**SECTION A**

**INFORMATION COLLECTION**

**SUPPORTING STATEMENT**

*Psychological Constructs Related to Seat Belt Use*

Seat belts reduce the risk of death by 45% among drivers and right-front passenger car occupants and 60% among similar light truck and van occupants in motor vehicle crashes across all crash types[[1]](#footnote-2)—yet, not everyone uses a seat belt on every trip. According to the latest National Occupant Protection Use Survey (NOPUS), seat belt use in the United States was an estimated 90% in 2016.[[2]](#footnote-3) Although a high percentage of people were observed wearing seat belts through NOPUS, among people killed in motor vehicle crashes in 2015, only 48% were wearing a seat belt.[[3]](#footnote-4) Thus, there is still room to save lives by getting more people to wear seat belts. In order to develop programs with potential to reach those who do not wear seat belts, we need to know as much as we can about this group. Currently, we know a lot about the demographic correlates of seat belt use (e.g., age, gender, marital status), but we do not know much about other individual-level contributors to nonuse. The purpose of this research is to identify psychological constructs and psychosocial factors associated with the non-use and part-time use of seat belts. This will be accomplished through the administration of a probability-based, online survey that will measure self-reported seat belt use, psychosocial factors, such as perceived descriptive and injunctive social norms, and psychological constructs such as impulsivity, risk aversion, optimism, and resistance to peer influence. This research will inform development of countermeasures tailored to more effectively encourage seat belt use among this group.

# **Justification**

## **A.1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection.**

***a. Circumstances making the collection necessary***

*1. National Highway Traffic Safety Administration (NHTSA) mission*

NHTSA was established by the Highway Safety Act of 1970 (23 U.S.C. 101). Its Congressional mandate is to reduce the number of deaths, injuries, and economic losses resulting from motor vehicle crashes on our nation’s highways. To accomplish this mission, NHTSA conducts research on driver behavior and traffic safety to develop efficient and effective means of bringing about safety improvements. This information collection supports NHTSA’s strategic goal of safety.

*2. Effectiveness of seat belts*

There is overwhelming evidence that seat belts are highly effective at saving lives in vehicle crashes. Seat belts reduce the risk of death by 45% among drivers and right-front passenger car occupants and 60% among similar light truck and van occupants in motor vehicle crashes across all crash types[[4]](#footnote-5)In 2015, seat belts saved an estimated 13,941 lives among passenger vehicle occupants 5 and older.[[5]](#footnote-6)

*3. Severity of seat belt non-use*

In 2015, among cases of known restraint use, an average of 27 people died per day in passenger vehicle crashes while not wearing seat belts.[[6]](#footnote-7) Among people killed in passenger vehicle crashes in 2015, when restraint use was known, 48% were not wearing seat belts.

***b. Legal basis for collecting data***

**Title 23, United States Code, Chapter 4, Section 403** gives the Secretary authorization to use funds appropriated to carry out this section to conduct research and development activities, including demonstration projects and the collection and analysis of highway and motor vehicle safety data and related information needed to carry out this section, with respect to all aspects of highway and traffic safety systems and conditions relating to—vehicle, highway, driver, passenger, motorcyclist, bicyclist, and pedestrian characteristics; accident causation and investigations; and human behavioral factors and their effect on highway and traffic safety, including occupant protection. [See 23 U.S.C. 403(b)(1)(A)(i), 23 U.S.C. 403(b)(1)(C).]

## **A.2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.**

The purpose of this survey is to provide critical information needed by NHTSA to develop, implement, and maintain effective countermeasures that meet the Agency’s mandate to improve traffic safety. The data collected in the survey will be used to assist NHTSA in its ongoing responsibilities for: (a) planning program activity which addresses occupant protection issues; (b) providing support to groups involved in improving public safety; and (c) identifying countermeasure strategies that are most acceptable and effective for increasing seat belt use. More specifically, this survey will identify potential psychological and psychosocial barriers to seat belt use that are not currently known. (Appendix B contains a more detailed justification of the survey questions.) A thorough evaluation of these barriers will allow NHTSA and other stakeholders to develop empirically-grounded programs that effectively promote the use of seat belts among populations in which use is currently lower than that of the general population. If the survey was not conducted, NHTSA program efforts would lack important information needed to appropriately tailor programs to increase seat belt use.

In addition to using the collected information for its own program development and technical assistance activities, NHTSA will:

* Disseminate the information to State and local highway safety authorities, who will use it to develop, improve, and target their own programs and activities;
* Disseminate the information to organizations concerned with traffic safety issues, who will use it to develop, improve, and target their own programs and activities; and
* Protect the privacy of respondents by publishing only aggregate statistics, by ensuring that any data released to the public does not contain Personally Identifiable Information, and by following the procedures outlined in the response to A10.

## **A.3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical or other technological collection techniques or other information technology. Also describe any consideration of using information technology to reduce burden.**

The proposed methodology for this research is a web-based survey. NHTSA is employing the services of a contractor that will supervise and coordinate the administration of the survey by a sub-contractor. A toll-free telephone number and email address will be available for respondents who have difficulty or are unable to complete the survey online because of technical or language issues. The Contract stipulates a number of requirements designed to facilitate the interview process for the respondent and reduce burden. They include:

* Basing the visual layout of the questions on principles of heuristics that people follow in interpreting visual cues;
* Making the survey easily navigable from page to page;
* Incorporating logic into the survey functionality, preventing users from having to view questions not applicable to them based on previous survey responses;
* Incorporating user assistance tools, such as capability to contact a help desk via email or a toll-free phone number;
* Retaining user responses so that respondents can leave the system and then re-enter (at the point of departure) without losing the responses previously entered;
* Programming in consistency checks; and
* Programming the survey so that it is 508 compliant, allowing accessibility to people with disabilities by ensuring the survey is compatible with applicable forms of assistive technology, such as screen readers.

Also included in this process of online survey development will be testing of the survey in different web browsers, including using mobile devices such as phones and tablets, as that is how some respondents will access the survey. This testing will be completed internally without placing burden on the public.

## **A.4. Describe efforts to identify duplication. Show specifically why any similar information, already available cannot be used or modified for use for the purposes described in Item 2 above.**

Whereas several previous studies that have examined the characteristics of self-reported always, part-time, and non-users of seat belts, no prior study has examined the associations between psychological and psychosocial factors and seat belt use at the level of breadth and depth as this project. Many of the variables measured in this survey have not been previously investigated with respect to their association with seat belt use. Moreover, although some of the demographic (age[[7]](#footnote-8), race[[8]](#footnote-9), gender[[9]](#footnote-10)), psychological (fatalism/destiny[[10]](#footnote-11), delay of gratification[[11]](#footnote-12), sensation seeking[[12]](#footnote-13), anger/hostility[[13]](#footnote-14), personality[[14]](#footnote-15)), and psychosocial factors (political leaning[[15]](#footnote-16), religiosity[[16]](#footnote-17), culture[[17]](#footnote-18)) included in this study have been previously studied in relation to seat belt use, the inclusion of a multitude of these factors together in a single study will allow us to construct personality sketches of different user types at levels of depth and complexity not achievable with currently available data sets. This information may also elucidate previously unidentified mechanisms underlying consistently-observed regional and demographic differences in seat belt use. Thus, information produced by this survey will address multiple gaps in the current evidence base regarding the correlates and causes of variation in seat belt use. Overall, the following criteria were applied to ensure the proposed effort is not duplicative and the data collected will be representative, relevant, and informative:

* Nationwide data collection – The safety efforts of NHTSA are national in scope. NHTSA therefore requires national-level data for its planning.
* Regional representation – Understanding and addressing regional differences in seat belt use is also a long-standing interest of NHTSA. The current survey is designed to provide data that are representative of four regions, the breakdown for which was specified by NHTSA personnel.
* Attention to current NHTSA program concerns – Items within the proposed survey instrument concern issues of timely relevance (e.g., seat belt use in ride-sharing vehicles) to the development of appropriate strategies for addressing seat belt use.
* Review of prior research – Prior research on the psychological and psychosocial characteristics of different types of seat belt users has been thoroughly reviewed to confirm that the present survey effort is not duplicative.

## **A.5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.**

There will be no impact on small businesses or other small entities. The collection of information involves randomly selected individuals, not small businesses.

**A.6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

Understanding the factors that contribute to inconsistent, improper, and infrequent seat belt use is essential to the sound development of programs aimed at increasing seat belt use. Although previous research has identified numerous factors related to seat belt use (e.g., gender, age, marital status), these largely observable, tangible factors capture only a fraction of the variability in this important protective behavior. In contrast, the proposed project will evaluate individuals on latent psychological constructs and psychosocial factors, and use this information in conjunction with the well-documented observable factors to develop profiles of different types of seat belt users.

Although significant progress has been made in increasing seat belt use in the U.S. population as a whole, targeting the remaining non-users has posed a challenge. Therefore, a deeper, more nuanced understanding of these individuals—informed by a thorough investigation of their psychological and psychosocial characteristics—may prove beneficial for program development and subsequently effective for promoting behavior change. Insight into the psychological makeup and psychosocial patterns of behavior of part-time- and non-users of seat belts will provide a basis for developing new programs directed at these individuals.

## **A.7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with the guidelines set forth in 5 CFR 1320.6.**

No special circumstances require the collection to be conducted in a manner inconsistent with the guidelines in 5 CFR 1320.6.

## **A.8. Provide a copy of the FEDERAL REGISTER document soliciting comments on extending the collection of information, a summary of all public comments responding to the notice, and a description of the agency’s actions in response to the comments. Describe efforts to consult with persons outside the agency to obtain their views.**

The Federal Register Notice notifying the public of NHTSA’s intent to conduct this information collection, and providing a 60-day comment period, was published on April 21, 2017 (Vol.82, No.76, pages 18826-8). NHTSA did not receive any public comments. A second Federal Register Notice (Vol. 82, No. 153, pages 37509-10), which announced that this information collection request will be forwarded to OMB, was published August 10, 2017.

NHTSA and outside experts played vital roles in the design of the survey instrument. Prior to any development work, NHTSA personnel were presented with a collection of possible constructs and factors to be considered for inclusion in the survey instrument, and provided input as to what they considered important to include in the survey. The collected information was then routed to the contractor responsible for designing the initial survey instrument for NHTSA.

During development, a draft version of the survey instrument underwent cognitive testing and items were modified as appropriate to assure they accurately solicited the targeted information.

## **A.9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.**

The survey will be administered using the GfK KnowledgePanel, a probability-based web panel that has been in existence since 1999. All KnowledgePanel surveys are completed online. To improve representation, panelists who do not have internet access are provided netbooks for the duration of their panel participation. The panel allows for easily obtained representative samples for studies, and the probability-based nature of the design allows for weights and variances to be calculated using standard, accepted statistical techniques. The survey operates a modest incentive program for its KnowledgePanel[[18]](#footnote-19) members—primarily through the use of a point system—to encourage participation and create member loyalty. Incentives fall into two categories: general and survey-specific.General incentives are provided for each completed survey. Those who use their own computer and internet connection (i.e., an internet household) are awarded 1,000 loyalty points for completing each survey. One thousand points is roughly equivalent to $1.00. Those who did not have a computer and internet connection at the time of recruitment (i.e., a non-internet household) are provided one at no cost. They are allowed to keep and use the computer on an unrestricted basis for the duration of their tenure on the panel. For surveys longer than 15 minutes, such as the present one, an additional incentive is offered in the form of an entry into a sweepstakes. KnowledgePanel has an existing sweepstakes in place for its panel that has already been vetted from a legal standpoint to ensure compliance in all 50 states.

## **A.10. Describe any assurance of confidentiality provided to respondents**

Participants in this study are KnowledgePanel panelists. When surveys are assigned to KnowledgePanel panel members, a message is sent to their password-protected email account notifying them that a survey is available for completion. Surveys are self-administered and accessible at any time for a designated period. Participants can complete a password-protected survey only once. Members may withdraw from the panel at any time, and continued provision of the web-enabled device (e.g., laptop or netbook) and internet service is not contingent on completion of any particular survey.

All KnowledgePanel panelists are given a link to access the privacy terms electronically at all times via the Panel Member website and also are able to review it at any time on the Members Page and in links contained in survey invitations. The Privacy and Terms of Use Policy is available at http://www.knpanel.com/participate/privacy2.html.

Furthermore, the sub-contractor (GfK) will maintain a secure survey control system that will document their correspondence with all sample members. Personally Identifiable Information (PII) will be retained by GfK and not provided to the contractor or NHTSA. Instead, GfK will provide the contractor with a database containing unique sample IDs. GfK employs a number of measures to ensure all data are properly secured.

Physical security measures include:

* visitor-logging at all sites,
* card-key or key-code entry locks to sites,
* card-key or key-code entry locks to server rooms (authorized personnel only),
* individual cabinet locks on server racks, and
* backup lighting systems for entry ways and server rooms.

Network security measures include:

* perimeter protection (firewalls, filtering router),
* network authentication and authorization,
* network fail-over protection including routers and links,
* backup and recovery systems,
* regular assessment of network infrastructure,
* assessment of network expansions or additions,
* tape or media storage offsite for backups,
* server antivirus software protection,
* network traffic and bandwidth monitoring and alerting,
* server monitoring and alerting,
* website monitoring and alerting, and
* regularly scheduled security audits.

Personnel security measures include:

* the requirement of a signed confidentiality agreement,
* user- and role-based access to panelist information,
* user- and role-based access to survey data, and
* user- and role-based access to Respondent Management System and other tools.

GfK’s Global Information Security Policy is based upon the control objectives and best practice security framework as documented in ISO/IEC 27001:2005. This global policy is backed by training and regular security assessments conducted both internally and externally. GfK’s external security assessment provider, nGuard, which conducts a thorough analysis of GfK’s security program and architecture, bases its assessment on the Top 20 Critical Security Controls, published by the Center for Internet Security (CIS) and derived from NIST Special Publication 800-53.

GfK also uses encryption to protect PII and other confidential data in its custody. All company laptops have McAfee Endpoint Encryption installed on them, which provides full-disk encryption using the AES 256 CBC protocol. GfK wireless networks require two-factor authentication and are secured using the WPA 2 encryption protocol. All servers are backed up daily to an encrypted disk. Both encryption programs meet Department of Defense standards. GfK email servers also apply opportunistic Transport Layer Security (TLS) email encryption.

Each KnowledgePanel member, 18 years of age or older, can be categorized into one of four types:

1. A primary respondent living in a household with internet access
2. A non-primary respondent living in a household with internet access
3. A primary respondent living in household without internet access
4. A non-primary respondent living in household without internet access

A primary respondent is an individual with whom GfK initially, directly communicated during the recruitment process, while a non-primary respondent is any other adult living in the same household as the primary respondent. For primary respondents, consent to receive survey invitations from KnowledgePanel is obtained during the recruitment process, when primary respondents are asked to give their email addresses or shipping addresses to receive the web-enabled device:

For each of your surveys, we send a personal invitation to your email address. The email message will have a link to the survey.

Our surveys are completed online. You can do them whenever you have free time and, if necessary, pause in the middle and complete at a later time—although most surveys are brief. We will notify you when completing a survey that is time sensitive.

Being a panel member is easy and fun, and it allows you to earn cash by answering surveys. In fact, we will send you a one-time $10 check for completing your first survey called “Getting to Know You”.

Your email address will be protected by our privacy standards. We can promise you that GfK will never share your email address with anyone without your permission.

Please enter your email address:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_@\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Please confirm that this is the email address you would like us to use to send your personalized survey invitations.

[insert email address]

Yes, it is correct

No, I need to make a correction

They are then asked to complete the “Core Profile Survey,” which collects basic personal demographic information. Primary respondents must complete the “Core Profile Survey” to become empaneled and before receiving invitations to answer client surveys.

For all recruitment efforts, during the initial recruitment survey, all household members are enumerated. Following enumeration, attempts are made to recruit every household member who is at least 13 years old to participate in KnowledgePanel surveys. Consent from non-primary respondents is obtained during their completion of an initial online survey, when respondents answer “Yes” to the question: “Now that you know a little more about the KnowledgePanel, would you like to join and have your opinion heard?” Similar to primary respondents, non-primary respondents must then complete the “Core Profile Survey” before answering any client surveys.

While this survey is only for respondents 16 and older, the general consent to recruit teenagers between the ages of 13 and 17 to become members of the KnowledgePanel is first obtained from the primary respondents during the recruitment process. The specific questions are:

1. “Are you the parents or guardian of [NAME OF CHILD]?”
2. “Do you give consent for [NAME OF CHILD] to receive surveys from the KnowledgePanel?”

KnowledgePanel will ask for email addresses or create email addresses for teens to receive surveys only after both of the above questions are answered “Yes.” Following parental consent, the individual teenager is sent an invitation to answer an initial demographic survey. Teenagers must complete this survey before receiving further surveys.

For questionnaires with less sensitive topics (e.g., teen perceptions of brands, political attitudes), study-specific, online informed consent has not generally been required by most IRBs. In these cases, the procedure that GfK employs for obtaining consent at the time of panel recruitment, as indicated above, has been deemed sufficient by most IRBs. On some occasions, when the survey topic or some of the questionnaire items are deemed to be highly sensitive by the IRB, GfK may require consent on a study-specific basis, obtaining informed consent from both the parents or from appropriate legal guardians as well as from the teen research participants themselves.

In addition, an Institutional Review Board (IRB) has reviewed all instruments, informed consent materials, and procedures to ensure that the rights of individuals participating in the survey are safeguarded. The contractor has also received the approval of Federal-wide Assurance (FWA) by the Office for Human Research Protection (OHRP). Their FWA number is FWA00011194. All researchers on the contractor’s team have current human subjects research (e.g., CITI, PEERRS) training.

As stated above, participants in this study are KnowledgePanel panelists. All KnowledgePanel panelists are given a link to access the privacy terms electronically at all times via the Panel Member website and also are able to review it at any time on the Members Page and in links contained in survey invitations. Furthermore, the sub-contractor (GfK) will maintain a secure survey control system that will document their correspondence with all sample members. Personally Identifiable Information (PII) will be retained by GfK and not provided to the contractor or NHTSA. Instead, GfK will provide the contractor with a database containing unique sample IDs. While GfK employs a number of measures to ensure all data are properly secured, NHTSA does not have a separate policy for handling the data to protect privacy because the agency will only receive de-identified data and will not receive any PII from the contractor. A copy of the Panel Members’ privacy statement is contained in Appendix C.

## **A.11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior or attitudes, religious beliefs, and other matters that are commonly considered private.**

Participants will be asked to answer a number of questions about their own thoughts, attitudes, perceptions, and behaviors in order to adequately measure the psychological and psychosocial constructs of interest. Some of these questions may be considered moderately sensitive in nature. For example, the survey includes questions that ask about risk taking behavior, hostility, sensation seeking, perceptions that do not align with social norms, peer influence, and views towards government involvement. It is necessary to ask the specific questions included in the survey because they come from validated scales for measuring the psychological constructs of interest. If questions were changed or removed, the scales would lose their construct validity, and we would no longer know if the scales were truly measuring the constructs of interest.

We are also using secondary data that may be considered slightly sensitive in nature. These include information on participant religious and political affiliations that GfK collects on all KnowledgePanel panelists when they first join the panel through the “Core Profile Survey.” While these data will be used in the analysis, they will not be collected directly from the participants as part of this data collection effort.

Participation in the survey will be completely voluntary. Participants may choose to participate in any portion of the survey. If participants are uncomfortable with answering any of the survey questions, they will be fully aware of their right to not answer such questions and simply move on to the next question with which they feel comfortable answering.

## **A.12. Provide estimates of the hour burden of the collection of information on the respondents.**

As detailed in Table 1, the total respondent burden for this data collection would be 2,070 hours.

**Table 1. Survey Burden by Form**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Form Number** | **Form Name** | **Respondents** | **Average Completion Time (minutes)** | **Burden (hours)** |
| **1365** | Screener | 10,197 | 1 minute | 170 |
| **1366** | Full PCRSBU Survey | 6,000 | 19 minutes | 1,900 |
| Total |  | 16,197 |  | 2,070 |

NHTSA expects to contact 20,394 KnowledgePanel panelists via an invitation email (Appendix A) to obtain 6,000 completed surveys. Of the 20,394 panelists contacted, it is estimated that approximately 50%[[19]](#footnote-20) or 10,197 potential respondents will log into the Web portal to complete the screener (Form 1365). The estimated burden for the eligibility screener is 170 hours (10,197 \* 1 minute = 10,197 minutes/60 = 170 hours). Based on the oversampling plan to ensure the sample includes a sufficient number of respondents who report not wearing seat belts all of the time,[[20]](#footnote-21) it is estimated that 6,316 individuals who are found eligible for participation will be sampled to complete the full survey (Form 1366). Based upon a 95% completion rate,19 it is anticipated that 6,000 respondents will complete the full survey, which will average 19 minutes in length (6,000 \* 19 minutes = 114,000 minutes/60 = 1,900 hours).

**A.13. Provide an estimate of the total annual cost to the respondents or record keepers resulting from the collection of information.**

Since respondents will be contacted via email (Appendix A), the survey will not have an actual cost to the respondents (i.e., they are free to participate during non-salaried hours). However, the time they spend on the survey can still be looked at in terms of what it would have cost if the respondents had spent that amount of time on a task while on the job. Preliminary estimates for August 2016 from the Bureau of Labor Statistics, U.S. Department of Labor, list average hourly earnings in private industry as $25.73 (<http://www.bls.gov/news.release/empsit.t19.htm>, accessed September 19, 2016). The average earnings for one minute would be $0.43 and 19 minutes would be $8.15. The total cost if the respondents had spent that amount of time on the job is $53,285 ($4,385 from Form 1365 and $48,900 from Form 1366).

There are no record keeping or reporting costs to respondents. Each respondent only participates once in the data collection. Thus there is no preparation of data required or expected of respondents. Respondents do not incur: (a) capital and startup costs, or (b) operation, maintenance, and purchase costs as a result of participating in the survey.

## **A.14. Provide estimates of the annualized cost to the Federal Government.**

The estimated total cost to the Federal government is $202,858. This amount is the funds specifically associated with the cost of data collection. Annualized cost for the 36.5 months of the project is approximately $66,693 per year.

## **A.15. Explain the reasons for any program changes or adjustments in Items 13 or 14 of the OMB 83-I.**

This is a new information collection. As such, it requires a program change to add the estimated 2,070 hours for the new information collection to existing burden.

**A.16. For collection of information whose results will be published, outline plans for tabulation and publication.**

A final electronic file containing all data collected in the study will be developed. The full sample weights will be developed for analysis. A data dictionary including variable names, labels, and value labels/ranges will be designed to accompany the final file. The analysis plan for the data includes the following types of analysis using the weighted data:

* Descriptive analysis using proportions, means, confidence intervals, by subpopulation when necessary;
* Cluster analysis to uncover types of seat belt use as well as segments of motives for differences in types of seat belt use;
* Model-averaged logistic regression analysis to study the relationship between seat belt use and demographic, regional, psychological, psychosocial, social situational factors, as well as motives for seat belt use and disuse; and
* Multi-process or multi-equation logistic modeling to extend the demographic and regional models predicting seat belt use to discern if psychological, psychosocial, and social-situational variables account for demographic and regional differences.

NHTSA will develop a final report that presents the findings from the data collection effort, which will be disseminated on the agency website. We expect data collection to take place in 2017, and we expect the report will be published in 2018. Individual data will not be identified in the report; data will be reported only in the aggregate as part of the findings.

## **A.17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.**

The expiration date for OMB approval will be displayed.

## **A.18. Explain each exception to the certification statement identified in Item 19, “Certification for Paperwork Reduction Act Submissions” of the OMB Form 83-I.**

No exceptions to the certification are made.

1. Kahane, C. J. (2015, January). Lives saved by vehicle safety technolo­gies and associated Federal Motor Vehicle Safety Standards, 1960 to 2012 – Passenger cars and LTVs (Report No. DOT HS 812 069). Washington, DC: National Highway Traffic Safety Admin­istration. Available at www-nrd.nhtsa.dot.gov/Pubs/812069.pdf [↑](#footnote-ref-2)
2. Pickrell, T. M., & Li, R. (2016, November). *Seat Belt Use in 2016—Overall Results* (Traffic Safety Facts Research Note. Report No. DOT HS 812 351). Washington, DC: National Highway Traffic Safety Administration. [↑](#footnote-ref-3)
3. 3 National Center for Statistics and Analysis. (2016, August). *2015 motor vehicle crashes: Overview.* (Traffic Safety Facts Research Note. Report No. DOT HS 812 318). Washington, DC: National Highway Traffic Safety Administration. [↑](#footnote-ref-4)
4. Kahane, C. J. (2015, January). Lives saved by vehicle safety technolo­gies and associated Federal Motor Vehicle Safety Standards, 1960 to 2012 – Passenger cars and LTVs (Report No. DOT HS 812 069). Washington, DC: National Highway Traffic Safety Admin­istration. Available at www-nrd.nhtsa.dot.gov/Pubs/812069.pdf [↑](#footnote-ref-5)
5. National Center for Statistics and Analysis. (2017, February). Occupant protection in passenger vehicles: 2015 data (Traffic Safety Facts. Report No. DOT HS 812 374). Washington, DC: National Highway Traffic

   Safety Administration. [↑](#footnote-ref-6)
6. National Center for Statistics and Analysis. (2016, August). *2015 motor vehicle crashes: Overview.* (Traffic Safety Facts Research Note. Report No. DOT HS 812 318). Washington, DC: National Highway Traffic Safety Administration. [↑](#footnote-ref-7)
7. Chaudhary, N. K., & Northrup, V. S. (2004). Predictive models of safety belt use: a regression analysis of MVOSS data. *Traffic Injury Prevention*, *5*(2), 137–143. [↑](#footnote-ref-8)
8. Colón, I. (1992). Race, belief in destiny, and seat belt usage: a pilot study. *American Journal of Public Health*, *82*(6), 875–877. [↑](#footnote-ref-9)
9. Khallad, Y. (2010). Health risk behaviors among college youths: a cross-cultural comparison. *Journal of Health Psychology*, *15*(6), 925–934. [↑](#footnote-ref-10)
10. Shin, D., Hong, L., & Waldron, I. (1999). Possible causes of socioeconomic and ethnic differences in seat belt use among high school students. *Accident Analysis and Prevention*, *31*(5), 485–496. [↑](#footnote-ref-11)
11. Daugherty, J. R., & Brase, G. L. (2010). Taking time to be healthy: Predicting health behaviors with delay discounting and time perspective. *Personality and Individual Differences*, *48*(2), 202–207. [↑](#footnote-ref-12)
12. Hatfield, J., Fernandes, R., & Job, R. F. S. (2014). Thrill and adventure seeking as a modifier of the relationship of perceived risk with risky driving among young drivers. *Accident Analysis & Prevention*, *62*, 223–229. [↑](#footnote-ref-13)
13. Sarma, K. M., Carey, R. N., Kervick, A. A., & Bimpeh, Y. (2013). Psychological factors associated with indices of risky, reckless and cautious driving in a national sample of drivers in the Republic of Ireland. *Accident Analysis and Prevention*, *50*, 1226–1235. [↑](#footnote-ref-14)
14. Beck, K. H., Wang, M. Q., & Yan, A. F. (2012). Hurried driver dispositions: their relationship to risky traffic behaviors. *American Journal of Health Behavior*, *36*(1), 86–95. [↑](#footnote-ref-15)
15. Molnar, L. J., Eby, D. W., Dasgupta, K., Yang, Y., Nair, V. N., & Pollock, S. M. (2012). Explaining state-to-state differences in seat belt use: a multivariate analysis of cultural variables. *Accident Analysis and Prevention*, *47*, 78–86. [↑](#footnote-ref-16)
16. Khallad, Y. (2010). Health risk behaviors among college youths: a cross-cultural comparison. *Journal of Health Psychology*, *15*(6), 925–934. [↑](#footnote-ref-17)
17. Chassin, L., Macy, J. T., Seo, D.-C., Presson, C. C., & Sherman, S. J. (2010). The association between membership in the sandwich generation and health behaviors: a longitudinal study. *Journal of Applied Developmental Psychology*, *31*(1), 38–46. [↑](#footnote-ref-18)
18. Additional information on GfK’s KnowledgePanel is provided in Section B. [↑](#footnote-ref-19)
19. This figure was provided by GfK, and is based on the response rates observed in their KnowledgePanel over the past 17 years. [↑](#footnote-ref-20)
20. See Section B.1(b) for details on the subsampling plan. [↑](#footnote-ref-21)