

## **ATTACHMENT E**

### **QUESTION-BY-QUESTION JUSTIFICATION**

#### **C1-C6 Respondent Selection – Cell phone sample**

The survey company is recruiting respondents who are licensed drivers and are 21 or older – the age at which it is legal to purchase alcohol in the United States. This age group is being targeted because the Driver Alcohol Detection System for Safety (DADSS) technology is focused on preventing driving when people are over the adult legal limit for alcohol. As part of this survey we are interviewing a large sample of respondents who live in cell phone only households. This series of questions will be asked of respondents from the cell phone sample. The questions will be used to make sure the respondent can safely participate in the survey, is 21 years or older, has been reached on a cell phone, and qualifies as a respondent from a “cell phone only” household; and to identify a respondent’s State of residence.

#### **L1 Respondent selection – RDD landline sample**

The survey company is recruiting respondents who are licensed drivers and are 21 or older – the age at which it is legal to purchase alcohol in the United States. This age group is being targeted because the Driver Alcohol Detection System for Safety (DADSS) technology is focused on preventing driving when people are over the adult legal limit for alcohol. This question confirms that the respondents are age 21 or older from the RDD landline sample. To ensure that eligible respondents age 21 and older within the household are chosen at random, assuming there is more than one person who is eligible, the interviewer will ask to speak to the eligible respondent with the most recent birthday.

#### **D1 Age confirmation**

This question confirms the respondent’s actual year of birth.

#### **D2 Driver gender**

Question D2 will record the gender of the respondent. The interviewer codes this question unless it is unclear at the end of the interview. In that case the respondent is asked the question.

#### **Q1-2 Driver Status**

Respondents will be asked if they are licensed and how frequently they usually drive a motor vehicle. Those who are not licensed drivers or who do not drive will not be asked to complete the survey.

#### **Q3 Past Month Drinking**

All respondents will be asked about the approximate frequency of drinking alcoholic beverages in the past month. A month is preferred because recall will be more accurate

over a shorter time period. Respondents who report never drinking alcoholic beverages will be skipped out of a large portion of the questions pertaining to drinking and driving behavior.

#### **Q4-8 Type and Amount of Alcohol Typically Drunk**

Question 4 will be used to classify respondents' drinking patterns, that is, whether respondents are moderate or heavy drinkers. The remaining questions inquire about the relationship between number of drinks and perceived ability to drive and personal behavior regarding driving after drinking. These questions will allow a more in-depth understanding of reactions to DADSS in-vehicle alcohol detection systems. Focus group experience has indicated that people who drink and drink and drive may have different opinions about the technology than those who do not.

#### **Q9-10 Attitudes toward drinking and driving, arrest for DWI**

Question 9 asks the level of concern about drinking and driving on our roads. This variable may allow a better understanding of varied opinions toward the technology and its deployment. Those who are more concerned about drinking and driving may be more supportive of technology to reduce the problem. Similarly, we are interested in the relationship of arrest for DWI with questions about the technology implementation (question 10). People who have been arrested for DWI may be supportive of technology that would prevent them from incurring another DWI offense.

#### **Q11-Q12 Understanding of the relationship between BAC and impairment**

In every State, it is illegal for adults to drive a motor vehicle if their BAC level is point-zero-eight (0.08) or higher. These questions will probe the respondent's understanding of BAC and how many drinks it might take to reach a 0.08 BAC. This BAC level is the threshold at and above which drivers would be unable to drive if DADSS-type systems were installed in their vehicles. The purpose of this section is to determine if the public has an accurate or inaccurate perception of how much they could drink before being in violation of their State drinking and driving laws, and thus, being unable to drive with a DADSS-type system. Their responses to this question will shed light on their understanding of what the technology will be trying to accomplish and how it might affect them.

#### **Q13-14 Knowledge about alcohol ignition interlocks and support for them**

Questions 13 and 14 ask about familiarity with current alcohol ignition interlock systems used with DWI offenders, and support for them. Knowledge and attitudes pertaining to interlock technology may affect opinions on DADSS-type systems.

#### **Q15-19 Attitudes toward DADSS technologies**

In question 15 respondents are asked about support for a generic in-vehicle alcohol sensing system prior to describing the sensors in more detail. In questions 16 and 17 respondents are introduced to the DADSS in-vehicle technologies, both breath-based and touch-based, and are asked whether they are a good idea. Questions 18 and 19 probe the underlying reasons for their opinions. Opinions, whether supportive or unsupportive, will inform the technology development and implementation process.

#### **Q 20-25 Support for having DADSS technology in their own vehicles**

This series of questions provides additional information about the touch-based and breath-based alcohol measurement systems and asks whether drivers would be in favor of having such systems in their next vehicle, including the reasons why they are or are not in favor. The order of questions is rotated so that half of the sample respondents hear about the touch-based system first and the other half hear about the breath-based system first. This is to reduce any potential bias due to the order in which they are introduced. An additional question probes favorability of an added biometric sensor to the touch-based system that would provide the added benefit of identifying the driver and thus preventing theft. No decision has been made regarding the addition of such a feature, but it would be useful to know whether drivers are supportive of adding such a feature. One additional question asks about the inconvenience of having to remove a glove – a necessary feature of the touch-based system. There is some concern that having to remove a glove could be seen as a barrier for people who live in colder climates.

#### **Q26-34 Statements about DADSS technology**

In this series of questions, statements are read to respondents and their degree of agreement or disagreement with the statements is sought. The statements were generated from issues that were brought up by focus group participants and are intended to determine the responses of a larger, more representative group of drivers. In order to reduce bias due to the way in which questions were framed, care was taken such that some statements are not unidirectional in how they are phrased, i.e., the statements are not uniformly positive or negative. Topics included willingness to drive or purchase vehicles with DADSS-type systems, reliability, cost, intrusiveness, perceived benefits, and privacy, among others. The statements will be randomized to avoid any order bias.

#### **D3-D6 Demographic Variables**

The demographic data collected in this study is to monitor and evaluate the representativeness of the surveyed population as compared to the total target population for the United States.

Question D3 will record the respondent's level of education.

Question D4 will record respondent household income for 2011.

Question D5 will record the respondent's ethnic background or race.

Question D6 will record whether the respondent is employed.

#### **Q 35. Adaptability to new technologies**

Question 35 will assess whether respondents are favorably inclined to new technologies and early adapters. We found in the focus groups that people who are reluctant to adopt new technologies were less favorably disposed to the DADSS sensors.

**Q 36 Personal knowledge of drunk driving victims**

Question 36 will record whether the respondent, or his/her family or friends have been the victim of a drunk driver. Our focus group experience indicates that such personal knowledge is related to favorability toward in-vehicle alcohol detection.