NATIONAL SLEEP FOUNDATION

2012 *Sleep in America*® Poll

Planes, Trains, Automobiles and Sleep

Summary of Findings

National Sleep Foundation
1010 N. Glebe Road, Suite 310
Arlington, VA 22201
Ph: (703) 243-1697
www.sleepfoundation.org

wbq MARKET RESEARCH
2191 Defense Highway Suite 401 Crofton, MD 21114 Å 410-721-0500 Å www.WBandA.com

Table of Contents

	Page Number
Objectives	2
Background, Purpose and Methodology	3
Summary of Findings	
Employment	7
Shifts	11
Schedule	12
Hours off Between Shifts	16
Travel Time	17
Second Job	19
Hours spent working each week	20
Sleep Habits	21
Mandatory Interim Rest Period	28
Napping	29
Getting a Good Nightôs Sleep	31
Caffeinated Beverages	33
Epworth Sleepiness Scale	35
Sleep Needs Being Met	37
Sheehan Disability Scale	39
NSF Disability Index	46
Daily Activities	47
Trying to Get to Sleep	49
Sleep Problems	51
Disrupted Sleep	54
Sleep Disorder	55
Drowsy Driving	56
Impact of Sleepiness on Job Performance	57
Shifts worked	59
Characteristics of Respondents	60
Preliminary Sleep Profiles	
Control vs. Transportation Professionals	64
Epworth Sleepiness Scale	69
Work same vs. different schedule	70
Work same vs. different days each week	71
Appendix	
Standard Error	73
Survey Instrument	74

Objectives

The National Sleep Foundation commissioned WB&A Market Research to conduct a national survey of Americans regarding their sleep habits ï the NSF 2012 *Sleep in America*® poll.

The primary objectives of this research were to:

1. To compare the sleep habits, including wake and bed time routines, across a range of transportation professions (Pilots, Truck drivers, Train operators, as well as Bus, Taxi and Limo drivers).
2. To compare the sleep habits of transportation professionals to a control group composed of individuals between the ages of 25 and 65 who are employed in fields other than transportation.
3. To compare coping measures for inadequate sleep across transportation professionals.
4. To measure how work schedules, among other factors, impact sleep.

NSF wishes to acknowledge the volunteer work of the members of its 2012 Poll Task Force:

Task Force Chair: ***Thomas J. Balkin, PhD***
Walter Reed Army Institute of Research
Silver Spring, Maryland

Task Force Members:

CPT Edward Edens, PhD
Walter Reed Army Institute of Research
Silver Spring, Maryland

Sanjay R. Patel MD, MS
Division of Sleep Medicine, Brigham and Women's Hospital
Harvard Medical School
Boston, Massachusetts

Patrick Sherry, PhD
University of Denver
Denver, Colorado

Sleep in America is a trademark of the National Sleep Foundation. All rights reserved.

Background, Purpose and Methodology

A total of 1,087 surveys were conducted among a sample of Americans in order to collect the information to fulfill the objectives previously cited. Specifically, the 1,087 surveys were completed via the Web using an E-Rewards online panel of Americans who fell into the qualifications set for the control group or a transportation professional.

In order to qualify for this study, control group respondents had to be between the ages of 25 and 65. For the transportation sample, respondents over 25 were accepted due to the comparatively small population of each profession in general. However, in the final data set only 48 of the 795 transportation professionals surveyed were over age 65. Because the randomly collected sample is assumed to be representative of each transportation profession population and control group, and because there is no reliable age or ethnicity census data available for these transportation professions, the data set has not been weighted.

In survey research, the entire population is typically not interviewed, but rather a sample of that population is polled. Therefore, the data are subject to sampling error. The maximum sampling error of the data for the total transportation workers (795 interviews) is ±3.5 percentage points at the 95% confidence level. The sampling error will vary depending on the sample size and the percentages being examined in the sample. For more detail on the sampling error, please see the Appendix.

Completed Surveys	
	Web
Control	292
Pilots	202
Truck Drivers	203
Train Operators	180
Bus/Taxi/Limo Drivers	210
TOTAL	**1,087**

wbq MARKET RESEARCH

Background, Purpose and Methodology (continued)

The survey methodology is subject to at least two limitations: First, that not everyone is connected via the internet and all respondents are not equally computer literate. However, due to the fact that transportation professionals are constantly on the move, they are likely to be connected for ease of communication while they are traveling or õon the road.ò Second, while no bias may be apparent, there may be some bias with regards to being part of an online panel or completing an online survey.

Upon completion, interviews were edited, coded and keypunched, and the data were then computer cross-tabulated. All of the study percentages have been rounded to the nearest whole percentage.

The National Sleep Foundation has conducted the *Sleep in America*® poll annually since 1991. The poll is representative of the U.S. population with the primary focus of this yearôs poll being to evaluate the relation between transportation professionals and sleep.

- Percentages may not add up to 100% due to rounding.
- All surveys were conducted with the respondents themselves.
- Significant differences at the 95% confidence level are shown between the control group and the transportation subgroups of the Total Sample through the use of letters. For example, if a significant difference was found between Control and Pilots, there would be a õBò with the percentage if the Control were found to be significantly more likely to have given that survey answer. Likewise, there would be a õCò with the percentage if Pilots were found to be significantly more likely to have given that survey answer.

Throughout this report, certain tables and charts contain what are referred to as õnets.ò Nets are the percentage of respondents who share similar characteristics. For example, a net might represent the percentage of respondents who cite any comments relating to sleep aids (either prescription or over-the-counter). On questions which allow multiple responses, the net may be a smaller percentage than the sum of the comments included in the net. This is because the net represents the proportion of respondents who made any of the included comments, not the proportion of responses.

Background, Purpose and Methodology (continued)

The National Sleep Foundation does not solicit nor accept corporate support for its annual *Sleep in America*® polls; its polls are developed by an independent task force of sleep scientists and government representatives who provide guidance and expertise in developing the poll questionnaire as well as providing the analysis of the data. All poll task force members have provided disclosures of relevant financial relationships that may be related to the subject matter.

Information about the National Sleep Foundation, the current and former polls and a database of sleep professionals and sleep centers can be found online at www.sleepfoundation.org.

The National Sleep Foundation recommends that researchers and writers citing the Sleep in America poll use the National Library of Medicine Recommended Formats for Bibliographic Citation as follows:

> National Sleep Foundation. 2012 Sleep in America Poll: Planes, Trains, Automobiles and Sleep. Washington (DC): The Foundation; 2012 Mar. Available from: http:www.sleepfoundation.org/2012poll

When referring to this poll in an article or story, please refer to it as the "National Sleep Foundation 2012 poll" and link it to www.sleepfoundation.org/2012poll.

What follows is a summary of the results of this research.

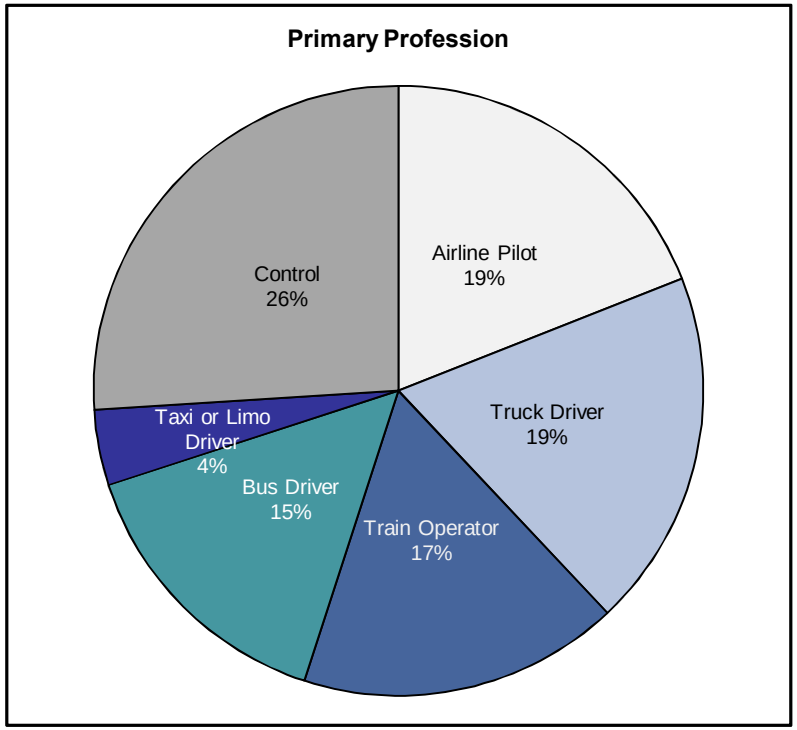
Summary of Findings

wbq
MARKET RESEARCH

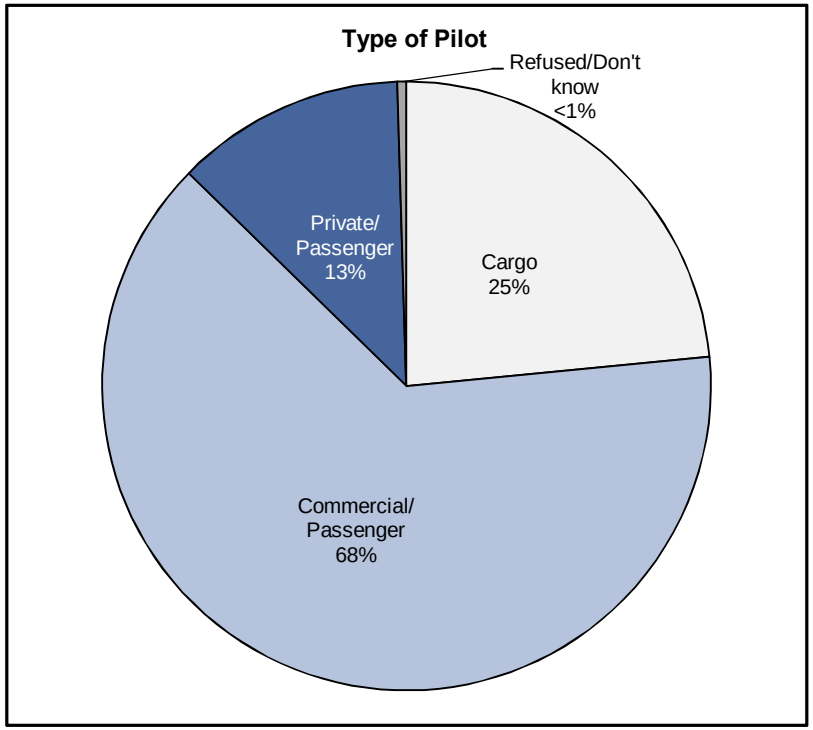
Employment - Pilot

Out of the total sample of professionals nearly three-fourths of the workers (74%) were transportation professionals, while the remaining 26% were a profession other than transportation. The characteristics of each group of transportation workers is detailed in the following employment section.

Of the pilots, more than two-thirds (68%) were commercial passenger pilots. About one-fourth (25%) consider themselves cargo pilots, while 13% say they are private passenger pilots.



Base= Total sample (Total n=1,087)
Letters indicate significant differences at the 95% confidence level.
QS1

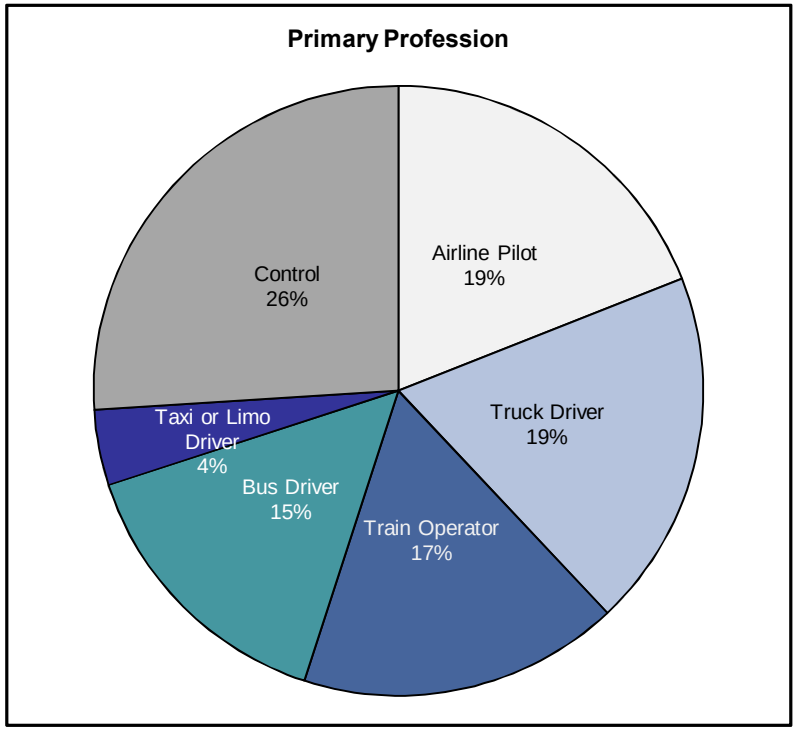


Base= Pilots (Total n=202)
Letters indicate significant differences at the 95% confidence level.
Multiple Responses Accepted.
QS1A

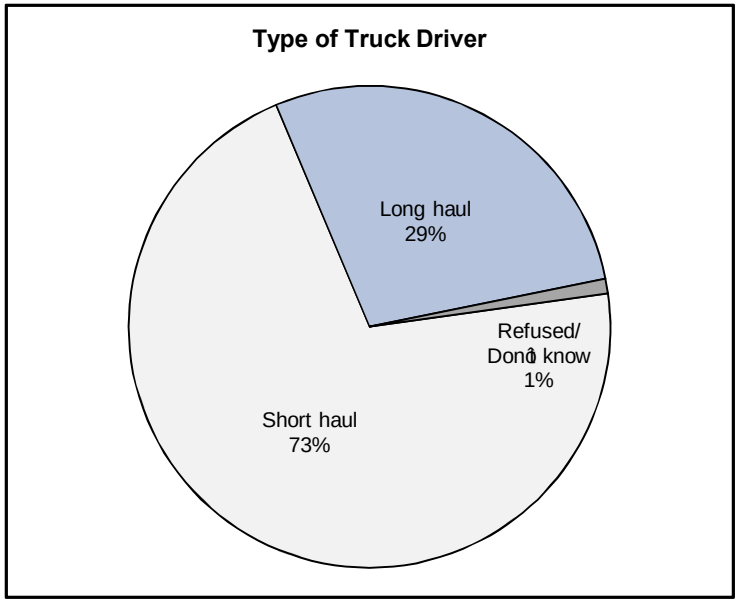
Employment - Truck Driver

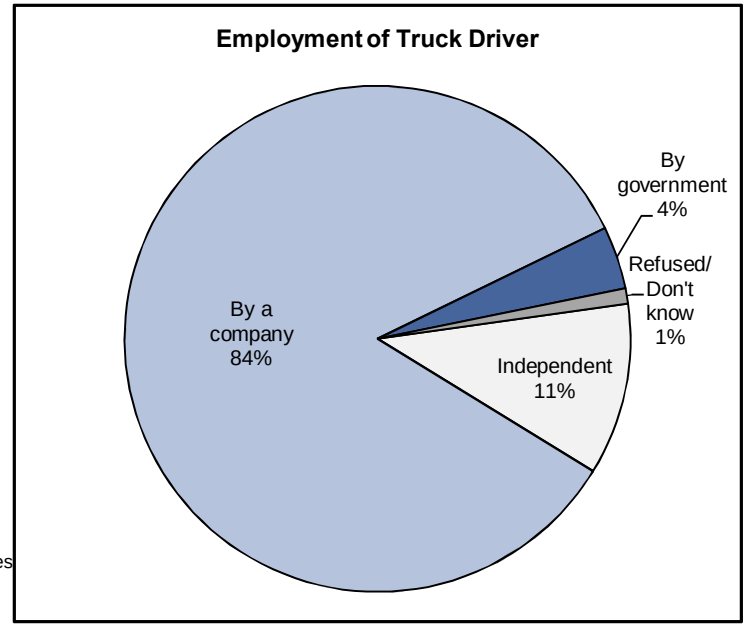
Almost three-fourths (73%) of truck drivers were short haul truck drivers, while nearly three in ten (29%) were long haul truck drivers.

The majority of truck drivers (84%) were employed by a company.



Base= Total sample (Total n=1,087)
Letters indicate significant differences at the 95% confidence level.
QS1

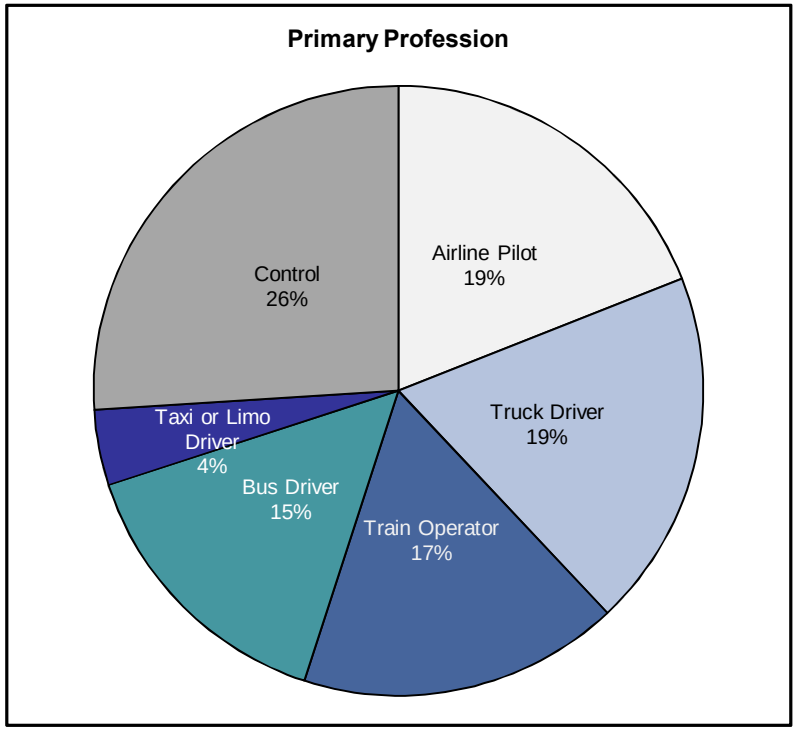




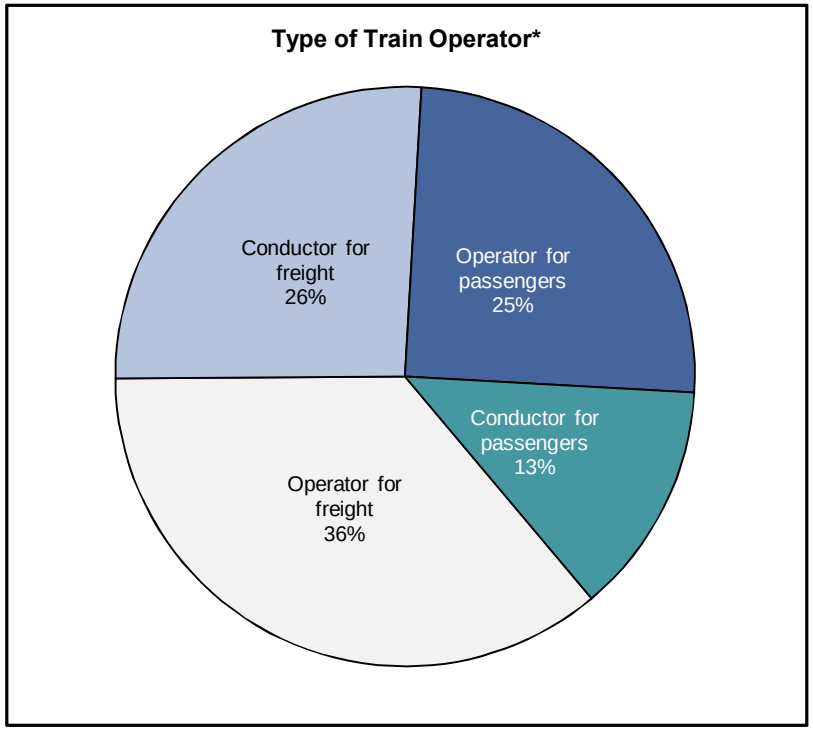
Base= Truck drivers (Total n=203)
Letters indicate significant differences at the 95% confidence level.
Multiple Responses Accepted.
QS1B, QS1C

Employment – Train Operators

More than one-third (36%) of train operators work as an operator for freight. Meanwhile, about one-fourth of train operators are conductors for freight (26%) or operators for passengers (25%). Fewer, 13%, say they are conductors for passengers.



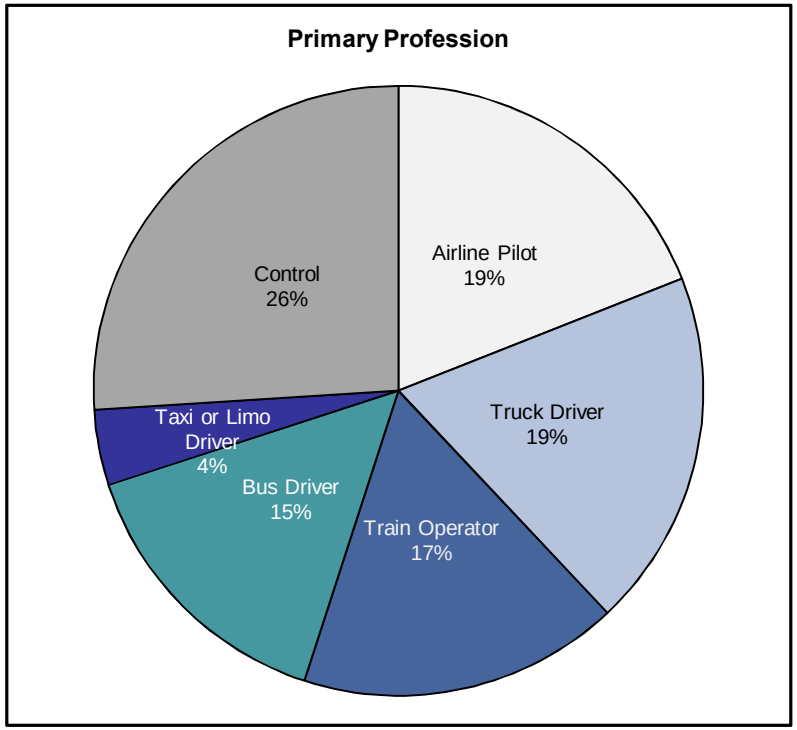
Base= Total sample (Total n=1,087)
Letters indicate significant differences at the 95% confidence level.
QS1



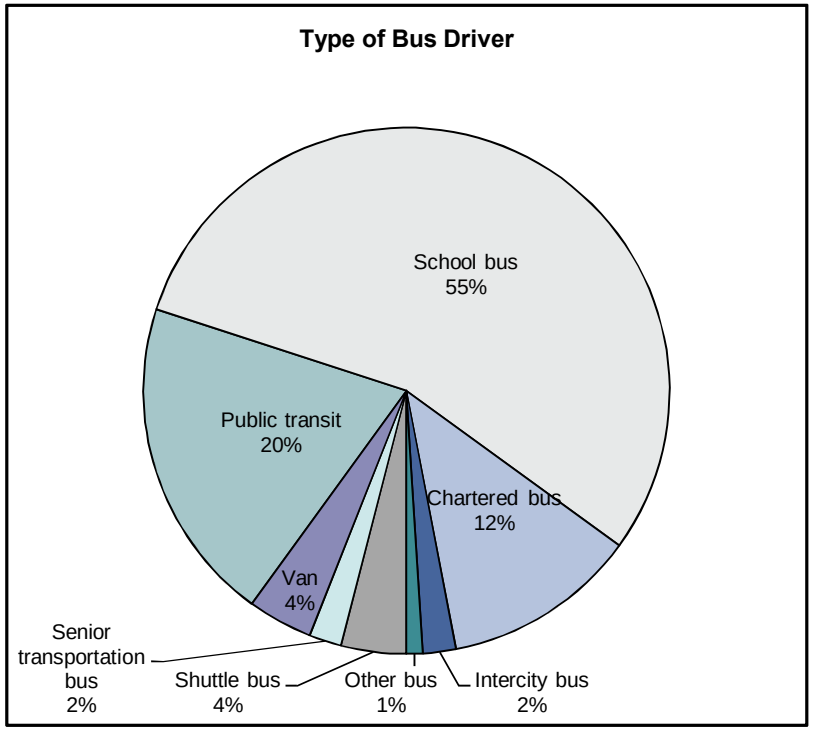
Base= Train Operators (Total n=180)
*õTrain Operatorò is used to designate train operator (engineer) and conductor.
Letters indicate significant differences at the 95% confidence level.
QS1D

Employment - Bus Driver

More than one-half (55%) of bus drivers are school bus drivers, while two in ten (20%) are public transit bus drivers and 12% are chartered bus drivers. Fewer than one in twenty bus drivers say that they are a van driver (4%), shuttle bus driver (4%), senior transportation bus driver (2%), intercity bus driver (2%) or another type of bus driver (1%).



Base= Total sample (Total n=1,087)
Letters indicate significant differences at the 95% confidence level.
QS1, QS1E

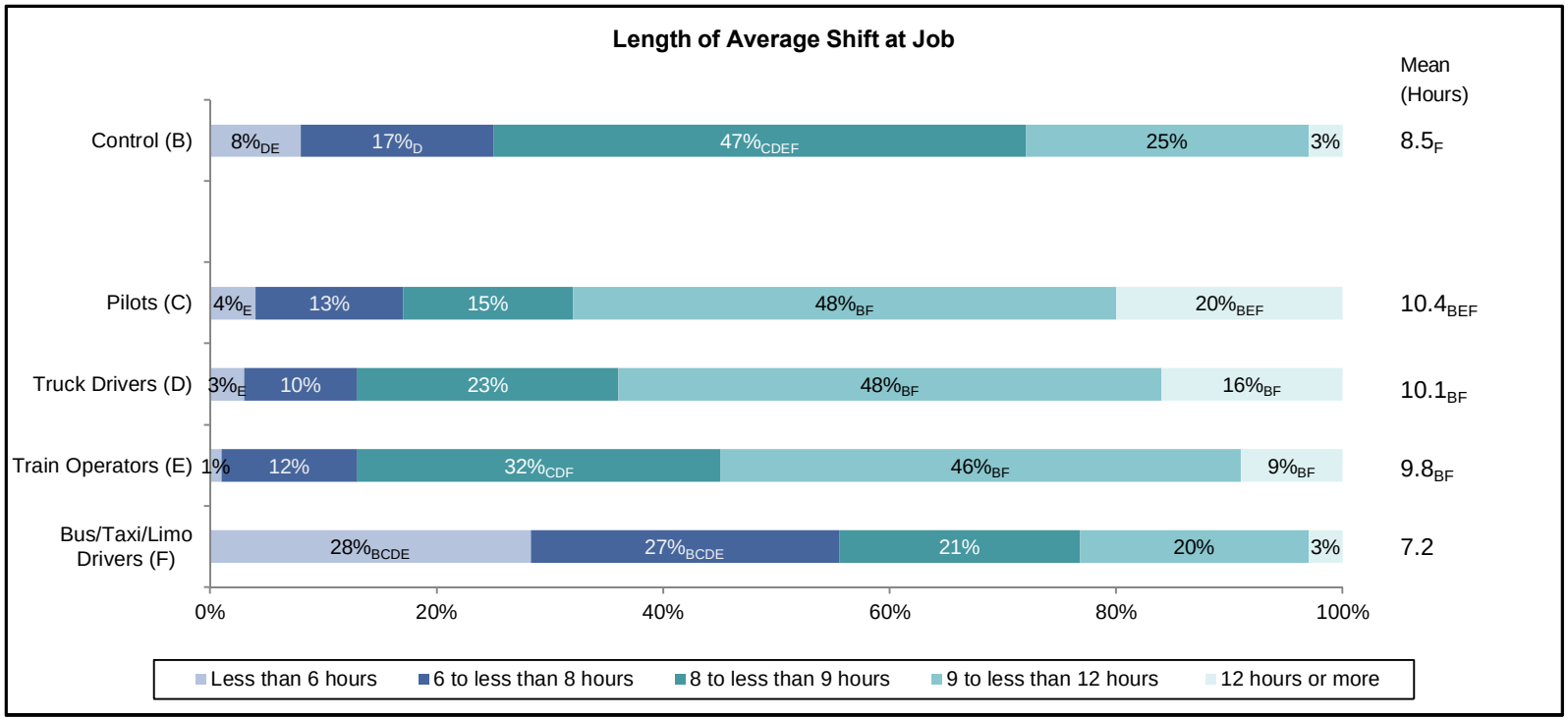


Base= Bus drivers (Total n=164)
Letters indicate significant differences at the 95% confidence level.
QS1E

Length of Shift

All workers were asked the length (in hours) of their average shift. Pilots cited the longest average shift on the job at 10.4 hours. This is significantly longer than members of the control group (8.5 hours), train operators (9.8 hours) and bus/taxi or limo drivers (7.2 hours). Truck drivers (10.1 hours) and train operators (9.8 hours) also mentioned average shift lengths which were significantly longer than the control group (8.5 hours) and bus/taxi or limo drivers (7.2 hours).

Å Notably, all groups cited a significantly longer average shift length compared to bus/taxi or limo drivers.



Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers s n=210)
Letters indicate significant differences at the 95% confidence level.
Q1

Schedule

When asking about respondents usual work schedules, expected trends appeared. Members of the control group are significantly more likely than each group of the transportation professions to work the same schedule each day (76% vs. 61% bus/taxi or limo drivers, 51% truck drivers, 47% train operators and 6% pilots). The control group was also significantly more likely to work the same days each week as compared to each of the transportation professions (82% vs. 74% bus/taxi or limo drivers, 67% truck drivers, 55% train operators and 10% pilots).

- Surprisingly, pilots were significantly less likely than all groups of workers to work the same schedule each day (6%), work the same number of hours each day (5%) and work the same days each week (10%).

Schedule						
			Transportation Professions			
		Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Work the same schedule each day	n =	(292)	(202)	(203)	(180)	(210)
% Yes		76%$_{CDEF}$	6%	51%$_{C}$	47%$_{C}$	61%$_{CDE}$
Work the same number of hours each day	n =	(292)	(202)	(203)	(180)	(210)
% Yes		59%$_{CDE}$	5%	27%$_{C}$	33%$_{C}$	53%$_{CDE}$
Work the same days each week	n =	(292)	(202)	(203)	(180)	(210)
% Yes		82%$_{CDEF}$	10%	67%$_{CE}$	55%$_{C}$	74%$_{CE}$

Base= Total sample
Letters indicate significant differences at the 95% confidence level.
Q3, Q4, Q5

Schedule (continued)

Those workers who work the same schedule each day were asked what time they normally begin and end work.

- Not surprisingly, the members of the control group who work the same schedule each day were significantly more likely than each of the transportation professions to begin work between the hours of 6:00 AM and 9:00 AM (75% vs. 60% train operators, 59% bus/taxi or limo drivers, 54% truck drivers and 31% pilots).

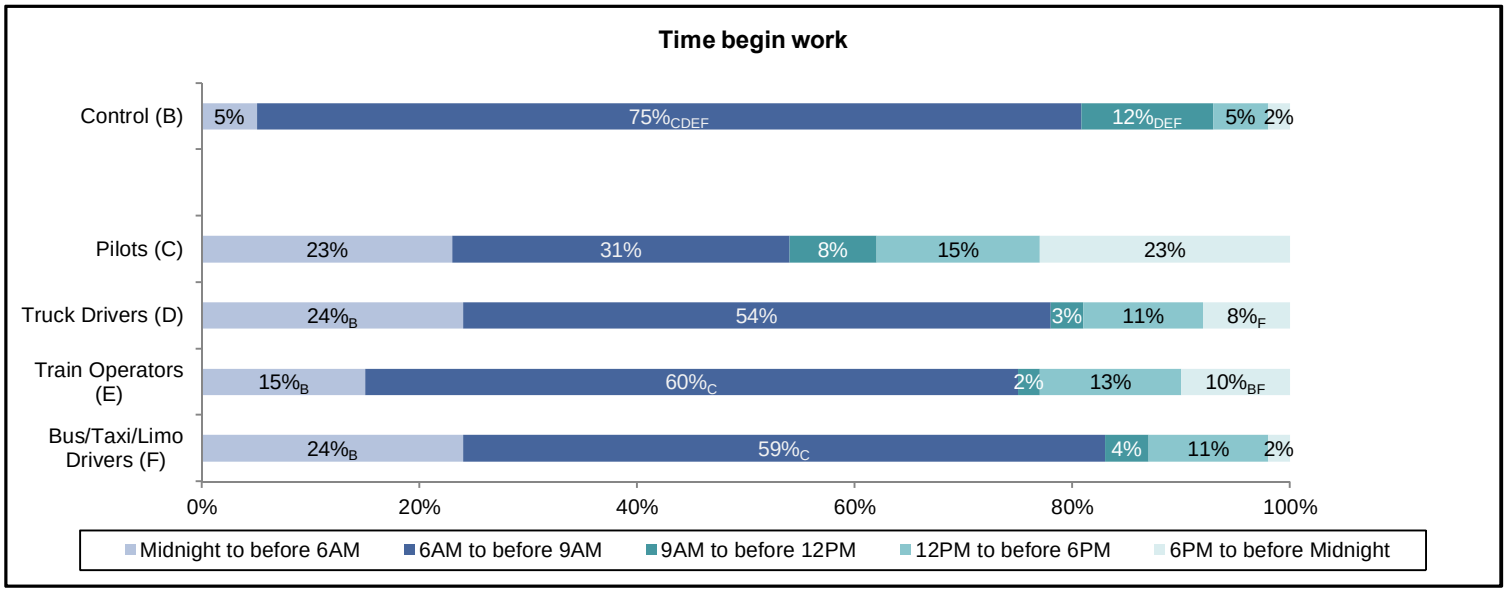
- Similar proportions of the control group (74%) and bus/taxi or limo drivers (73%) normally end work between the hours of 12:00 PM and 6:00 PM. These percentages are significantly higher than train operators (55%), truck drivers (54%) and pilots (31%).

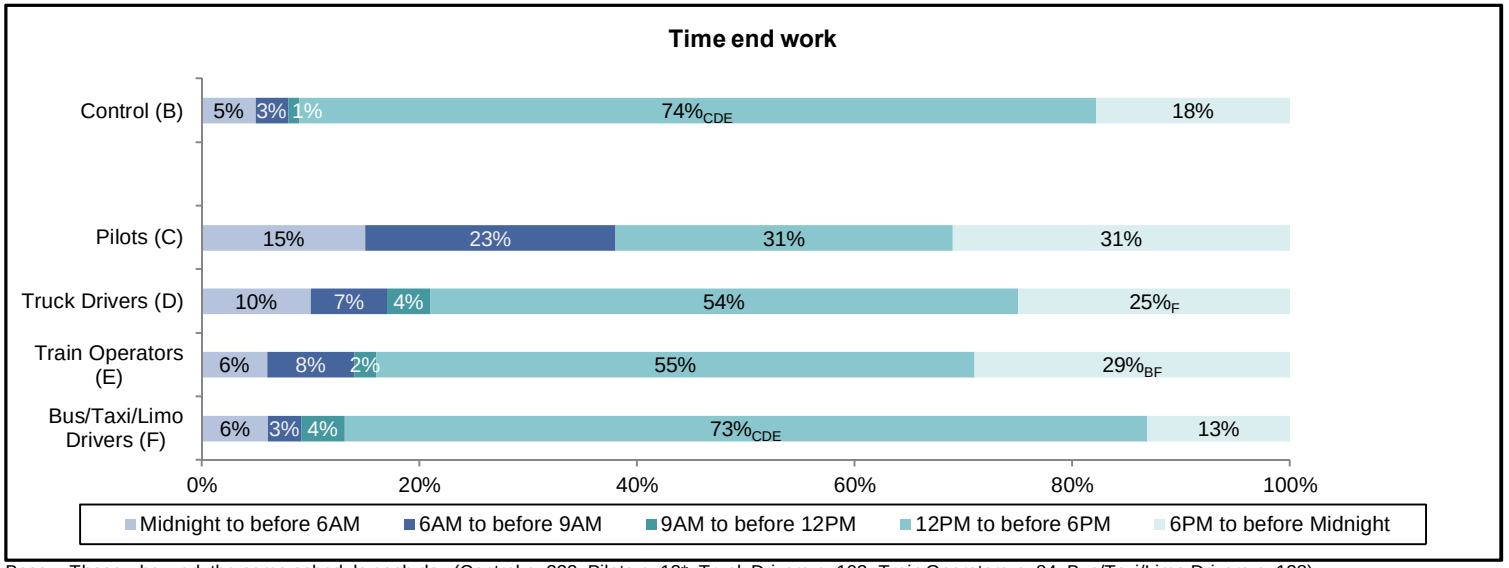
Those who work a different schedule each day were asked how many times in the past two weeks they started work between the hours of 3:30 AM to 6:30 AM and 10:00 PM to 3:30 AM.

- All of the transportation professions started significantly more shifts between the hours of 3:30 AM to 6:30 AM and 10:00 PM to 3:30 AM as compared to the control group.

- Interestingly, train operators cited starting a shift between 10:00 PM to 3:30 AM significantly more times than every other worker (2.7 times in the past two weeks).

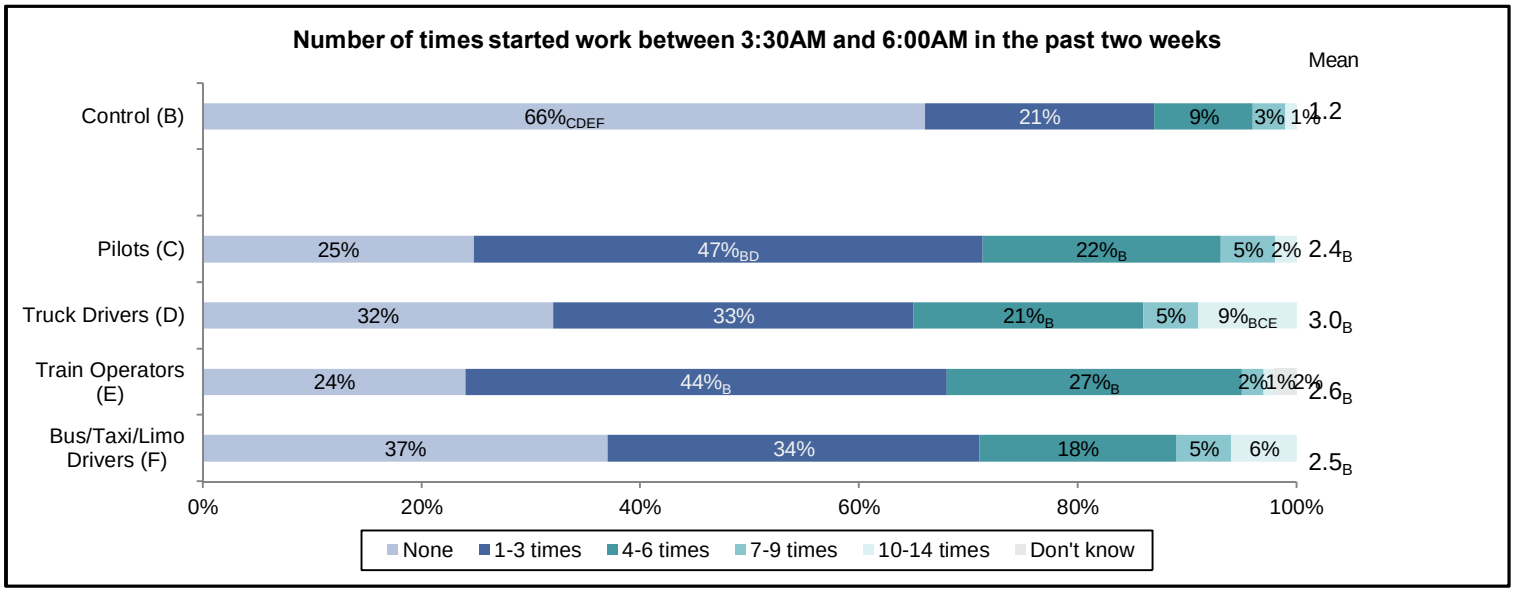
Schedule (continued)

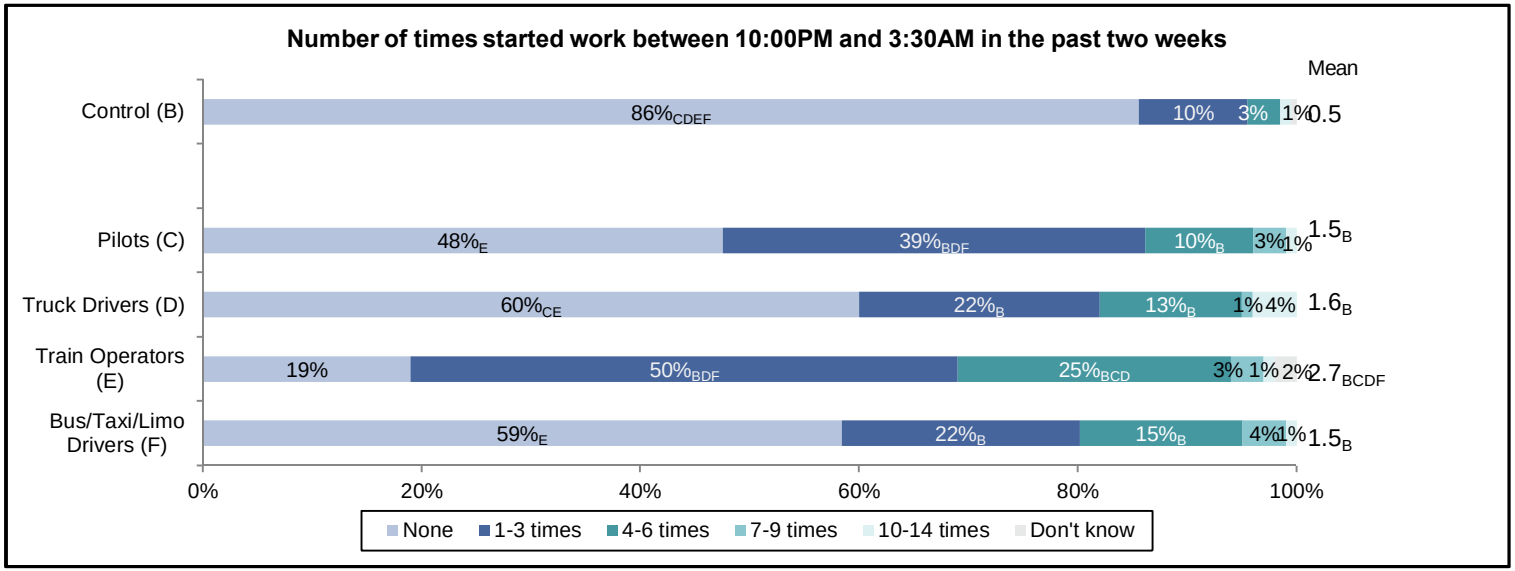




Base = Those who work the same schedule each day (Control n=222; Pilots n=13*; Truck Drivers n=103; Train Operators n=84; Bus/Taxi/Limo Drivers n=128)
Letters indicate significant differences at the 95% confidence level.
*Caution: Small Base
O6A. O6B

Schedule (continued)



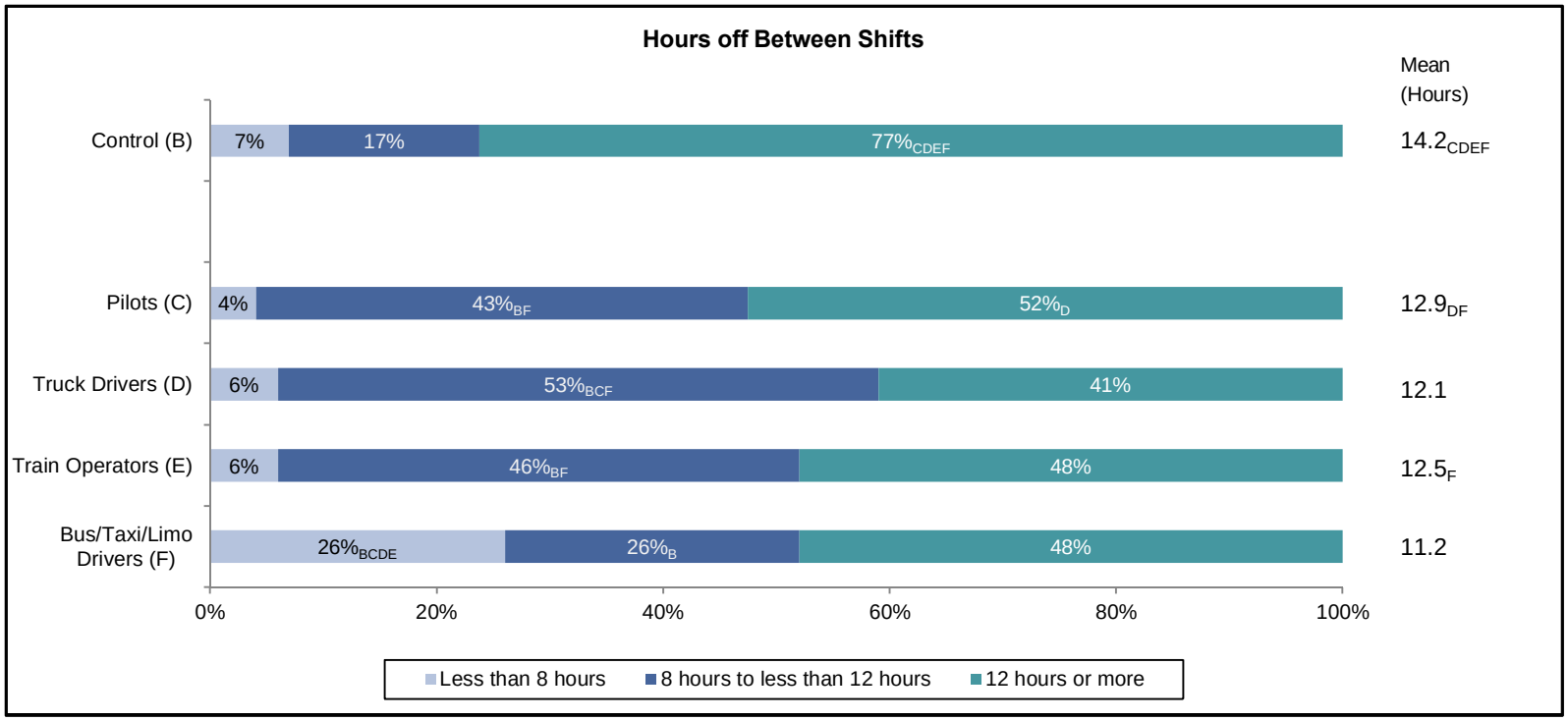


Base = Those who do not work the same schedule each day (Control n=70; Pilots n=189; Truck Drivers n=100; Train Operators n=96; Bus/Taxi/Limo Drivers n=82)
Letters indicate significant differences at the 95% confidence level.
Q7A, Q7B

Hours off Between Shifts

All workers were asked the number of hours they have off between their shifts. Members of the control group cited significantly more hours off between shifts (14.2 hours) as compared to pilots (12.9 hours), train operators (12.5), truck drivers (12.1 hours) and bus/taxi or limo drivers (11.2 hours).

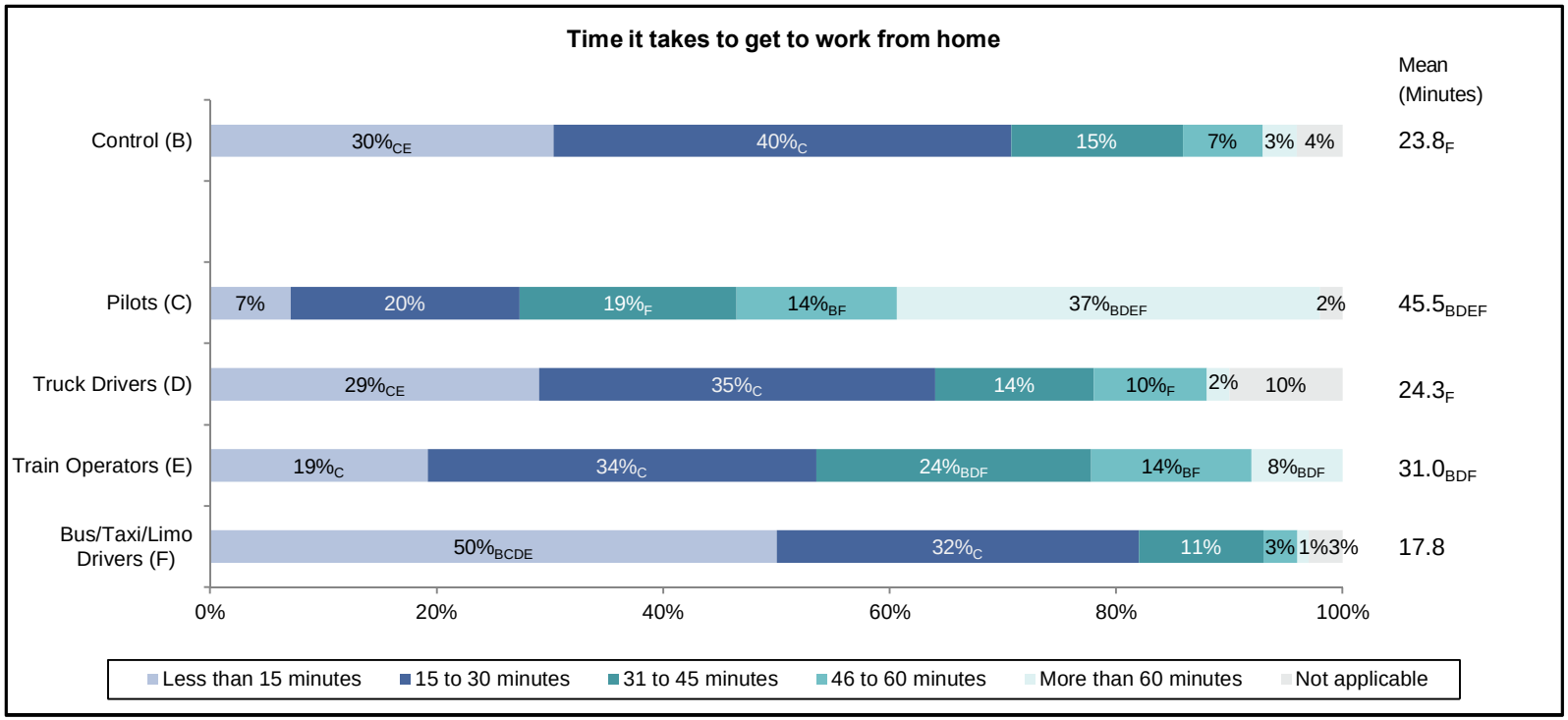
- Pilots and train operators said they have significantly more hours off between shifts than bus/taxi or limo drivers, while pilots also have significantly more time off between shifts than truck drivers.



Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers s n=210)
Letters indicate significant differences at the 95% confidence level.
Q8

Travel Time

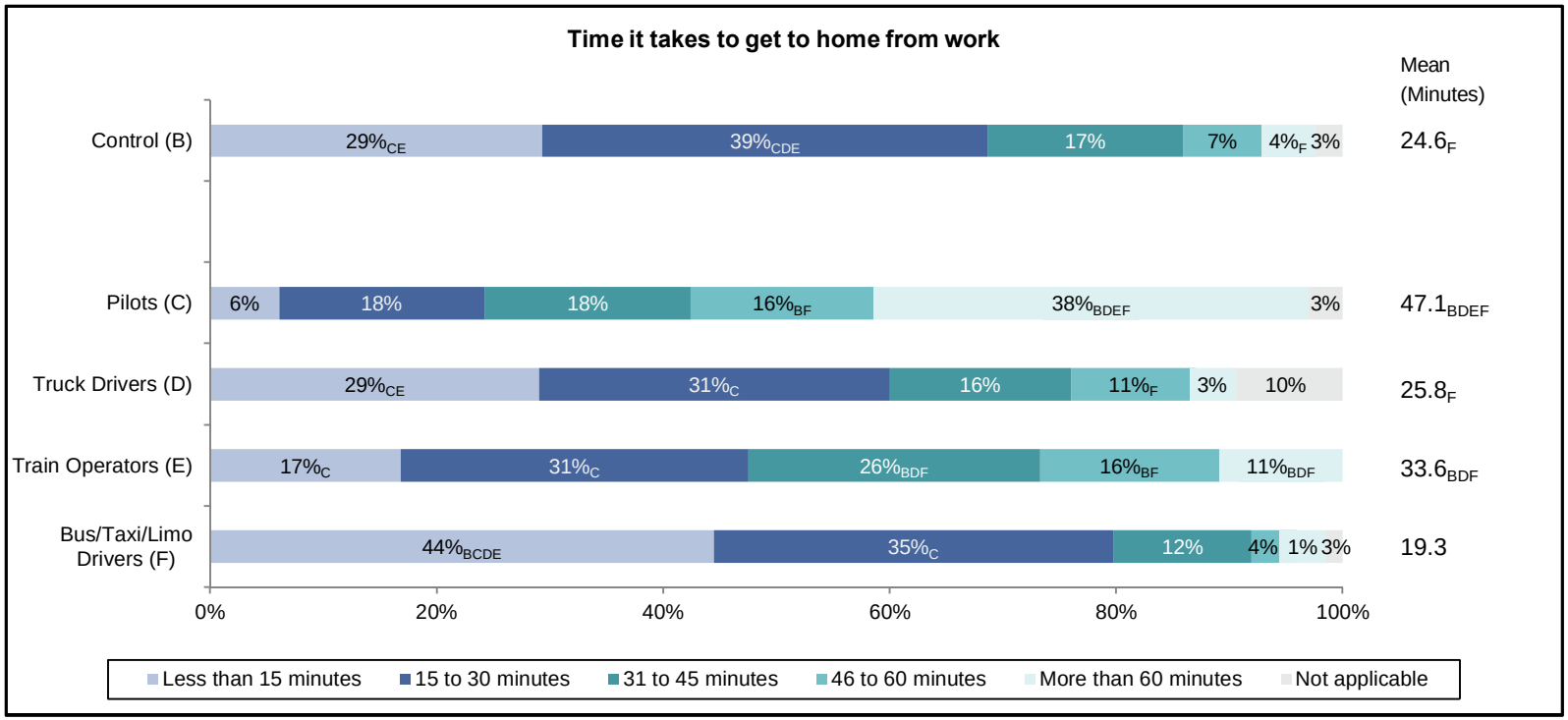
Surprisingly, pilots mentioned the longest average time to get to work from home at 45.5 minutes, significantly longer than all other groups asked. Train operators also cited a long mean time to get to work from home at 31.0 minutes. This was significantly longer than all groups with the exception of pilots.



Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers s n=210)
Letters indicate significant differences at the 95% confidence level.
Q9

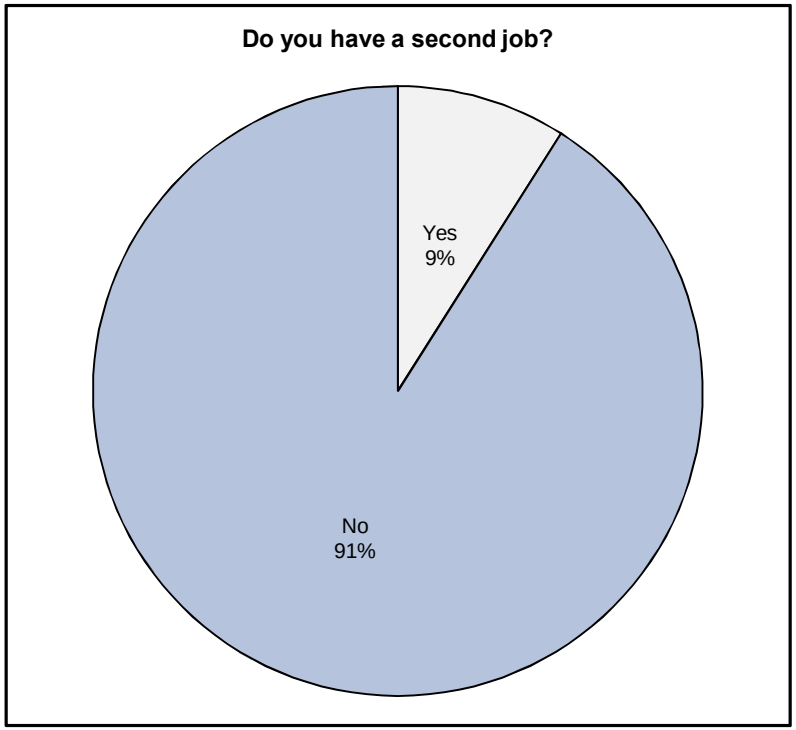
Travel Time (continued)

Similar to the time it takes to get to work from home, pilots and train operators both cited long averages for the time it takes to get to home from work.



Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers s n=210)
Letters indicate significant differences at the 95% confidence level.
Q10

Second job



Base= Total sample (Total n=1,087)
Letters indicate significant differences at the 95% confidence level.
Q11

Workers were asked if they have a second job. Surprisingly, significantly more members of the control group (10%), pilots (13%) and bus/taxi or limo drivers (14%) said they have a second job than train operators (4%). Significantly more pilots and bus/taxi or limo drivers said they have a second job as compared to truck drivers (5%) as well.

Second job						
			Transportation Professions			
		Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Second job	n =	(292)	(202)	(203)	(180)	(210)
% Yes		10%$_{E}$	13%$_{DE}$	5%	4%	14%$_{DE}$

Hours spent working each week

Approximately all groups of workers spend between 40 and 50 hours working per week. Pilots, truck drivers and train operators noted they spent significantly more time working per week than the control group and bus/taxi or limo drivers.

Hours spent working						
			Transportation Professions			
		Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Hours spent working each week	n =	(292)	(202)	(203)	(180)	(210)
Mean		42.6_{F}	45.1_{BF}	51.3_{BCF}	51.6_{BCF}	38.7

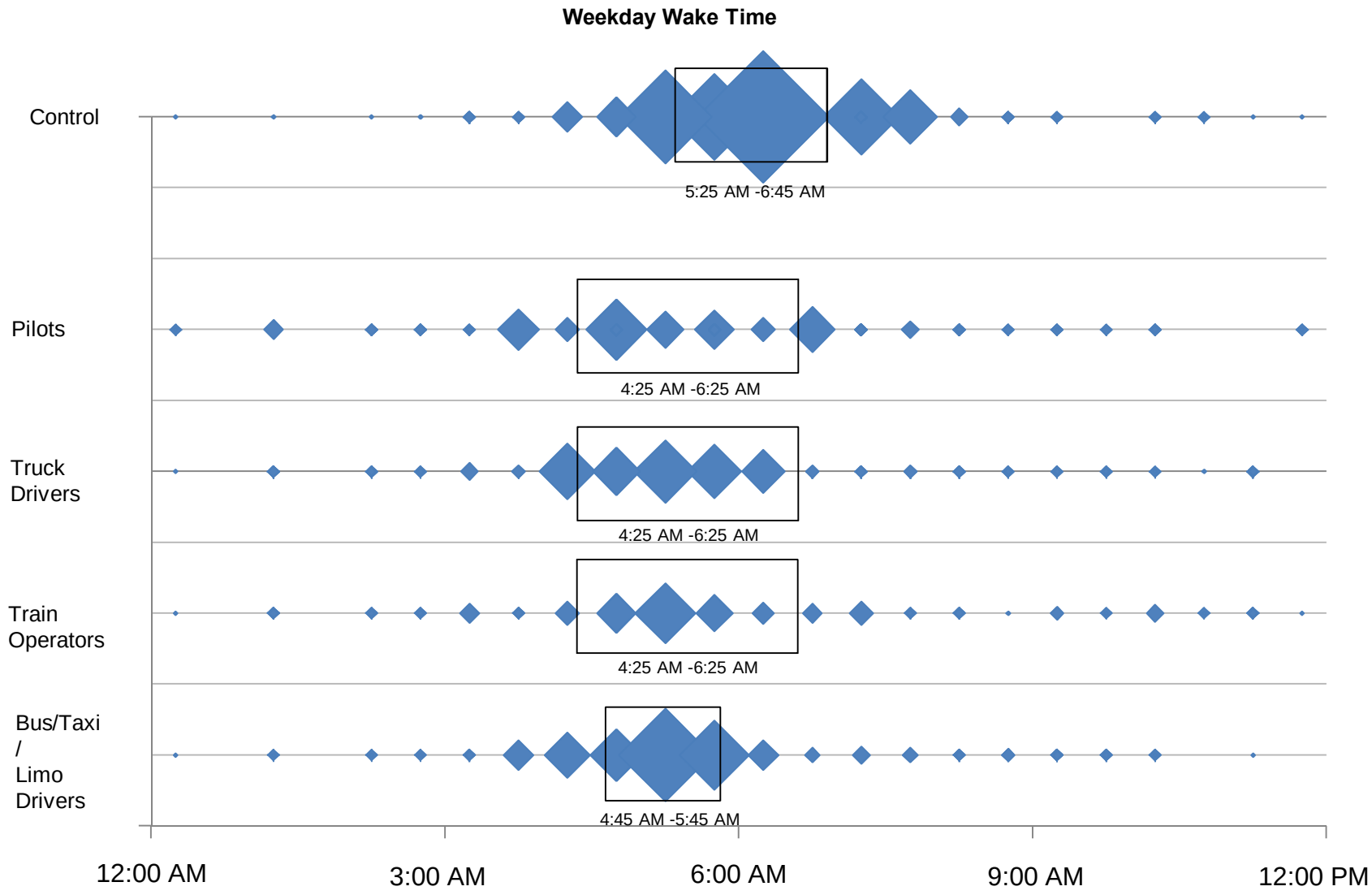
Base= Total sample
Letters indicate significant differences at the 95% confidence level.
Q12

Sleep Habits

All workers were asked when they typically woke up, went to bed and how long they slept on both a typical workday and non-workday in the past two weeks. Pages 22 and 23 are scatterplot graphs depicting respondentsô wake time and bed time on weekdays.

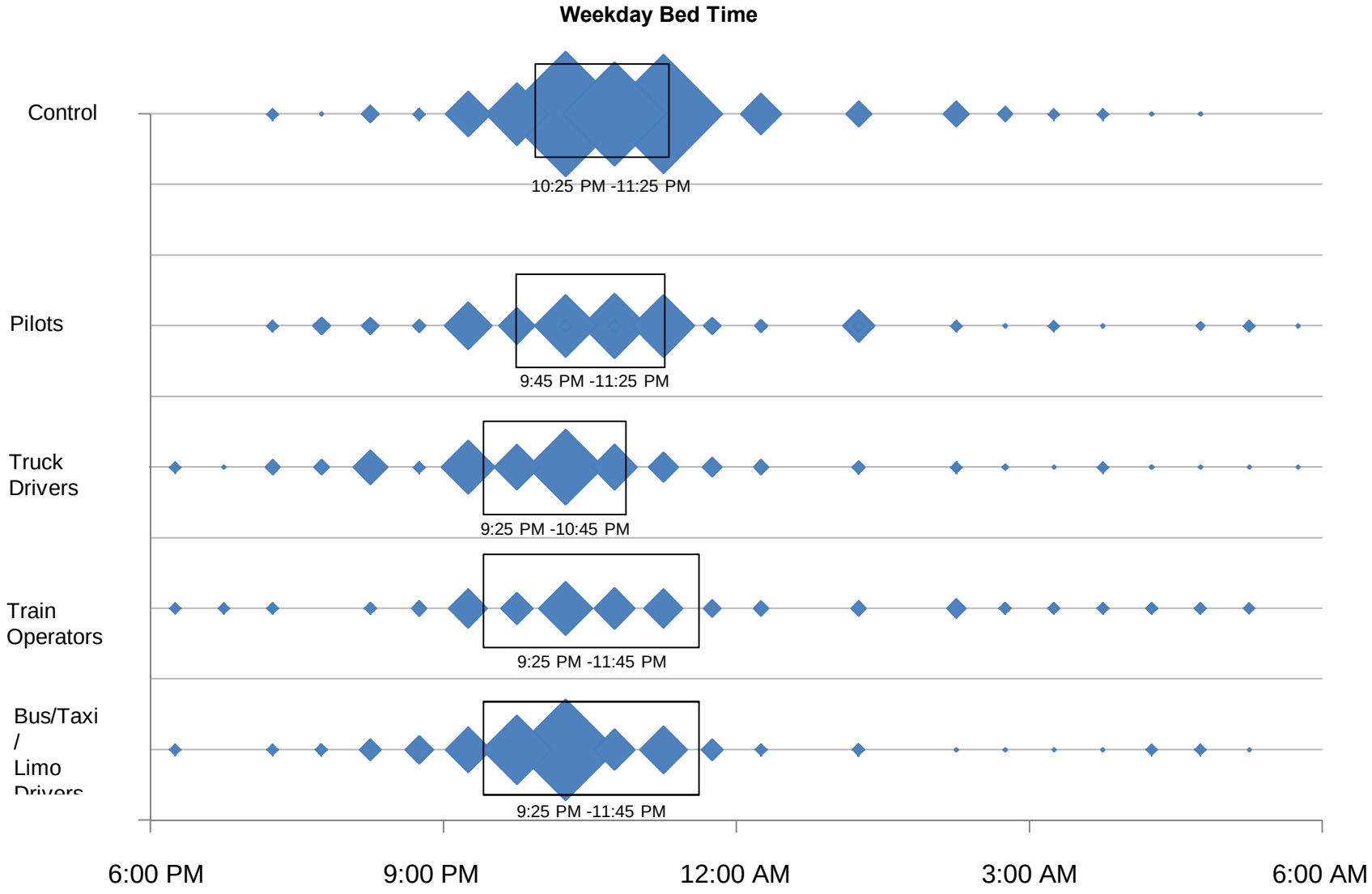
- Approximately one-half of the control group woke up on weekdays between 5:25 AM and 6:45 AM, meanwhile roughly one-half of pilots, truck drivers and train operators woke between 4:25 AM and 6:25 AM. Interestingly, about one-half of bus/taxi or limo drivers woke up between 4:45 AM and 5:45 AM.
  - It is visually apparent that transportation workers have more varied wake times than the control group.
- Around one-half of the control group went to bed between 10:25 PM and 11:25 PM on weekdays. Of train operators and bus/taxi or limo drivers approximately, one-half went to bed between 9:25 PM and 11:45 PM. Around one-half of truck drivers went to bed between 9:25 PM and 10:45 PM, whereas roughly one-half of pilots went to bed between 9:45 PM and 11:25 PM.
  - Similar to wake time, the weekday bed time scatterplot graph visually represents the wide range of bed times cited by transportation workers compared to the control group.

Sleep Habits (continued)



Scatterplot graph showing the range of wake times reported for Q13
Approximately 50% of respondents say they wake up between the range outlined.

Sleep Habits (continued)

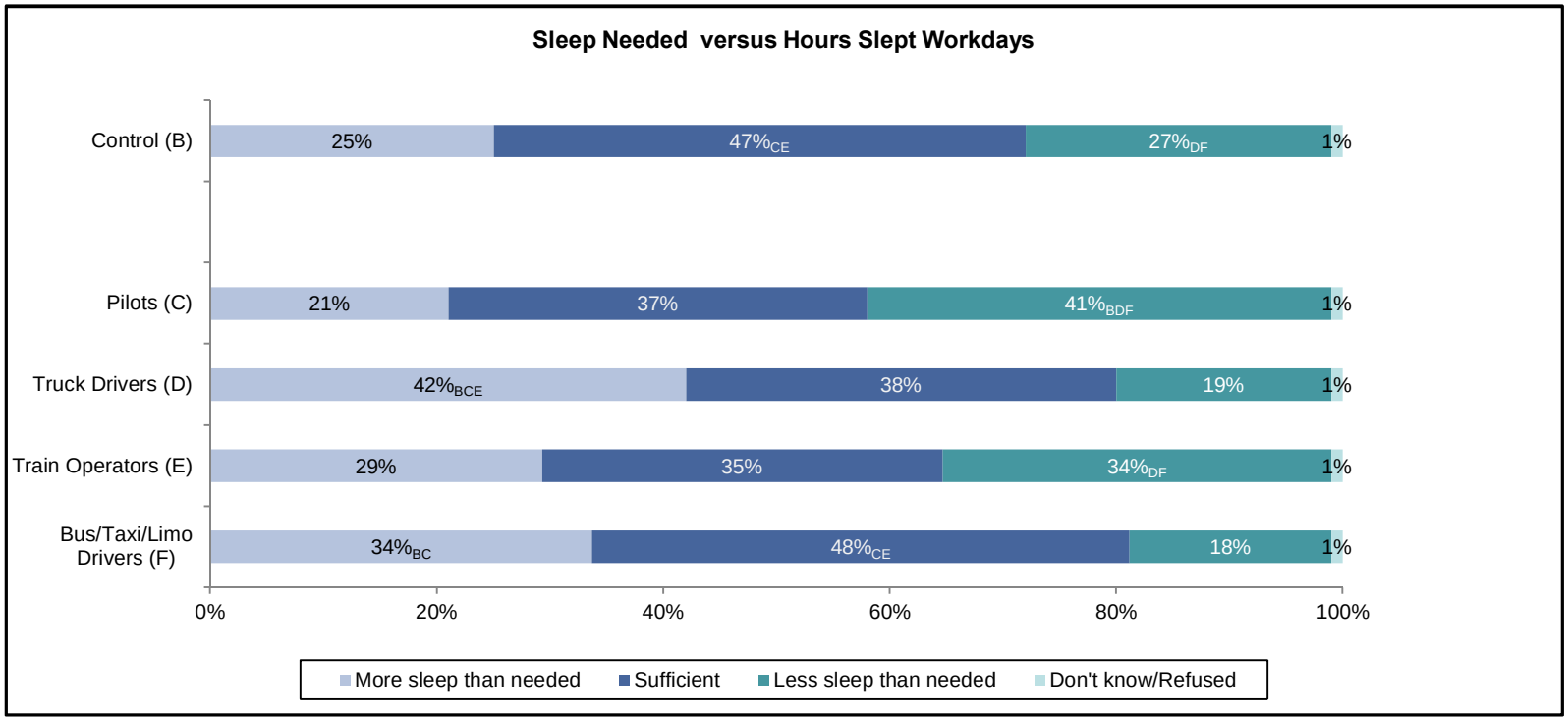


Scatterplot graph showing the range of bed times reported for Q14
Approximately 50% of respondents say they go to bed between the range outlined.

Sleep Habits (continued)

By comparing the hours of sleep workers say they need to the hours of sleep workers say they are actually getting on workdays, the proportion of those getting sufficient sleep on workdays was calculated.

- On weekdays about four in ten truck drivers (42%, significantly more than control group members (25%), pilots (21%) and train operators (29%) actually slept more than they needed on workdays. Similarly, about one-third of bus/taxi or limo drivers (34%, significantly more than control group members and pilots) slept more than they needed on workdays.
- About four in ten pilots (41%) and roughly one-third of train operators (34%) are getting less sleep than they say they need on workdays. Both of these groups are getting significantly less sleep than truck drivers and bus/taxi or limo drivers and pilots are also getting significantly less sleep than the control group.

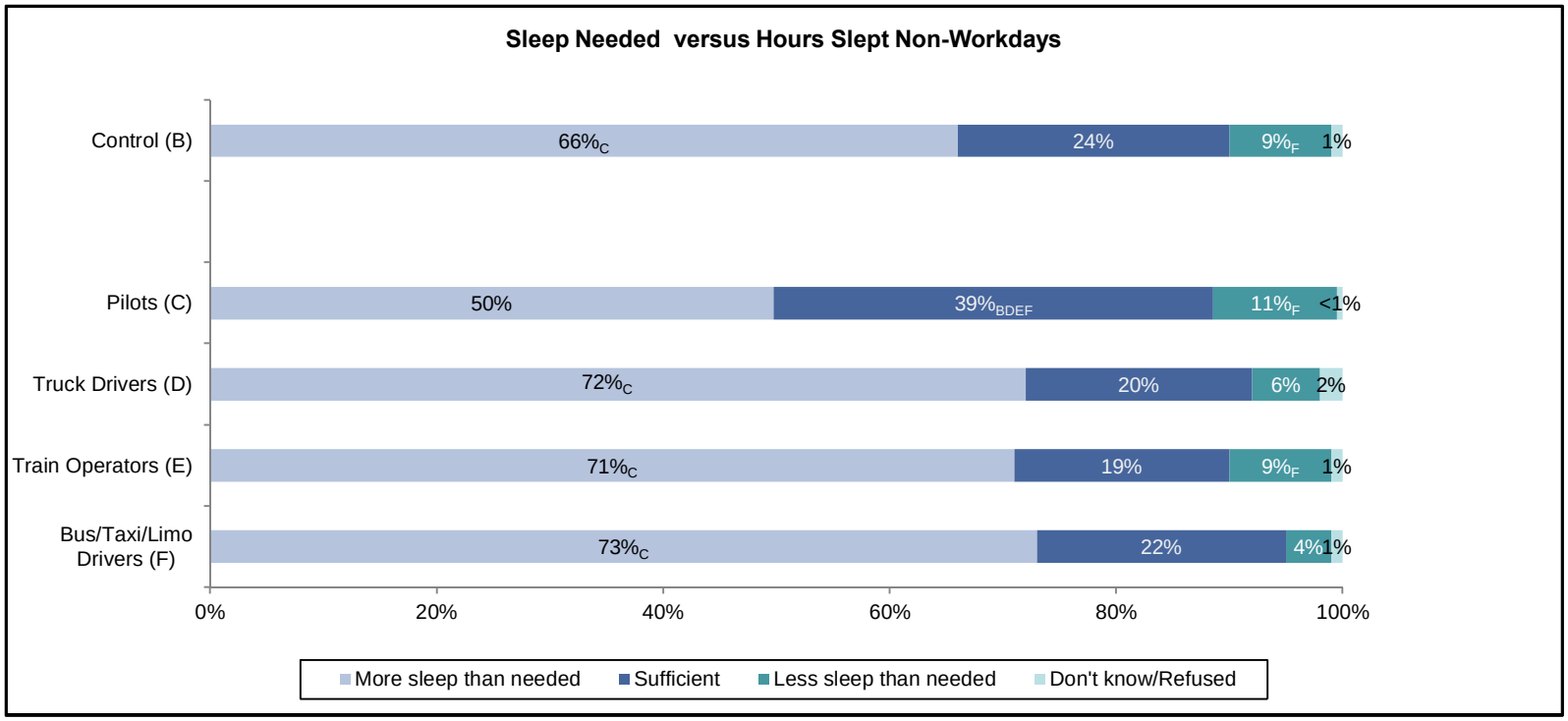


Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers s n=210)
Letters indicate significant differences at the 95% confidence level.
Q18/Q31

Sleep Habits (continued)

The hours of sleep workers say they need was compared to the hours of sleep workers say they are actually getting on non-workdays, the proportion of those getting sufficient sleep on non-workdays was calculated.

- Only about one in ten or less reported getting less sleep than they needed on non-workdays(4%-11%).



Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers s n=210)
Letters indicate significant differences at the 95% confidence level.
Q19/Q31

Sleep Habits (continued)

Respondents were asked on work days, how many hours they slept within each 24 hour period (including naps).

- Out of all workers almost six in ten or more are sleeping six hours to less than eight hours on workdays.
- More than one-fourth of bus/taxi or limo drivers (27%) reported sleeping 8 hours or more on workdays. This is significantly more than train operators (18%).

Hours of Sleep Workdays						
			Transportation Professions			
		Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Workdays	n =	(292)	(202)	(203)	(180)	(210)
Less than 6 hours		12%	9%	17%$_{C}$	16%	10%
6 hours to less than 8 hours		66	65	58	66	62
8 hours or more		22	24	25	18	27$_{E}$

Base= Total sample
Letters indicate significant differences at the 95% confidence level.
Q18

Sleep Habits (continued)

Respondents were asked on non-work days, how many hours they slept within each 24 hour period (including naps).

- On non-workdays, more than one-half of all workers are sleeping eight hours or more and approximately one-third or more are sleeping 6 to less than 8 hours.
- One in twenty or fewer are sleeping less than 6 hours.

Hours of Sleep Non-Workdays

			Transportation Professions			
		Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Non-Workdays	n =	(292)	(202)	(203)	(180)	(210)
Less than 6 hours		3%	4%	5%	4%	3%
6 hours to less than 8 hours		37	31	38	34	33
8 hours or more		59	64	56	61	63

Base= Total sample
Letters indicate significant differences at the 95% confidence level.
Q19

Mandatory Interim Rest Period

All respondents were asked if their job requires a mandatory interim or mid-shift rest period or if they, in fact, work a split-shift.

- Significantly more transportation professionals (Bus/taxi or limo drivers 41%, pilots 34%, train operators 26% and truck drivers 23%) than the control group (10%) have a job which requires a mandatory interim period or mid-shift rest period or they work a split-shift.

- Of pilots who work an interim rest period, nearly eight in ten (79%, significantly higher than all other professions asked) say they nap during this rest period.

Mandatory Interim Rest Period					
		Transportation Professions			
	Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Job requires a mandatory interim rest period or split-shift n =	(292)	(202)	(203)	(180)	(210)
% Yes	10%	34%$_{BD}$	23%$_{B}$	26%$_{B}$	41%$_{BDE}$
Nap during mandatory interim rest period[1] n =	(28)*	(68)	(47)	(47)	(86)
% Yes	11%	79%$_{BDEF}$	40%$_{B}$	60%$_{B}$	43%$_{B}$

Base= Total sample
[1]Base= Those who have a Mandatory Interim Rest Period
Letters indicate significant differences at the 95% confidence level.
*Caution: Small Base
Q17, Q17A

Napping

Napping					
		Transportation Professions			
	Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Workdays n =	(292)	(202)	(203)	(180)	(210)
Net: Any naps	27%	58%$_{BD}$	42%$_{B}$	56%$_{BD}$	53%$_{BD}$
1-2 naps	16	29$_{BD}$	20	27$_{B}$	26$_{B}$
3-5 naps	8	20$_{B}$	16$_{B}$	16$_{B}$	20$_{B}$
6-10 naps	3	5	6	9$_{B}$	7$_{B}$
More than 10 naps	1	3$_{B}$	-	4$_{B}$	1
No naps	72$_{CDEF}$	41	57$_{CEF}$	44	45
Don't know	<1	1	1	1	1
Average # of naps taken[1]	*3.1*	*3.6*	*3.4*	*4.0$_{B}$*	*3.5*
Average amount of time napping (in minutes)[1]	*37.2*	*50.6$_{B}$*	*43.5*	*46.8*	*42.1*
Non-Workdays n=	(292)	(202)	(203)	(180)	(210)
Net: Any naps	50%	59%$_{BD}$	47%	52%	54%
1-2 naps	41	37	33	35	40
3-5 naps	8	15$_{B}$	9	15$_{B}$	12
More than 5 naps	1	7$_{BEF}$	4$_{B}$	2	2
No naps	49$_{C}$	39	52$_{C}$	45	45
Don't know	1	1	1	3$_{F}$	<1
Average # of naps taken[2]	*2.0*	*2.8$_{BF}$*	*2.5$_{B}$*	*2.4$_{B}$*	*2.3*
Average amount of time napping (in minutes)[2]	*48.2*	*51.7*	*49.3*	*51.1*	*49.9*

Base= Total sample
[1]Base = Those who take naps workdays (Control n=80; Pilots n=117; Truck Drivers n=85; Train Operators n=100; Bus/Taxi/Limo Drivers n=112)
[2]Base = Those who take naps non-workdays (Control n=147; Pilots n=120; Truck Drivers n=95; Train Operators n=93; Bus/Taxi/Limo Drivers n=114)
Letters indicate significant differences at the 95% confidence level.
Q21, Q21A, Q23, Q24

wbq MARKET RESEARCH

Napping (continued)

As shown on the previous page 29, transportation professionals (Pilots 58%, train operators 56%, bus/taxi or limo drivers 53% and truck drivers 42%) are significantly more likely than the control group members (27%) to ever nap on workdays.

Respondents who took naps on workdays were asked if they had taken a nap during work.

- Significantly more pilots (50%), truck drivers (42%) and train operators (33%) than the control group (19%) said yes, they have taken a nap during work.
- Interestingly, of those who took naps on workdays, significantly more pilots (75%), truck drivers (65%) and bus/taxi or limo drivers (62%) said their employers allow naps during breaks at work compared to train operators (43%) and members of the control group (30%).

Napping

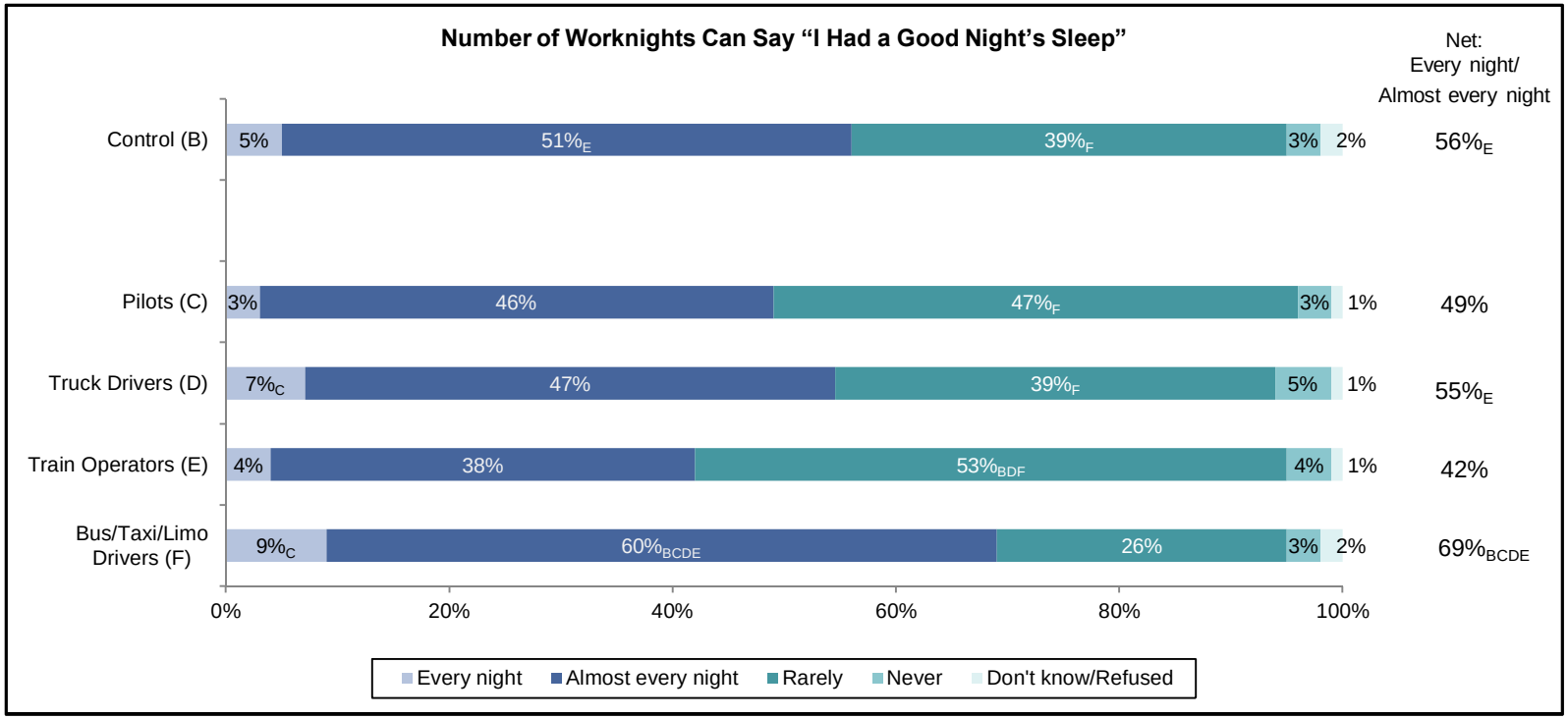
		Control (B)	Transportation Professions			
			Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Taken a nap during work	n =	(80)	(117)	(85)	(100)	(112)
% Yes		19%	50%$_{BEF}$	42%$_{BF}$	33%$_{B}$	24%
Times taken a nap during work[1]	n =	(15)*	(58)	(36)	(33)*	(27)*
Less than once a week		20%	16%	25%$_{E}$	6%	19%
1-2 times a week		40	57$_{D}$	36	48	44
3-4 times a week		20	21	31	30	26
5 or more times a week		20	7	8	15	7
Average # of naps taken during work		*2.5*	*2.0*	*2.2*	*2.7*	*2.2*
Employer allows naps during breaks at work	n =	(80)	(117)	(85)	(100)	(112)
% Yes		30%	75%$_{BEF}$	65%$_{BE}$	43%	62%$_{BE}$

Base = Those who took naps on workdays [1]Base = Those who took naps during work
Letters indicate significant differences at the 95% confidence level.
* Caution: Small Base
Q21B, Q21C, Q21D

Getting a Good Night's Sleep

All respondents surveyed were asked how often they can say ñI had a good nightôs sleepòon worknights using a scale of every night, almost every night, rarely or never.

- Nearly seven in ten bus/taxi or limo drivers (69%, significantly more than any other group of professions asked) said they had a good nightôs sleep every night or almost every night on worknights.

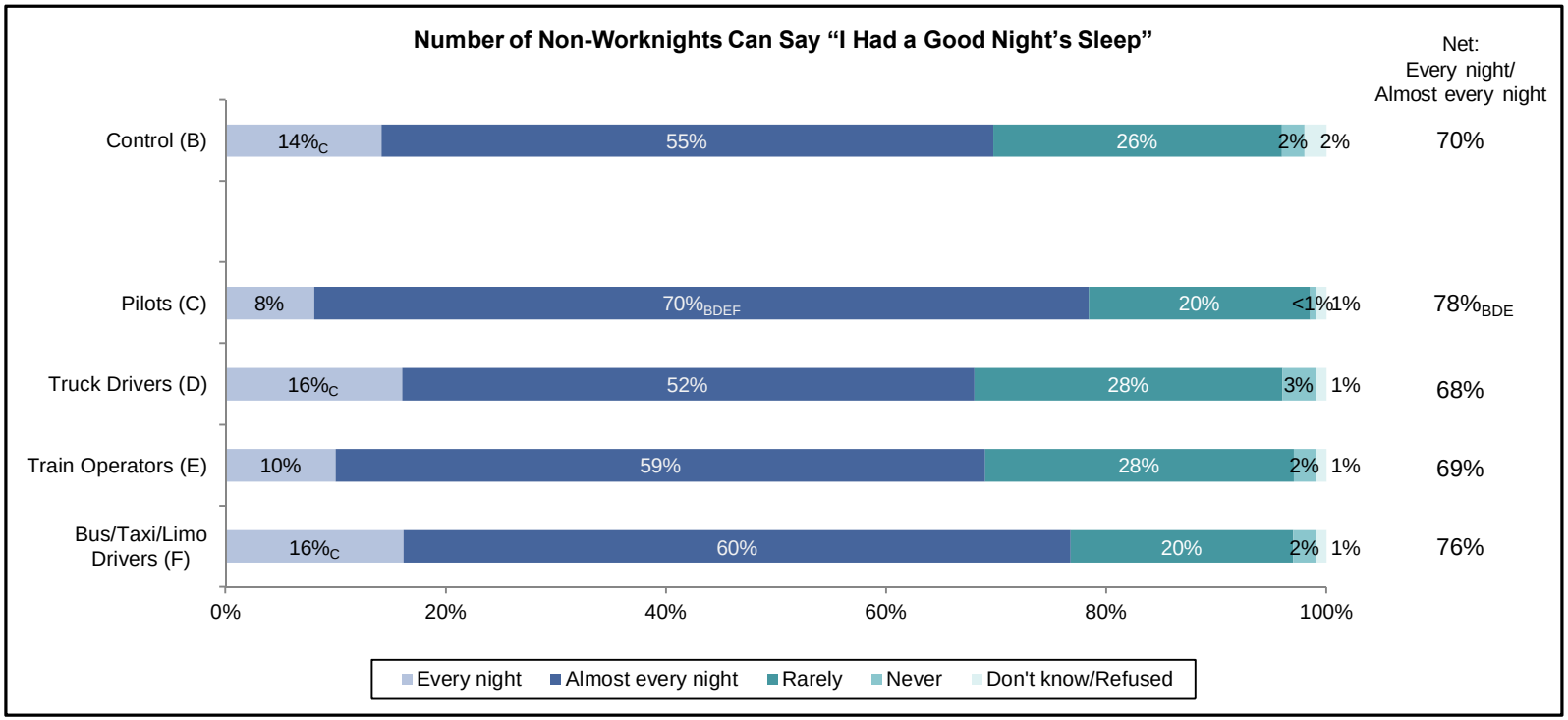


Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers n=210)
Letters indicate significant differences at the 95% confidence level.
Q25

Getting a Good Night's Sleep (continued)

All respondents surveyed were asked how often they can say ñI had a good nightôs sleepòon non-worknights using a scale of every night, almost every night, rarely or never.

- Almost eight in ten pilots (78%, significantly more than the control group 70%, truck drivers 68% or train operators 69%) said they had a good nightôs sleep every night or almost every night on non-worknights.



Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers n=210)
Letters indicate significant differences at the 95% confidence level.
Q26

Caffeinated Beverages

Workers were asked how many servings of caffeinated beverages ï such as soda, soft drinks, coffee, tea and energy drinks ï they consumed on an average workday.

- On average, pilots (4.8), truck drivers (5.0) and train operators (5.4) consume significantly more caffeinated beverages than the control group (3.7) per day.

Number of Caffeinated Beverages Consumed on Average Workday

		Transportation Professions			
	Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Caffeinated Beverages per Workday = n	(292)	(202)	(203)	(180)	(210)
Net: Any beverages	75%	71%	72%	81%$_{CD}$	73%
1 beverage	13$_{CE}$	5	8	7	9
2 beverages	18$_{D}$	14	11	15	16
3 beverages	16	13	15	13	14
4-6 beverages	12	14	13	14	10
6-10 beverages	7	9	7	12$_{B}$	9
More than 10 beverages	1	4$_{F}$	4$_{F}$	6$_{BF}$	1
None	7$_{C}$	2	3	4	5
Donû know	18	27$_{BE}$	25$_{E}$	15	22
Average (# of beverages) [1]	*3.7*	*4.8$_{B}$*	*5.0$_{BF}$*	*5.4$_{BF}$*	*3.8*

Base= Total sample

[1]Base= Those answering

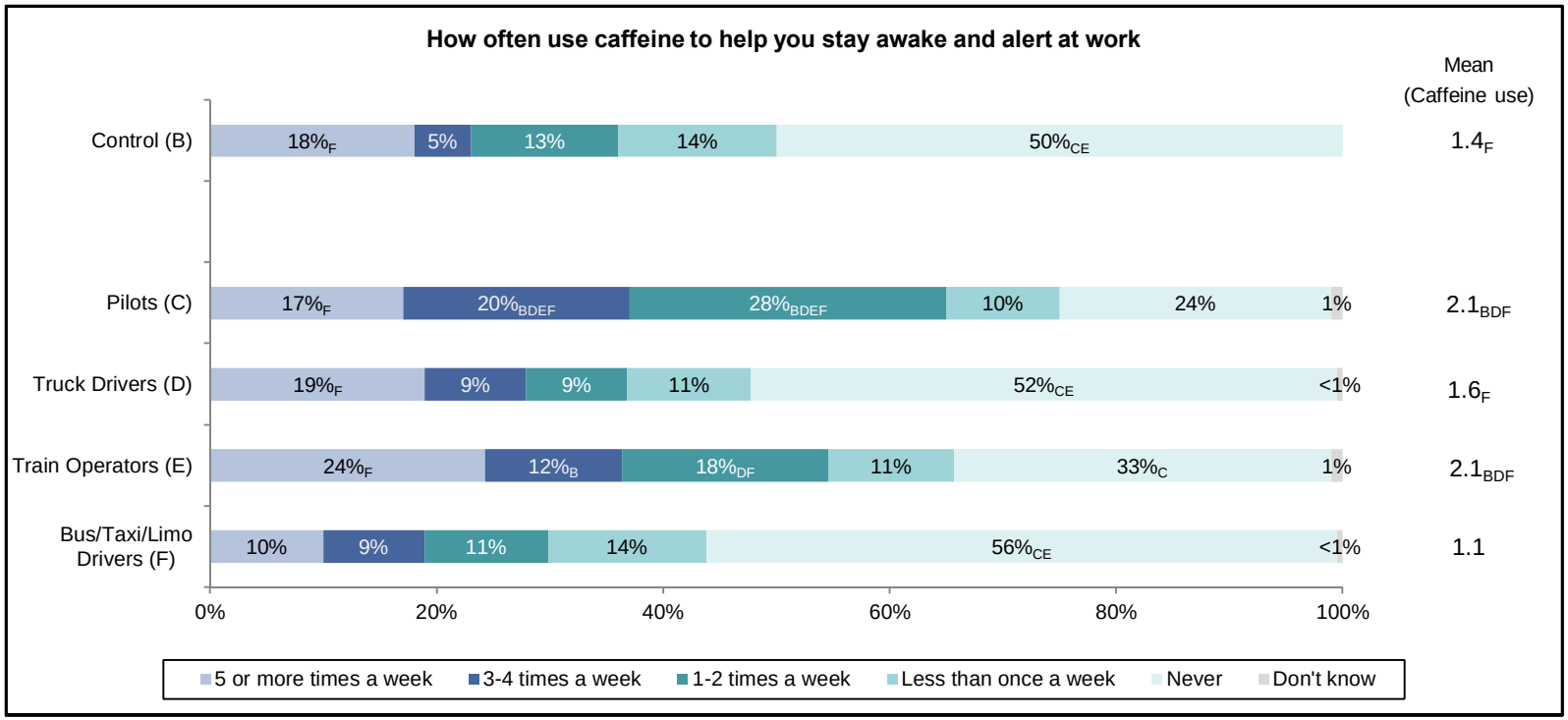
Letters indicate significant differences at the 95% confidence level.

Q27

Caffeinated Beverages (continued)

Workers were asked how often they used caffeine - such as coffee, soda, energy drinks, caffeine pills, etc. ï to help them stay awake or alert at work over the past two weeks.

- Pilots and train operators are using caffeine to cope at work significantly more than the control group, truck drivers and bus/taxi or limo drivers by consuming approximately 2 caffeinated beverages specifically to stay awake and alert on the job.

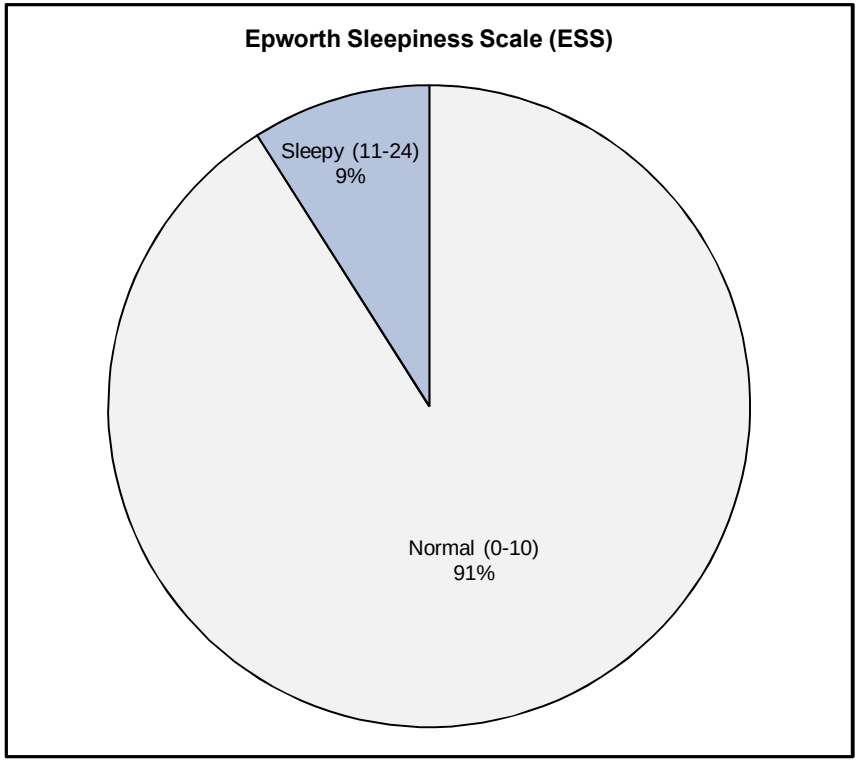


Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers s n=210)
Letters indicate significant differences at the 95% confidence level.
Q28

Epworth Sleepiness Scale (ESS)

All respondents were asked how likely they were to doze off or fall asleep while doing each of the following activities: sitting and reading, watching TV, sitting inactive in a public place such as a theater, meeting or classroom, in a car while stopped for a few minutes in traffic, as a passenger in a car for an hour without a break, sitting and talking to someone, sitting quietly after a lunch without alcohol and lying down to rest in the afternoon when circumstances permit. Their ratings were used to determine their categorization on the Epworth Sleepiness Scale (ESS), where those who scored 0-10 were categorized as ñnormalòand those who scored 11-24 were categorized as ñsleepy.ò

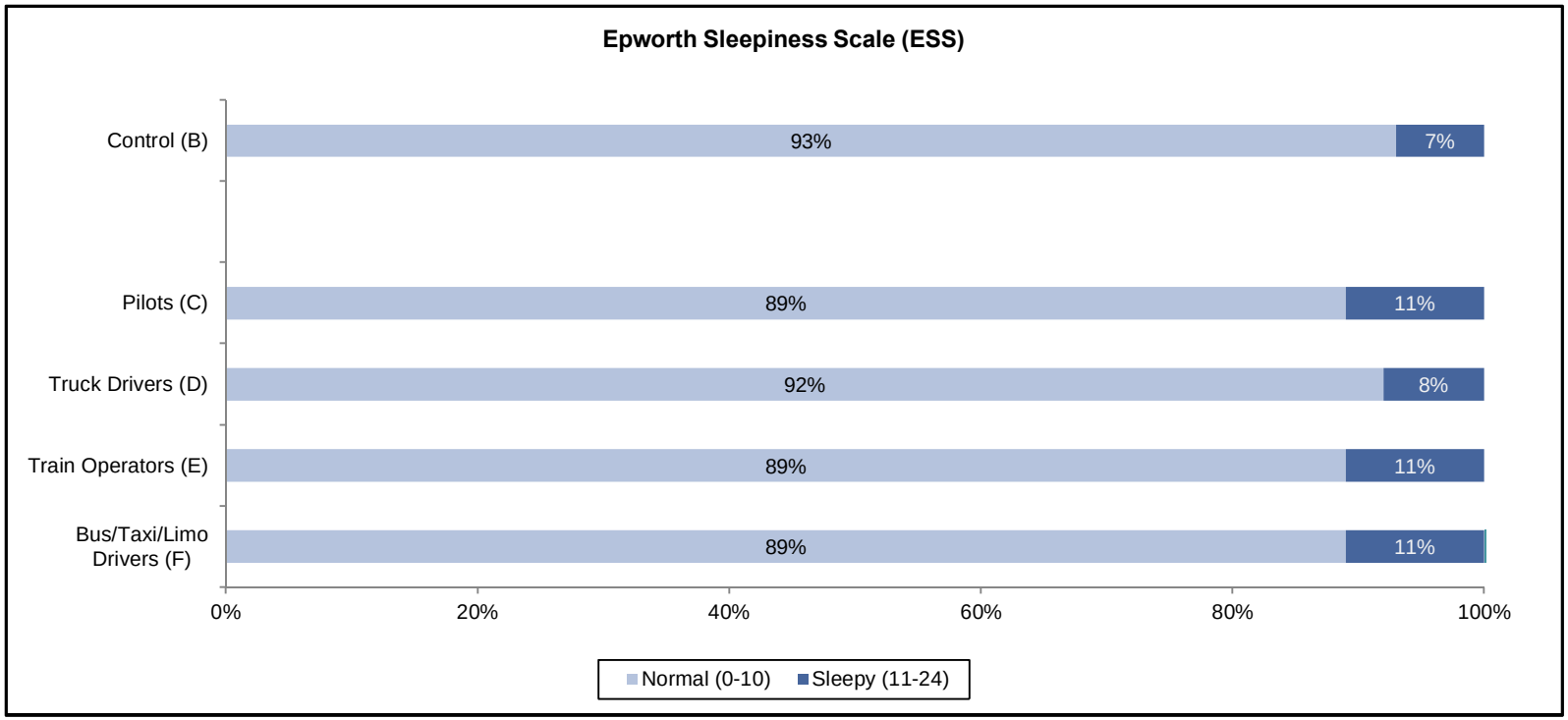
- Among those who were able to rate every attribute of the Epworth Sleepiness scale, the majority (91%) were categorized as ñnormal,òwhile nearly one in ten (9%) were categorized as ñsleepy.ò



Base = Those able to rate all ESS attributes (n=998)
Q30

Epworth Sleepiness Scale (ESS) (continued)

When the Epworth Sleepiness Scale was broken out by each professional group, there were no significant differences found in the Normal versus Sleepy score.

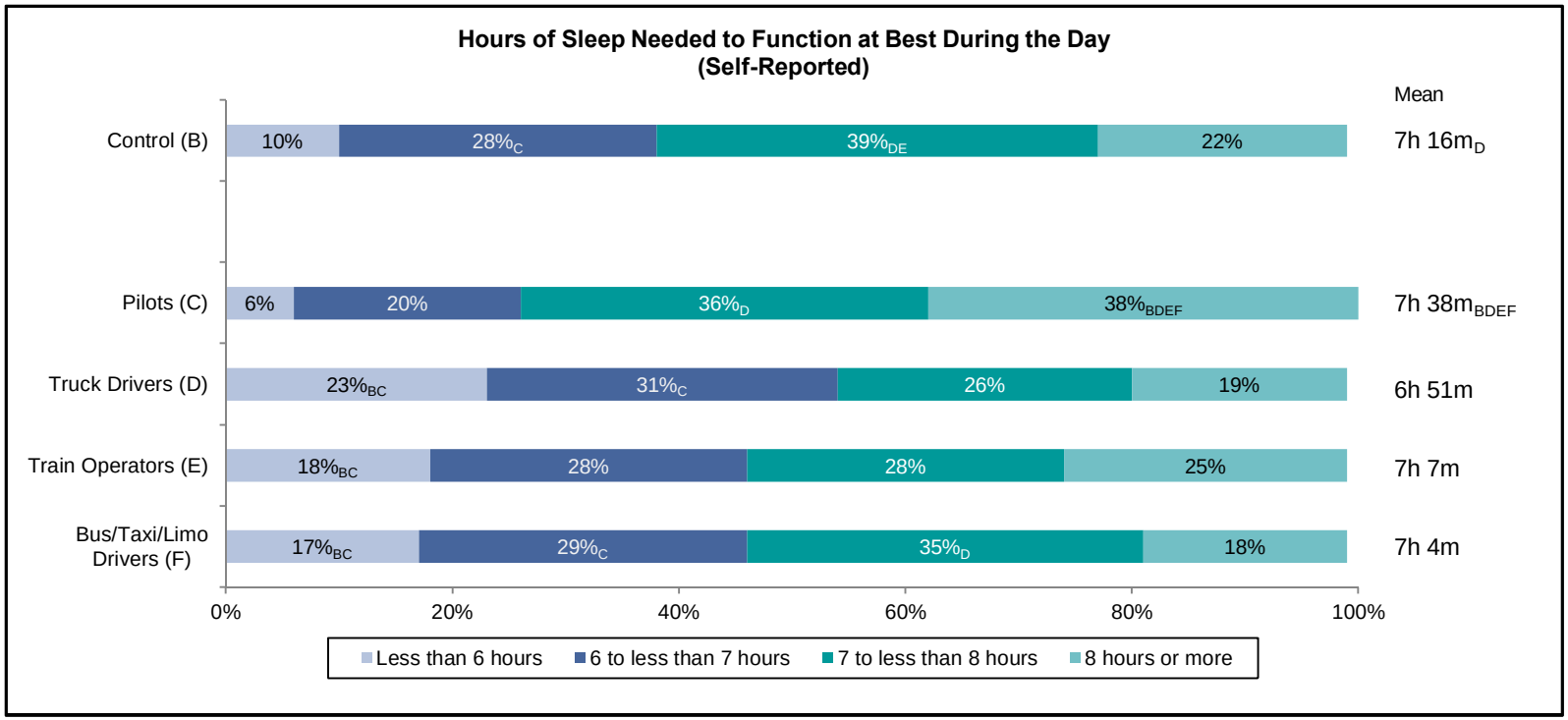


Base = Those able to rate all ESS attributes (Control n=265; Pilots n=185; Truck Drivers n=181; Train Operators n=168; Bus/Taxi/Limo Drivers n=189)
Letters indicate significant differences at the 95% confidence level.
Q30

Sleep Needs Being Met

Respondents were asked, on average, how many hours of sleep they needed to function their best the next day, thinking specifically about the past two weeks.

- Surprisingly, pilots reported needing significantly more sleep than all other groups of workers (7 hours and 38 minutes).



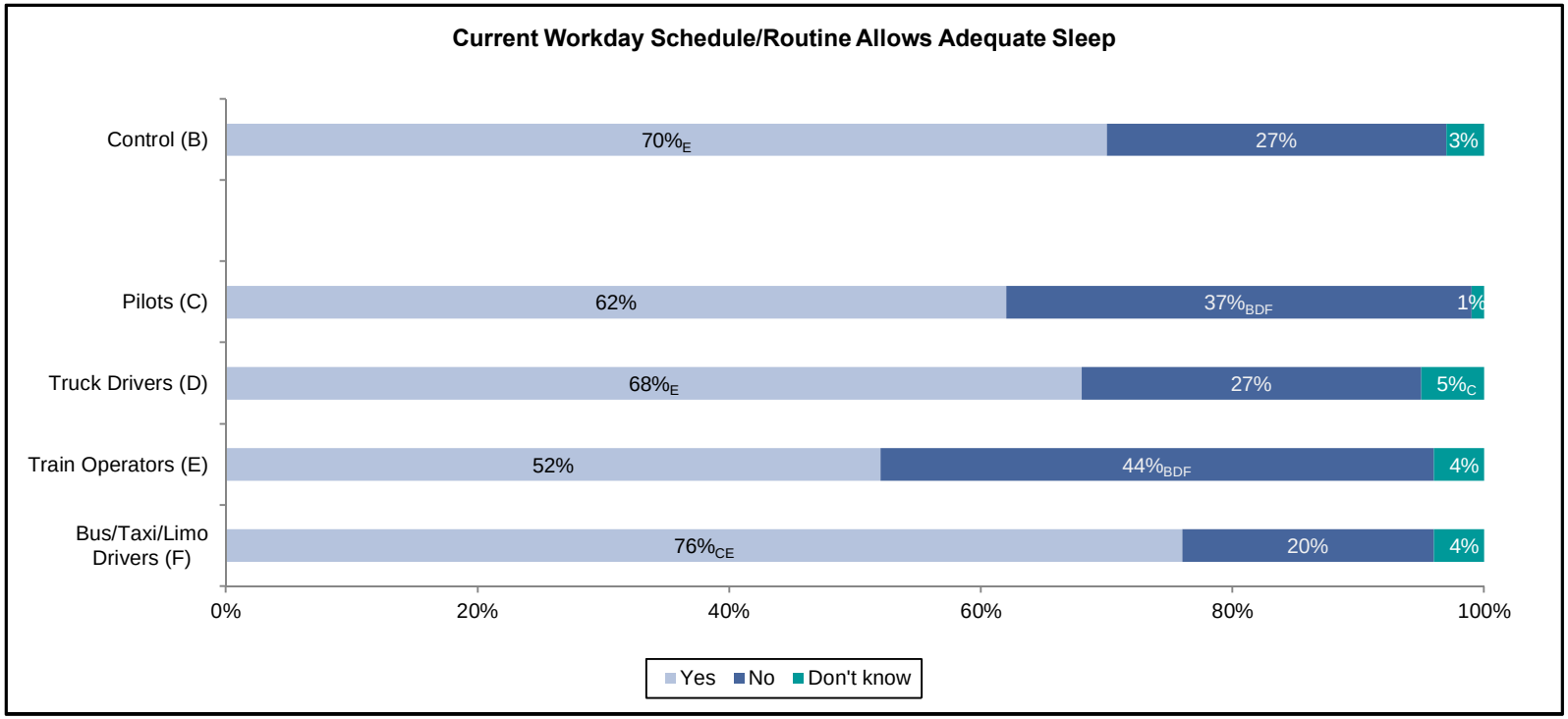
Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers s n=210)
Letters indicate significant differences at the 95% confidence level.
Q31

Sleep Needs Being Met (continued)

All respondents surveyed were asked if their workday schedule or routine allows them to get adequate sleep.

- Significantly more bus/taxi or limo drivers (76%), members of the control group (70%) and truck drivers (68%) say their current workday schedule or routine allows for adequate sleep compared to train operators (52%). Bus/taxi or limo workers (76%) were also significantly morel likely than pilots (62%) to say their workday schedule or routing allows for adequate sleep.

- Train operators (44%) and pilots (37%) were significantly more likely than the other groups of workers (Control group 27%, truck drivers 27% and bus/taxi or limo drivers 20%) to say that their weekday routine does not allow for adequate sleep.



Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers s n=210)
Letters indicate significant differences at the 95% confidence level.
Q32

Sheehan Disability Scale (SDS)

Those workers who said they did not get adequate sleep (26% of the control group, 37% of pilots, 27% of truck drivers, 44% of train operators and 20% of bus/taxi or limo drivers) were asked the impact of ñot getting enough sleepò on each of the following attributes: mood, family life or home responsibilities, work, social life or leisure activities and intimate or sexual relations.

- There were few major differences in the impact of not getting enough sleep on aspects of these workersô daily lives, although pilots (74%) and train operators (71%) were significantly more likely than all other groups to say that not getting enough sleep impacts their intimate or sexual relations.

A version of the validated Sheehan Disability Scale (SDS) was developed to determine the functional impairment in three domains: family life, work life and social life. Three scales (family, work and social) make up the total Sheehan Disability Scale. It is recommended that clinicians pay close attention to scores of 6 or greater on any of the three scales because high scores are associated with significant functional impairment.

The National Sleep Foundation also scaled the attributes mood and intimate or sexual relations, similar to work, family and social life, to determine if these factors of impairment are due to lack of sleep and should be brought to the attention of clinicians. The following pages show details of these scales.

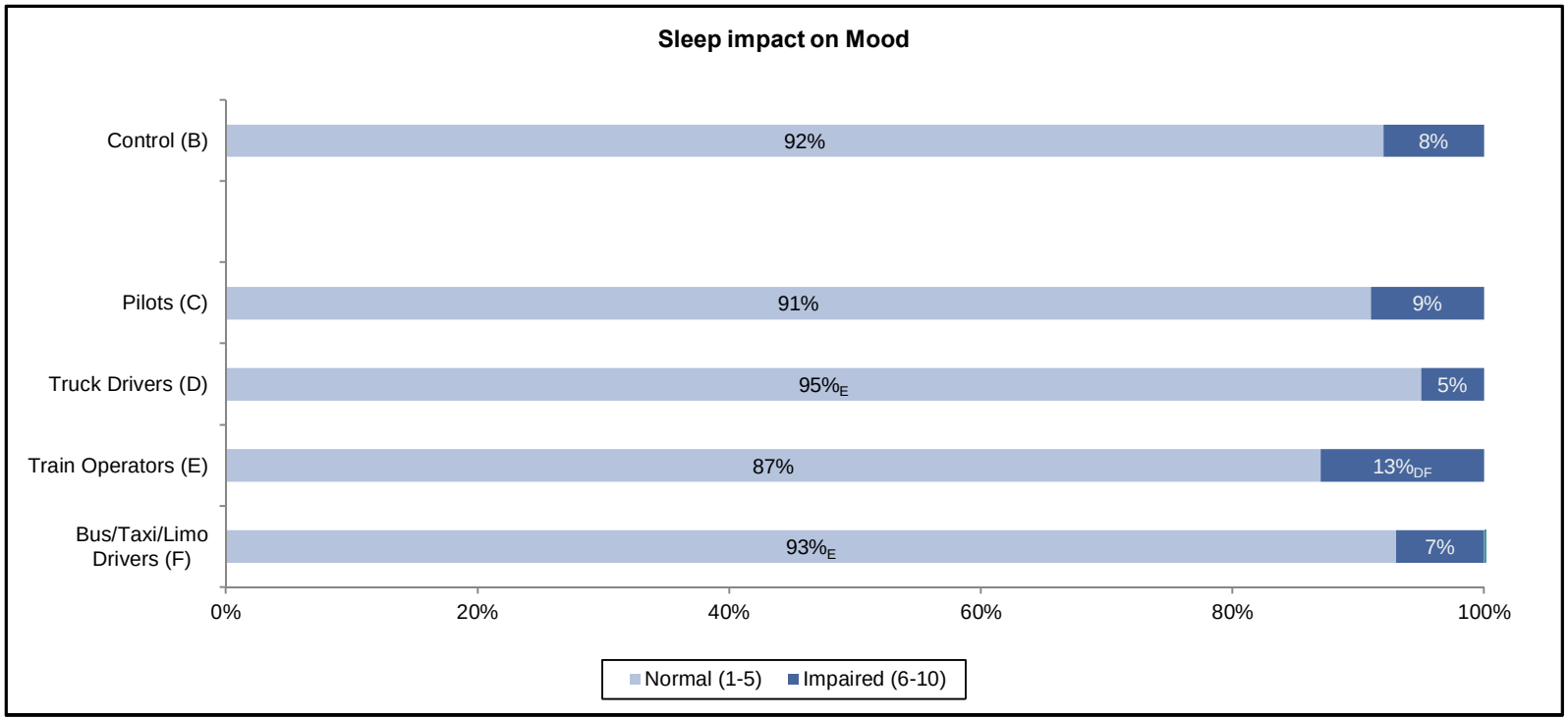
Impact of "Not Getting Enough Sleep"

			Transportation Professions			
		Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Any impact	n =	(76)	(74)	(55)	(79)	(42)
Net: Any		91%	99%$_{B}$	93%	97%	90%
Mood		82	88	87	85	81
Family life or home responsibilities		80	84	76	82	69
Work		59	74$_{B}$	67	67	64
Social life or leisure activities		70	76	67	82$_{DF}$	60
Intimate or sexual relations		49	74$_{BDF}$	47	71$_{BDF}$	36

Base = Those who do not get adequate sleep
Letters indicate significant differences at the 95% confidence level.
Q33

Sheehan Disability Scale (SDS) (continued)

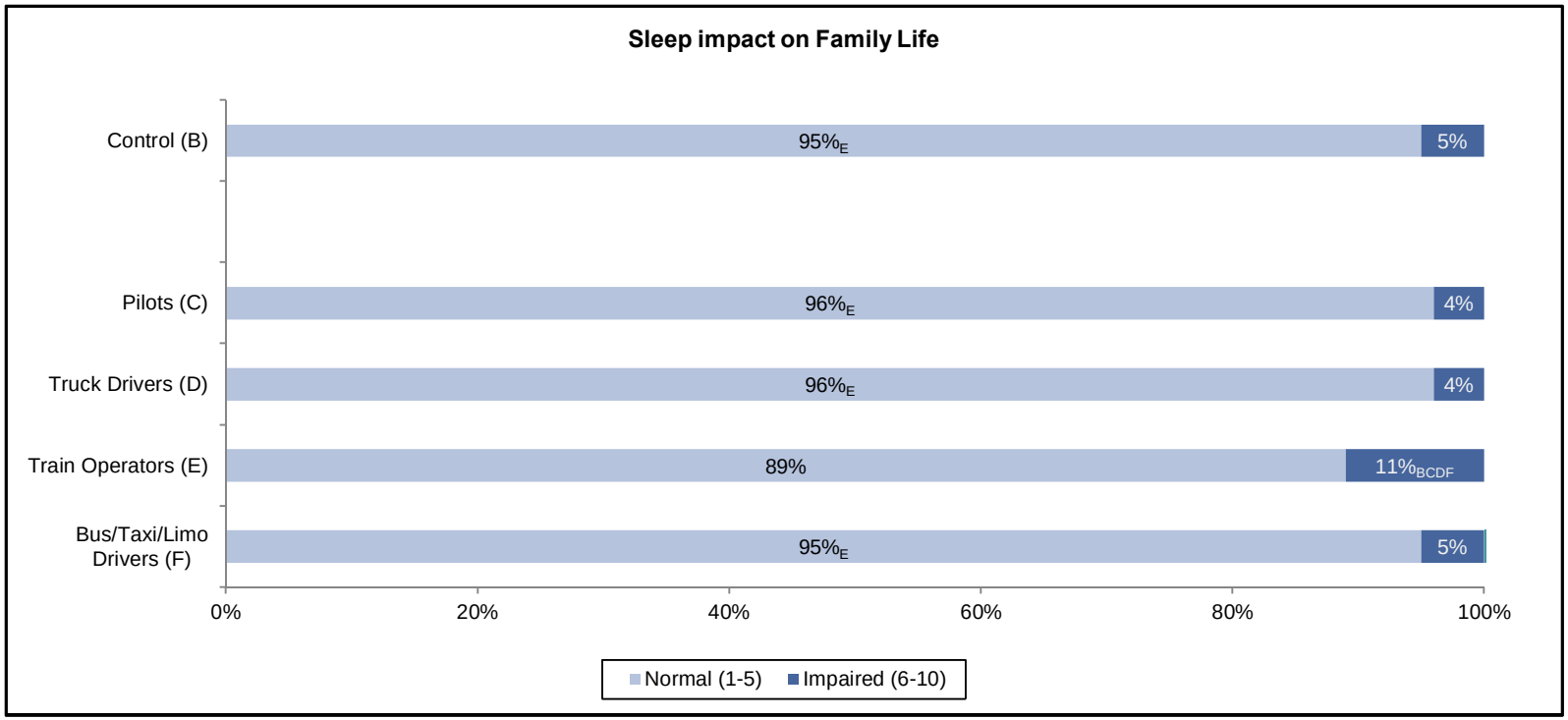
Significantly more train operators (13%) than truck drivers (5%) and bus/taxi or limo drivers (7%) rated at the level of ñimpairedòfor mood.



Base = Total Sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers n=210)
Letters indicate significant differences at the 95% confidence level.
Q33

Sheehan Disability Scale (SDS) (continued)

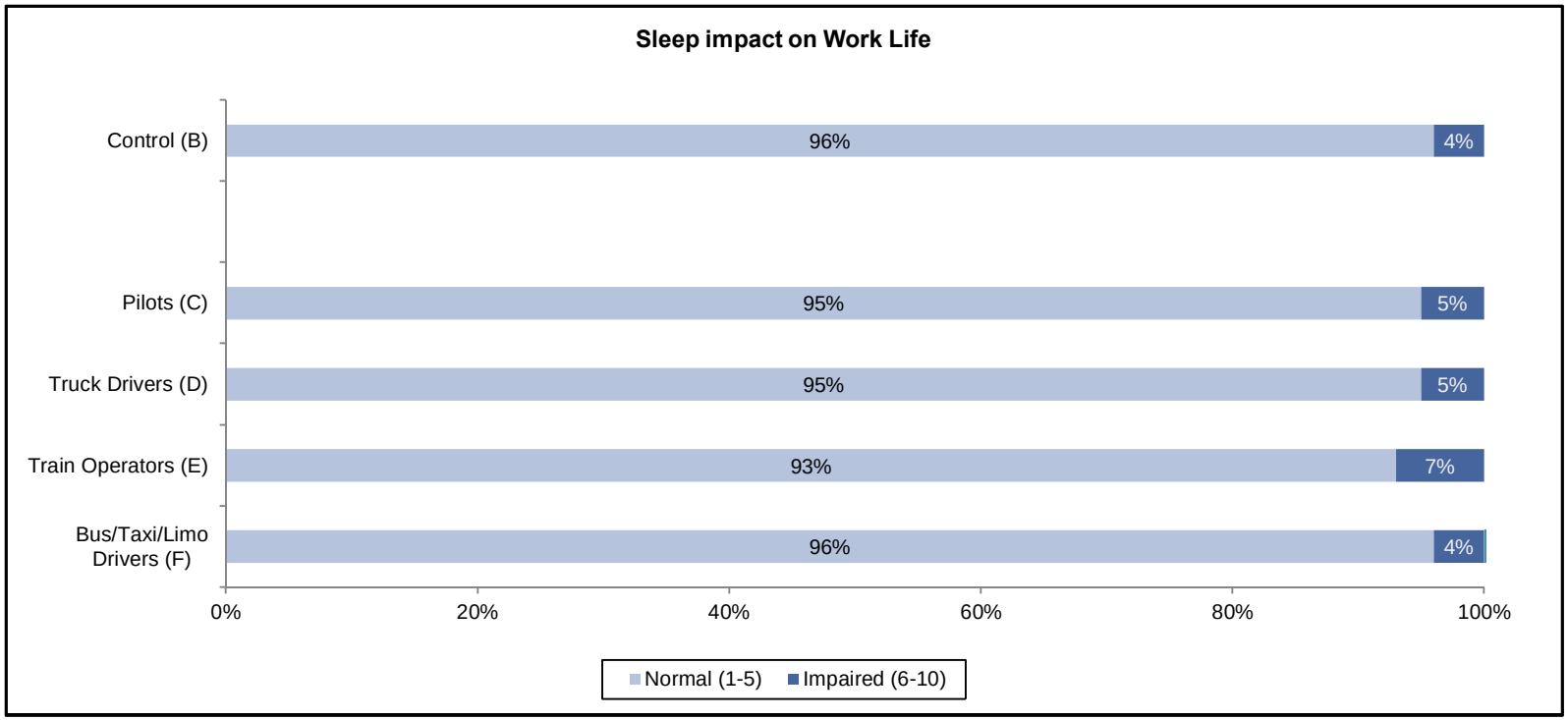
Similar to the mood segment, significantly more train operators (11%) than all other segments (the control group 5%, pilots 4%, truck drivers 4% and bus/taxi or limo drivers 5%) scored as ñmpairedòfor the family life segment of the SDS.



Base = Total Sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers n=210)
Letters indicate significant differences at the 95% confidence level.
Q33

Sheehan Disability Scale (SDS) (continued)

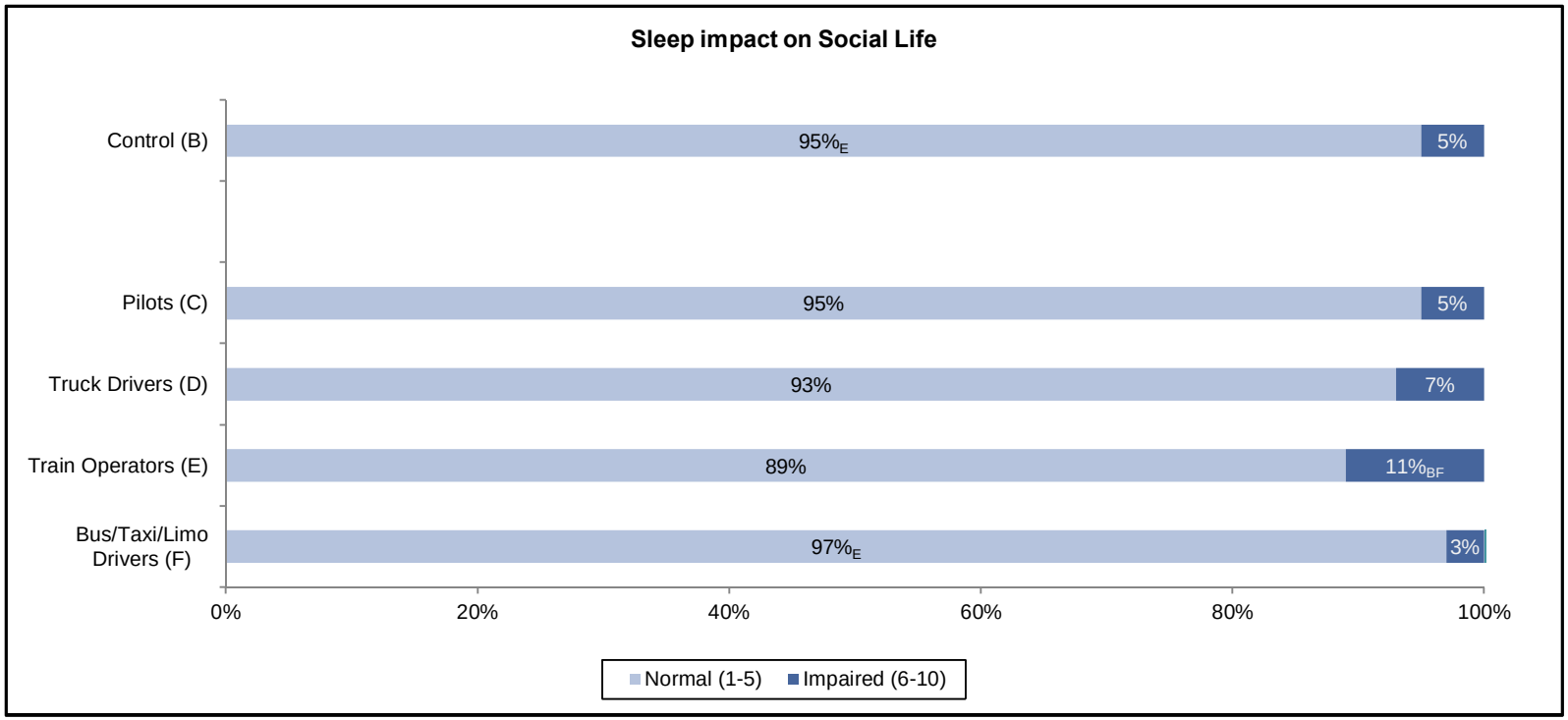
Interestingly, roughly one in twenty respondents from each segment rated that their work life is ñmpairedòdue to sleep.



Base = Total Sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers n=210)
Letters indicate significant differences at the 95% confidence level.
Q33

Sheehan Disability Scale (SDS) (continued)

Similar to the mood and family life segments of the Sheehan disability scale, significantly more train operators (11%) than the control group (5%) and bus/taxi or limo drivers (3%) scored as ñmpairedòfor the social life segment of the SDS.

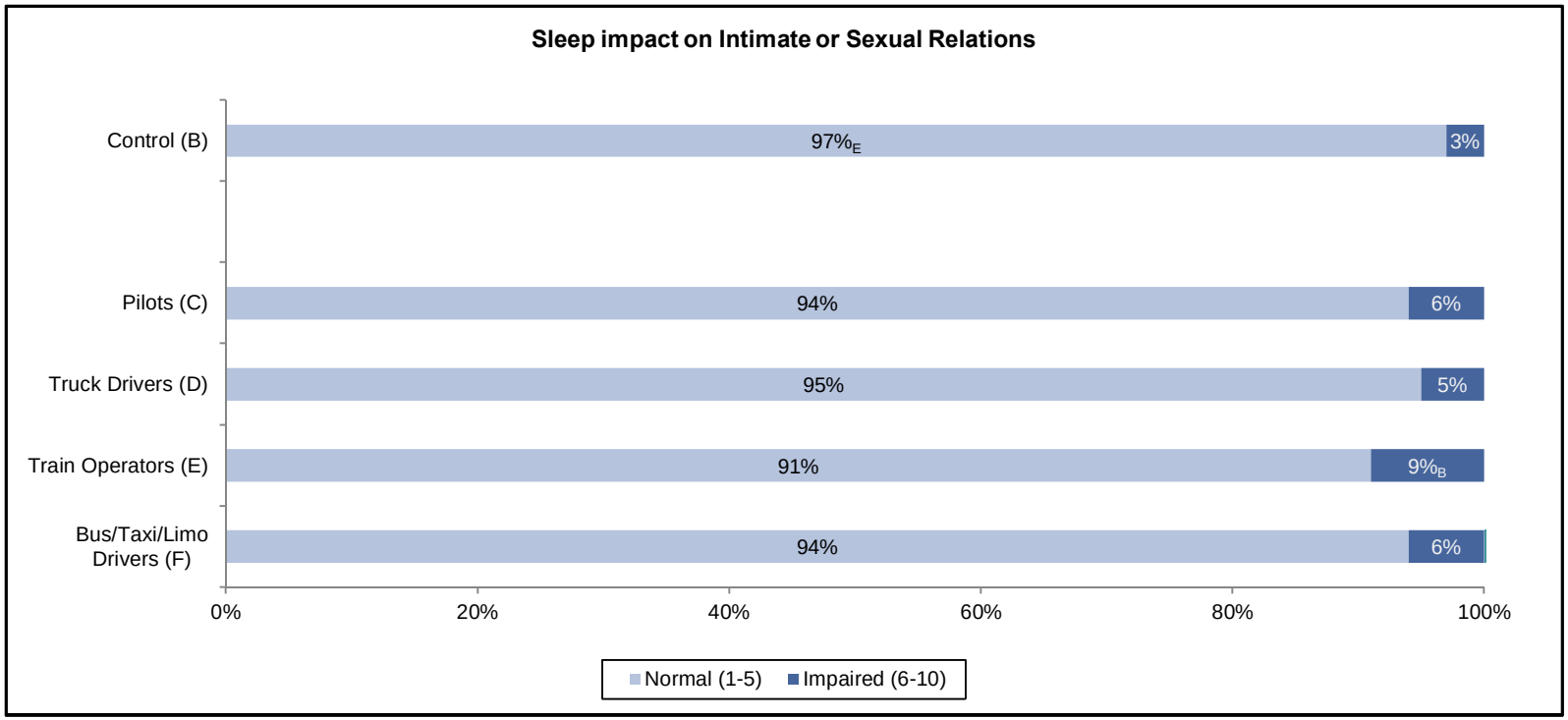


Base = Total Sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers n=210)
Letters indicate significant differences at the 95% confidence level.
Q33

Sheehan Disability Scale (SDS) (continued)

NSF scaled the attribute of intimate or sexual relations to determine its impairment factor due to lack of adequate sleep.

- Again, significantly more train operators (9%) than the control group (3%) are in the category of ñimpairedòfor the attribute sexual or intimate relations.

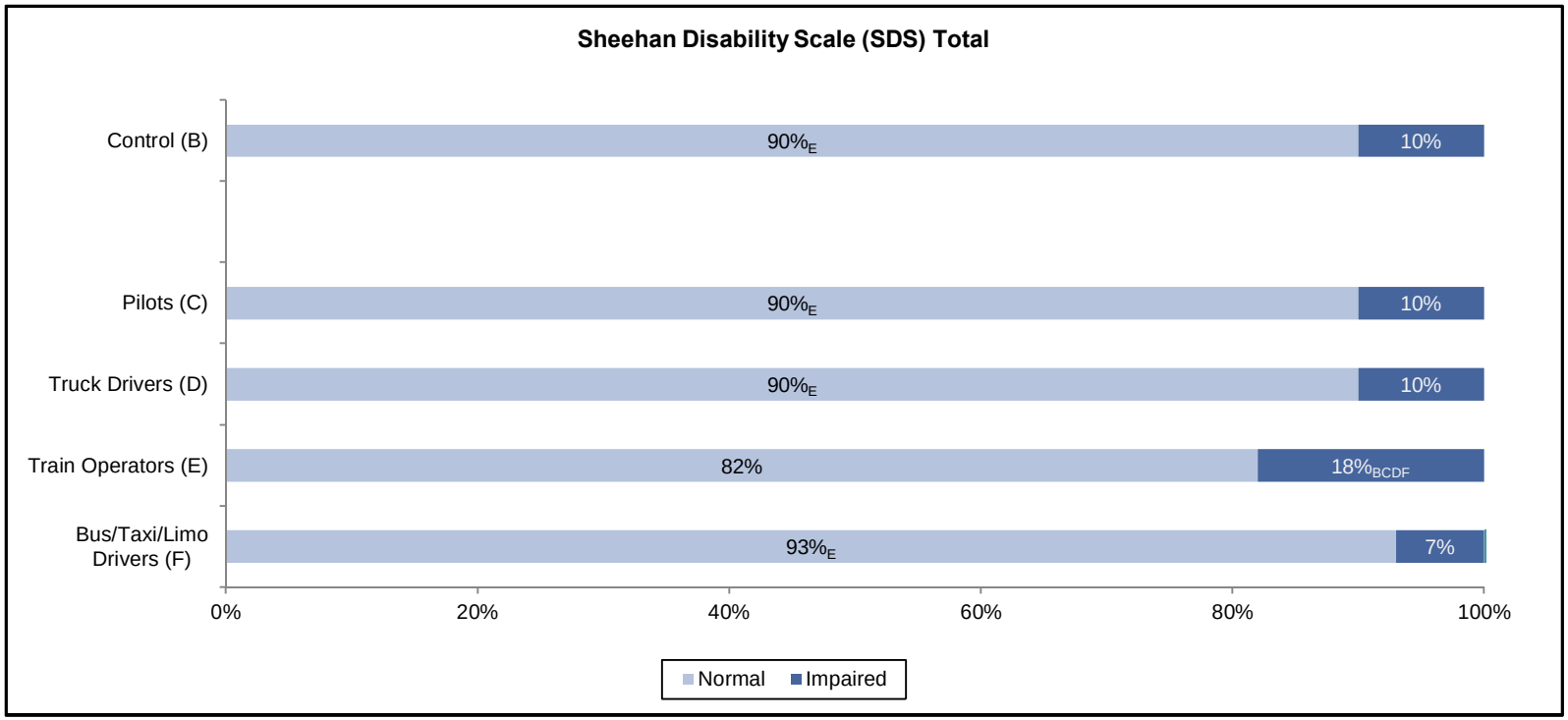


Base = Total Sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers n=210)
Letters indicate significant differences at the 95% confidence level.
Q33

Sheehan Disability Scale (SDS) (continued)

To determine the total Sheehan Disability Scale, the National Sleep Foundation chose to determine the level of impairment as any respondent who scored as 6-10 (impaired) on any of the three SDS 10 point scales (work, family or social life). If a respondent did not rate as impaired on any of the 10 point scales then they were scored as normal on the total Sheehan Disability Scale.

- Significantly more train operators (18%) than all other segments (control group, pilots, truck drivers 10% each and bus/taxi or limo drivers 7%) score as ñimpairedòon the total Sheehan Disability Scale.

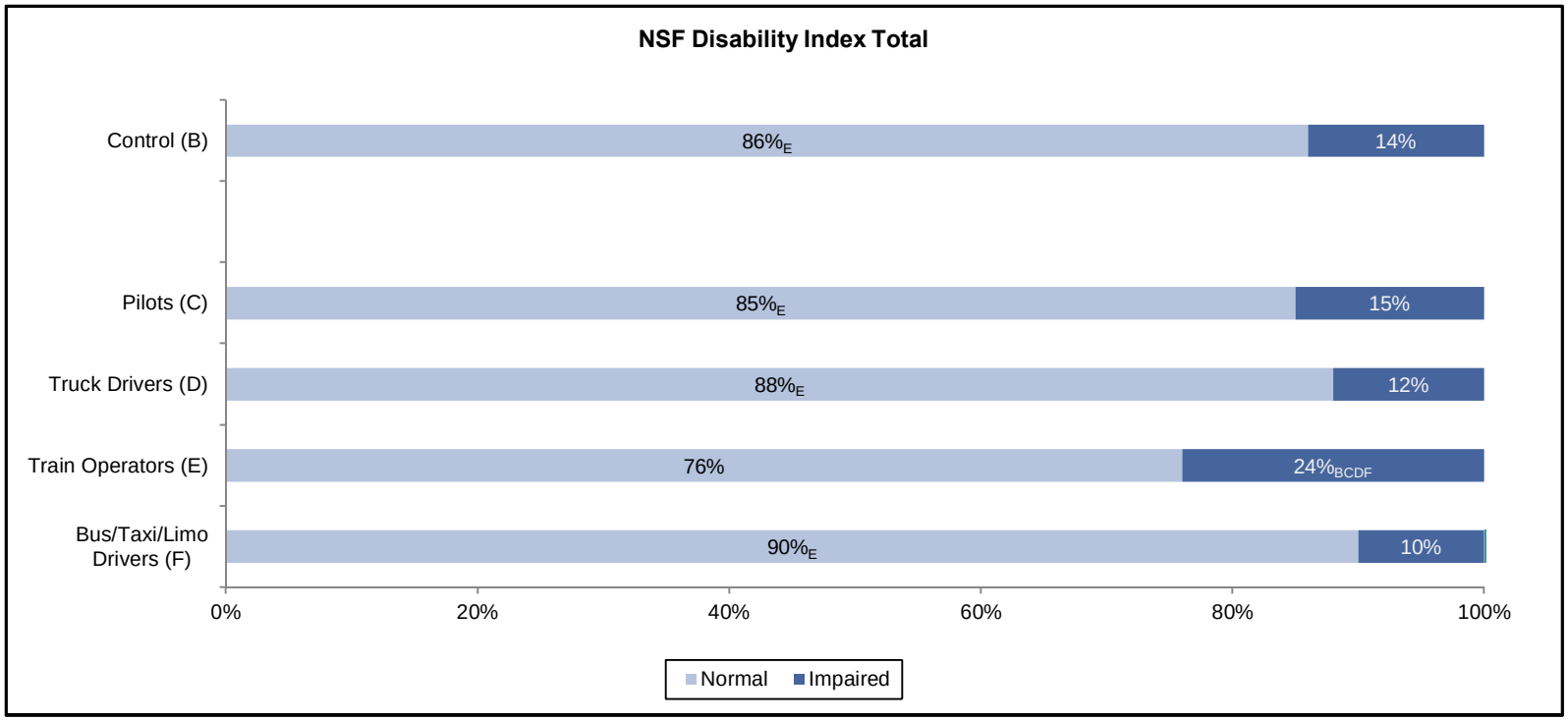


Base = Total Sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers n=210)
Letters indicate significant differences at the 95% confidence level.
Q33

NSF Disability Index

The National Sleep Foundation used all 5 attributes (mood, family, work, social and intimate or sexual relations) to determine a new NSF Disability Index modeled after the version of the Sheehan Disability Scale used on page 45. Again, the level of ñimpairedòis any respondent who scored as 6-10 (impaired) on any of the five, 10 point scales of attributes mentioned above. If a respondent did not rate as ñimpairedòon any of the 10 point scales then they were scored as normal on the total NSF Disability Index.

- Significantly more train operators (24%) than the control group members (14%), pilots (15%), truck drivers (12%) and bus/taxi or limo drivers (10%) are ñimpairedòon the attributes of work, family, social life, mood and/or sexual or intimate relations due to impacts from inadequate sleep.



Base = Total Sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers n=210)
Letters indicate significant differences at the 95% confidence level.
Q33

Daily Activities

Respondents were asked in the past two weeks, after work and before going to sleep, about how much time they spent engaging in the list of activities below on a scale of no time, a few minutes up to 1 hour, 1 to 3 hours and more than 3 hours.

- Almost nine in ten respondents from each of the professional groups participate in any of these activities for one hour or more after work and before going to sleep.

Daily Activities

			Transportation Professions			
		Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
One hour or more	n=	(292)	(202)	(203)	(180)	(210)
Net: Any		89%	86%	84%	87%	$90\%_{D}$
Watch TV/video		75_{C}	60	68	68	79_{CDE}
Use computer/Internet		60_{D}	59	51	58	64_{D}
Hobby		15	14	13	16	11
Read (newspaper, books)		23_{DE}	19	12	15	20_{D}
Exercise		19_{D}	21_{D}	7	21_{D}	15_{D}
Talk on the phone		11	12	11	14_{F}	8
Socialize		27_{DE}	24	16	19	22
Cooking/Eating		30_{D}	26	20	27	25
Shopping		17_{C}	11	12	14	15
Childcare		10	16_{DF}	9	21_{BDF}	9

Base= Total sample
Letters indicate significant differences at the 95% confidence level.
Q34

Daily Activities (continued)

Respondents were asked a series of questions regarding their ability to complete activities after work and get adequate sleep, the effort they make to obtain adequate sleep before a work shift and if they were given one more hour between work shifts whether they would use this hour to get more sleep.

- Specifically, bus/taxi or limo drivers were significantly more likely than all other professional groups to say they have enough time after work to complete all activities and get adequate sleep (74%).
- The majority of pilots and bus/taxi limo drivers (90%, significantly more than control group members 79%, and train operators 82%) say they make an effort to obtain adequate sleep before a work shift.
- Interestingly, pilots (56%) and train operators (54%) are significantly more likely than their counterparts to say they would use one more hour off between shifts to get more sleep.

Daily Activities (continued)

	Control (B)	Transportation Professions			
		Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Enough time after work to complete activities and get adequate sleep n =	(292)	(202)	(203)	(180)	(210)
% Yes	65%$_{CE}$	55%$_{E}$	62%$_{E}$	43%	74%$_{BCDE}$
Made an effort to obtain adequate sleep before a work shift n =	(292)	(202)	(203)	(180)	(210)
% Yes	79%	90%$_{BE}$	85%	82%	90%$_{BE}$
If you had one more hour between work shifts would you use it to get more sleep n =	(292)	(202)	(203)	(180)	(210)
% Yes	36%	56%$_{BDF}$	34%	54%$_{BDF}$	33%

Base= Total sample
Letters indicate significant differences at the 95% confidence level.
Q35, Q36, Q37

Trying to Get to Sleep

Workers were then asked how many minutes it takes them to fall asleep on most worknights.

- Train operators (25.7 minutes) and pilots (25.2 minutes) cited significantly longer times to fall asleep on worknights compared to truck drivers (19.4 minutes) and bus/taxi or limo drivers (19.3 minutes)

Amount of Time Taken to Fall Asleep on Worknights

		Transportation Professions			
	Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
n=	(292)	(202)	(203)	(180)	(210)
Less than 5 minutes	10%	6%	8%	12%	9%
5 to less than 10 minutes	26$_{CE}$	15	33$_{CE}$	15	26$_{CE}$
10 to less than 20 minutes	22	28	27	32$_{B}$	32$_{B}$
20 to less than 25 minutes	7	7	6	7	7
25 to less than 30 minutes	7	10$_{E}$	6	4	6
30 to less than 35 minutes	7	7	3	6	5
35 to less than 40 minutes	3	6	3	2	2
40 to less than 45 minutes	3	4$_{F}$	-	4$_{F}$	1
45 to less than 50 minutes	2	3	-	2	<1
50 to less than 55 minutes	<1	<1	-	-	-
55 minutes to less than 1 hour	1	1	<1	1	3$_{DE}$
1 to less than 2 hours	5$_{F}$	5$_{F}$	4	8$_{F}$	1
2 hours or more	1	<1	1	2	1
Depends	5	4	5	3	4
Don't know/Not sure	1	<1	1	2	<1
Average (in minutes)	*22.8*	*25.2$_{DF}$*	*19.4*	*25.7$_{DF}$*	*19.3*

Base= Total sample
Letters indicate significant differences at the 95% confidence level.
Q38

Trying to Get to Sleep (continued)

Workers were then asked how many minutes it takes them to fall asleep on most non-worknights.

- Train operators (24.6 minutes) and pilots (22.3 minutes) cited significantly longer times to fall asleep on non-worknights compared to truck drivers (18.0 minutes). It also took train operators significantly more time to fall asleep than bus/taxi or limo drivers (19.3 minutes)

Amount of Time Taken to Fall Asleep on Non-Worknights

		Transportation Professions			
	Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
n=	(292)	(202)	(203)	(180)	(210)
Less than 5 minutes	10%	9%	8%	9%	9%
5 to less than 10 minutes	26$_{CE}$	13	31$_{CE}$	17	26$_{CE}$
10 to less than 20 minutes	25	34$_{BD}$	25	29	29
20 to less than 25 minutes	7	9	11	11	8
25 to less than 30 minutes	7	11$_{D}$	5	6	8
30 to less than 35 minutes	4	6	5	9$_{B}$	7
35 to less than 40 minutes	2	1	1	3	<1
40 to less than 45 minutes	3	4$_{F}$	-	2	1
45 to less than 50 minutes	1	1	-	1	-
50 to less than 55 minutes	1	1	-	2	<1
55 minutes to less than 1 hour	2	3	<1	-	2
1 to less than 2 hours	4	2	3	6$_{CF}$	2
2 hours or more	2	1	<1	2	1
Depends	4	4	8$_{BE}$	2	4
Don't know/Not sure	2	<1	1	2	1
Average (in minutes)	*21.8*	*22.3$_{D}$*	*18.0*	*24.6$_{DF}$*	*19.3*

Base= Total sample
Letters indicate significant differences at the 95% confidence level.
Q39

Sleep Problems

All respondents were asked how often they had difficulty falling asleep, woke up during the night, woke up too early and woke up feeling un-refreshed ï all signs of insomnia ï and how often they snored, using a scale of every night/day or almost every night/day, a few nights/days a week, rarely or never.

- Interestingly, about one-third of truck drivers (34%, significantly more than members of the control group 25%, bus/taxi or limo drivers 24% and pilots 20%) say they snore every night or almost every night. Significantly more train operators (30%) than pilots (20%) also say they snore every night or almost every night.

Frequency of Sleep Problems

			Transportation Professions			
		Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Every night/almost every night	n=	(292)	(202)	(203)	(180)	(210)
Net: Any		59%	51%	54%	52%	54%
Woke up during the night		43_{E}	34	35	32	38
Woke up feeling un-refreshed		19_{C}	10	15	19_{C}	15
Snored		25	20	34_{BCF}	30_{C}	24
Had difficulty falling asleep		14_{C}	5	10	12_{C}	10
Woke up too early and could not get back to sleep		14_{EF}	9	12	8	8

Base= Total sample
Letters indicate significant differences at the 95% confidence level.
Q40

Sleep Problems (continued)

Looking at those respondents who said they had difficulty falling asleep, woke up during the night, woke up too early and woke up feeling un-refreshed at least a few nights/days a week:

- Pilots (64%), train operators (64%) and the control group (61%) were significantly more likely to say they woke-up feeling un-refreshed than truck drivers (50%) and bus/taxi or limo drivers (48%).
- Also, truck drivers (59%) were significantly more likely than members of the control group or pilots (45% each) to say they snored at least a few nights/days a week.

Frequency of Sleep Problems

			Transportation Professions			
		Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
At least a few nights/days a week	n=	(292)	(202)	(203)	(180)	(210)
Net: Any		95%$_{D}$	93%	89%	89%	91%
Woke up during the night		81$_{E}$	78	74	71	76
Woke up feeling un-refreshed		61$_{DF}$	64$_{DF}$	50	64$_{DF}$	48
Snored		45	45	59$_{BC}$	51	50
Had difficulty falling asleep		39	36	32	39	31
Woke up too early and could not get back to sleep		46$_{D}$	44	36	48$_{D}$	40

Base= Total sample
Letters indicate significant differences at the 95% confidence level.
Q40

Sleep Problems (continued)

Workers who rarely or never said they had difficulty falling asleep, woke up during the night, woke up too early and woke up feeling un-refreshed showed interesting comparisons.

- Bus/taxi or limo drivers (52%) and truck drivers (48%) were significantly more likely than the control group members (37%), pilots and train operators (36% each) to say they rarely or never wake up feeling un-refreshed.

Frequency of Sleep Problems

	Control (B)	Transportation Professions			
		Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Rarely/never n=	(292)	(202)	(203)	(180)	(210)
Net: Any	83%	85%	84%	80%	85%
Woke up during the night	18	22	26	29_{B}	24
Woke up feeling un-refreshed	37	36	48_{BCE}	36	52_{BCE}
Snored	33	39_{D}	27	34	31
Had difficulty falling asleep	60	64	68	61	69_{B}
Woke up too early and could not get back to sleep	54	56	63_{E}	52	60

Base= Total sample
Letters indicate significant differences at the 95% confidence level.
Q40

Disrupted Sleep

Respondents who either woke up during the night or woke up too early and could not get back to sleep regularly were asked how many minutes, on average, they were awake during those instances.

- Looking at the average amount of time awake by professional group, pilots spent significantly more time awake (26.6 minutes) when they woke up during the night or woke up too early than bus/taxi or limo drivers (19.6 minutes).

Amount of Time Awake When Woke Up During Night or Woke Up Too Early

			Transportation Professions			
		Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Amount of time awake	n=	(242)	(164)	(152)	(140)	(167)
Less than 5 minutes		9%	7%	11%	6%	12%$_{E}$
5 up to 10 minutes		13	13	16	14	13
10 up to 15 minutes		12	13	15	9	11
15 up to 30 minutes		19	18	12	16	19
30 up to 45 minutes		14$_{F}$	12	9	14	7
45 up to 60 minutes		3	4	4	6	2
1 hour or more		11	12	8	9	7
Don't know/Refused		20	21	24	26	29$_{B}$
Average (in minutes)		*25.3*	*26.6$_{F}$*	*19.9*	*23.9*	*19.6*

Base= Those who regularly woke up during the night or woke up too early
Letters indicate significant differences at the 95% confidence level.
Q41

Sleep Disorder

Workers were asked if they have ever been diagnosed with a sleep disorder. Then, those who have been diagnosed with a sleep disorder were asked what disorder they had been diagnosed with.

- About one in ten train operators (14%), truck drivers (11%), bus/taxi or limo drivers (10%) and control group members (10%) say they have ever been diagnosed with a sleep disorder, significantly more than the one in twenty pilots (5%) who say they have been diagnosed with a sleep disorder.

- Of those diagnosed with a sleep disorder, seven in ten or more were diagnosed with sleep apnea.

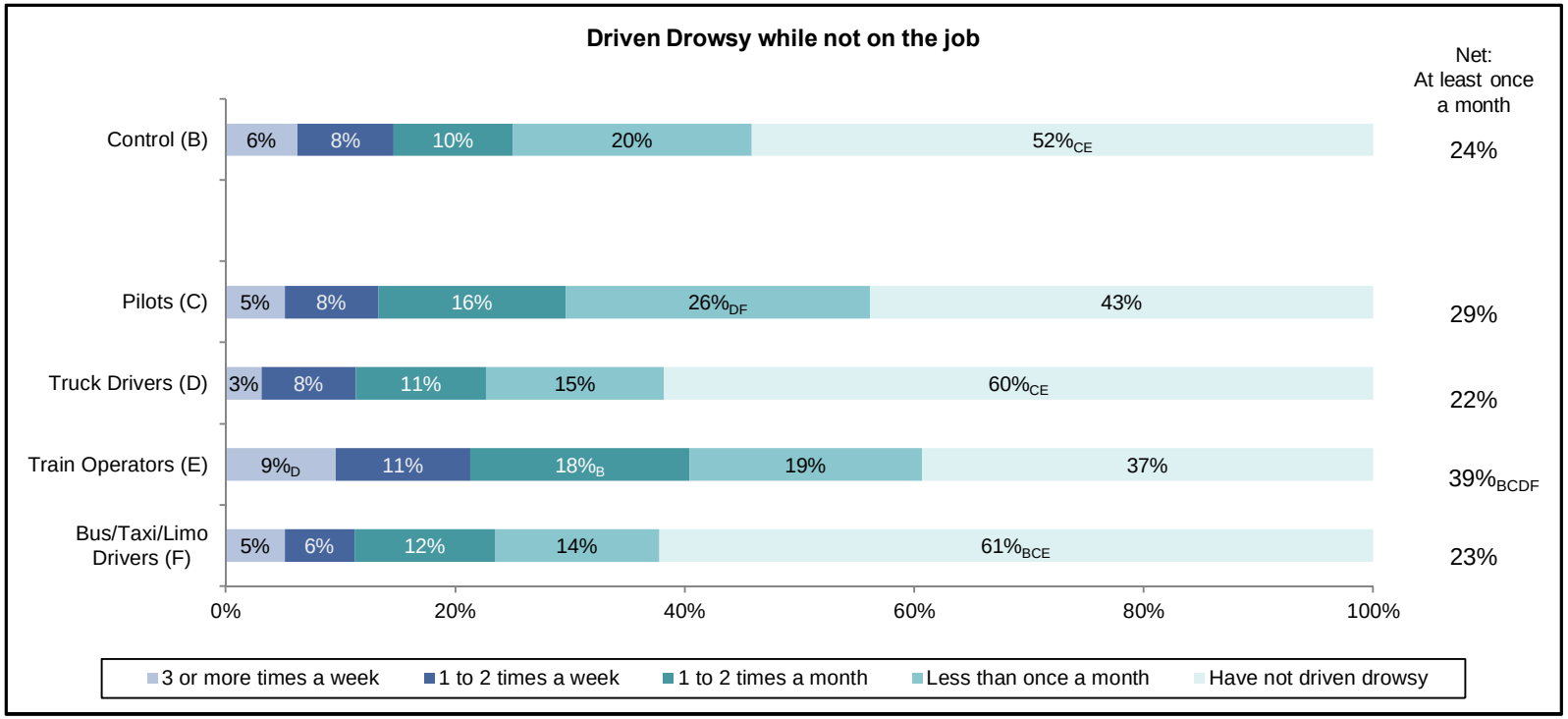
Sleep Disorder					
		Transportation Professions			
	Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Ever been diagnosed with a sleep disorder n =	(292)	(202)	(203)	(180)	(210)
% Yes	10%$_C$	5%	11%$_C$	14%$_C$	10%$_C$
Ever been diagnosed with…[1] n =	(28)*	(10)*	(22)*	(25)*	(22)*
Sleep apnea	82%	70%	82%	88%	86%
Shift work sleep disorder	4	-	14	-	9
Insomnia	18	10	18	8	23
Restless leg syndrome	4	-	5	-	-
Other	11	-	-	4	5

Base= Total sample
[1]Base= Those diagnosed with a sleep disorder
*Caution: Small Base
Letters indicate significant differences at the 95% confidence level.
Q45, Q45A

Drowsy Driving

All workers were asked to think of the past month and record how many times they have driven a car or motor vehicle not on the job while feeling drowsy.

- About two in ten or more workers said they have driven drowsy at least once in the past month.
- Nearly four in ten (39%) train operators said they have driven drowsy at least once in the past month, significantly more than the control group, pilots, truck drivers and bus/taxi or limo drivers.

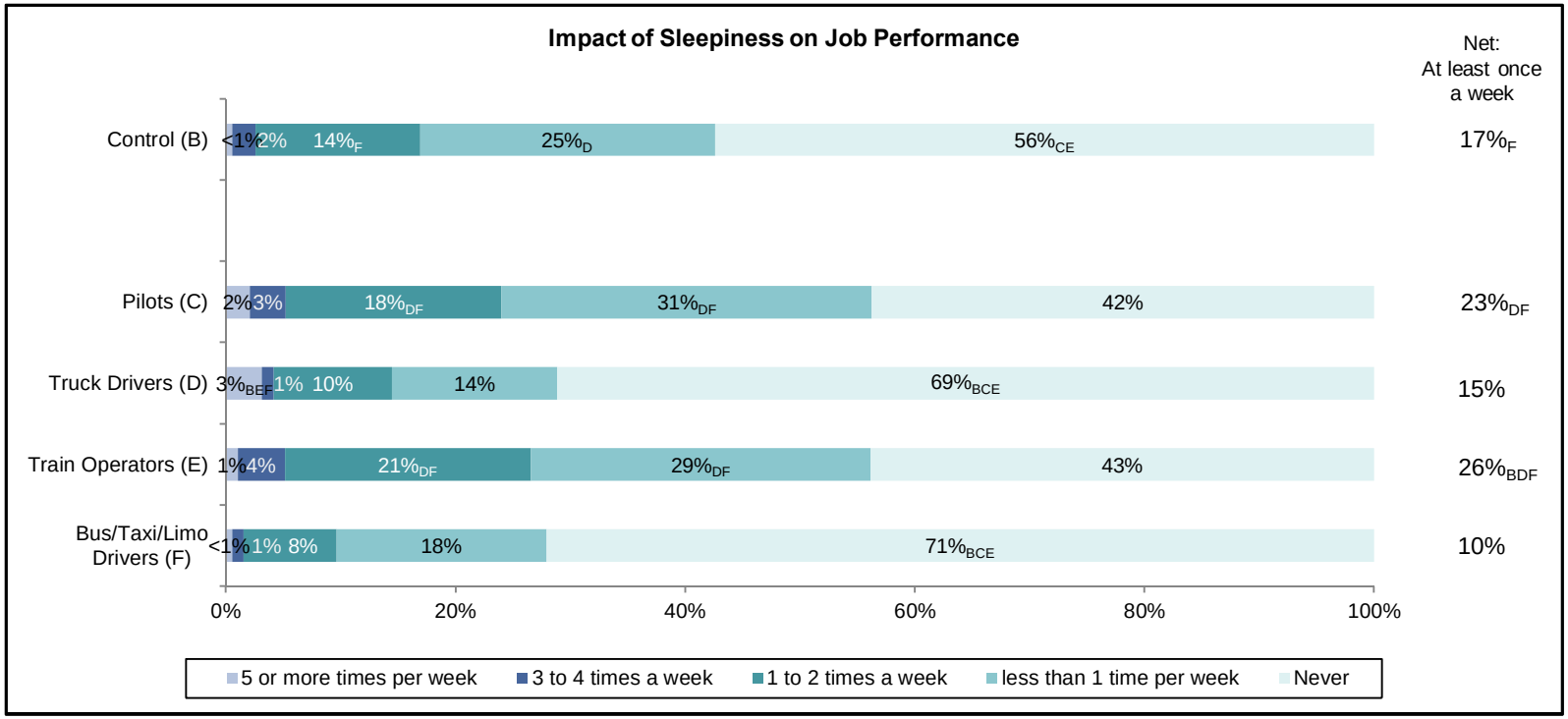


Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers s n=210)
Letters indicate significant differences at the 95% confidence level.
Q42

Impact of Sleepiness on Job Performance

Respondents were asked how often in the past two weeks sleepiness had impacted their job performance.

- About one-fourth of train operators (26%) said sleepiness impacted their job performance at least once a week, significantly more than the control group (17%), truck drivers (15%) and bus/taxi or limo drivers (10%).
- About two in ten pilots (23%) said sleepiness impacted their job performance at least once a week, significantly more than truck drivers (15%) and bus/taxi or limo drivers (10%).



Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers n=210)
Letters indicate significant differences at the 95% confidence level.
Q43

Impact of Sleepiness on Job Performance (continued)

Workers were asked if they have ever experience a series of incidents ï made a serious error, had an accident, and/or had a ñear missòat work because of sleepiness.

- Surprisingly, two in ten pilots (20%, significantly more than train operators 9%, bus/taxi or limo drivers 7%, truck drivers 6% and control group members 5%) said they have ever made a serious error due to sleepiness.

- Notably, significantly more pilots (6%), train operators (6%) and bus/taxi or limo drivers (3%) than control group members (1%) have ever been involved in a car accident to or from work due to sleepiness.

Impact of Sleepiness on Job Performance (continued)

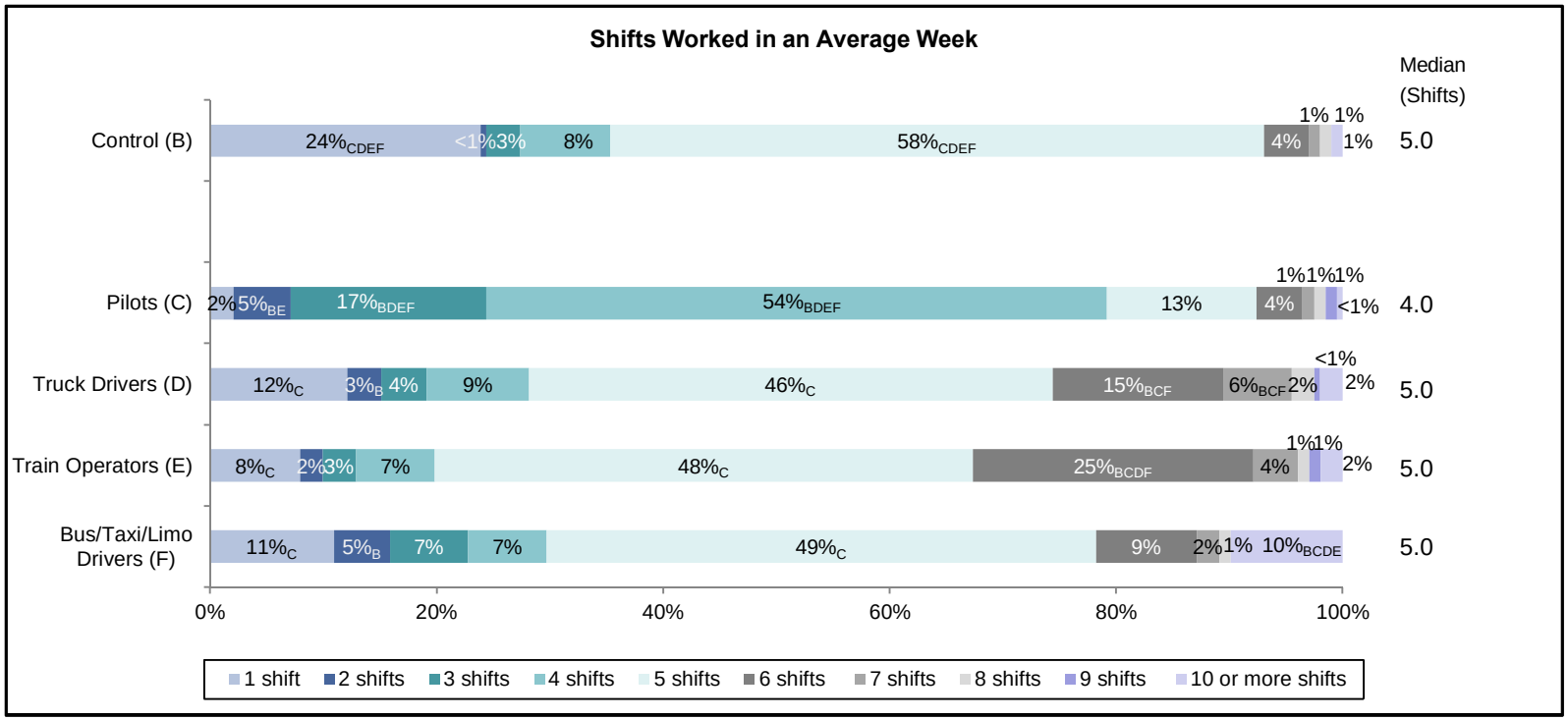
		Transportation Professions			
	Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Ever experienced incidents at work because of sleepiness (%Yes) n =	(292)	(202)	(203)	(180)	(210)
Net: Any	12%	26%$_{BDF}$	16%	22%$_{B}$	16%
Made a serious error	5	20$_{BDEF}$	6	9	7
Had an accident	1	1	2	1	3
Had a ñear missò	8	11	14$_{B}$	18$_{B}$	12
Ever been involved in a car accident to or from work due to sleepiness n =	(292)	(202)	(203)	(180)	(210)
% Yes	1%	6%$_{BD}$	1%	6%$_{BD}$	3%$_{B}$

Base= Total sample
Letters indicate significant differences at the 95% confidence level.
Q44, Q44D

Shifts Worked

All workers were asked the number of shifts worked in an average week. A median of 5 shifts per week was mentioned by nearly all workers. Almost six in ten members of the control group (58%) and almost one-half of bus/taxi or limo drivers (49%), train operators (48%) and truck drivers (46%) say they work 5 shifts per week.

- More than one-half of pilots (54%) noted that they work an average of 4 shifts per week.



Base= Total sample (Control n=292; Pilots n=202; Truck Drivers n=203; Train Operators n=180; Bus/Taxi/Limo Drivers s n=210)
Letters indicate significant differences at the 95% confidence level.
Q2

Characteristics of Respondents

What follows are characteristics of the respondents surveyed.

Characteristics of Respondents						
			Transportation Professions			
		Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Age	n =	(292)	(202)	(203)	(180)	(210)
25 to 34		11%$_{F}$	17%$_{DF}$	7%	15%$_{DF}$	6%
35 to 44		21$_{F}$	25$_{DF}$	17	29$_{DF}$	11
45 to 54		32$_{F}$	35$_{F}$	32$_{F}$	29	23
55 to 64		36$_{CE}$	20	35$_{CE}$	24	43$_{CE}$
65 or older		-	2	6$_{CE}$	1	14$_{CDE}$
Mean		*48.9$_{CE}$*	*46.1*	*51.0$_{BCE}$*	*45.7*	*54.4$_{BCDE}$*
Gender	n =	(292)	(202)	(203)	(180)	(210)
Male		50%	94%$_{BDEF}$	88%$_{BF}$	86%$_{BF}$	67%$_{B}$
Female		50$_{CDEF}$	6	12$_{C}$	14$_{C}$	33$_{CDE}$
Region	n =	(292)	(202)	(203)	(180)	(210)
Northeast		21%$_{C}$	11%	22%$_{C}$	24%$_{C}$	32%$_{BCD}$
Midwest		27$_{C}$	15	22	28$_{C}$	24$_{C}$
South		36$_{F}$	48$_{BDEF}$	32$_{F}$	28$_{F}$	19
West		16	26$_{B}$	25$_{B}$	20	25$_{B}$

Base= Total sample
Letters indicate significant differences at the 95% confidence level.
QS2, QS3, QS4

Characteristics of Respondents (continued)

Characteristics of Respondents (continued)						
			Transportation Professions			
		Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Marital Status	n =	(292)	(202)	(203)	(180)	(210)
Married or partnered		60%	$76\%_{B}$	$69\%_{B}$	$74\%_{B}$	$71\%_{B}$
Single		18_{F}	14	13	14	11
Divorced		12_{CE}	3	9_{C}	7	10_{C}
Living with someone		6	6	4	4	3
Widowed		3	-	2	-	2
Separated		2	1	2	1	1
Nights Sleep Apart[1]	n =	(159)	(153)	(131)	(129)	(138)
Zero nights		$30\%_{C}$	7%	$27\%_{C}$	$39\%_{CD}$	$46\%_{BCD}$
1 night		20_{CE}	4	18_{CE}	6	20_{CE}
2 nights		5	10_{F}	5	9	4
3 nights		5	30_{BDEF}	5	12_{BF}	4
4 nights		5	18_{BDEF}	4	5	1
5 nights		4	4	6	3	4
6 nights		1	-	2	2	-
7 nights		6_{C}	1	7_{C}	5	6_{C}
Depends on the week		24_{F}	26_{F}	27_{F}	19	14

Base= Total sample
[1]Base= Those married or partnered and answering
Letters indicate significant differences at the 95% confidence level.
D1, D2

Characteristics of Respondents (continued)

Characteristics of Respondents (continued)					
		Transportation Professions			
	Control (B)	Pilots (C)	Truck Drivers (D)	Train Operators (E)	Bus/Taxi/Limo Drivers (F)
Ethnicity n =	(292)	(202)	(203)	(180)	(210)
White/Caucasian	87%	90%$_{E}$	90%$_{E}$	82%	85%
Black/African-American	6$_{C}$	1	4	10$_{CDF}$	4
Asian	2	5	-	4	3
Alaska Native	-	-	<1	-	<1
American Indian	1	-	2	2	1
Native Hawaiian	-	1	-	-	<1
Other Pacific Islander	<1	-	-	-	<1
Hispanic/Latino	3	1	1	2	3
Multiracial (not specific)	1	-	-	-	1
Refused	<1	1	2	1	2

Base= Total sample
Multiple Responses Accepted
Letters indicate significant differences at the 95% confidence level.
D3

Preliminary Sleep Profiles

wba
MARKET RESEARCH

NATIONAL SLEEP FOUNDATION

2012 *Sleep in America*® Poll: Planes, Trains, Automobiles and Sleep

	Control(B)	Pilots(C)	Truck Drivers(D)	Train Operators(E)	Bus|Taxi|Limo(F)
Workday wake time	6:28 AM$_{F}$	6:37 AM$_{F}$	6:20 AM	7:04 AM$_{BF}$	5:53 AM
Workday bed time	10:58 PM$_{DF}$	10:45 PM	10:23 PM	11:13 PM$_{DF}$	10:24 PM
Hours slept workdays	6h 53m	6h 59m$_{E}$	6h 50m	6h 43m	7h 0m$_{E}$
Report less sleep than needed workdays	27%$_{DF}$	41%$_{BDF}$	19%	34%$_{DF}$	18%
Rarely/never get a good night's sleep on workdays	42%$_{F}$	50%$_{F}$	44%$_{F}$	57%$_{BDF}$	29%
Sleep problems every night/almost every night	59%	51%	54%	52%	54%
[1]Sleepy	7%	11%	8%	11%	11%
[2]Sleep disability	10%	10%	10%	18%$_{BCDF}$	7%
Nap workdays	27%	58%$_{BD}$	42%$_{B}$	56%$_{BD}$	53%$_{BD}$
Caffeine workdays (average servings)	3.7	4.8$_{B}$	5.0$_{BF}$	5.4$_{BF}$	3.8
Average shift (hours)	8.5$_{F}$	10.4$_{BEF}$	10.1$_{BF}$	9.8$_{BF}$	7.2
Work commute (minutes)	23.8$_{F}$	45.5$_{BDEF}$	24.3$_{F}$	31.0$_{BDF}$	17.8
Work same schedule each day	76%$_{CDEF}$	6%	51%$_{C}$	47%$_{C}$	61%$_{CDE}$
Work same number of hours each day	59%$_{CDE}$	5%	27%$_{C}$	33%$_{C}$	53%$_{CDE}$
Work same days each week	82%$_{CDEF}$	10%	67%$_{CE}$	55%$_{C}$	74%$_{CE}$
Sleep affects job performance at least once a week	17%$_{F}$	23%$_{DF}$	15%	26%$_{BDF}$	10%
"Near miss" at work due to sleepiness (ever)	8%	11%	14%$_{B}$	18%$_{B}$	12%
Serious error at work due to sleepiness (ever)	5%	20%$_{BDEF}$	6%	9%	7%
Car accident to or from work due to sleepiness	1%	6%$_{BD}$	1%	6%$_{BD}$	3%$_{B}$

[1]ESS: Function of the Epworth Sleepiness Scale
[2]SDS: Function of the verified Sheehan Disability Scale (scales attributes of work, social life and family)

For more information about the 2012 *Sleep in America*® Poll visit sleepfoundation.org

NATIONAL SLEEP FOUNDATION

2012 *Sleep in America*® Poll: Planes, Trains, Automobiles and Sleep

Pilots

Sleep

- Hours slept on workdays: 6h 59m
- Nap on workdays: 58%

Work

- Hours per shift: 10.4 hours
- Commute time: 45.5 minutes

Job performance and sleepiness

- Made a serious error at work: 20%
- Had a car accident to/from work: 6%

For more information about the 2012 *Sleep in America*® Poll visit sleepfoundation.org

NATIONAL SLEEP FOUNDATION

2012 *Sleep in America*® Poll: Planes, Trains, Automobiles and Sleep

Truck Drivers

Sleep

- Hours slept on workdays: 6h 50m
- Nap on workdays: 42%

Work

- Hours per shift: 10.1 hours
- Commute time: 24.3 minutes

Job performance and sleepiness

- Had a 'near miss' at work: 14%
- Sleepiness never impacts job: 69%

For more information about the 2012 *Sleep in America*® Poll visit sleepfoundation.org

2012 *Sleep in America*® Poll: Planes, Trains, Automobiles and Sleep

Train Operators

Sleep
- Hours slept on workdays: 6h 43m
- Nap on workdays: 56%

Work
- Hours per shift: 9.8 hours
- Commute time: 31.0 minutes

Job performance and sleepiness
- Had a 'near miss' at work: 18%
- Had a car accident to/from work: 6%

For more information about the 2012 *Sleep in America*® Poll visit sleepfoundation.org

NATIONAL SLEEP FOUNDATION

2012 *Sleep in America*® Poll: Planes, Trains, Automobiles and Sleep

Bus | Taxi | Limo

Sleep
- Hours slept on workdays: 7h 0m
- Nap on workdays: 53%

Work
- Hours per shift: 7.2 hours
- Commute time: 17.8 minutes

Job performance and sleepiness
- Had a 'near miss' at work: 12%
- Sleepiness never impacts job: 71%

For more information about the 2012 *Sleep in America*® Poll visit sleepfoundation.org

Sleep Profile – Epworth Sleepiness Scale

Epworth Sleepiness Scale			
	Normal Control (B)	**Normal Transportation (D)**	**Sleepy Transportation (E)**
n=	(247)	(649)	(74)
Avg Workday Wake Time	6:23AM	6:29AM	6:00AM
Avg Work night Bed Time	10:52PM	10:38PM	11:08PM
Avg Work night Hours Slept	6h 54m$_{E}$	6h 57m$_{E}$	6h 14m
Report less sleep than needed on work nights	26%	25%	58%$_{BD}$
Rarely/Never Get a Good Night's Sleep on Workdays	42%	42%	73%$_{BD}$
Coping on Workdays Naps: Any Caffeine: Mean number of beverages	24% 3.7	50%$_{B}$ 4.8$_{B}$	77%$_{BD}$ 4.2
Any sleep problems every night/almost every night	60%$_{D}$	53%	62%
Length of average shift (hours)	8.5	9.3$_{B}$	9.3$_{B}$
Travel times to work (minutes)	23.7	29.1$_{B}$	31.3$_{B}$
Work same schedule each day	75%$_{DE}$	42%	49%
Work same number of hours each day	59%$_{DE}$	29%	36%
Work same days each week	80%$_{DE}$	51%	57%
Impact of sleep on job performance at least once a week	14%	14%	57%$_{BD}$
Been involved in a car accident to or from work due to sleepiness	1%	3%$_{B}$	16%$_{BD}$

Note: Sleepy not displayed for Control due to small sample size (18*).
Base= Total sample
[1]Base= Those answering

Sleep Profile – Work the same versus different schedule

Work the same versus different schedule				
	Same schedule each day- Control (F)	**Different schedule each day- Control (G)**	**Same schedule each day- Transportation (H)**	**Different schedule each day- Transportation (I)**
n=	(222)	(70)	(328)	(467)
Avg Workday Wake Time	6:25AM	6:38AM	6:11AM	6:38AM
Avg Work night Bed Time	11:00PM	10:50PM	10:43PM	10:38PM
Avg Work night Hours Slept	6h 51m	7h 1m	6h 49m	6h 57m
Report less sleep than needed on work nights	29%	23%	22%	32%$_{H}$
Rarely/Never Get a Good Nightôs Sleep on Workdays	43%	41%	39%	48%$_{H}$
Coping on Workdays Naps: Any Caffeine: Mean number of beverages	27% 3.4	27% 4.7$_{F}$	44%$_{FG}$ 4.0$_{F}$	58%$_{FGH}$ 5.3$_{FH}$
Any sleep problems every night/almost every night	60%$_{I}$	56%	54%	52%
Length of average shift (hours)	8.6	8.4	8.4	10.0$_{FGH}$
Travel times to work (minutes)	23.9	23.5	21.9	35.3$_{FGH}$
Work same number of hours each day	75%$_{GHI}$	9%	63%$_{GI}$	6%
Work same days each week	93%$_{GI}$	47%$_{I}$	90%$_{GI}$	24%
Impact of sleep on job performance at least once a week	16%	20%	14%	21%$_{H}$
Been involved in a car accident to or from work due to sleepiness	1%	-%	3%	5%$_{F}$

Note: Sleepy not displayed for Control due to small sample size (18*).
Base= Total sample
[1]Base= Those answering

Sleep Profile – Work the same versus different days each week

Work the same versus different days each week				
	Same days each week-Control (N)	**Different days each week-Control (O)**	**Same days each week-Transportation (P)**	**Different days each week-Transportation (Q)**
n=	(239)	(53)	(409)	(386)
Avg Workday Wake Time	6:26AM	6:40AM	6:12AM	6:43AM
Avg Work night Bed Time	10:56PM	11:07PM	10:37PM	10:43PM
Avg Work night Hours Slept	6h 56m	6h 44m	6h 50m	6h 57m
Report less sleep than needed on work nights	28%	25%	23%	33%
Rarely/Never Get a Good Nightôs Sleep on Workdays	42%	43%	42%	48%
Coping on Workdays Naps: Any Caffeine: Mean number of beverages	27% 3.5	28% 4.4	46%$_{NO}$ 4.1	58%$_{NOP}$ 5.4$_{NP}$
Any sleep problems every night/almost every night	61%	53%	53%	53%
Length of average shift (hours)	8.5	8.7	8.5	10.2$_{NOP}$
Travel times to work (minutes)	23.9	23.1	22.7	37.2$_{NOP}$
Work same schedule each day	86%$_{OPQ}$	30%$_{Q}$	72%$_{OQ}$	9%
Work same number of hours each day	69%$_{OPQ}$	15%	52%$_{OQ}$	6%
Impact of sleep on job performance at least once a week	17%	19%	14%	23%$_{P}$
Been involved in a car accident to or from work due to sleepiness	1%	-%	3%$_{N}$	5%$_{N}$

Note: Sleepy not displayed for Control due to small sample size (18*).
Base= Total sample
[1]Base= Those answering

Appendix

Standard Error

Because in research the entire population is typically not interviewed, but rather a sample of that population is surveyed, the data are subject to sampling error. A sample size of 1,087 will yield data with a maximum fluctuation of ±3.0 percentage points at the 95% confidence level. However, the actual standard error may be smaller, depending on the data being examined. Standard errors are shown below for various study percentages and by occupation, at the 95% confidence level:

If the study percentage is around:	50%	40% or 60%	30% or 70%	20% or 80%	10% or 90%	1% or 99%
Then, the standard error in percentage points is:						
Total Sample (n=1,087)	±3.0	±2.9	±2.7	±2.4	±1.8	±0.6
Total Transportation (n=795)	±3.5	±3.4	±3.2	±2.8	±2.1	±0.7
Control (n=292)	±5.7	±5.6	±5.3	±4.6	±3.4	±1.1
Pilots (n=202)	±6.9	±6.8	±6.3	±5.5	±4.1	±1.4
Truck Drivers (n=203)	±6.9	±6.7	±6.3	±5.5	±4.1	±1.4
Rail Transportation Workers (n=180)	±7.3	±7.2	±6.7	±5.8	±4.4	±1.5
Bus/Taxi/Limo Drivers(n=210)	±6.8	±6.6	±6.2	±5.4	±4.1	±1.3

For example, if a question yielded a percentage of 20% among the Total Sample, then we can be sure 95 out of 100 times that the true percentage would lie between 17.6% and 22.4% (20% ±2.4 percentage points).

wbq MARKET RESEARCH

Survey Instrument

NATIONAL SLEEP FOUNDATION
2012 *SLEEP IN AMERICA* POLL: PLANES, TRAINS, AUTOMOBILES AND SLEEP
SCREENING QUESTIONNAIRE - WEB

Region	Quota
Pilots	200
Truck drivers	200
Train operators	200
Bus/Taxi/Limo drivers	200
Control group	200
Total	**1,000**

We are conducting the annual *Sleep in America* poll, a survey about sleep among people in America, on behalf of the National Sleep Foundation. Your identity will be kept strictly anonymous. We appreciate your time and opinions!

First, we have just a few questions to make sure you qualify for the study.

S1. Do you work primarily as …?

01 An airline pilot
02 A truck driver
03 A rail transportation worker
04 A bus driver
05 A taxi or limo driver

96 Something else **(SPECIFY)** _____

IF PILOT [S1(01)], ASK S1A.

S1A. What type of airline pilot are you? **(MULTIPLE RESPONSES ACCEPTED)**

01 Airline cargo pilot
02 Commercial airline passenger pilot
03 Private airplane passenger pilot
04 Military pilot **(THANK AND TERMINATE)**

IF TRUCK DRIVER [S1(02)], ASK S1B AND S1C.

S1B. What type of truck driver are you? **(MULTIPLE RESPONSES ACCEPTED)**

01 Short haul
02 Long haul

S1C. Are you employed…?

01 Independently
02 By a large trucking company

IF TRAIN OPERATOR [S1(03)], ASK S1D.

S1D. What type of rail transportation worker are you?

01 Train operator for freight
03 Train conductor for freight
02 Train operator for passengers
04 Train conductor for passengers

IF BUS DRIVER [S1(04)], ASK S1E.

S1E. What type of bus driver are you?

01 Public transit bus driver
02 School bus driver
03 Chartered bus driver
04 Intercity bus driver
05 Other **(SPECIFY)** _____

ASK EVERYONE:

S2. What is your age? _____ **(998=REFUSED. 025+ CONTINUE FOR WORKER SAMPLE. CONTROL GROUP 025-064, IF 000-025 OR 065-999, THANK AND TERMINATE.)**

S3. Are you…?

01 Male
02 Female

S4. What state do you live in? ____ **(PROGRAMMING NOTE: STATE WILL DETERMINE REGION.)**

Survey Instrument (continued)

2012 *SLEEP IN AMERICA* POLL
MAIN QUESTIONNAIRE

ASK EVERYONE:

The following questions are only related to your primary job – the one you spend the most hours per week working in.

1. How long is your average shift at your job?

   01 Less than 6 hours
   02 6 hours to less than 8 hours
   03 8 hours to less than 9 hours
   04 9 hours to less than 12 hours
   05 12 hours or more

2. How many shifts do you work in average each week?

   01 1 shift
   02 2
   03 3
   04 4
   05 5
   06 6
   07 7
   08 8
   09 9
   10 10 or more

3. Do you work the same schedule each day?

   01 Yes
   02 No

4. Do you work the same number of hours each day?

   01 Yes
   02 No

5. Do you work the same days each week?

   01 Yes
   02 No

IF WORK THE SAME SCHEDULE EACH DAY [Q3(01)], ASK Q6A.

6A. When do you usually begin work __:__ AM/PM

6B. When do you usually end work __:___AM/PM

6A. When do you usually begin work __:__ AM/PM

6B. When do you usually end work __:___AM/PM

IF DO NOT WORK THE SAME SCHEDULE EACH DAY [Q3(02)], ASK Q7A.

7A. How many times in the past two weeks did you start working between the hours of 3:30 AM and 6:00AM?

   00 None
   01 1 time
   02 2
   03 3
   04 4
   05 5
   06 6
   07 7
   08 8
   09 9
   10 10
   11 11
   12 12
   13 13
   14 14 times
   99 Don't know

7B. How many times in the past two weeks did you start working between the hours of 10:00 PM and 3:30 AM?

   00 None
   01 1 time
   02 2
   03 3
   04 4
   05 5
   06 6
   07 7
   08 8
   09 9
   10 10
   11 11
   12 12
   13 13
   14 14 times
   99 Don't know

ASK EVERYONE:

8. During the workweek, on average, how many hours do you have off between shifts?

   01 Less than 8 hours
   02 8 hours to less than 12 hours
   03 12 hours or more

Survey Instrument (continued)

9. On average, how long does it take you to get to work from your home?

01	Less than 15 minutes
02	15 to 30 minutes
03	31 to 45 minutes
04	46 to 60 minutes
05	More than 60 minutes
99	Don't know
97	Not applicable

10. On average, how long does it take you to get home at the end of work?

01	Less than 15 minutes
02	15 to 30 minutes
03	31 to 45 minutes
04	46 to 60 minutes
05	More than 60 minutes
99	Don't know
97	Not applicable

11. Do you have a second job?

01	Yes
02	No

12. Including all jobs, how many hours do you spend working each week?
____ Hours

Again, we recognize not all individuals sleep at night and work during the day. For the purpose of these questions, consider "night" to be whenever you take typically take your longest daily sleep period, and "day" to be whenever you typically work.

13. Thinking about the past two weeks, at what time did you usually get up on work days?

01	12:00 AM (Midnight)- 12:29 AM	25	1:00PM – 1:29PM
02	12:30AM – 1:59 AM	26	1:30 PM – 1:59 PM
03	2:00 AM – 2:29 AM	27	2:00 PM – 2:29 PM
04	2:30AM – 2:59 AM	28	2:30PM – 2:59 PM
05	3:00AM – 3:29 AM	29	3:00PM – 3:29 PM
06	3:30 AM – 3:59 AM	30	3:30 PM – 3:59 PM
07	4:00 AM – 4:29 AM	31	4:00 PM – 4:29 PM
08	4:30 AM – 4:59 AM	32	4:30 PM – 4:59 PM
09	5:00 AM – 5:29 AM	33	5:00 PM – 5:29 PM
10	5:30 AM – 5:59 AM	34	5:30 PM – 5:59 PM
11	6:00 AM – 6:29 AM	35	6:00 PM – 6:29 PM
12	6:30 AM – 6:59 AM	36	6:30 PM – 6:59 PM
13	7:00 AM – 7:29 AM	37	7:00 PM – 7:29 PM
14	7:30 AM – 7:59 AM	38	7:30 PM – 7:59 PM
15	8:00 AM – 8:29 AM	39	8:00 PM – 8:29 PM
16	8:30 AM – 8:59 AM	40	8:30 PM – 8:59 PM
17	9:00 AM – 9:29 AM	41	9:00 PM – 9:29 PM
18	9:30 AM – 9:59 AM	42	9:30 PM – 9:59 PM
19	10:00 AM – 10:29 AM	43	10:00 PM – 10:29 PM
20	10:30 AM – 10:59 AM	44	10:30 PM – 10:59 PM
21	11:00 AM – 11:29 AM	45	11:00 PM – 11:29 PM
22	11:30 AM – 11:59 AM	46	11:30 PM – 11:59 PM
23	12:00 PM (Noon) – 12:29 PM	99	Don't know
24	12:30PM – 12:59 PM		

Survey Instrument (continued)

14. Thinking about the past two weeks, at what time did you usually go to bed before work days?

01	12:00 AM (Midnight)- 12:29 AM	25	1:00PM – 1:29PM
02	12:30AM – 1:59 AM	26	1:30 PM – 1:59 PM
03	2:00 AM – 2:29 AM	27	2:00 PM – 2:29 PM
04	2:30AM – 2:59 AM	28	2:30PM – 2:59 PM
05	3:00AM – 3:29 AM	29	3:00PM – 3:29 PM
06	3:30 AM – 3:59 AM	30	3:30 PM – 3:59 PM
07	4:00 AM – 4:29 AM	31	4:00 PM – 4:29 PM
08	4:30 AM – 4:59 AM	32	4:30 PM – 4:59 PM
09	5:00 AM – 5:29 AM	33	5:00 PM – 5:29 PM
10	5:30 AM – 5:59 AM	34	5:30 PM – 5:59 PM
11	6:00 AM – 6:29 AM	35	6:00 PM – 6:29 PM
12	6:30 AM – 6:59 AM	36	6:30 PM – 6:59 PM
13	7:00 AM – 7:29 AM	37	7:00 PM – 7:29 PM
14	7:30 AM – 7:59 AM	38	7:30 PM – 7:59 PM
15	8:00 AM – 8:29 AM	39	8:00 PM – 8:29 PM
16	8:30 AM – 8:59 AM	40	8:30 PM – 8:59 PM
17	9:00 AM – 9:29 AM	41	9:00 PM – 9:29 PM
18	9:30 AM – 9:59 AM	42	9:30 PM – 9:59 PM
19	10:00 AM – 10:29 AM	43	10:00 PM – 10:29 PM
20	10:30 AM – 10:59 AM	44	10:30 PM – 10:59 PM
21	11:00 AM – 11:29 AM	45	11:00 PM – 11:29 PM
22	11:30 AM – 11:59 AM	46	11:30 PM – 11:59 PM
23	12:00 PM (Noon) – 12:29 PM	99	Don't know
24	12:30PM – 12:59 PM		

15. Thinking about your usual non-work days in the past two weeks, please answer the following questions. At what time do you usually get up on days you do not work?

01	12:00 AM (Midnight)- 12:29 AM	25	1:00PM – 1:29PM
02	12:30AM – 1:59 AM	26	1:30 PM – 1:59 PM
03	2:00 AM – 2:29 AM	27	2:00 PM – 2:29 PM
04	2:30AM – 2:59 AM	28	2:30PM – 2:59 PM
05	3:00AM – 3:29 AM	29	3:00PM – 3:29 PM
06	3:30 AM – 3:59 AM	30	3:30 PM – 3:59 PM
07	4:00 AM – 4:29 AM	31	4:00 PM – 4:29 PM
08	4:30 AM – 4:59 AM	32	4:30 PM – 4:59 PM
09	5:00 AM – 5:29 AM	33	5:00 PM – 5:29 PM
10	5:30 AM – 5:59 AM	34	5:30 PM – 5:59 PM
11	6:00 AM – 6:29 AM	35	6:00 PM – 6:29 PM
12	6:30 AM – 6:59 AM	36	6:30 PM – 6:59 PM
13	7:00 AM – 7:29 AM	37	7:00 PM – 7:29 PM
14	7:30 AM – 7:59 AM	38	7:30 PM – 7:59 PM
15	8:00 AM – 8:29 AM	39	8:00 PM – 8:29 PM
16	8:30 AM – 8:59 AM	40	8:30 PM – 8:59 PM
17	9:00 AM – 9:29 AM	41	9:00 PM – 9:29 PM
18	9:30 AM – 9:59 AM	42	9:30 PM – 9:59 PM
19	10:00 AM – 10:29 AM	43	10:00 PM – 10:29 PM
20	10:30 AM – 10:59 AM	44	10:30 PM – 10:59 PM
21	11:00 AM – 11:29 AM	45	11:00 PM – 11:29 PM
22	11:30 AM – 11:59 AM	46	11:30 PM – 11:59 PM
23	12:00 PM (Noon) – 12:29 PM	99	Don't know
24	12:30PM – 12:59 PM		

16. In the past two weeks, at what time did you usually go to bed when you did not work the next day?

01	12:00 AM (Midnight)- 12:29 AM	25	1:00PM – 1:29PM
02	12:30AM – 1:59 AM	26	1:30 PM – 1:59 PM
03	2:00 AM – 2:29 AM	27	2:00 PM – 2:29 PM
04	2:30AM – 2:59 AM	28	2:30PM – 2:59 PM
05	3:00AM – 3:29 AM	29	3:00PM – 3:29 PM
06	3:30 AM – 3:59 AM	30	3:30 PM – 3:59 PM
07	4:00 AM – 4:29 AM	31	4:00 PM – 4:29 PM
08	4:30 AM – 4:59 AM	32	4:30 PM – 4:59 PM
09	5:00 AM – 5:29 AM	33	5:00 PM – 5:29 PM
10	5:30 AM – 5:59 AM	34	5:30 PM – 5:59 PM
11	6:00 AM – 6:29 AM	35	6:00 PM – 6:29 PM
12	6:30 AM – 6:59 AM	36	6:30 PM – 6:59 PM
13	7:00 AM – 7:29 AM	37	7:00 PM – 7:29 PM
14	7:30 AM – 7:59 AM	38	7:30 PM – 7:59 PM
15	8:00 AM – 8:29 AM	39	8:00 PM – 8:29 PM
16	8:30 AM – 8:59 AM	40	8:30 PM – 8:59 PM
17	9:00 AM – 9:29 AM	41	9:00 PM – 9:29 PM
18	9:30 AM – 9:59 AM	42	9:30 PM – 9:59 PM
19	10:00 AM – 10:29 AM	43	10:00 PM – 10:29 PM
20	10:30 AM – 10:59 AM	44	10:30 PM – 10:59 PM
21	11:00 AM – 11:29 AM	45	11:00 PM – 11:29 PM
22	11:30 AM – 11:59 AM	46	11:30 PM – 11:59 PM
23	12:00 PM (Noon) – 12:29 PM	99	Don't know
24	12:30PM – 12:59 PM		

Survey Instrument (continued)

17. Does your job require a mandatory interim (mid-shift) rest period or do you work a split-shift?
01 Yes → **CONTINUE**
02 No → **SKIP TO Q18**

IF REQUIRED REST PERIOD [Q17(01)], ASK Q17A.

17A. During your mandatory interim rest period or split-shift do you normally nap?
01 Yes
02 No

ASK EVERYONE

18. Thinking about the last two weeks: On work days, how many hours did you usually sleep during each 24 hour period (including naps)?

01	5 hours of sleep or less	12	7 hours and 45 minutes
02	5 hours and 15 minutes	13	8 hours
03	5 hours and 30 minutes	14	8 hours and 15 minutes
04	5 hours and 45 minutes	15	8 hours and 30 minutes
05	6 hours	16	8 hours and 45 minutes
06	6 hours and 15 minutes	17	9 hours
07	6 hours and 30 minutes	18	9 hours and 15 minutes
08	6 hours and 45 minutes	19	9 hours and 30 minutes
09	7 hours	20	9 hours and 45 minutes
10	7 hours and 15 minutes	21	10 hours
11	7 hours and 30 minutes	22	More than 10 hours of sleep
		99	Don't know

19. Thinking about the last two weeks: On days you did not work, how many hours did you usually sleep during each 24 hour period (including naps)?

01	5 hours of sleep or less	12	7 hours and 45 minutes
02	5 hours and 15 minutes	13	8 hours
03	5 hours and 30 minutes	14	8 hours and 15 minutes
04	5 hours and 45 minutes	15	8 hours and 30 minutes
05	6 hours	16	8 hours and 45 minutes
06	6 hours and 15 minutes	17	9 hours
07	6 hours and 30 minutes	18	9 hours and 15 minutes
08	6 hours and 45 minutes	19	9 hours and 30 minutes
09	7 hours	20	9 hours and 45 minutes
10	7 hours and 15 minutes	21	10 hours
11	7 hours and 30 minutes	22	More than 10 hours of sleep
		99	Don't know

* 20. What is the current year?
01 1987 → **THANK AND TERMINATE**
02 2008 → **THANK AND TERMINATE**
03 2011 → **CONTINUE**
04 1995 → **THANK AND TERMINATE**

21. Thinking about the past two weeks, how many total naps did you take on work days combined?
01 Zero → **SKIP TO Q23**

02 1 to 2 naps
03 3 to 5 naps
04 6 to 10 naps → **CONTINUE**
05 More than 10 naps
99 Don't know → **SKIP TO Q23**

IF TOOK NAPS ON WORKDAYS/WEEKDAYS [Q21(02-05)], ASK Q21A.

21A. On average, how many minutes was each nap that you took on work days?
01 Less than 15 minutes
02 16-30 minutes
03 31-45 minutes
04 46 minutes to 1 hour
05 More than 1 hour to 2 hours
06 More than 2 hours to 3 hours
07 More than 3 hours to 4 hours
08 4 hours or more
99 Don't know

21B. In the past two weeks, have you taken a nap during work?
01 Yes
02 No

21C. If yes, how many times have you taken a nap during work?
01 Less than once a week
02 1-2 times a week
03 3-4 times a week
04 5 or more times a week
99 Don't know

21D. Does your employer allow you to take a nap during breaks at work?
01 Yes → **CONTINUE**
02 No → **SKIP TO Q23**

** **IF EMPLYOER ALLOWS NAPS DURING BREAKS [Q21D(01)], ASK Q22A.**

Q22A. Besides planned naps, have you fallen asleep or nearly fallen asleep on the job in the past two weeks?
01 Yes
02 No

Q22B. In the past two weeks, have you missed a day of work because you were too sleepy to work?
01 Yes
02 No

Q22C. Is it an accepted practice to notify a superior if you are not alert enough to perform your job safely?
01 Yes
02 No

Q22D. Have you ever told your superior that you were not alert enough to perform your job safely?
01 Yes
02 No

* Q20 only asked to assure respondents are reading and answering the questions, not simply choosing responses to finish the web survey quickly.
** Q22A-Q22D not reported in summary of findings because it was only asked of those whose employer allows naps during breaks.

Survey Instrument (continued)

ASK EVERYONE:

23. Thinking about the past two weeks, how many total naps did you take on days off combined?

01 Zero → **SKIP TO Q25**
02 1 to 2 naps
03 3 to 5 naps → **CONTINUE**
04 More than 5 naps
99 Don't know → **SKIP TO Q25**

IF TOOK NAPS ON NON-WORKDAYS/WEEKENDS [Q23(02-04)], ASK Q24.

24. On average, how many minutes would you say you usually nap on days off?

01 Less than 15 minutes
02 16-30 minutes
03 31-45 minutes
04 46 minutes to 1 hour
05 More than 1 hour to 2 hours
06 More than 2 hours to 3 hours
07 More than 3 hours to 4 hours
08 4 hours or more
99 Don't know

ASK EVERYONE:

25. Thinking about the past two weeks, on how many work days would you say "I had a good night's sleep"?

04 Every night
03 Almost every night
02 Rarely
01 Never
99 Don't know

26. Thinking about the past two weeks, on how many days you did not work would you say "I had a good night's sleep"?

04 Every night
03 Almost every night
02 Rarely
01 Never
99 Don't know

27. Thinking about the last two weeks, how many servings of caffeinated beverages, such as soda, soft drinks, coffee, tea, and energy drinks did you drink on an average work day… **(DO NOT ACCEPT RANGES. 99=DON'T KNOW; 00=NONE; 97=LESS THAN ONE.)**

	# Caffeinated Beverages
a. Between 5:00 AM and 10:59AM?	
b. Between 11:00 AM and 4:59 PM?	
c. Between 5:00 PM and 10:59 PM?	
d. Between 11:00 PM and 4:59 AM?	

28. Over the past two weeks, how often did you use caffeine (e.g., coffee, soda, energy drinks, caffeine pills) to help you stay awake or alert at work?
01 Never
02 Less than once a week
03 1-2 times a week
04 3-4 times a week
05 5 or more times a week
99 Don't know

29. Over the past two weeks, how often did you use other stimulants (e.g., nicotine/tobacco, prescription medications, etc.) to help you stay awake or alert at work?
01 Never
02 Less than once a week
03 1-2 times a week
04 3-4 times a week
05 5 or more times a week
99 Don't know

30. In recent times, how likely are you to doze off or fall asleep while doing the following activities, in contrast to just feeling tired?

How many times a week are you likely to fall asleep while… **(ASK IN ORDER. PROGRAMMING NOTE: IF 99 TO ANY, SKIP IMMEDIATELY TO Q31.)**

		Never	Less than once a week	1-2 times a week	3-4 times a week	5 or more times a week	Don't know
a.	Sitting and reading	00	01	03	02	04	99
b.	Watching TV	00	01	03	02	04	99
c.	Sitting inactive in a public place such as a theater or meeting	00	01	03	02	04	99
d.	In a car, while stopped for a few minutes in traffic	00	01	03	02	04	99
e.	As a passenger in a car for an hour without a break	00	01	03	02	04	99
f.	Sitting and talking to someone	00	01	03	02	04	99
g.	Sitting quietly after a lunch without alcohol	00	01	03	02	04	99
h.	Lying down to rest in the afternoon when circumstances permit	00	01	03	02	04	99

Survey Instrument (continued)

31. Thinking about the past two weeks, on average how many hours of sleep did you need to function at your best the next day?

01	Less than 5 hours	06	9 to less than 10 hours
02	5 to less than 6 hours	07	10 to less than 11 hours
03	6 to less than 7 hours	08	11 to less than 12 hours
04	7 to less than 8 hours	09	12 hours or more
05	8 to less than 9 hours	99	Don't know

32. Thinking about the past two weeks, did your current work schedule or typical weekday routine, including your duties at home, allow you to get adequate sleep?

01	Yes	→ **SKIP TO Q34**
02	No	→ **CONTINUE**
99	Don't know	→ **SKIP TO Q34**

IF DO NOT GET ADEQUATE SLEEP [Q32(02)], ASK Q33.

33. On a typical day, how much of an impact did "not getting adequate sleep" have on the following? **(RANDOMIZE.)**

Would you say it had a major impact, some impact or no impact?

	Major impact	Some impact	No impact	Not applicable	Don't know
a. Your work	03	02	01		99
c. Your social life or leisure activities	03	02	01	96	99
d. Your family life or home responsibilities	03	02	01	96	99
e. Your mood	03	02	01	96	99
f. Your intimate or sexual relations	03	02	01	96	99

ASK EVERYONE:

34. In the past two weeks, after work and before going to sleep, about how much time did you spend engaging in each of the following activities?

	No time	A few minutes up to an hour	1-3 hours	3 hours or more	Don't know
a. Watch TV/video	01	02	03	04	99
b. Use computer/Internet	01	02	03	04	99
c. Hobby	01	02	03	04	99
d. Read (newspaper, books)	01	02	03	04	99
e. Exercise	01	02	03	04	99
f. Talk on phone	01	02	03	04	99
g. Socialize	01	02	03	04	99
h. Cooking/eating	01	02	03	04	99
i. Shopping	01	02	03	04	99
j. Childcare	01	02	03	04	99

35. Do you feel that you generally have enough time off between work shifts to do everything that you need or want to do, plus get adequate sleep?

01 Yes
02 No

36. In the past two weeks, have you made an effort to ensure that you obtain adequate sleep before starting a work shift?

01 Yes
02 No

37. If you had one more hour off between work shifts, would you use it to get more sleep?

01 Yes
02 No

38. Thinking about the past two weeks, how many minutes, on most work days did it take you to fall asleep?

01	Less than 5 minutes
02	5 to less than 10 minutes
03	10 to less than 20 minutes
04	20 to less than 25 minutes
05	25 to less than 30 minutes
06	30 to less than 35 minutes
07	35 to less than 40 minutes
08	40 to less than 45 minutes
09	45 to less than 50 minutes
10	50 to less than 55 minutes
11	55 minutes to less than 1 hour
12	1 to less than 2 hours
13	2 hours or more
96	Depends/Varies
99	Don't know/Not sure

39. Thinking about the past two weeks, how many minutes, on most days you do not work, did it take you to fall asleep?

01	Less than 5 minutes
02	5 to less than 10 minutes
03	10 to less than 20 minutes
04	20 to less than 25 minutes
05	25 to less than 30 minutes
06	30 to less than 35 minutes
07	35 to less than 40 minutes
08	40 to less than 45 minutes
09	45 to less than 50 minutes
10	50 to less than 55 minutes
11	55 minutes to less than 1 hour
12	1 to less than 2 hours
13	2 hours or more
96	Depends/Varies
99	Don't know/Not sure

40. In the past two weeks, would you say you did or had any of the following every night or almost every night, a few nights a week, rarely or never? **(RANDOMIZE. PROGRAMMING NOTE: ASK ITEMS B AND C LAST.)**

Survey Instrument (continued)

	Every night or almost every night	A few nights a week	Rarely	Never	Don't know
a. Had difficulty falling asleep	04	03	02	01	99
b. Woke up during the night	04	03	02	01	99
c. Woke up too early and could not get back to sleep	04	03	02	01	99
d. Woke up feeling un-refreshed	04	03	02	01	99
e. Snored	04	03	02	01	99

IF REGULARLY WOKE UP DURING THE NIGHT OR WOKE TOO EARLY [Q40(03-04) OR Q39c(03-04)], ASK Q41.

41. Approximately how many minutes, on average, were you awake when you woke up during the night or woke up too early? **(DO NOT ACCEPT RANGES. 998=REFUSED, 999=DON'T KNOW.)**

Minutes: _____

ASK EVERYONE:

42. Now, for just this question, please think about the past month.

Thinking of the past month when you were not on the job, how many times have you driven a car or motor vehicle while feeling drowsy?

05 3 or more times a week
04 1 to 2 times a week
03 1 to 2 times a month
02 Less than once a month
01 Have not driven drowsy in the past month

96 While off duty, have not driven a car/motor vehicle at all in the past month
99 Don't know

43. Thinking again about the past two weeks, how often did sleepiness impact your job performance?

01 Never
02 Less than 1 time per week
03 1-2 times per week
04 3-4 times per week
05 5 or more times per week
99 Don't know

44. Have you ever experienced any of the following incidents at work because of sleepiness?

	Yes	No	Don't know
a. Made a serious error	01	02	99
b. Had an accident	01	02	99
c. Had a "near miss"	01	02	99

44D. Have you ever been involved in a car accident commuting to or from work due to sleepiness?

01 Yes
02 No

45. Have you ever been diagnosed with a sleep disorder?

01 Yes → **CONTINUE**
02 No → **SKIP TO D1**

IF DIAGNOSED WITH SLEEP DISORDER [Q45(01)], ASK Q45A.

45A. Have you ever been diagnosed with…?

	Yes	No	Don't know
a. Sleep apnea	01	02	99
b. Shift work sleep disorder	01	02	99
c. Insomnia	01	02	99
d. Other (SPECIFY)		02	99

These last questions are for classification purposes only and will also be kept strictly confidential.

ASK EVERYONE:

D1. What is your marital status? **(ACCEPT ONE RESPONSE ONLY.)**

01 Married or partnered → **CONTINUE**
02 Single → **SKIP TO QD3**
03 Living with someone → **SKIP TO QD3**
04 Divorced → **SKIP TO QD3**
05 Separated → **SKIP TO QD3**
06 Widowed → **SKIP TO QD3**
98 Refused → **SKIP TO QD3**

IF MARRIED OR PARTNERED [QD1(01)], ASK QD2.

D2. Approximately how many nights a week do you sleep apart (in a different geographic location) from your spouse or partner?

00 Zero nights
01 1 night
02 2
03 3
04 4
05 5
06 6
06 7 nights
07 Depends on the week
99 Don't know

ASK EVERYONE:

Survey Instrument (continued)

D3. What is your racial or ethnic background? **(MULTIPLE RESPONSES ACCEPTED.)**

01 White/Caucasian
02 Black/African-American
03 Asian
04 Alaska Native
05 American Indian
06 Native Hawaiian
07 Other Pacific Islander
08 Hispanic/Latino
95 Other **(SPECIFY:)** _____
98 Refused

D5. What is your height _____(ft/in)

98 Refused
99 Don't know

D6. What is your weight _____(lbs)?

98 Refused
99 Don't know

* D7. Have you heard of the National Sleep Foundation?

01 Yes
02 No
99 Don't know

CLOSE

Those are all the questions.

On behalf of the National Sleep Foundation, we would like to thank you very much for your time and opinions. You may want to look for the poll results during the first week in March. You can go to the National Sleep Foundation's Web site to see how your answers compare to others and find more information about the National Sleep Foundation at www.sleepfoundation.org.

This concludes our survey. Thank you for your time and opinions.

* D7 asked for internal National Sleep Foundation records.