

## **Attachment 6**

### **Questionnaire Version B Question-By-Question Justification**

The Young Driver Survey will be administered using two different questionnaires, Version A and Version B. There are core questions for each of the content areas (modules) addressed by the survey that appear on both questionnaires. Each questionnaire expands on the core questions for selected modules; i.e., adds questions unique to that questionnaire.

The Version A Questionnaire has expanded modules concerning vehicle use and associated rules, cell phone use and other distractions while driving, seat belt use, crash experience, and speed and racing.

The Version B Questionnaire has expanded modules on graduated driver licensing and driver education, police stops and enforcement, drinking and driving, other substance use and driving, and drowsy driving.

With this design, the survey obtains basic information from all respondents on all the key traffic safety areas that NHTSA wishes to address with the survey. The design also allows NHTSA to probe in greater depth for needed information in each of the content areas. Lastly, the common questions provide linkages between the two questionnaires that will assist in interpretation of data as certain core questions may be found to be associated with unique questions on both of the questionnaires.

Following are the question-by-question justifications for Questionnaire Version B.

## Questionnaire Version B

### Living Arrangements

This section has two main purposes. One is to identify if the respondent is in a living situation where he or she may be influenced by parents. Traffic safety professionals are very interested in how parents could promote safe driving practices by their children. The second is to determine if the respondent's living arrangements vary over the course of the year. Cognitive testing found this to be an issue with college students who live at school during part of the year and with their parents during the remainder of the year; their driving patterns differed by location and caused them to be uncertain as to how to respond to certain questions. The survey needs to provide clarification both so as not to confuse respondents as to how to respond, as well as for later interpretation of their responses.

- Q1 Starts the survey with a simple non-threatening question about type of residence while providing an indication of whether or not the respondent is in a group living situation (i.e., dormitory).
- Q2 Identifies if the respondent lives with parents, a guardian, others, or alone.
- Q3 Identifies whether or not the respondent has a single residence during the course of the year.
- Q4-5 Repeats Q1 and Q2 if the respondent lives somewhere else during the remainder of the year so as to obtain type of residence and presence of parents for that location.
- Q6 Asks respondents who live at more than one location during the course of the year to specify the location where they drive the most. Some of the later questions in the survey will ask respondents to base their response on the location where they drive the most.

### Vehicle Use

In this abbreviated module:

- Q7 This item obtains a basic measure of driving frequency for respondents. Some may report that they are non-drivers despite having a driver's license. A non-driver designation will be used by the survey to skip respondents past driving questions that would be inappropriate for them.
- Q9 Here, respondents are asked about the vehicle they drive most often. The type of vehicle may relate to risky driving behaviors, perhaps from a sense of feeling better protected (e.g, greater non-use of seat belts in pickup trucks).

Q10 This item asks the usual frequency of driving with young passengers. The peer environment within the vehicle is of concern to traffic safety professionals because of research showing it affects the quality of driving of young people.

### **Graduated Driver Licensing and Driver Education**

This section goes into detail regarding license status, rules associated with the respondent's license status, and the type of driver education received by the respondent.

Q11-12 These items confirm data obtained from the States concerning the respondent's possession of a State-issued license, and the type of license held.

Q13-14 Historically, young people have tended to seek a driver's license as soon as they were eligible. But there is evidence in recent years that many are now delaying licensure. The reasons for delay are of interest to traffic safety professionals both because of positive safety benefits in delaying licensure as well as the implications for driver licensing systems. Q13 examines whether the respondent delayed getting a license. If there was a delay, Q14 asks the reason.

Q15 A researcher noted in his comments to the NHTSA Docket that he had found that the amount of supervised driving instruction was a predictor for crash risk. Q15 was inserted as a result, to get a measure of the amount of supervised practice the respondent received from an adult when driving with a Learner's Permit.

Q16 For drivers who currently have a full license, this item asks if they previously had a provisional license. In effect, it is asking if they went through a graduated licensing system.

Q17-19 For drivers who currently have a Learner's Permit, these items ascertain the respondent's awareness of the rules associated with the Permit (Q17), parental involvement in communicating the rules (Q18), and the perceived enforcement of those rules by police (Q19). They identify if problems exist in knowledge, parental support, and perceived consequences for violations.

Q20-22 These questions, administered to drivers who currently have a Provisional License, parallel the questions administered to those with a Learner's Permit. They are designed to identify if problems exist in knowledge (Q20), parental support (Q21), and perceived consequences for violations of rules associated with a Provisional License (Q22).

Q23 There are forums or other types of group meetings that have been set up to provide new drivers and their parents information on the graduated licensing system. But the extent to which they are employed and attended is unknown. This item will provide a measure of their usage.

Q24-29 These items ask if the respondent has taken driver education (Q24), whether the driver education was provided by a private driving school (Q25) or by a high school (Q27), and what the driver education in each of those settings entailed (Q26 and Q28). If respondents said they took driver education, but it wasn't provided by a private driving school or high school, Q29 asks who provided the driver education. The information collected from this section will allow assessment of the relationship of type of driver education taken to driver behaviors, attitudes, knowledge, and driver crash experience.

Q30-31 These questions explore whether respondents perceived themselves to have benefited from the driver education taken. They also allow comparison of how helpful the respondents perceived the driver education to be in passing the road test for the driver's license (Q30) compared to learning good driving skills (Q31).

### **Cell Phone Use**

This abbreviated section asks core questions regarding cell phone use and texting while driving:

Q32 Whether respondents normally have a cell phone with them while driving.

Q33 How often they talk on the phone while driving.

Q34 How often they read text messages while driving.

Q35 How often they send text messages while driving.

### **Seat Belt Use**

People of young driver age have lower seat belt use rates than older adults. This abbreviated seat belt usage section asks about use of seat belts while driving, and peer use of seat belts.

Q36-37 Q36 asks the frequency of seat belt use as a driver. Cognitive testing done almost two decades ago showed that many people did not interpret the question as requesting a strict objective measure. This was found through use of an immediate probe question, where a percentage of people who said they wore the seat belt all of the time when driving then said that they didn't wear the seat belt while driving during the past day or week. Q36 combined with the probe provided a highly accurate measure of belt use. Q37 is that probe.

Q38 For drivers who don't always wear their seat belt, Q38 asks the reasons. This will provide strategic information for targeting countermeasures.

Q39 Peer influence and peer norms are believed to play a significant role in young adult seat belt use. This question explores perceived peer norms regarding seat belt use.

### **Police Stops/Enforcement**

Evidence of multiple stops over a limited time period may be an indicator of risky driving patterns, and may be used with other information from the survey to build a composite sketch of the characteristics of risky drivers.

Q40 This item asks the number of times the respondent has been stopped by police in the past 12 months while driving.

Q41-42 If respondents have been stopped by police, these items ask the number of tickets received (Q41), and the nature of the violation(s) (Q42). The nature of violations provides information on driving behavior.

Q43 An issue is whether the young driver receives any negative consequences from having been ticketed for a violation. If the driver is protected from the cost of the ticket, there is little deterrent. This question asks who paid the cost of the ticket the driver received; the driver, the parent, or someone else.

Q44 This item asks the number of times that the respondent has been a passenger in a vehicle stopped by police. If this occurs frequently, it would indicate a problem requiring assessment for countermeasure activity. For example, the data may point to a need to build skills in avoiding riding with high risk drivers.

Q45 Behavioral programs in traffic safety tend to rely on enforcement of traffic safety laws. For that enforcement to have a general deterrent effect, it must be communicated to the intended audience. But it is unknown to what extent young drivers pay any attention to enforcement messages. This item will directly ask them how much attention they pay to enforcement messages.

Q46-48 The theme of enforcement as deterrence is continued through these questions. The items address perceived risk of being stopped by police if engaging in a prohibited behavior: either driving 20 miles or more over the speed limit (Q46), texting while driving (Q47), or talking on a handheld cell phone while driving (Q48).

### **Crash Experience**

This abbreviated section will collect basic information on crash experience that will then be related to driving behaviors and attitudes.

Q49 This item asks if the respondent has ever been involved in a crash as a driver.

Q50 This item asks if the respondent has ever been involved in a crash as a passenger where the driver was younger than 21. As with some of the other questions in the survey, this item derives from the increased crash risk found for young drivers when they are accompanied by young passengers, and will obtain information on how widespread this type of crash experience is.

### **Alcohol Attitudes and Behavior**

Despite all States having a minimum drinking age of 21, drinking and driving does occur among drivers younger than 21. While NHTSA's focus is on the connection between drinking and driving, access to alcohol by minors is directly relevant to this behavior and a subject that traffic safety professionals need to understand in order to effectively address drinking and driving by this age group.

Q51 This is a screening question for entry into the detailed module on alcohol and driving. It asks respondents if they have consumed alcohol previously. If yes, then they proceed through the section; otherwise they skip it.

Q52 This item asks the amount of alcohol that respondents usually drink on days they drink alcohol. Consumption amount is a variable that has been shown to be strongly related to whether individuals have drinking problems. The data will be analyzed to see how heavy alcohol consumption relates to reported drinking and driving behavior and attitudes, and to other traffic safety issues.

Q53-56 Knowing how minors gain access to alcohol, and where they do their drinking, is important for determining the types of countermeasures needed to prevent drinking and driving by minors and where to direct those countermeasures. Q53 identifies who the providers of the alcohol are, which will identify the types of people that programs need to reach. Q54 explores where respondents do their drinking, and will help to identify points of intervention. Q55 will indicate if current programs and policies to prevent youth access to alcohol are being negated by other factors, while Q56 explores what some of those neutralizing factors may be.

Q57-59 This series collects basic frequency information on respondents' drinking and driving behavior. The first question (Q57) asks about drinking and driving without there necessarily being any impairment. The second question (Q58) asks about driving after drinking an amount of alcohol that has been defined as binge drinking, and that is used as an indicator of impairment, although this is not directly communicated to the respondent. The third question (Q59) directly asks respondents about driving when they are feeling the effects of alcohol.

Q60-61 If young people are riding with drivers that are alcohol-impaired, it could be because they don't appreciate the danger, or they may be uncomfortable with the situation but lack the skills to avert it. Either way, the results could suggest the

need for educational efforts. Q60 will identify if respondents have ridden recently with a driver they thought was buzzed from drinking alcohol, while Q61 will find out if they had recently experienced safety concerns about riding with an alcohol-impaired driver. Besides obtaining information on the frequency with which these situations occur, the questions will be analyzed to detect any discrepancies in responses between the two that might indicate a lack of concern over riding with an impaired driver.

Q62-63 All States have an age 21 minimum drinking age. While youth are likely to know that a minimum drinking age exists (Q62), they may not know the correct starting age (Q63). In particular, they may believe that it's 18 rather than 21. The responses to these questions will indicate the extent to which education about the law is needed.

Q64-65 These items ask how many drinks it takes to become buzzed from drinking alcohol (Q64), and how many drinks before a person is unable to drive safely (Q65). The responses will show whether the respondents have a realistic idea of how much alcohol it takes to become impaired. In addition, comparison of responses to these two questions will indicate if respondents understand that it is unsafe to drive when feeling the effects of alcohol.

### **Driving and Substance Use**

NHTSA agrees with comments entered into the NHTSA Docket that driving after having taken substances other than alcohol is an important subject to address in the survey. The challenge in this area is the number of drugs that respondents could be questioned about. Seven substances were ultimately selected for coverage within questions 67 through 70. In making the selections, the agency looked at relative usage frequencies reported by 12<sup>th</sup> graders in the Monitoring the Future Survey <sup>1</sup> funded by the National Institute on Drug Abuse, as well as DRE (Drug Recognition Evaluator/Expert) data on drivers ages 16-20 that had been stopped for exhibiting signs of impaired driving and gone through evaluation by law enforcement officers. The issue of new drugs was also raised, leading to inclusion of some synthetic drugs on the list. The selected substances are marijuana, synthetic marijuana, ecstasy, amphetamines, bath salts (a synthetic stimulant), depressants (either sedatives or tranquilizers), and narcotics.

Q66 This question asks the recent frequency of driving while feeling the effects (buzzed; sleepy; disoriented) of any type of drug other than alcohol, providing a basic measure of substance-impaired driving.

Q67-68 For each substance category listed above, Q67 asks whether the respondent has used the substance within 24 hours of driving. Respondents can answer that this occurred within the past 30 days (recently used and drove), or that it occurred sometime in the past but not in the past 30 days (ever used and drove), or it never occurred. The 24 hour period was selected in consideration of the length of time

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<sup>1</sup> <http://www.monitoringthefuture.org/data/13data.html#2013data-drugs>



that substances can remain active in people's systems. Since the length of time between substance use and driving will affect how impaired the driver is, Q68 asks the length of time between use and driving for those substances that the respondent has acknowledged. Together, these items will provide a detailed look of substance use and driving by young drivers.

Q69-70 While the public generally knows that alcohol has a deleterious effect on driving; such knowledge may not be present for other substances. These questions will find out if respondents believe that the quality of driving is affected when people are feeling the effects of each of the above substances, which will indicate whether there is a need for some form of education. The response may differ depending on whether the user is considered experienced or inexperienced with the substance. Therefore, the question is asked both for infrequent (Q69) and frequent (Q70) users of the substance.

Q71 As with other sections of the survey, this module includes a question about riding with an unsafe driver; in this case a driver believed high on a substance other than alcohol. It will provide frequency information and indicate whether a strategy is needed to induce young people to avoid such situations.

### **Drowsy Driving**

Drowsy driving is another area suggested in comments submitted to the NHTSA Docket. NHTSA agrees that it would be useful to collect some basic information regarding falling asleep or nodding off while driving in order to assess the extent to which it is a problem.

Q72-74 These items will identify the proportion of the young driver population that has fallen asleep or nodded off while driving (Q72), the length of time since the last occurrence (Q73), and what happened as a result (Q74).

Q75 This item will identify whether a typical cause of nodding off while driving is that the driver did not get sufficient sleep the preceding night.

Q76 This item will identify the strategies that young drivers use to keep from falling asleep while driving in order to see if they have effective ways of dealing with drowsy driving situations.

### **Speed/Racing**

Speed is a significant factor in young driver crashes. Moreover, input for the survey provided by NHTSA Regional staff indicated concern over racing behavior that was occurring. This abbreviated section will obtain basic information on speeding and racing behavior, which can then be related to other characteristics in the survey and lead to development of strategies for targeting countermeasures.

- Q77 Q73 will measure respondents' proclivity to speed by identifying if respondents tend to drive faster than the prevailing traffic.
- Q78 This question addresses attitudes toward speed. The results will indicate what types of attitudinal barriers exist to encouraging reduction of speed by those who drive too fast. The question consists of four sub-items which ask if speeding is something they like doing (a), if other drivers frustrate them by driving slow (b), if they feel they benefit from speeding by becoming more alert (c), and if there is a utilitarian purpose to their speeding (d).
- Q79-80 Input for the survey revealed a concern about racing behavior, and a need to identify where it tends to occur. Q79 asks whether respondents have raced while driving in the past year, and poses several types of roadways to identify the type of location where drivers engage in that activity. Q80 asks about involvement in racing as a passenger, once again asking the type of location where it occurs.

### **Demographics**

Basic demographic information will be collected that will be used to identify any group differences in traffic safety behaviors and attitudes, and to help in developing targeted strategies. This includes identifying the extent to which high risk drivers may be reached through schools and businesses. The demographic variables are:

- Q81 Age.
- Q82 Sex.
- Q83 Hispanic or Latino.
- Q84 Race
- Q85 Full time or part time student
- Q86 Employed full time or part time.