 4n_{EFF}pq)}\right\}/(2(n_{EFF} + t^2))$, where p is the estimated percentage of drivers holding phones to ears, $n_{EFF} = n/D_{EFF}$ is the effective sample size (where n is the sample size and D_{EFF} is the design effect), $t = t_{(1-\alpha/2)}(df)$, is a multiplier from the t-distribution with df degrees of freedom, and $q = 1 - p$. For percentages, these endpoints are multiplied by 100.
[4] The regular symmetric interval was used for the estimated change in percentage point, which is in the form: $p \pm t_{(1-\alpha/2)}(df)\sqrt{v(p)}$, where p is the estimated change in percentage point, $v(p)$ is its estimated variance, and $t_{(1-\alpha/2)}(df)$ is a multiplier from the t-distribution with df degrees of freedom. The degrees of freedom used in 2023 is different from that used in 2022.
[5] A *p* value of .05 or less indicates that there is a statistically significant difference (at the alpha=.05 level) between the 2022 and 2023 estimates for the group in question, indicated with **bold type**.
[6] Age, sex, and racial classifications are based on the subjective assessments of roadside observers.
[7] The "Change in Percentage Points" column was computed using unrounded estimates and may not equal the difference between the rounded estimates shown in the table.
Sources: NOPUS, NCSA, 2022, 2023.

Table 2. Percentages of Drivers Speaking With Visible Headsets on While Driving, by Major Characteristics

Driver Group[1]	2022		2023		2022-2023 Change		
	% of Drivers Speaking With Headsets[2]	95% Confidence Interval[3]	% of Drivers Speaking With Headseats[2]	95% Confidence Interval[3]	Change in Percentage Points[7]	95% Confidence Interval[4]	*P* Value[5]
All Drivers[6]	0.4%	(0.2, 0.7)	0.5%	(0.3, 0.9)	0.1	(-0.3, 0.5)	.53
Males	0.3%	(0.2, 0.6)	0.4%	(0.2, 0.7)	0.1	(-0.2, 0.4)	.52
Females	0.5%	(0.3, 0.9)	0.7%	(0.4, 1.3)	0.1	(-0.4, 0.7)	.59
Drivers in States With							
Primary Laws Banning Driver Handheld Use	0.3%	(0.1, 0.7)	0.4%	(0.2, 0.8)	0.1	(-0.3, 0.5)	.52
No Such Laws	0.6%	(0.3, 1.0)	0.4%	(0.2, 2.0)	0.1	(-0.7, 0.9)	.79
Drivers in States with							
Primary Laws Banning Driver Texting	0.4%	(0.2, 0.6)	0.5%	(0.3, 1.0)	0.2	(-0.2, 0.6)	.37
No Such Laws	0.8%	(0.2, 2.6)	NA	NA	NA	NA	NA
Drivers by Age Groups[6]							
16-24	0.6%	(0.2, 1.3)	0.6%	(0.3, 1.3)	0.0	(-0.6, 0.6)	1.00
25-69	0.4%	(0.2, 0.7)	0.5%	(0.3, 1.0)	0.1	(-0.3, 0.5)	.51
70 and Older	0.1%	(0.0, 0.3)	NA	NA	NA	NA	NA

Driver Group[1]	2022		2023		2022-2023 Change		
	% of Drivers Speaking With Headsets[2]	95% Confidence Interval[3]	% of Drivers Speaking With Headseats[2]	95% Confidence Interval[3]	Change in Percentage Points[7]	95% Confidence Interval[4]	P Value[5]
Drivers by Race[6]							
White	0.3%	(0.2, 0.5)	0.4%	(0.3, 0.8)	0.1	(-0.2, 0.5)	.37
Black	1.1%	(0.6, 2.0)	0.8%	(0.3, 2.1)	-0.3	(-1.3, 0.7)	.56
Other Races	0.4%	(0.2, 0.8)	0.6%	(0.3, 1.3)	0.2	(-0.2, 0.7)	.31
Drivers on							
Expressway Exit Ramps	0.4%	(0.2, 0.6)	0.6%	(0.3, 1.3)	0.2	(-0.3, 0.7)	.46
Other Surface Streets	0.4%	(0.2, 0.7)	0.5%	(0.3, 0.7)	0.1	(-0.3, 0.4)	.70
Drivers Traveling in							
Fast Traffic	0.4%	(0.2, 0.6)	0.5%	(0.2, 1.2)	0.1	(-0.3, 0.6)	.60
Medium Speed Traffic	0.3%	(0.2, 0.6)	0.5%	(0.3, 0.8)	0.1	(-0.2, 0.4)	.39
Slow Traffic	0.5%	(0.2, 1.2)	0.6%	(0.3, 1.2)	0.1	(-0.6, 0.9)	.74
Drivers Traveling in							
Heavy Traffic	0.4%	(0.2, 0.8)	0.6%	(0.3, 1.2)	0.2	(-0.3, 0.7)	.49
Moderately Dense Traffic	0.4%	(0.2, 0.6)	0.3%	(0.2, 0.6)	0.0	(-0.3, 0.2)	.80
Light Traffic	0.2%	(0.1, 0.3)	0.2%	(0.1, 0.6)	0.1	(-0.1, 0.3)	.42
Drivers Traveling Through							
Not Clear Weather Conditions	0.2%	(0.1, 0.5)	0.8%	(0.3, 2.1)	0.6	(-0.1, 1.4)	.09
Clear Weather Conditions	0.4%	(0.2, 0.7)	0.5%	(0.3, 0.9)	0.1	(-0.3, 0.4)	.70
Drivers of							
Passenger Cars	0.4%	(0.3, 0.6)	0.6%	(0.3, 1.2)	0.2	(-0.2, 0.6)	.29
Vans and SUVS	0.5%	(0.2, 0.9)	0.5%	(0.3, 0.9)	0.1	(-0.4, 0.5)	.82
Pickup Trucks	0.3%	(0.1, 0.5)	0.4%	(0.2, 0.8)	0.1	(-0.1, 0.4)	.33
Drivers in the							
Northeast	0.5%	(0.1, 2.2)	0.4%	(0.1, 1.3)	-0.1	(-1.3, 1.1)	.89
Midwest	0.3%	(0.1, 1.0)	0.2%	(0.1, 0.4)	-0.2	(-0.6, 0.2)	.41
South	0.5%	(0.3, 0.9)	0.7%	(0.2, 2.0)	0.2	(-0.6, 0.9)	.63
West	0.2%	(0.1, 0.3)	0.6%	(0.3, 1.5)	0.4	(-0.1, 1.0)	.09
Drivers in							
Urban Areas	0.4%	(0.3, 0.8)	0.6%	(0.3, 1.1)	0.2	(-0.3, 0.6)	.50
Rural Areas	0.3%	(0.1, 0.7)	0.3%	(0.2, 0.6)	0.0	(-0.3, 0.4)	.81
Drivers Traveling During							
Weekdays	0.4%	(0.3, 0.7)	0.6%	(0.3, 1.1)	0.2	(-0.3, 0.6)	.42
Rush Hours	0.3%	(0.2, 0.5)	0.7%	(0.4, 1.3)	0.3	(-0.1, 0.8)	.16
Non-Rush Hours	0.5%	(0.3, 0.9)	0.5%	(0.3, 1.0)	0.0	(-0.4, 0.5)	.95
Weekends	0.3%	(0.1, 0.8)	0.3%	(0.1, 0.7)	0.0	(-0.4, 0.4)	.86

Driver Group[1]	2022		2023		2022-2023 Change		
	% of Drivers Speaking With Headsets[2]	95% Confidence Interval[3]	% of Drivers Speaking With Headseats[2]	95% Confidence Interval[3]	Change in Percentage Points[7]	95% Confidence Interval[4]	P Value[5]
Drivers With							
No Passengers	0.5%	(0.3, 0.8)	0.7%	(0.4, 1.3)	0.2	(-0.3, 0.7)	.43
At Least One Passenger	0.2%	(0.1, 0.3)	0.1%	(0.0, 0.2)	-0.1	(-0.2, 0.0)	.20
Drivers with							
No Passengers	0.5%	(0.3, 0.8)	0.7%	(0.4, 1.3)	0.2	(-0.3, 0.7)	.43
Passengers All Under Age 8	NA	NA	NA	NA	NA	NA	NA
Passengers All 8 and Older	0.2%	(0.1, 0.4)	0.1%	(0.0, 0.2)	-0.1	(-0.2, 0.1)	.27
Some Passengers Under 8 and Some 8 or Older	NA	NA	NA	NA	NA	NA	NA

[1] Drivers of passenger vehicles stopped at a stop sign or stoplight from 7 a.m. to 6 p.m.
[2] The percentages of drivers speaking with visible headsets while driving, based on the subjective assessments of roadside observers.
[3] The Wilson confidence interval is used in the estimated percentages in the driver group (e.g., drivers in urban areas), which is in the form:
$\left\{(2n_{EFF}p + t^2) \pm t\sqrt{(t^2 + 4n_{EFF}pq)}\right\}/(2(n_{EFF} + t^2))$, where p is the estimated percentage of drivers holding phones to ears, $n_{EFF} = n/D_{EFF}$ is the effective sample size (where n is the sample size and D_{EFF} is the design effect), $t = t_{(1-\alpha/2)}(df)$, is a multiplier from the t-distribution with df degrees of freedom, and $q = 1 - p$. For percentages, these endpoints are multiplied by 100.
[4] The regular symmetric interval was used for the estimated change in percentage point, which is in the form: $p \pm t_{(1-\alpha/2)}(df)\sqrt{v(p)}$, where p is the estimated change in percentage point, $v(p)$ is its estimated variance, and $t_{(1-\alpha/2)}(df)$ is a multiplier from the t-distribution with df degrees of freedom. The degrees of freedom used in 2023 is different from that used in 2022.
[5] A p value of .05 or less indicates that there is a statistically significant difference (at the alpha=.05 level) between the 2022 and 2023 estimates for the group in question, indicated with **bold type**.
[6] Age, sex, and racial classifications are based on the subjective assessments of roadside observers.
[7] The "Change in Percentage Points" column was computed using unrounded estimates and may not equal the difference between the rounded estimates shown in the table.
NA: Data not sufficient to produce a reliable estimate.
Sources: NOPUS, NCSA, 2022, 2023.

Table 3. Percentage of Drivers Visibly Manipulating Handheld Devices While Driving, by Major Characteristics

Driver Group[1]	2022		2023		2022-2023 Change		
	% of Drivers Manipulating Handheld Devices[2]	95% Confidence Interval[3]	% of Drivers Manipulating Handheld Devices[2]	95% Confidence Interval[3]	Change in Percentage Points[7]	95% Confidence Interval[4]	P Value[5]
All Drivers[6]	3.1%	(2.1, 4.6)	3.0%	(2.1, 4.3)	-0.1	(-1.3, 1.2)	.92
Males	3.0%	(2.0, 4.5)	2.8%	(1.9, 4.1)	-0.2	(-1.3, 0.9)	.74
Females	3.3%	(2.2, 4.9)	3.4%	(2.5, 4.7)	0.1	(-1.4, 1.6)	.86
Drivers in States With							
Primary Laws Banning Driver Handheld Use	2.7%	(1.8, 4.2)	2.9%	(2.0, 4.3)	0.2	(-0.7, 1.1)	.69
No Such Laws	3.7%	(2.0, 6.5)	3.2%	(1.7, 5.8)	-0.5	(-3.2, 2.2)	.73
Drivers in States With							
Primary Laws Banning Driver Texting	3.2%	(2.1, 4.8)	2.9%	(2.0, 4.1)	-0.3	(-1.5, 0.9)	.61
No Such Laws	2.2%	(1.0, 4.6)	5.8%	(1.5, 20.3)	3.6	(-6.1, 13.3)	.45

Driver Group[1]	2022		2023		2022-2023 Change		
	% of Drivers Manipulating Handheld Devices[2]	95% Confidence Interval[3]	% of Drivers Manipulating Handheld Devices[2]	95% Confidence Interval[3]	Change in Percentage Points[7]	95% Confidence Interval[4]	P Value[5]
Drivers by Age Groups[6]							
16-24	6.5%	(4.1, 10.1)	7.7%	(4.7, 12.1)	1.1	(-2.9, 5.2)	.57
25-69	3.0%	(2.0, 4.4)	2.8%	(2.0, 4.0)	-0.1	(-1.3, 1.0)	.80
70 and Older	0.8%	(0.4, 1.5)	0.6%	(0.3, 1.0)	-0.2	(-0.7, 0.3)	.40
Drivers by Race[6]							
White	2.5%	(1.7, 3.7)	2.5%	(1.7, 3.5)	-0.1	(-1.0, 0.9)	.88
Black	5.1%	(3.2, 8.3)	6.4%	(4.2, 9.6)	1.3	(-2.0, 4.5)	.44
Other Races	5.2%	(3.0, 8.6)	3.6%	(2.2, 5.8)	-1.6	(-4.1, 0.9)	.21
Drivers on							
Expressway Exit Ramps	3.2%	(1.9, 5.4)	2.9%	(1.7, 4.8)	-0.4	(-2.1, 1.4)	.68
Other Surface Streets	3.0%	(2.2, 4.1)	3.1%	(2.3, 4.3)	0.1	(-1.0, 1.2)	.79
Drivers Traveling in							
Fast Traffic	2.6%	(1.7, 4.0)	3.0%	(1.9, 4.8)	0.4	(-1.1, 1.9)	.61
Medium Speed Traffic	4.0%	(2.7, 5.8)	3.2%	(2.3, 4.5)	-0.7	(-2.6, 1.1)	.43
Slow Traffic	3.0%	(1.6, 5.4)	2.8%	(1.5, 5.2)	-0.2	(-1.3, 0.9)	.71
Drivers Traveling in							
Heavy Traffic	3.7%	(2.4, 5.8)	3.6%	(2.4, 5.2)	-0.2	(-1.7, 1.4)	.80
Moderately Dense Traffic	2.1%	(1.5, 2.9)	2.2%	(1.6, 3.0)	0.1	(-0.8, 1.0)	.83
Light Traffic	1.2%	(0.8, 1.8)	1.4%	(0.9, 2.1)	0.2	(-0.6, 0.9)	.61
Drivers Traveling Through							
Not Clear Weather Conditions	2.7%	(1.7, 4.5)	2.7%	(1.4, 5.0)	-0.1	(-2.1, 1.9)	.95
Clear Weather Conditions	3.1%	(2.1, 4.7)	3.1%	(2.1, 4.4)	-0.1	(-1.3, 1.2)	.91
Drivers of							
Passenger Cars	3.7%	(2.4, 5.6)	3.7%	(2.6, 5.1)	0.0	(-1.7, 1.6)	.98
Vans and SUVS	2.9%	(2.0, 4.4)	3.1%	(2.1, 4.6)	0.2	(-1.0, 1.3)	.75
Pickup Trucks	2.5%	(1.6, 3.7)	1.8%	(1.1, 3.0)	-0.6	(-1.9, 0.6)	.30
Drivers in the							
Northeast	3.7%	(1.5, 8.9)	3.7%	(1.5, 9.0)	0.0	(-1.8, 1.8)	1.00
Midwest	2.1%	(1.4, 3.1)	2.7%	(1.2, 5.6)	0.6	(-1.9, 3.1)	.64
South	3.6%	(1.9, 6.7)	3.0%	(1.7, 5.3)	-0.6	(-3.3, 2.1)	.66
West	2.7%	(1.2, 6.3)	2.9%	(1.5, 5.6)	0.2	(-0.9, 1.2)	.73
Drivers in							
Urban Areas	3.8%	(2.5, 5.7)	3.6%	(2.5, 5.3)	-0.2	(-1.6, 1.3)	.84
Rural Areas	1.5%	(0.9, 2.5)	1.7%	(1.0, 3.0)	0.2	(-1.0, 1.4)	.70

Driver Group[1]	2022		2023		2022-2023 Change		
	% of Drivers Manipulating Handheld Devices[2]	95% Confidence Interval[3]	% of Drivers Manipulating Handheld Devices[2]	95% Confidence Interval[3]	Change in Percentage Points[7]	95% Confidence Interval[4]	P Value[5]
Drivers Traveling During							
Weekdays	3.4%	(2.2, 5.0)	3.3%	(2.3, 4.7)	-0.1	(-1.5, 1.3)	.91
Rush Hours	3.0%	(2.0, 4.6)	3.6%	(2.4, 5.4)	0.6	(-1.0, 2.2)	.44
Non-Rush Hours	3.6%	(2.4, 5.5)	2.9%	(2.0, 4.2)	-0.8	(-2.2, 0.7)	.31
Weekends	2.4%	(1.5, 3.6)	2.3%	(1.4, 3.7)	0.0	(-1.2, 1.2)	.96
Drivers With							
No Passengers	3.8%	(2.5, 5.6)	3.7%	(2.6, 5.2)	-0.1	(-1.6, 1.4)	.89
At Least One Passenger	1.2%	(0.8, 1.9)	1.3%	(0.8, 2.1)	0.1	(-0.6, 0.7)	.85
Drivers with							
No Passengers	3.8%	(2.5, 5.6)	3.7%	(2.6, 5.2)	-0.1	(-1.6, 1.4)	.89
Passengers All Under Age 8	3.1%	(1.7, 5.6)	2.3%	(1.2, 4.5)	-0.7	(-3.3, 1.9)	.57
Passengers All 8 and Older	1.0%	(0.6, 1.7)	1.2%	(0.8, 2.0)	0.2	(-0.4, 0.9)	.46
Some Passengers Under 8 and Some 8 or Older	2.2%	(1.1, 4.5)	1.1%	(0.5, 2.4)	-1.1	(-3.1, 0.8)	.23

[1] Drivers of passenger vehicles stopped at a stop sign or stoplight from 7 a.m. to 6 p.m.

[2] The percentages of drivers visibly manipulating handheld devices while driving, based on the subjective assessments of roadside observers.

[3] The Wilson confidence interval is used in the estimated percentages in the driver group (e.g., drivers in urban areas), which is in the form: $\left\{(2n_{EFF}p + t^2) \pm t\sqrt{(t^2 + 4n_{EFF}pq)}\right\}/(2(n_{EFF} + t^2))$, where p is the estimated percentage of drivers holding phones to ears, $n_{EFF} = n/D_{EFF}$ is the effective sample size (where n is the sample size and D_{EFF} is the design effect), $t = t_{(1-\alpha/2)}(df)$, is a multiplier from the t-distribution with df degrees of freedom, and $q = 1 - p$. For percentages, these endpoints are multiplied by 100.

[4] The regular symmetric interval was used for the estimated change in percentage point, which is in the form: $p \pm t_{(1-\alpha/2)}(df)\sqrt{v(p)}$, where p is the estimated change in percentage point, $v(p)$ is its estimated variance, and $t_{(1-\alpha/2)}(df)$ is a multiplier from the t-distribution with df degrees of freedom. The degrees of freedom used in 2023 is different from that used in 2022.

[5] A p value of .05 or less indicates that there is a statistically significant difference (at the alpha=.05 level) between the 2022 and 2023 estimates for the group in question, indicated with **bold type**.

[6] Age, sex, and racial classifications are based on the subjective assessments of roadside observers.

[7] The "Change in Percentage Points" column was computed using unrounded estimates and may not equal the difference between the rounded estimates shown in the table.

Sources: NOPUS, NCSA, 2022, 2023.

NOPUS Data Collection and Estimation

NOPUS is the only nationwide probability-based observational survey of driver electronic device use in the United States. The survey observes usage as it occurs at randomly selected roadway sites and thus provides the best tracking of the extent to which people in the United States use cellphones and other electronic devices while driving.

The survey data is collected by trained data collectors at probabilistically sampled intersections controlled by stop signs or stoplights, where data collectors observe, from the roadside, drivers and other occupants of passenger vehicles. Data is collected from about 7 a.m. to 6 p.m. Only stopped vehicles are observed to allow time to collect the variety of information required by the survey, including subjective assessments of occupants' age and race. Observers collect data on the driver, right-front passenger, and up to two passengers in the second row of seats. Observers do not interview occupants, so that NOPUS can capture the untainted behavior of occupants. The 2023 NOPUS data was collected from June 5 to June 24, 2023, while the 2022 NOPUS data was collected from June 6

to June 24, 2022. In a typical year, data is collected in early June, immediately following the *Click It or Ticket* campaign.

The NOPUS uses a complex multistage probability sample, statistical data editing, imputation of unknown values, and complex estimation procedures. The sample sites for the 2023 NOPUS were entirely from the 2015 NOPUS sample redesign. Table 4 shows the observed sample sizes of the 2023 NOPUS. There were 51,769 vehicles observed at the 1,631 data collection sites. Due to ineligibility, construction, danger in the area, or road closure, the observations could not be completed at some of the sampled observation sites.

Table 4. Sites and Vehicles Observed in the 2023 NOPUS

Number of	2022	2023	Percentage Change
Sites Observed	1,618	1,631	0.80%
Vehicles Observed	48,081	51,769	7.67%

Data collection, estimation, and variance estimation for NOPUS are conducted by Westat, Inc., under the direction of NCSA under Federal contract number 693JJ918D000001.

NOPUS Categories and Definitions

NOPUS observes three types of driver electronic device use while driving: "holding phones to their ears," "speaking with visible headsets on," and "visibly manipulating handheld devices."

Drivers are counted as "holding phones to their ears" if they are holding to their ears what appear to the data collectors to be phones. This would include behaviors such as drivers engaging in conversation, listening to messages, or conducting voice-activated dialing while holding phones to their ears. However, a data collector may not have knowledge of various types of wireless phones. Thus, the device that has been identified as a "phone" may only reflect his/her conception of what constitutes a "phone."

Drivers are counted as "speaking with visible headsets on" if they appear to be speaking and wearing a headset with a microphone. This would include behaviors such as talking, engaging in conversation, or conducting voice-activated dialing via a wireless earpiece on the driver's right ear or via an ear bud connected by wire to a cellphone. Talking via a visible Bluetooth headset (usually on the driver's right ear) would also be included in this category. Note that the wireless earpieces that are obscured by hair or clothing or are on the driver's left ear would not be included because they would not be visible to the roadside observer. In addition, some wireless ear buds would not be included as they are too small to be observed from the roadside. The drivers with headsets who are not speaking at the time of observation are not included because they might have recently completed a call or be waiting for an expected call. Each driver in the survey is observed for about 10 seconds before the data collector decides whether the driver is speaking. Also, note that the drivers counted as speaking through a visible headset might have been talking to a passenger or using voice-activated computer software rather than using a phone.

Drivers are counted as "visibly manipulating handheld devices" if they appear to be manipulating some type of electronic device such as a cellphone, smart phone, tablet, video game, or some other device. This would include behaviors such as text messaging, using a web-capable smart phone (e.g., an iPhone) or a tablet (e.g., iPad) to view travel directions, check emails or calendar appointments, or surf the internet, manual dialing, playing handheld games, and holding phones in front of their faces to converse or check messages via speakerphone or use voice-activated dialing. Manipulation of the non-handheld devices (adjusting volume on stereos, pressing buttons on a dashboard GPS unit, etc.) is not included in this category. Also, note that a driver characterized by the survey as "manipulating handheld device" may or may not have been speaking.

There are means by which the drivers can use cellphones that would neither be recorded as "holding phones to their ears" nor as "speaking with visible headsets on" nor as "visibly manipulating handheld devices" in the NOPUS. These would include: (1) a driver using a cellphone headset but is not speaking during the approximately 10-second period when he/she is being observed, and (2) a driver using technologies that cannot be observed from the roadside. The unobservable technologies would include: a wireless earpiece obscured by hair or clothing or on the left ear, a driver conversing via a speakerphone with the phone on the passenger seat or in a cellphone holder

on the vehicle dashboard, a driver using a phone that is built into the vehicle (e.g., OnStar), and a driver using the cellphone hands-free via a Bluetooth car kit or via a Bluetooth system that is built into the vehicle (e.g., Sync). It is possible that at some point in the future, NOPUS may be able to capture such behaviors by directing a device that can detect cellphones in-use in the passing vehicles.

The racial categories "Black," "White," and "Members of Other Races" appearing in the tables reflect subjective characterizations by roadside observers regarding the race of occupants. Likewise, observers record the age group (8-15; 16-24; 25-69; and 70 or older) that best fits their visual assessment of each observed occupant.

"Expressway Exit Ramps" are defined as the access roads from roadways with limited access, while "Other Surface Streets" comprise all other roadways.

A roadway is defined to have "fast traffic" if during the observation period the average speed of passenger vehicles that pass the observer exceeds 50 mph, with "medium-speed traffic" defined as 31 to 50 mph, and "slow traffic" defined as 30 mph or slower.

A roadway is defined to have "heavy traffic" if the average number of vehicles on the roadway during the observation period is greater than 5 per lane per mile, with "moderately dense traffic" defined as greater than 1 but less than or equal to 5 vehicles per lane per mile, and "light traffic" as less than or equal to 1 vehicle per lane per mile.

As of 2018, sites where light precipitation or light fog are present are collapsed into a single category, "Not Clear Weather Conditions."

"Weekday Rush Hours" are defined as 7 a.m. to 9:30 a.m. and 3:30 p.m. to 6 p.m. on weekdays, while "Weekday Non-Rush Hours" comprise all other weekday hours (9:30 a.m. to 3:30 p.m.).

Since NOPUS is not a census and is based on a probability sample, it is impossible to produce State-by-State driver electronic device use results. However, NOPUS produces regional estimates of the use rates based on the following categories.

- **Northeast**: ME, VT, NH, MA, RI, CT, NY, PA, NJ
- **Midwest**: MI, OH, IN, IL, WI, MN, IA, MO, KS, NE, SD, ND
- **South**: WV, MD, DE, VA, KY, TN, NC, SC, GA, FL, AL, MS, AR, LA, OK, TX, DC
- **West**: AK, WA, OR, CA, NV, ID, UT, AZ, NM, CO, WY, MT, HI

Please note that since 2015, we use an objective area type classification to replace the subjective area type based on trained data collectors' best judgement. Each NOPUS site is assigned an objective area type characterization based on the Census Bureau definitions of urbanized areas and urban clusters (see www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html). It is defined as:

- **Urban**: A site which intersects an urbanized area or urban cluster (i.e., an area of at least 2,500 people); and
- **Rural**: All other sites.

Estimating Overall Cellphone Use, Both Handheld and Hands-Free

An estimated 6.4 percent of drivers were using some type of phone, either handheld or hands-free, at a typical daylight moment in 2023. NHTSA's 2016 Motor Vehicle Occupant Safety Survey (MVOSS) estimated that for drivers using cellphones while driving, 33 percent tended to use handheld cellphones and 67 percent tended to use hands-free phones (Diecker & Block, 2020). Applying the proportion 2.0303 (= 67/33) of these percentages to the 2.1 percent estimate of drivers using handheld cellphones in 2023 from NOPUS shows an estimated 4.3 (= 2.0303×2.1) percent of drivers using hands-free cellphones. Thus, a total of 6.4 (= 2.1+4.3) percent of drivers are estimated to be using either a handheld or a hands-free cellphone while driving at a typical daylight moment in the United States in 2023. Please note that the MVOSS estimates are based on self-reported use from both daytime and nighttime driving while the NOPUS estimates are observed during daylight hours.

State Laws on Driver Electronic Device Use (Enacted as of June 5, 2023)

Many States restrict cellphone use by drivers. As of June 5, 2023, no State completely bans all forms of cellphone use by drivers. However, the list below shows that a ban on driving while talking on a handheld cellphone was in place in 25 States, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, and the Northern Mariana Islands (Governors Highway Safety Association, 2023; Highway Loss Data Institute, 2023). All these laws are primary enforcement—an officer may cite a driver for using a handheld cellphone without any other traffic offense taking place.

States and U.S. Territories With Laws Banning Handheld Cellphone Use While Driving (Laws in Effect as of June 5, 2023)

Arizona	California	Connecticut	Delaware	Georgia
Hawaii	Idaho	Illinois	Indiana	Maine
Maryland	Massachusetts	Minnesota	Nevada	New Hampshire
New Jersey	New York	Ohio	Oregon	Rhode Island
Tennessee	Vermont	Virginia	Washington	West Virginia
District of Columbia		Puerto Rico	Guam	U.S. Virgin Islands
Northern Mariana Islands				

Arkansas and Florida ban the use of handheld cellphones while driving in a school zone or in a highway construction zone. Louisiana and Texas have banned the use of handheld cellphones in school zones. This law is primarily enforced. Wisconsin has banned the use of handheld cellphones only in highway construction zones. Starting from June 2023, Alabama bans the use of handheld cellphones while driving, but no citations will be issued until June 2024 (Governors Highway Safety Association, 2023).

According to the Highway Loss Data Institute (2023), 48 States, the District of Columbia, Puerto Rico, Guam, the U.S. Virgin Islands, and the Northern Mariana Islands ban text messaging for all drivers (see list below). The only exceptions are Missouri and Montana. Missouri only bans text messaging for drivers 21 or younger. In 46 States, the District of Columbia, Guam, Puerto Rico, the U.S. Virgin Islands, and the Northern Mariana Islands, texting laws are primary enforcement, and 2 States have secondary enforcement of texting for drivers (Highway Loss Data Institute, 2023).

States and U.S. Territories With Laws Banning Text Messaging While Driving (Laws in Effect as of June 5, 2023)

Alabama	Alaska	Arizona	Arkansas	California
Colorado	Connecticut	Delaware	Florida	Georgia
Hawaii	Idaho	Illinois	Indiana	Iowa
Kansas	Kentucky	Louisiana	Maine	Maryland
Massachusetts	Michigan	Minnesota	Mississippi	Nebraska*
Nevada	New Hampshire	New Jersey	New Mexico	New York
North Carolina	North Dakota	Ohio	Oklahoma	Oregon
Pennsylvania	Rhode Island	South Carolina	South Dakota*	Tennessee
Texas	Utah	Vermont	Virginia	Washington
West Virginia	Wisconsin	Wyoming	District of Columbia	Puerto Rico
Guam	U.S. Virgin Islands	Northern Mariana Islands		

Note: States with * have secondary enforcement of texting for drivers.

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For More Information

Additional data and information on the survey design and analysis procedures will be available in upcoming publications to be posted at www.nhtsa.gov/research-data.

For more information on distracted driving, please visit www.nhtsa.gov/risky-driving/distracted-driving.

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This research note and other general information on highway traffic safety may be found at: https://crashstats.nhtsa.dot.gov/.