

ATTACHMENT F7: PREVIOUS DATA COLLECTION INSTRUMENTS USED

While each section of the proposed questionnaire contains questions developed by the research team, much of the survey uses questions or topics available in previously developed data collection instruments. The outline below provides a general list the instruments used in each topic area. Table 1 provides detailed question sources, including OMB number, survey instrument, and question number in the source survey instrument and in this ICR data collection instrument.

1. Demographic questions (PA1-PA4, H1-H4) will provide information useful for characterizing the study participants. This information will also allow the researchers to compare the study participants with the general U.S. population regarding health outcomes. Sources used were:
 - a. National Health Interview Survey [NCHS 2005, 2006]
 - b. University of Michigan Trucking Industry Program Driver Survey [Belman et al. 2005]
2. Current work and work history questions (PA5, Section A, Section B) will provide information useful for characterizing the working conditions of the study participants, and allow researchers to examine associations among working conditions, safety, and fatigue. Sources used were:
 - a. National Occupational Exposure Survey [NIOSH 1983]
 - b. National Health Interview Survey [NCHS 2005, 2006]
 - c. University of Michigan Trucking Industry Program Driver Survey [Belman et al. 2005]
3. Health questions (C1-C25) will allow researchers to compare the health care coverage, health status and health behaviors of the study participants with those of the general U.S. population. Sources used were:
 - a. National Health Interview Survey [NCHS 2005, 2006]
 - b. Behavioral Risk Factor Surveillance System [CDC 2007, 2008]
4. Fatigue and sleep questions (C26-C38) will allow researchers to characterize the study participants regarding these two factors, and will allow researchers to examine associations among working conditions, fatigue, and sleep. Sources used were:
 - a. National Health Interview Survey [NCHS 2005, 2006]
 - b. Berlin Questionnaire [Netzer et al. 1999; Chung et al. 2008]
 - c. Epworth Sleepiness Scale [Johns 1991]
 - d. Fatigue Symptom Inventory [Hann et al. 1998]
 - e. Multivariable Apnea Prediction Scale [Maislin et al. 1995]
 - f. Trucker Strain Monitor [DeCroon et. al 2001]

5. Crash, work-related injury, and safety questions (Sections D, E, F, and G) will allow researchers to examine associations among crash, injury, safety climate, and safety training for the survey participants. Sources used were:
 - a. University of Michigan Trucking Industry Program Driver Survey [Belman et al. 2005]
 - b. Survey of Occupational Illness and Injury [BLS 2008]
 - c. Quality of Worklife Module [NIOSH 2002]
6. The 48-hour activity log will allow researchers to characterize the daily schedules of the study participants, and examine associations between recent work schedule, sleep, and fatigue.[Caruso et al. 2005]

Table F1: Detailed Question Sources

OMB number	Instrument	Original Question Number	ICR Question Number
0920-0085 Expired 12/31/1983	National Occupational Exposure Survey	47*	C37
<u>0920-0214</u> Expires 12/31/2009	National Health Interview Survey; 2006 Questionnaire	HHC.110_00.000 ASD.080_00.000 FHI.050_00.000* FAU.030_00.000* AAU.310_00.000 AHB.010_00.000 AHB.020_00.000 AHB.030_00.000 AHB.040_01.000 AHB.160_01.000 AHB.170_00.000 AHB.190_01.000 AHB.200_01.000 ACN.310_00.000* ACN.010_00.000 ACN.031_01.000 ACN.031_02.000 ACN.031_04.000 ACN.160_00.000 ACN.031_06.000 ACN.130_00.000 ACN.140_00.001 HHC.170_00.000 HHC.200_01.000* FID.250_00.000*	PA3 B5b C1 C2, C3a C4 C6 C7 C9 C10 C11 C12 C13 C14 C16 C18 C19a C19b C19c C19d C19e C23 C24 H1a H1b H3
<u>0920-0214</u> Expired 12/31/2007	National Health Interview Survey; 2005 Cancer Supplement	NAE.015_00.000	C8

OMB number	Instrument	Original Question Number	ICR Question Number
None	Behavioral Risk Factor Surveillance System; 2007 Questionnaire [Centers for Disease Control and Prevention 2007]	7.1 7.3	C20 C22
None	Behavioral Risk Factor Surveillance System; 2008 Questionnaire [Centers for Disease Control and Prevention 2008]	5.1	C15
None	Behavioral Risk Factor Surveillance System; 2009 Questionnaire [Centers for Disease Control and Prevention 2009]	1 (Module 5)	C25
None	Berlin Questionnaire [Chung et al. 2008; Netzer et al. 1999]	8*	C34
None	Epworth Sleepiness Scale* [Johns 1991]	Entire instrument	C32
None	Fatigue Symptom Inventory [Hann et al. 1998]	1-5 6* 7* 8-11 12 13	C39 a-d and C39a a C39a b C39a c C39a d-g C40 C41
None	Multivariable Apnea Prediction Scale [Maislin et al. 1995]	1-3	C30
None	Trucker Strain Monitor [DeCroon et. al 2001]	Entire instrument	C38 a-j
None	University of Michigan Trucking Industry Program Driver Survey [Belman et al. 1998]	A2* B1* B4* D14* A22* A23* J10 A13	PA5 A2 A7 A8 D1 G4 H4 H5
None	General Social Survey, 2002 Section D, Quality of Worklife	25-27	F4 a-c
None	One page activity diary [Caruso et al. 2005]	Complete instrument*	48-hour Activity Log

*Original question modified for use in proposed information collection

REFERENCES

- Belman, D, Monaco, KA, Brooks, TJ. [2005]. Sailors of the concrete sea: A portrait of truck drivers' work and lives. East Lansing, MI: Michigan State University Press, 207 p.
- BLS [2008]. Survey of Occupational Injuries and Illness, 2008. U.S. Department of Labor, Bureau of Labor Statistics.
[<http://www.bls.gov/respondents/iif/forms.htm>].
- Caruso CC, Rosa RR, Lee SJ [2005]:One Page Sleep Activity Diary For Persons On Irregular Schedules. 17th International Symposium on Shiftwork and Working Time. Hoffddorp, The Netherlands. September 19, 2005.
- Centers for Disease Control and Prevention [2007]. Behavioral Risk Factor Surveillance System Survey Questionnaire. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.
[<http://www.cdc.gov/BRfss/questionnaires/english.htm>]. Retrieved December, 2009.
- Centers for Disease Control and Prevention [2008]. Behavioral Risk Factor Surveillance System Survey Questionnaire. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.
[<http://www.cdc.gov/BRfss/questionnaires/english.htm>]. Retrieved December, 2009.
- Centers for Disease Control and Prevention [2009]. Behavioral Risk Factor Surveillance System Survey Questionnaire. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.
[<http://www.cdc.gov/BRfss/questionnaires/english.htm>]. Retrieved December, 2009.
- Chung, F, Yegneswaran, B, Liao, P, Chung, SA, Vairavanathan, S, Islam, S, Khajehdehi, A, Shapiro, CM [2008]. Validation of the Berlin questionnaire and American Society of Anesthesiologists checklist as screening tools for obstructive sleep apnea in surgical patients. *Anesthesiology* 108(5): 822-830.
- DeCroon EM, Blonk RWB, Van der Beek AJ, Frings-Dresen MHW [2001]. The Trucker Strain Monitor: An Occupation-Specific Questionnaire Measuring Psychological Job Strain. *Int. Arch. Occup. Environ. Health* 74: 429-436.
- Hann, DM, Jacobsen, PB, Azzarello, LM, Martin, SC, Curran, SL, Fields, KK, Greenberg, H, Lyman, G [1998]. Measurement of fatigue in cancer patients: development and validation of the Fatigue Symptom Inventory. *Qual. Life Res.* 7(4): 301-310.

- Johns, MW [1991]. A New Method For Measuring Daytime Sleepiness - The Epworth Sleepiness Scale. *Sleep* 14(6): 540-545.
- Maislin, G, Pack, AI, Kribbs, NB, Smith, PL, Schwartz, AR, Kline, LR, Schwab, RJ, Dinges, DF [1995]. A Survey Screen For Prediction Of Apnea. *Sleep* 18(3): 158-166.
- NCHS [2005]. National Health Interview Survey, 2005 Cancer Supplement. National Center for Health Statistics, Centers for Disease Control and Prevention. [http://www.cdc.gov/nchs/nhis/quest_data_related_1997_forward.htm].
- NCHS [2006]. National Health Interview Survey, 2006. National Center for Health Statistics, Centers for Disease Control and Prevention. [http://www.cdc.gov/nchs/nhis/quest_data_related_1997_forward.htm].
- Netzer, NC, Stoohs, RA, Netzer, CM, Clark, K, Strohl, KP [1999]. Using the Berlin Questionnaire To Identify Patients at Risk for the Sleep Apnea Syndrome. *Ann. Intern. Med.* 131(7): 485-491.
- NIOSH [1983]. National occupational exposure survey (NOES). U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health, Division of Surveillance, Hazard Evaluations, and Field Studies, Surveillance Branch. [<http://www.cdc.gov/niosh/88-106.html>].
- NIOSH [2002]. Quality of Worklife Module. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health. [<http://www.cdc.gov/niosh/topics/stress/qwlquest.html>].