



Sleep Health Index[®]

powered by The National Sleep Foundation

QUARTERLY REPORT – Q4 2016

Three percent of Americans admit to having dozed off behind the wheel in the past two weeks, equating to more than seven million drivers nodding off on the road in that short period of time, according to a new survey by the National Sleep Foundation.

More, 8 percent of drivers, say they've avoided driving in the past two weeks because they felt tired. And the survey finds that just 2 percent of adults say they've avoided taking a ride with someone else because they feared the driver might be too tired to drive safely.

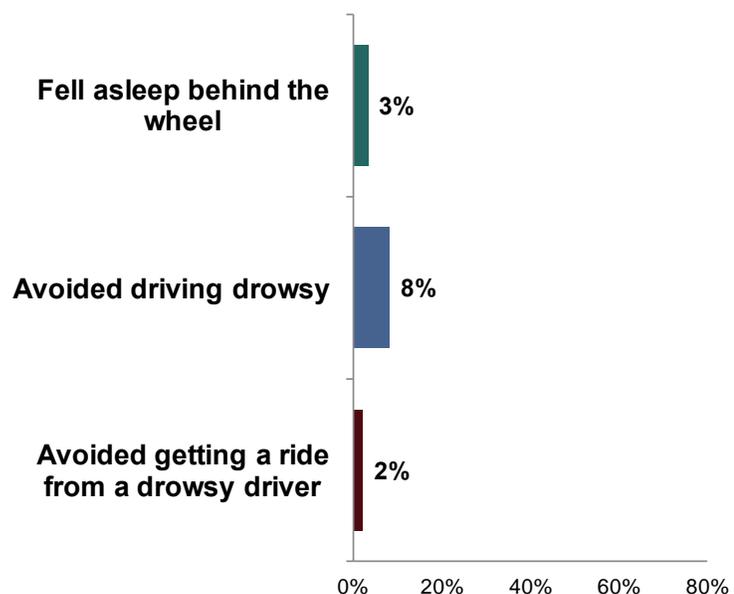
The National Sleep Foundation posed these questions in advance of Drowsy Driving Prevention week, Nov. 6-13, as part of its ongoing Sleep Health Index poll. Produced via a national, random-sample telephone survey of 1,005 adults, the Sleep Health Index is designed to assess and track the nation's sleep health on a quarterly basis as well as to explore related topics.

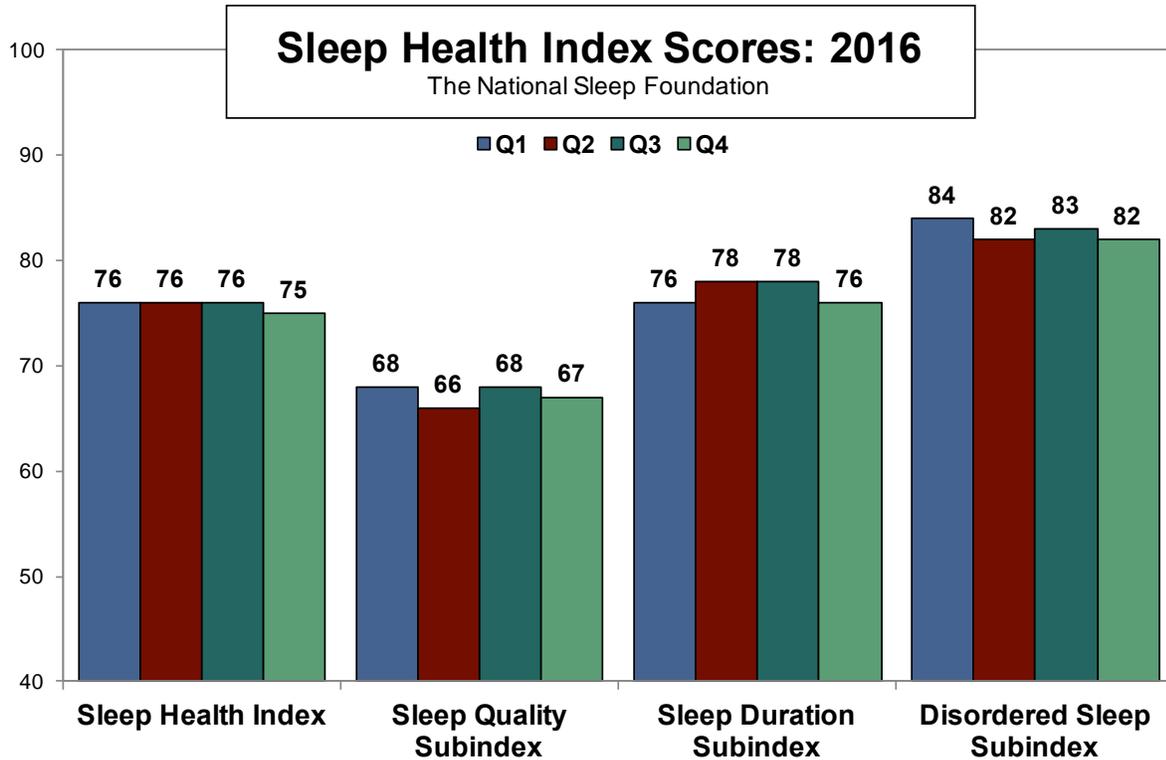
The index itself stands at 75 on its 0-100 scale, a scant 1 point from where it's held the first three quarters of the year. Although not a statistically significant drop, underlying results suggest that the back-to-school season may be taking a toll on some Americans' sleep.

Recent Drowsy Driving Experiences

The National Sleep Foundation

% of Americans who say that, in the past two weeks, they...





Differences in Drowsy Driving

While past research has asked drivers whether they've *ever* nodded off behind the wheel, these results provide an estimate of the number who've done so recently, as well as how common it is for adults to avoid driving or riding in a car because of drowsy-driving concerns.

Self-reported rates of recent nodding off behind the wheel are similar across groups, and of course could be understated by a desire not to report this behavior. As such, the 3 percent figure may best be considered a low-range estimate.¹

There are differences among groups in avoiding driving so as not to drive while drowsy. This peaks among Americans with poor sleep health: Among those who receive a low grade (less than 60) on the Sleep Health Index, 18 percent say they decided not to drive due to drowsiness in the previous two weeks. Among high scorers (80-100), this declines to fewer than 5 percent.

Women are more likely than men to say there was a time in the past two weeks they did not drive because they felt too tired, 11 vs. 5 percent. And 13 percent of young adults say they skipped driving due to drowsiness in the previous two weeks, vs. 5 percent of seniors.

¹In surveys in 2005 by the National Sleep Foundation poll and in 2002 by the National Highway Traffic Safety Administration, nearly four in 10 drivers reported having fallen asleep behind the wheel at least once in their lifetime, compared with the two-week period tested in this survey.

Young adults also are somewhat more likely to say they've avoided taking a ride with another driver because they worried she or he was too tired – but still just 5 percent report this occurring in the previous two weeks.

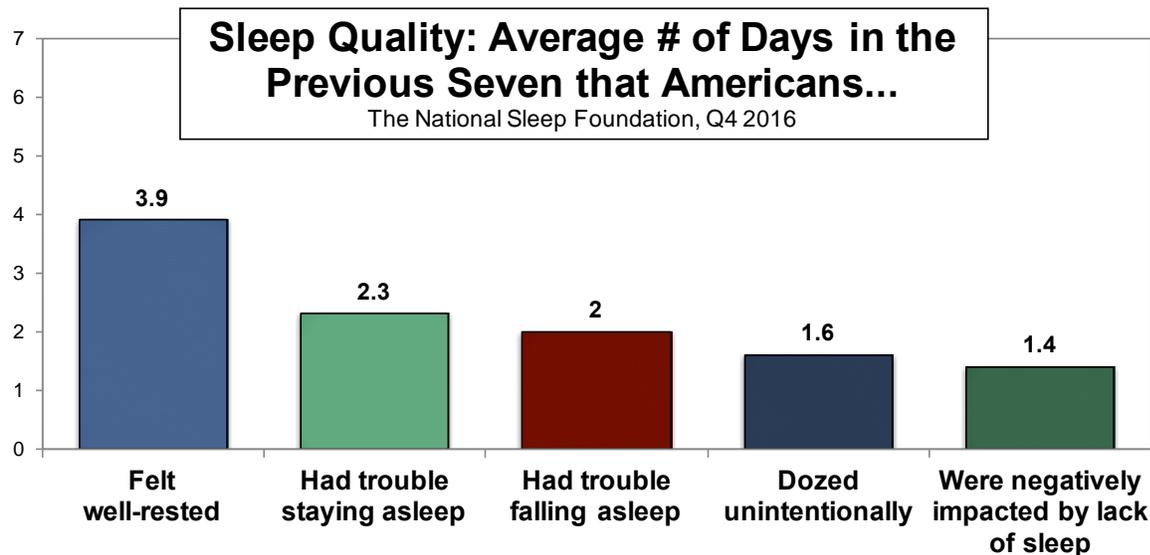
Among those who've either avoided driving themselves or avoided riding in a car with someone else because of drowsiness, the most common solution was getting a ride from someone else, with 35 percent saying they did so. Two in 10 postponed or canceled their trip and 12 percent used a car service.²

Sleep Health Index Results

The quarterly Sleep Health Index, produced for the National Sleep Foundation by Langer Research Associates, assesses three core aspects of sleep health: sleep quality, sleep duration and disordered sleeping. As noted, Americans averaged a 75 on the overall Sleep Health Index this quarter, including a 67 for sleep quality, a 76 for sleep duration and an 82 for disordered sleep.

Last quarter's subindex scores were similar – 68, 78 and 83, respectively. The 1-point dips in the sleep quality and disordered sleep subindex scores are not statistically significant, but the 2-point decline in sleep duration scores is marginally significant.³ It largely reflects an increase in the average discrepancy between weekday and weekend sleep (termed “social jetlag”).

Sleep quality is assessed using six items – Americans' overall ratings of their sleep quality, plus the number of days in the previous week they felt well-rested, had trouble falling asleep, had trouble staying asleep, were negatively impacted by lack of sleep and dozed unintentionally. As noted, this subindex stands at 67, lowest of the three by a substantial margin. This reflects continued weaknesses across all six items.



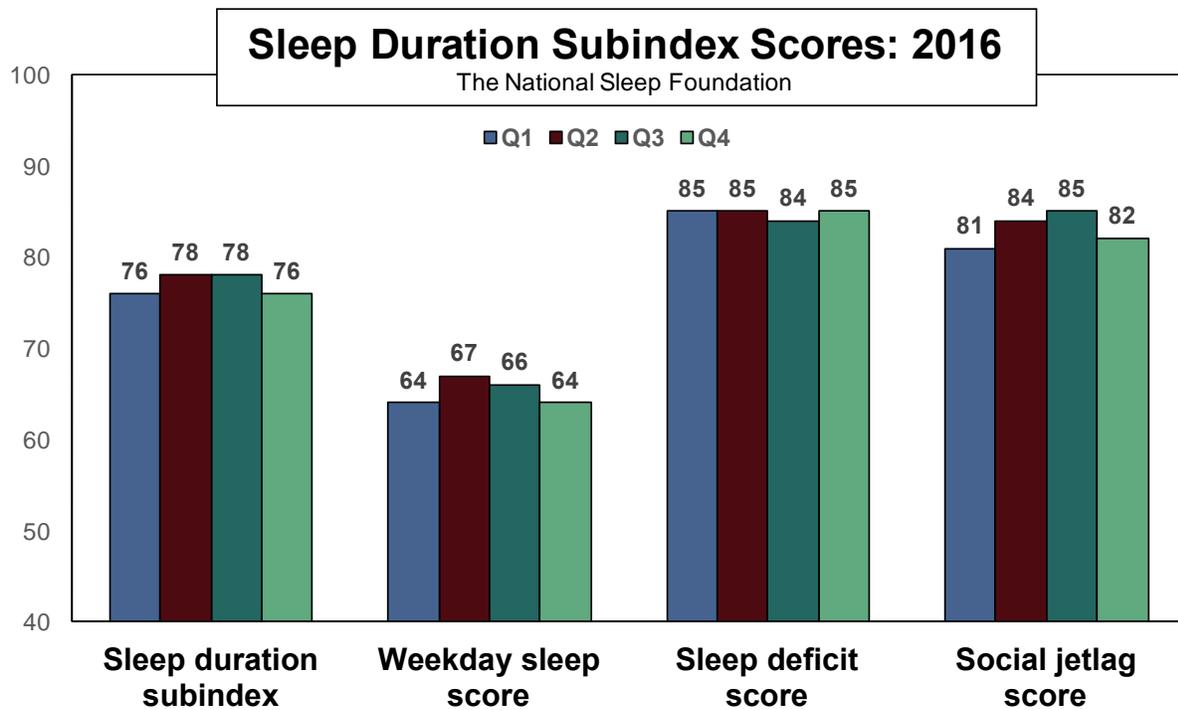
² The sample size of this group is small, $n = 82$, therefore these results should be interpreted with caution.

³ Statistically significant at $p < .10$.

For example, two-thirds of Americans had trouble either falling or staying asleep on at least one night in the previous week, four in 10 were negatively impacted by lack of sleep at least once and 37 percent say their sleep quality was just fair or poor. Just three in 10 always felt well rested.

The sleep duration subindex is based on three items assessing how well respondents' self-reported time in bed on weekdays matches up with expert recommendations (weekday sleep), meets self-assessed sleep needs (sleep deficit) and aligns with time spent in bed on weekends (social jetlag).

As noted, social jetlag scores have weakened since July, from 85 to 82, meaning the average discrepancy between Americans' weekday and weekend sleep increased. Weekday sleep scores themselves also declined slightly, from 67 in Q2 to 64 now. In both cases, scores are now about where they were in Q1. While additional data are needed, this may indicate that some aspects of sleep health get a small boost in spring and summer months, then retreat in fall and winter.

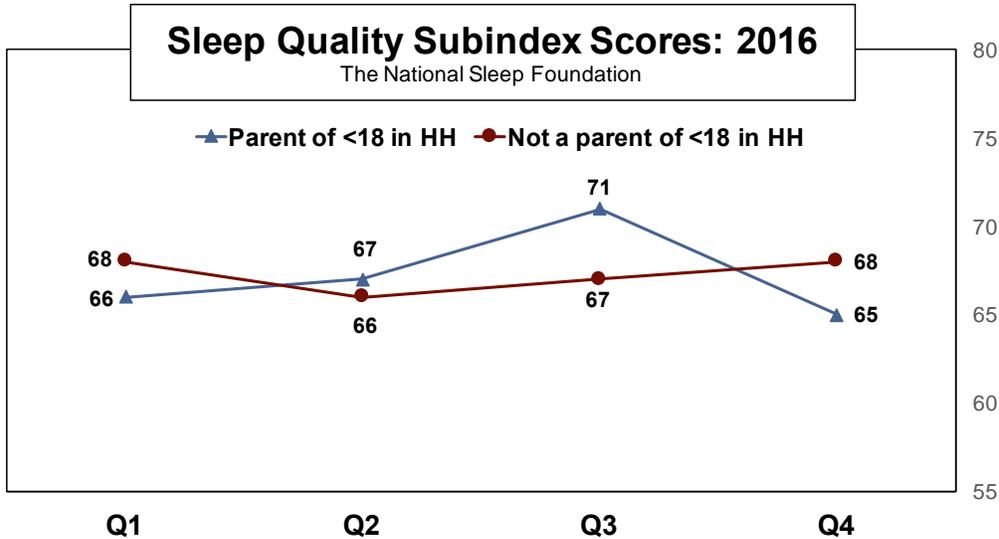


The third component of the sleep duration subindex has not changed. The average deficit score has remained at 85 (or 84) all year. Thirty-five percent of adults get as much or more sleep as they say they need to feel their best, and a quarter more have a deficit of less than one hour.

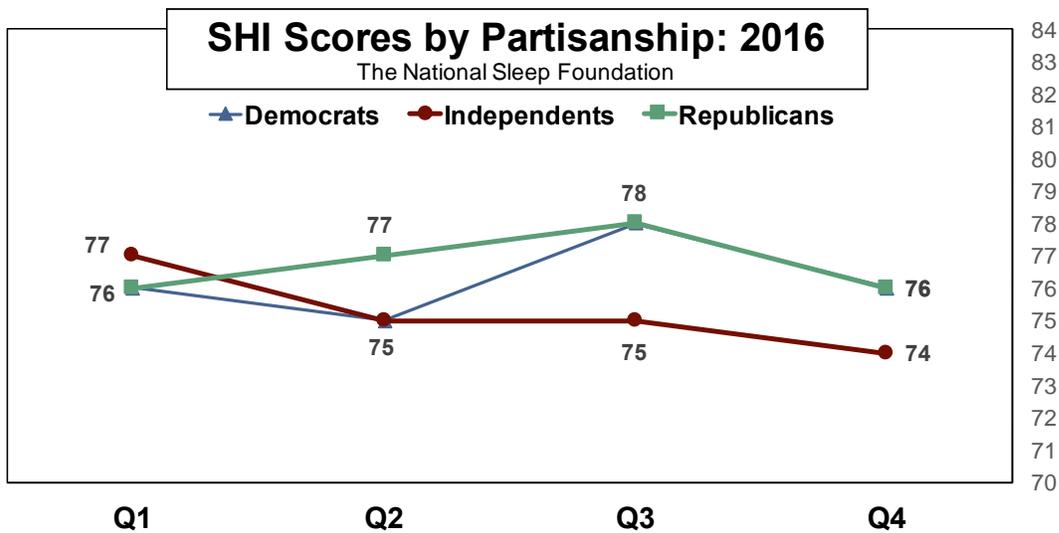
For its part, at 82, the disordered sleep subindex remains the highest of the three gauges. This because the vast majority of Americans do not take sleep medication, have not been diagnosed with a sleep disorder and have not spoken with a doctor about sleep problems – 86, 83 and 73 percent, respectively.

Changes in Sleep Health among Groups

While movement in the Sleep Health Index overall is slight, significant shifts have occurred in sleep health in a few groups this quarter. Perhaps reflecting the summer vacation months, sleep quality scores among parents of children younger than 18 peaked dropped to 65 after peaking at 71 in July. Overall Sleep Health Index scores among women declined from 76 to 73.



Independents and political moderates continued to sleep less easily than partisans on either side of the spectrum in the run-up to the presidential election, but the gap narrowed. Democrats and Republicans, liberals and conservatives all averaged an Sleep Health Index score of 76; independents and moderates, a 74.



Time to Fall Asleep

The survey also asked respondents how long it normally takes them to fall asleep when they're in bed with the intention of sleeping. Four in 10 say less than 15 minutes and 32 percent say 15 minutes to a half hour. That leaves 18 percent who say it takes between a half hour and an hour to fall asleep and one in 10 who say it takes more than an hour.

Men are significantly more likely than women to report falling asleep in less than 15 minutes, 45 vs. 36 percent. Older Americans also are more likely to report falling asleep this quickly— nearly half of seniors say they fall asleep this quickly, compared with three in 10 adults younger than 30.

College graduates and higher income earners also are more likely to report falling asleep quickly – more than half of college graduates fall asleep within 15 minutes, compared with 35 percent of non-graduates; and 57 percent of those with household incomes greater than \$100,000 a year say they fall asleep within 15 minutes, dropping to a third of those making less than \$50,000 a year.

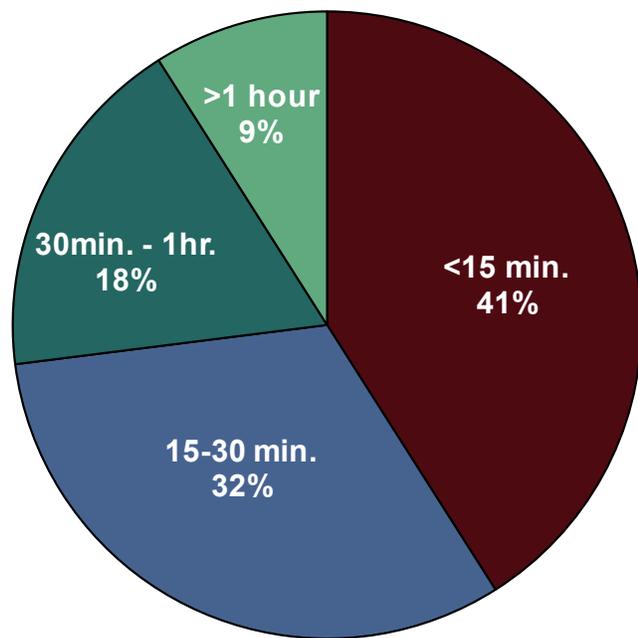
Not surprisingly, time to fall asleep correlates strongly with the Sleep Health Index, especially with sleep quality and disordered sleep. Among Americans who earn an A (90-100) on the index overall, 55 percent say they fall asleep within 15 minutes; among those who receive a D (60) or lower score, just 15 percent say they same, a vast 40-point gap. Similarly, while 58 percent of those who rate their sleep quality as excellent or very good fall asleep within 15 minutes, this declines to just a quarter of those who rate their sleep as fair or poor.

METHODOLOGY – This survey for the National Sleep Foundation was conducted via landline and cell phone interviews Oct. 12-17, 2016, among a random national sample of 1,005 adults. Results have a margin of sampling error of 3.5 points for the full sample. The survey was produced for the National Sleep Foundation by Langer Research Associates of New York, N.Y., with sampling, data collection and tabulation by SSRS of Media, Pa. See methodological details [here](#).

See the SHI Reference Report for a full explanation of the index, with results of extensive validity testing.

Full results follow. * = <0.5%

Average Time it Takes to Fall Asleep
The National Sleep Foundation



1. In general, how would you rate your sleep quality? Would you say it's excellent, very good, good, only fair, or poor?

	--- Excellent/very good ---				--- Fair/poor ---			No
	NET	Excellent	Very good	Good	NET	Fair	Poor	opinion
10/17/16	31	12	19	32	37	23	14	*

2. Thinking about just the past 7 days, what time did you most often go to bed on workdays? Please answer about weekdays if you did not work last week.

3. What about on non-work days or weekends - what time did you most often go to bed on those days?

4. What time did you most often wake up for the day on work days or weekdays?

5. What about on non-work days or weekends - what time did you most often wake up for the day on those days?

	----- Number of hours in bed: Weekday -----							Mean	SD
	<5	5 to <6	6 to <7	7 to <8	8 to <9	9+			
10/17/16	4	6	12	27	23	27	8.0	2.3	

	----- Number of hours in bed: Weekend -----							Mean	SD
	<5	5 to <6	6 to <7	7 to <8	8 to <9	9+			
10/17/16	5	4	7	18	27	39	8.5	2.5	

6. During the past 7 days, how many days did you wake up feeling well-rested, if any?

	0 days	1-2 days	3-4 days	5-6 days	7 days	No opin.	Mean	SD
10/17/16	18	17	17	18	29	1	3.9	2.6

7. How many nights did you have trouble falling asleep?

	0 days	1-2 days	3-4 days	5-6 days	7 days	No opin.	Mean	SD
10/17/16	49	18	12	6	14	1	2.0	2.5

8. And how many nights did you have trouble staying asleep?

	0 days	1-2 days	3-4 days	5-6 days	7 days	No opin.	Mean	SD
10/17/16	48	16	10	6	19	1	2.3	2.8

9. Still thinking about the past 7 days, how many days did poor or insufficient sleep significantly impact your daily activities, like your work performance, socializing, exercising, or other typical activities?

	0 days	1-2 days	3-4 days	5-6 days	7 days	No opin.	Mean	SD
10/17/16	58	19	10	4	7	1	1.4	2.2

10. How many days did you fall asleep without intending to, such as dozing off in front of the TV or in any other situation?

	0 days	1-2 days	3-4 days	5-6 days	7 days	No opin.	Mean	SD
10/17/16	50	23	12	5	8	1	1.6	2.2

11. How many nights did you take over-the-counter or prescription medication to help you sleep?

	0 days	1-2 days	3-4 days	5-6 days	7 days	No opin.	Mean	SD
10/17/16	86	3	2	1	8	*	.7	2.0

12. Have you ever been told by a doctor that you have a sleep disorder, such as insomnia or sleep apnea, or not?

	Yes	No	No opinion
10/17/16	17	83	*

13. Have you ever discussed any sleep problems you were having with a doctor or medical professional, or has this not come up?

	Yes	No	No opinion
10/17/16	27	73	*

14. How many hours of sleep do you need per day to be well-rested and feel your best?

	----- Number of hours -----						Mean	SD
	<5	5 to <6	6 to <7	7 to <8	8 to <9	9+		
10/17/16	3	7	20	28	22	9	7.1	1.7

WC-1. On average, how long does it take for you to fall asleep once you are in bed with the intention to sleep? Does it usually take you...

	10/17/16
Less than 15 minutes	41
Between 15 minutes and a half hour	32
Between a half hour and an hour	18
Longer than that	9
No opinion	*

WC-02. In the past two weeks, have you fallen asleep or nodded off while driving, even for just a few seconds, or not?

	Yes	No	Don't drive (vol.)	No opinion
10/17/16	3	94	2	*

WC-03a. [IF NOT 'DON'T DRIVE,' WC-02] In the past two weeks, did you decide not to drive a motor vehicle because you felt tired, or has that not happened?

	Yes	No	No opinion
10/17/16	8	92	*

WC-04a. In the past two weeks, have you avoided taking a ride in a motor vehicle because you felt the driver might be too tired to drive safely, or has that not happened?

	Yes	No	No opinion
10/17/16	2	98	*

WC-03b/WC-04b. [IF YES, WC-03a OR WC-04a] The last time this happened, what did you do instead? Did you (use a car service, such as a taxi or Uber), (get a ride from someone else), (postpone or cancel your trip), (walk or bike), (use public transportation), [IF AVOIDED TAKING A RIDE: drive yourself] or did you do something else?

	Car service	Got a ride	Cancel/postpone	Walk/bike	Public trans.	Drove yourself	Oth.	No opin.
10/17/16	12	35	20	2	9	6	14	3