

**PARTICIPANT ASSENT FORM FOR MINORS  
VARIABLE ENROLLMENT PERIOD**

**IN-VEHICLE DRIVING BEHAVIOR AND CRASH RISK STUDY**  
(*"The SHRP 2 Naturalistic Driving Study"*)

**SPONSORS:** National Academies of Science, Transportation Research Board,  
SHRP 2 Program

**The United States Department of Transportation**

**INVESTIGATORS:** Christian Richard, John Campbell, Battelle Seattle Research Center  
Jon Antin, Virginia Tech Transportation Institute  
Ann Brach and Ken Campbell, National Academies, Transportation  
Research Board, SHRP 2 Program

**WHAT IS THE PURPOSE OF THIS RESEARCH?**

The Naturalistic Driving Study is a large research effort directed at improving Highway Safety in the United States where more than 30,000 people are killed and 2 million are injured every year in highway-related crashes. The study will help researchers gain a deeper understanding of the interaction between the driver, vehicle and roadway and lead to safer roadways, vehicles, and driver training programs. The SHRP 2 Naturalistic Driving Study will look at how people normally drive by installing cameras and sensors in people's own vehicles. The study is being conducted at six locations across the United States with up to 3,100 participants. Length of enrollment varies from eight months to thirty months. About 340 participants will be minors.

**PARTICIPATION**

**WHAT SHOULD I KNOW BEFORE DECIDING TO PARTICIPATE?**

1. Because you are a minor, a parent or legal guardian will need to be with you when you enroll in the study and they will have to sign a consent form allowing you to participate.
2. If you or the parent accompanying you to the enrollment does not own or lease the vehicle to be used in the study, you will have to obtain the owner's written permission to use the vehicle before you enroll in the study.
3. You are providing permission for us to collect data (including video) whenever the study vehicle is used or whenever you happen to drive another vehicle that is part of the study (for example, a vehicle owned by a friend who also happens to be in the study). If there are drivers of the vehicle who have not signed consent forms, we will delete their data for every trip in which they drove the vehicle.

4. Cameras will record video of your face and portions of your body and the roadway. Audio will not be recorded unless you press a red incident button. We will hold the video, audio, and other data that personally identifies you, or could be used to personally identify you, under a high level of security at one or more data repositories. We will identify your data with a code rather than your name. Finally, only qualified researchers will be authorized to have access to data that personally identifies you, or can be used to personally identify you.
5. We will not collect any identifying information on passengers.
6. You will be responsible for your insurance coverage. If you are in a crash, please contact emergency services as you normally would. We will then ask for more information about the crash, as detailed below.
7. You may withdraw from the study at any time. If you do withdraw from the study before your scheduled end date, you must agree to allow us to retrieve the data collection system from the study vehicle as soon as is reasonable.

#### **WHAT DO I HAVE TO DO IF I CHOOSE TO PARTICIPATE?**

The study involves a \_\_\_\_\_ month data collection effort in which a data collection system containing sensors and cameras is installed in the study vehicle to record a variety of driving measures. As a participant, you will complete the following activities:

1. Have the vehicle equipped (see the section below: “What will I have to do to get my vehicle equipped for the study?”).
2. Drive as you normally would.
3. Give us contact information for all other adult drivers (over the age of 18) who drive the vehicle at least once a week. We would like to contact them to get permission to use data collected any time they are driving the vehicle. We will also ask them to fill out two brief questionnaires.
4. Make an appointment for us to collect the driving data from the vehicle about once every 3 to 6 months. Each appointment could take up to one hour. We will schedule it at a location that is convenient for you, such as your home, work, or school, or a local shopping mall. During this appointment, one of our technicians may ask you questions about the equipment and the operation of your vehicle. In addition to talking with our technician, you will need to give us access to the trunk or interior of the study vehicle. The technician will handle everything else.
5. If you are enrolled in the study at the time of your 18th birthday, we will contact you to change from an informed assent form to an informed consent form.
6. Please do not drive the vehicle into any areas where cameras are not allowed, such as international border crossings, military bases, or similar facilities.

8. Tell other drivers of the vehicle about the video and audio equipment installed in the vehicle and ask them not to drive into areas where cameras are not allowed. Tell these other drivers that data will be collected when they drive the vehicle but will only be kept if they sign a consent form. If they do not sign a consent form, then the data will be deleted for every trip in which they drove the vehicle.

### **What Will I Have To Do To Get My Vehicle Equipped For The Study?**

1. If you or the parent accompanying you to the enrollment does not own or lease the study vehicle, you must first obtain the written permission of the vehicle owner. This can be provided on the day you enroll in the study by one of two methods: 1) the owner attends and signs the form in person, or 2) via a telephone call in which a third person at the study site will witness and document the owner's permission form on behalf of the owner. We cannot accept pre-signed owner permission forms in which we have not had personal or telephone contact with the vehicle owner.
2. Bring the study vehicle to the South Seattle instrumentation facility at the scheduled day and time so that we can install the data collection system. Our technicians will try to complete the installation within four (4) hours, but it may take longer for some vehicles. The technicians will need to connect the data collection system to the vehicle's power and network box. These connections will provide additional data as well as power for the system. If you agree to participate, you are giving us permission to install new sensors and to get information from the vehicle network. Before we begin installation, we will show you where we will place the system, and we will show you pictures of what the completed installation will look like. We will return the vehicle to its original state when your participation ends.
3. While the data collection system is being installed on the study vehicle, you will have a comfortable place to complete the assent process and tests at the South Seattle instrumentation facility. The assent process and tests should take about 2 - 3 hours. Specifically, you will be asked to:
  - a. Show us proof that you have a valid U.S. driver's license, proof of vehicle insurance, and proof of ownership (vehicle registration showing you, your parent, or the person that signed your permission form as an owner, co-owner, or lessee of the vehicle).
  - b. If you lease the vehicle, review your lease agreement to be sure that the installation of the instruments and sensors is allowed under the terms of your lease.
  - c. Review and sign this informed assent form.
  - d. Take a 20-minute, non-invasive vision test on a computer monitor, and look into a machine that will not touch or blow air into your eyes.
  - e. Take several tests on a computer that will assess your memory, decision making, and attention skills. These tests will take 30 minutes and they do not require previous computer skill or knowledge.

- f. Take a 2-minute memory and attention test using pencil and paper.
  - g. Take 2 tests of your body movements and strength.
    - i. You will be asked to walk as fast as you can without falling or tripping to a point 10 feet away, and then to return to the starting point. This test should take about one minute.
    - ii. You will be asked to sit down and squeeze a device that measures the strength of your grip. This test should take about two minutes.
  - h. Fill out nine (9) questionnaires on a computer. (If you prefer, you may complete some online from home.) The questionnaires vary in length and take between 5 and 15 minutes each to complete. They contain questions about your health history and health status; and your driving behavior, history, and knowledge.
  - i. Take home and give copies of an Informed Consent form and questionnaires to any other adults who drive the study vehicle at least once a week. Give a copy of an Information Sheet to any minor drivers of the vehicle.
4. Allow our technicians to drive the vehicle during the installation and testing process so they can make sure that the data collection system is working.
  5. When the vehicle is ready, we will show you the data collection system and give you information on who to contact if you have any vehicle problems that could be related to the data collection system, or if you notice any maintenance problems with the system (for example, a camera comes loose).
  6. We will take some reference pictures of you in the study vehicle so that our software can identify you as the driver. To simulate driving at night, we will take some of these pictures with a blanket of material draped over the vehicle while you are sitting in the driver's seat.

### **What Do I Do After My Vehicle Is Equipped For The Study?**

1. After you return home, you will complete any questionnaires you did not complete during installation of the data collection system in the study vehicle. Once you have completed all of the online questionnaires, you will receive your first payment of \$100 in cash or money order at the end of the installation visit. If you complete the questionnaires at home, we will mail the payment to you.
2. Drive as you normally would for the duration of your enrollment.
3. If you are in a crash while driving your car, we ask that you do these five things in order:
  - a. Seek emergency help the way that you normally would.

- b. If possible, press an incident button that is located near the rear view mirror to describe the crash. The system will then record your brief description. You will know the button is working if the red light comes on when you press it.
  - c. Call us at 206-528-3267 to notify us as soon as it is safe to do so.
  - d. Allow a member of the research team to interview you about the crash if we decide to investigate it in more detail. We will interview you soon after the crash, but only when you are ready.
  - e. Allow us to have access to any Police Accident Reports that result from the crash.
4. We will make an appointment with you to collect the driving data from the vehicle every 3 to 6 months. These appointments will typically take about 15 minutes, but could take up to one hour. We will schedule them at a location that is convenient for you, such as your home, work, or school, or a local shopping mall. You will not need to be in the vehicle when we collect the data, but you will need to give us access to the trunk or interior. In addition, one of our technicians may ask you questions about the equipment and the operation of the vehicle. We also will collect data from the vehicle after a crash, either at a place of your choice or where the vehicle was towed.
  5. Let us know if you notice any unusual warning light activity, for example, warning lights that go on or off or that indicate that the data collection system requires adjustment.
  6. If you are enrolled in the study at the time of your 18th birthday, we will contact you to change from an informed assent form to an informed consent form.
  7. While you are in the study, do not drive the vehicle into any areas where cameras are not allowed, such as international border crossings.
  8. If we notice a new person driving the vehicle, we will contact you to find out if you have already asked the person about participating in the study.

### **What Happens When The Study Is Over?**

1. After \_\_\_\_ months, we will ask you to return to the South Seattle instrumentation facility so that we can remove the data collection system from the study vehicle. While the vehicle is being worked on, we will ask you to fill out some final questionnaires. This process will take about two hours. After you complete the questionnaires, you will receive your final payment, which will be determined by the duration of your participation.
2. When you leave the study, we may ask you whether we can keep your contact information to contact you for participation in possible future studies. Your future participation is optional, and if you do not agree, we will delete your contact information one year after data collection is complete at the Seattle study center.

3. Once we have all the data, we will begin data analysis and reporting. You will probably see references to the results of the study in the news. However, these reports will not identify you or any other participant by name, nor will any video be shown that personally identifies participants.

## **RISKS AND BENEFITS**

### **WHAT ARE THE RISKS OF PARTICIPATING IN THIS STUDY?**

The data collection system installed in the study vehicle should not affect its drivability. Thus, driving the vehicle with the system installed should be no more risky than when you drive the vehicle normally. However, if you violate state or local driving laws, such as driving under the influence, exceeding posted speed limits, or driving while distracted, the system could record evidence of these violations. This recording has the potential to pose greater than minimal risk of legal harm to you or anyone driving the vehicle. The research team has set up protections to reduce the potential for legal or economic harms. These protections include automatically encrypting the data obtained by sensors and cameras in the vehicle, using only a code number to identify you and keeping the code key in a secure location, and obtaining a Certificate of Confidentiality to protect your data from court subpoena. Details of these protections are provided below.

All data collection equipment is mounted such that, to the greatest extent possible, it does not pose a hazard or problem for you when you drive. As installed, none of the data collection equipment will get in the way of your normal field of view. In most cases, having the data collection system in the vehicle does not affect the operating characteristics of the vehicle. In some cases, the electrical signals from the data collection system may interfere with the vehicle's radio, keyless entry key fob, or other wireless electronic sensors or systems, such as the tire pressure monitoring system. If this happens in the study vehicle, please contact us at (206-854-8357). We will try to eliminate or minimize such interference. If you experience persistent tire pressure monitoring system problems, you will be asked to leave the study, while for other problems, you will be given the option to continue participation with the problem unresolved or to leave the study. If you like, we can give you information about the experience we have had with vehicles of the same make, model, year, and/or equipment package as the study vehicle.

You are not being asked to change the way you drive or where you drive, except for your visits to the South Seattle instrumentation facility at the beginning and end of the study.

You may opt out of the "blanket" process to record simulated nighttime images if you are claustrophobic or if the process otherwise makes you uncomfortable.

Several non-driving risks result from participation. We will place five cameras in the study vehicle. If you drive into an area where cameras are not allowed, such as international border crossings, certain military and intelligence locations, and certain manufacturing plants, you may be detained or arrested or the vehicle may be impounded. For this reason, by signing this Informed Assent and agreeing to participate in the study, you also are agreeing not to drive into any such areas while you are in this study. We will give you a letter to place in the glove box of

the vehicle. You can use the letter to explain the vehicle's role in this study while still maintaining your privacy and keeping confidential your role in the study.

Throughout the study, we will protect your privacy and keep confidential your role in the study and the confidentiality of your personally identifying information to the extent allowed by law. To help us protect your privacy, we have obtained a Certificate of Confidentiality from the U.S. Department of Health and Human Services National Institutes of Health. With this Certificate, the researchers and study sponsors cannot be forced to disclose information that may identify you, even by a court subpoena, in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings. However, the Certificate of Confidentiality does not prevent the researchers from disclosing voluntarily matters such as child abuse, or a participant's threatened or actual harm to self or others. In terms of driver behavior, reportable, threatening, or actual harm to self or others could include driving under the influence of drugs or alcohol, allowing an unlicensed minor to drive the vehicle, or habitually running red lights at high speed. Such behaviors may result in your removal from the study and reporting of your behavior to the appropriate authorities. In the event of a crash, the police or an insurance company may obtain the equipment and the data from this study. However, the data are encrypted, and individuals representing these organizations will not be able to access or read them.

You are responsible for taking steps to protect your privacy. Do not post or disclose your participation on any public forum including websites, Facebook, newspapers, radio and television. Protect your role in the study the same way that you protect other personal and private information. If you do not keep confidential your role in the study, there is a risk that some of the data collected during the study, including your personally identifying information, may be used against you in a court case or other legal proceeding.

The risk to you of completing the pre-collection questionnaires and tests while the data collection equipment is being installed in the study vehicle is no more than when you are doing activities in your daily life like filling in forms, walking, and working at a computer. The assessment component involves filling in forms, standard vision tests, and standard computer-based tests. These activities involve no more than minimal risk. In addition, you will be asked to squeeze a grip strength tester and to walk 10 feet back and forth as fast as you can without running or falling. The risk of using the grip strength tester is brief hand soreness. The main risk with the Rapid Pace Walk is falling if you try to go too fast. Because the assessment process may take 2 or 3 hours, you may get tired, but you can take breaks as needed.

If you are not the owner, co-owner, or lessee of the study vehicle, there is a risk that the owner may decide to withdraw the vehicle from the study earlier than your planned term of enrollment. If this occurs, you will only be compensated for the portion of time you were enrolled in the study.

### **WHAT ARE THE BENEFITS OF PARTICIPATING IN THIS STUDY?**

There are no direct benefits to you from this research, but you may find this study interesting. No promise or guarantee of benefits is being made to encourage your participation. We believe that your participation will help to improve the body of knowledge regarding driving behavior and

safety. We also believe that your participation may help us design safer vehicles and roadways in future years.

## PRIVACY AND DATA CONFIDENTIALITY

### HOW WILL MY DATA BE KEPT CONFIDENTIAL AND SECURE AND WHO WILL HAVE ACCESS TO MY DATA?

**We will treat all data collected during this study that personally identifies you or that could be used to personally identify you as confidential.** As soon as you begin participating in this study, we will separate your name and other identifying information from the raw data we collect while you drive the study vehicle and replace it with a number. That is, your raw data will not be attached to your name, but rather to a number (for example, Driver 0011). We will encrypt the raw data collected while you drive the vehicle, making it unreadable from the moment we collect it until we transfer it to one or more secure central storage locations. We will also separate your name from any data either provided by you in response to questionnaires or gathered by researchers during the study (including crash investigation data) and we will replace it with your driver number (for example, Driver 0011). **YOUR PARENTS WILL NOT HAVE ACCESS TO YOUR DATA RESULTING FROM THIS STUDY.** However, if we have reason to believe that you pose an imminent or ongoing danger to yourself or others, we may notify your parents of our findings.

We will collect the following types of information and data about you and the study vehicle during the study:

1. **Contact information** includes your name, address, email address, phone numbers, and similar information used to contact you. We will store the information securely in electronic form during the course of the study and destroy it after the study is complete (unless you specifically grant permission for us to keep your contact information when the study is over). We will not link or mingle this information with your study data, and we will not use it in any research or analyses.
2. **Auxiliary study information** includes your Social Security Number (only if required for tax purposes), license plate number, and similar information. We will use this information to verify your identity and to make payments for your participation. We will store this information in an encrypted electronic form, and we will destroy it after the study is complete. We will not link or mingle this information with your study data, and we will not use it in any research or analyses.
3. **Driver data** include your answers to questionnaires, vision test results, and the results of the brief physical tests described above. These data will not contain your name or any identifying information. We will use these data in analyses, both on their own and in combination with driving data, vehicle data, and any crash data. We will store these data securely in electronic form throughout the lifetime of the data (defined below).
4. **Vehicle data** include the vehicle make and model, its condition, how it is equipped, and the part of the VIN number (Vehicle Identification Number) that does not contain identifying



information. These data will not contain your name or any identifying information. We will use these data in analyses, both on their own and in combination with driver data, driving data, and any crash data. We will store these data securely in electronic form throughout the lifetime of the data (defined below).

5. **Driving data** include the data we collect from the vehicle while you are driving, including video data and sensor data. This information will contain video of your face and GPS coordinates of your trips, both of which could be used to personally identify you. These data will be encrypted (stored in an unreadable format) from the moment of their creation until they are downloaded from the vehicle, transferred to a secure data storage facility, and verified. From this point on they will be decrypted (made readable) on an as-needed basis for each analysis. We will use these data for analyses, both on their own and in combination with driver data, vehicle data, and any crash data. We will use only the driver number (e.g., Driver 0011) that is not linked to your identity to determine which data belong together. These data will be stored securely in electronic form throughout their lifetime (defined below).
6. **Crash data** include items we may collect after a crash, including answers to interview questions with one of our researchers and the Police Accident Report resulting from the crash. These data will not contain your name or any identifying information. We will use the data in analyses, both on their own and in combination with driver data, vehicle data, and driving data. We will destroy the Police Accident Reports once non-identifiable information about the crash has been added to the data set. These data will be stored securely in electronic form throughout their lifetime (defined below).

An authorized Institutional Review Board (IRB) or a government regulatory agency that oversees human subjects research may view this study's collected data for auditing purposes. An IRB is responsible for the oversight of the protection of human subjects involved in research. All persons reviewing your records will be obligated to protect your identifiable information from public disclosure, except as otherwise required by law.

If study sponsors or investigators view the driver and driving data for quality control or administrative purposes, they will be required to maintain the security and confidentiality of any data that personally identifies study participants or that could be used to personally identify study participants.

While you are driving the study vehicle, a camera will videotape your face and some space around your head to handle your head movements. An example is shown below. Also, video cameras will capture the forward view, the rear view, an external view to the right of the vehicle, and a dashboard/lap-belt view of the inside of the vehicle. A camera will also periodically take a permanently blurred snapshot of the vehicle interior, which will allow researchers to count the number of passengers and make rough estimates of age, gender, and seatbelt use. We will not be able to identify passengers from these blurred snapshots. All video will be captured and stored in digital format (no tape copies will exist).



We will install in the study vehicle an ambient atmospheric analyzer that can detect the presence of alcohol in the passenger compartment under certain conditions. This instrument is passive and will not impact operation of the vehicle in any way (e.g., it won't lock out the vehicle). The ambient atmospheric analyzer cannot currently tell whether the alcohol was drunk by an occupant of the vehicle or applied (as in hand sanitizer), but future analyses may be able to do so. Also, the atmospheric analyzer will not be able to determine whether the alcohol detected is coming from the driver or a passenger. Future techniques may be able to tell whether alcohol was drunk or applied, but will never be able to determine the amount of alcohol present. However, the instrument will flag the data for possible indications of impaired driving.

If a safety-related incident or crash occurs, we ask you to press a button on the equipment mounted near the rearview mirror. You will know this button is working if a red light appears when you press it. Pressing the button will allow researchers to find the incident in the database after the data have been collected. Also, pressing the button starts a microphone for 30 seconds. During these 30-seconds, you can tell us what happened. No audio will be captured except when you press this button. Unlike OnStar™, pressing this button will NOT make a phone call. It simply records your voice in an audio file that remains in the vehicle until the data are collected.

During the data collection phase of this study, we will encrypt (make unreadable) all data collected from the study vehicle from the time of its creation. We will then store it in a password-protected project folder on a secure computer server. We will decrypt (make readable) the driving data only after it has been stored in this folder. At the end of data collection for this study, we will permanently store the driver data, driving data, and additional crash data at one or more secure data storage facilities. One set of data will be permanently stored at Virginia Tech under the supervision of the Virginia Tech Transportation Institute, the organization overseeing

the data collection for the entire study. It is possible that, after data collection is complete, one copy of the study data will be transferred to the U.S. Department of Transportation (or other secure facilities as determined by the Transportation Research Board) for permanent storage and oversight.

Only authorized project personnel and authorized employees of the research sponsors will have access to study data that personally identifies you or that could be used to personally identify you. As explained below, other qualified research partners have limited access to your driver data, vehicle data, driving data, and any crash data, only for authorized research purposes and only with the approval of an IRB. This limited access will be given under a data sharing agreement or contract that, at a minimum, provides you with the same level of confidentiality and protection provided by this Assent Form. However, without your assent, these qualified researchers will not be able to copy raw study data that identifies you, or that could be used to identify you, or to remove data from the secure facilities in which they are stored.

Project personnel, the project sponsors, and qualified, authorized research partners may show specific videos at research conferences. The project sponsors also may show specific videos to the media, driver's education teachers and students, and others involved in improving highway and road safety. The face portion of the videos will be blurred, blacked out, or replaced with animation for these purposes. Your name and other personally identifying information will not be associated with the showing of these videos. Identifying location information will not be shown in association with these videos.

The data we collect during this study, including data from all the approximately 3,100 primary participants, will be valuable information on how drivers respond to certain situations and how changes to roadways and vehicles could improve driver safety. Researchers who study traffic congestion and traffic patterns may also find the data useful. Therefore, we expect follow-on data analyses using all or part of the data for up to 30 years into the future. These follow-on analyses will be conducted by qualified researchers with IRB approval, as required by law, who may or may not be part of the original project team. In assenting to this study, you are assenting to future research uses of the information and videos we gather from you, consistent with the protections described above and elsewhere in this document.

If you are involved in a crash while participating in this study, the data collection equipment in the study vehicle will likely capture the events leading up to the crash. You are under NO LEGAL OBLIGATION to voluntarily disclose the data collection equipment or your participation in this study at the time of the crash or traffic offense. We will provide a letter that you should keep in your glove box for these cases. The letter describes the vehicle's role in the study without identifying you as a participant in the study.

### **CERTIFICATE OF CONFIDENTIALITY**

Because the vehicle camera system is storing continuous video, it may capture some incriminating evidence if an at-fault collision should occur. To help us protect your privacy, we have obtained a Certificate of Confidentiality from the U.S. Department of Health and Human Services National Institutes of Health. With this Certificate, neither the researchers nor study

sponsors can be forced to disclose information that may identify you, even by a court subpoena, in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings. Identifying information for the purposes of this study includes your contact information, your auxiliary study information, your driving data (including video of your face and GPS coordinates which may identify your home, work, or school locations), or any information in your driver data, vehicle data, or additional crash data that could be used to personally identify you. If you or your parent are not the vehicle owner, you should know that the vehicle owner will not have access to your data. While your confidentiality is protected in most cases by the Certificate, you should know that in some rare instances involving alleged improper conduct by you or others, you may be prevented by a court from raising certain claims or defenses unless you agree to waive the confidentiality protection. The researchers and study sponsors will use the Certificate to resist any demands for information that would identify you, except as explained below.

The Certificate cannot be used to resist a demand for information from personnel of the United States Government that is used for auditing or evaluation of federally funded projects or for information that must be disclosed in order to meet the requirements of the federal Food and Drug Administration (FDA).

This Certificate of Confidentiality does not mean that the Federal government endorses this study. You should understand that a Certificate of Confidentiality does not prevent you or a member of your family from voluntarily releasing information about yourself or your involvement in this research. If an insurer, employer, or other person obtains your written assent to receive research information, then the researchers may not use the Certificate to withhold that information.

The Certificate of Confidentiality also does not prevent the researchers from disclosing voluntarily matters such as child abuse, or a subject's threatened or actual harm to self or others. This could also include behaviors such as habitually driving under the influence of drugs or alcohol, allowing an unlicensed minor to drive the vehicle, or habitually running red lights at high speed. If this type of behavior is observed, we reserve the right to remove you from the study and inform the appropriate authorities of what we have observed. In most cases, we will notify you first of the behaviors we have observed prior to removing you from the study or informing others of our observations. If you are removed from the study, your compensation will be prorated based on the time you have already spent as a participant in the study.

The protections of the Certificate of Confidentiality described in this Informed Assent document may not apply to passengers or drivers of the study vehicle who have not consented to being in this study. For this reason, we will seek Informed Consent from all other adults who drive the vehicle on a regular basis, and these persons will be protected by the Certificate of Confidentiality to the same extent that you are.

### **CONFIDENTIALITY – Summary**

To summarize, the level of confidentiality offered in this study is as follows:

1. We will video your face and portions of your body. If you press the red incident button, we will make a 30-second audio recording of your voice. We will collect health and driving data about you. We will keep the video, audio, and other data that personally identifies you, or could be used to personally identify you, under a high level of security at one or more data storage facilities. We will identify your data with a code rather than your name.
2. We will delete all data collected from other drivers who have not signed a consent form. We will not collect any identifying information on passengers.
3. For the purposes of this project, only authorized project personnel, authorized employees of the project sponsors, and qualified research partners will have access to study data containing personally identifying information, or that could be used to personally identify you. The data, including face video, which has been blurred, blacked out, or replaced by animation, may be shown at research conferences and by the research sponsors for the highway and road safety purposes identified above. Under no circumstances will your name and other personally identifying information be associated with the video clips.
4. Our project team and other qualified researchers may use the personally identifying data collected in this study in future research. Researchers who use the data, however, will sign a data sharing agreement, which will continue to protect your confidentiality, and will also require additional IRB approval. The confidentiality protection provided to you by these data sharing agreements will be as great as or greater than the level provided and described in this document. Research partners will not be allowed to copy raw data that identifies you, or that could be used to identify you, or to remove it from the secure facility in which it is stored except with your assent.
5. We have obtained a Certificate of Confidentiality from the National Institutes of Health. With this Certificate, the researchers and study sponsors cannot be forced, even by a court subpoena, to disclose information that may identify you in any federal, state, or local civil, criminal, administrative, legislative, or other proceeding. However, the Certificate of Confidentiality does not prevent researchers from disclosing voluntarily matters such as child abuse, or a participant's threatened or actual harm to self or others. In terms of driver behavior, reportable, threatening, or actual harm to self or others could include driving under the influence of drugs or alcohol, allowing an unlicensed minor to drive the vehicle, or habitually running red lights at high speed. Such behaviors may result in your removal from the study and reporting of the behavior to the appropriate authorities. While your confidentiality is protected in most cases by the Certificate, you should know that in some rare instances involving alleged improper conduct by you or others, you may be prevented by a court from raising certain claims or defenses unless you agree to waive the confidentiality protection.

## COMPENSATION AND POSSIBLE COSTS

### WILL I RECEIVE PAYMENT FOR PARTICIPATING IN THIS STUDY?

Total payment for your participation in this research will be as follows, depending on the length of enrollment. You are scheduled to be enrolled for \_\_\_\_\_ months.

1. After you have been enrolled in the study (the vehicle has been prepared for our study and you have completed the enrollment process, including the online questionnaires), you will receive \$100 in cash or money order at end of the installation visit or, if questionnaires are completed at home, payment will be mailed to you. This initial payment covers months one through four of your participation in the study.
2. You will receive a second payment of \$100 cash or money order, during your data collection appointment, after the 6<sup>th</sup> month of participation. This payment covers months five through eight of your participation in the study.
3. A third payment of \$133 via cash or money order at the end of the 8<sup>th</sup> month (this is an enrollment bonus, prorated from \$200 for every 12 months of enrollment).
4. If your enrollment extends beyond 8 months, you will receive an additional payment via cash or money order every 4 months. This payment will be \$42 for each month over the minimum 8 month enrollment period (this includes the monthly payment of \$25 plus a \$17 per month prorated bonus).
5. After your enrollment is complete, and after you return to the South Seattle instrumentation facility to have the system removed from the vehicle and complete a few final questionnaires, you will receive any final payment via cash or money order. This final payment will be \$42 for each month or partial month since your previous payment (this includes the monthly payment of \$25 plus \$17 per month prorated bonus).

If you discontinue your participation early, by your own choice or because you are asked to leave by someone on the study team, we will pay you \$25 for every month of your participation in the study. For payment purposes, a partial month is considered a full month. You will not receive the \$200 bonus unless you complete the minimum eight months of participation. If you discontinue your enrollment after eight months, for any reason, your payment will be as described in items 1-5, above.

If you are asked to leave due to persistent tire pressure monitoring system problems, you will be paid \$42 for each month or partial month of participation (this includes the monthly payment of \$25 plus a \$17 per month prorated bonus).

### WHAT ABOUT INSURANCE?

Because you are driving a privately-owned vehicle, neither study personnel nor their respective organizations are responsible for the expenses resulting from any crash you may experience. In the event of a crash, you are **not** responsible for any damage to the data collection system installed in the study vehicle.

If you are injured as the direct result of taking part in this research study, Battelle will not be able to provide you with any medical treatment or financial compensation, except as provided through remedies available at law.

Any expenses for medical treatment in case of injury are your responsibility. We strongly recommend that you have appropriate health insurance coverage.

## **VOLUNTEER**

### **AM I FREE TO WITHDRAW FROM THIS STUDY AT ANY TIME?**

As a participant in this research, you are free to withdraw at any time without penalty. If you choose to withdraw, you will receive partial payment as described in the Payment for Participation section of this form. You **are free to choose not to answer any questions** or respond to any tests that you choose without penalty. If you withdraw or are dismissed from the study, we will retain data collected before your withdrawal/dismissal, but delete any data collected in the interval between when we become aware of the withdrawal/dismissal and before we are able to remove the data collection equipment.

If you choose to end your participation in the study earlier than originally planned, we will schedule a time to remove the data collection system from the study vehicle. You will not receive your final payment until we have removed the instrumentation from the vehicle.

The principal investigator or the sponsor of the research study can end your participation in the study at any time without your assent. If the principal investigator or sponsor ends your participation, we will schedule a time to remove the data collection system from the study vehicle. You will not receive your final payment until we have removed the instrumentation from the vehicle.

### **HAS THIS RESEARCH BEEN APPROVED?**

Before this experiment began, the research was approved by the Institutional Review Boards (IRBs) for research involving human subjects at Virginia Tech and Battelle Seattle Research Center. The research has also been approved by the IRB for the National Academies of Science. This approval has been obtained and is valid through the date listed at the top of this form, at which point the IRBs will review the study for renewal.

