Parent awareness and use of Ford's MyKey system

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Abstract

Introduction: New teen drivers experience elevated levels of risk behind the wheel, especially during their first few months of independent driving. Auto manufacturers have developed teen parental monitoring and control systems, and they have been appearing across the fleet since 2009. One such system developed by Ford, called MyKey, allows parents to engage their vehicle's safety features, limit speed and audio volume, and trigger additional alerts when their teen uses a programmed key.

Method: The current study comprises a survey of parents of driving-age teens, who also own MyKey-equipped vehicles, to understand whether parents know about their car's features, whether they use them, and from where they got their information.

Results: While over half of MyKey-owning parents are aware of the system, only a third report using the features with their teen driver. Users most frequently report engaging the speed-limiting and speed-reminder functions, along with the audio volume limiter. Nonusers cite their teen's trustworthiness, or that their teen does not drive their MyKey vehicle. Parents are more likely to know about MyKey if they purchased from a dealer, rather than a private individual.

Conclusions: MyKey use is not as prevalent among parents and owners as it could be, limiting its possible positive impact. Salespeople and other dealership staff are in a position to encourage use in future owners.

Practical applications: A deeper understanding of how families use specific parental monitoring technologies will inform their continued development, marketing, and adoption across the fleet.

Keywords: Parental monitoring systems; teen drivers; MyKey

Introduction

Teens are disproportionately at risk of crashes especially within the first 6 months of independent driving, largely related to risky driving behaviors like speeding (Ferguson, 2013; Williams, 2003), a still-developing executive functioning system (Walshe, Ward McIntosh, Romer, & Winston, 2017), poor risk perception (Ivers et. al., 2009), and simply being new to the task of driving (Curry, Pfeiffer, Durbin, & Elliott, 2015; McCartt, Mayhew, Braitman, Ferguson, & Simpson, 2009). While some risk is inherent in a teen's age and cognitive development, some risky behaviors could be mitigated by safety features currently available on many vehicle models.

Manufacturers continue to develop and introduce driver assistance systems, and some research has begun to examine how new teen drivers interact with such technology. Crash warning systems have shown both positive and negative results with teens, reducing unsignaled lane changes and lateral drift while also reducing the distance at which teens will follow the vehicle in front of them (Jermakian, Bao, Buonarosa, Sayer, & Farmer, 2017). While additional work to understand how teens interact with vehicle automation and advanced driver assistance systems is ongoing, such technology shows some potential to reduce crashes.

Parents also play an integral role in the safety of their new teen drivers, although parent involvement varies widely from household to household. In one study, parents reported imposing restrictions on their teen drivers–specifically targeting perceived risky behaviors like speeding and using a phone while driving–especially when they are either 'very worried' about their teens' driving behavior, or when they believe their rules have a significant impact on their teens' driving outcomes (Jewett, Shults, & Bhat, 2016).

New technology continues to emerge to aid parents in monitoring and controlling their new teen drivers' on-road behavior. These systems offer features that alert parents to teens' risky behaviors, physically limit the capacity of the vehicle, turn on the vehicle's existing safety features to always be on, and enable additional in-vehicle alerts for when teens make risky driving decisions. Several manufacturers have introduced fully integrated systems into their models: Ford introduced its MyKey system in 2009, followed by Kia's UVO system and Mercedes-Benz's mbrace 2 in 2011; the Hyundai Blue Link in-vehicle app in 2014; GM with Teen Driver technology in 2016; and Chrysler KeySense, exclusively on the Pacifica, in 2017. After-market systems also offer parents the ability to monitor their teens' driving. Products like DriveCam Protect can alert parents when teens don't buckle up or make risky driving maneuvers using systems like in-vehicle cameras and mechanisms that measure g-forces within the vehicle.

Some work has shown the benefits of parental monitoring systems. Farmer and colleagues found that teens were less likely to speed or drive without a seatbelt when in-vehicle alerts were active, and if they knew their parents would be alerted to their behavior (Farmer, Kirley, & McCartt, 2010). A study of DriveCam found that immediate visual feedback to teen drivers, coupled with weekly event reports with video for both parents and teens, reduced the occurrence of what the study authors called 'coachable events'—challenging on-road events and teen behavior both good and bad—by 61% (Carney, McGhee, Lee, Reyes, & Raby, 2010). Another study of DriveCam found that use of the system reduced g-force event rates (risky driving maneuvers, generally) significantly over the period of the study, but only when parents had access to the vehicle's event videos and trip history; when the system was only used to provide real-time alerts to teens about risky maneuvers—hard braking, speeding, turning too fast or quick acceleration—system use did not significantly reduce event occurrence (Simons-Morton

et al., 2013). A recent review of parent-focused interventions found promise for improving teen driver safety among systems that include an in-vehicle data recorder, as well as programs with strong conceptual grounding and elements that actively engage parents in their teens' driving (Curry, Peek-Asa, Hamann, & Mirman, 2015).

Ford's MyKey system was initially introduced in a small number of models in the 2010 model year and was gradually added as a standard feature to all Ford and Lincoln models. The system allows the owner to program a key which, when used to operate the vehicle, turns on a collection of the car's features, some of which are configurable or optional, and some of which are on whenever the system is engaged (nonconfigurable). Using the configurable features, the parent can limit the vehicle's top speed; set speed alerts at varying levels; limit the audio volume and censor adult content on satellite radio; and make it impossible for the driver to disable the traction control, the 911 emergency system, and the Do Not Disturb feature. The nonconfigurable features include engaging all crash avoidance and driver assistance systems that the vehicle is equipped with (blind spot monitoring, forward collision warning, and lane departure warning), a seatbelt interlock that prevents the radio from playing when the driver or the front-seat passenger is not buckled up, and a more persistent seat belt reminder (reminder does not turn off after a set time, instead persisting until the driver and passenger buckle up).

While parental monitoring systems could have a significant positive impact on teen driving outcomes, their reach is not known and their effectiveness continues to be studied. Understanding how families use these systems as they exist now will help direct future research into how systems like these can be most beneficial for teens and their families, and how these systems could reach families who could most benefit from them. Due to its longer presence on the market and its inclusion as a standard feature, the current survey focused exclusively on

Ford's MyKey system. The current study investigated whether parents of teens who own MyKey-equipped Ford vehicles are aware of their vehicle's teen-focused features, whether they use them, and which features they use and rely upon most.

Methods

Participants

The contractor Opinion America Group used online panels and databases to target households that were known to own or to have leased at least one Ford vehicle from a recent model year and that were likely to contain at least one teenager aged 16–19 years old. Calls were conducted nationwide between January and March of 2018 until 1,500 respondents who had at least one eligible vehicle and one teenager agreed to participate and completed the survey. The survey was administered exclusively to parents, as it was deemed unlikely that teenagers would utilize the MyKey system to limit their own driving. At completion, 10,238 households were contacted, with 1,500 completed surveys collected from parents (816 male parents, 680 female parents completed the full survey).

Survey Instrument

The survey instrument comprised a base of 34 questions. Three questions focused on the teen driver were repeated for each teen aged 16–19 in the household, and seven questions about the equipped vehicle were asked about each eligible vehicle in the household.

The survey began by establishing that the respondent has both at least one teenager between ages 16 and 19 in their household and has at least one Ford vehicle from model year 2010 or later. The parent was next asked about their teen driver's age, gender, and current level of licensure. Following that, respondents were asked about each Ford vehicle from model year 2010 or later in use by their household, including questions about whether they purchased the car

new or used, for how long they have owned the (or each) car, and whether and how often their teen driver drives the (or each) vehicle.

The survey administrator then read a short paragraph description of the MyKey system, followed by a question about the participants' awareness, use, and plans for future use of the system. Participants were then asked about the features they use (or, in the case of parents who reported awareness of the system but no current use, the features they planned to use in the future) and rely upon most to keep their teen driver safe. These questions focused only on MyKey's configurable features, because use of MyKey automatically engages the nonconfigurable features. Next were questions about the system's ease of use and where they learned of their car's MyKey features. The survey concluded with demographic questions (see the Appendix for the full instrument).

Procedure

Participants, upon contact, were first asked if they were in a safe place to participate in a 10-minute phone survey. Those who were not were asked if they would be open to a follow-up call, and those who agreed to the follow-up call were contacted again later. Participation took up to 10 minutes for those who qualified for the full survey. Data were analyzed using SAS statistical software (SAS Institute Inc., 2015).

Results

Of the 10,238 households successfully contacted, 4,567 did not have a qualifying vehicle, 1,334 did not have a qualifying teenager in their household, 443 qualified but did not complete the full survey, and 2,394 declined to participate before eligibility was determined. This resulted in 1,500 completed surveys from parents with both at least one qualifying MyKey-equipped vehicle and at least one teenager within their household.

Twelve respondents stated that their teens did not ever drive the qualifying vehicles, and they would not drive them in the future. Of the remaining 1,488 respondents, 850 reported being aware of their vehicle's MyKey system (57.1%), while 577 were not aware (38.8%) and 61 reported being unsure (4.1%). Of those respondents who knew about MyKey, 521 reported using MyKey with their teen driver (35.0% of sample, 61.3% of those aware of MyKey) and 104 reported not using it at the time of the survey but planning to use it in the future (7.0% of sample). Of those respondents who did not know about MyKey, 260 said they were planning to use it in the future (17.5% of sample). Two hundred and ninety-six respondents reported not planning to use MyKey in the future (19.9%) and 283 were unsure about their plans (19.0%) (see Table 1).

Table 1. Breakdown of parents who were aware and not aware of MyKey, and their use or plans for future use.

		Number of parents	Percent of total sample
Aware of MyKey	Use MyKey	521	35.0
	Plan to use	104	7.0
	Do not plan to use	164	11.0
	Unsure/no response	61	4.1
	Total	850	57.1
Unaware of MyKey	Plan to use	260	17.5
	Do not plan to use	126	8.5
	Unsure/no response	191	12.8
	Total	577	38.8
Unsure/no response	Plan to use	24	1.6
	Do not plan to use	6	0.4
	Unsure/no response	31	2.1
	Total	61	4.1

Parents who reported using or planning to use MyKey differed slightly from those who did not. Parents in households with income below $75,000/year were more likely to report using or planning to use MyKey than those who earned $75,000/year or more (55.2% vs. 44.8%; $\chi^2(1) = 27.1$, $p < .0001$). Significantly more male parents reported using or planning to use MyKey

than female parents (57.6% vs. 42.3%; $\chi^2(1) = 9.1$, $p = .003$), and parents under age 50 were significantly more likely to use or plan to use MyKey than those 50 or older (64.6% vs. 35.3% $\chi^2(1) = 40.0$, $p < .0001$).

Parents who knew about their MyKey features but reported no plans to use them with their teen reported a variety of reasons for their choice. Most commonly, parents reported that while their teen does drive their MyKey-equipped vehicle, their teen is not a frequent-enough driver to warrant engaging the system (25.8%). Next most common was the opinion that their teen was trustworthy or a safe driver, and that use of the system was not necessary (21.7%). Other common responses included parents not seeing the need or possible benefit of MyKey (9.1%), not knowing how to use MyKey (8.1%), and not having time to set it up (6.3%) (see Table 2).

Table 2. Most frequent reasons why parents chose not to use MyKey.

Reason	Number of parents (N=225)	Percent
Teen is not primary/frequent driver of vehicle	57	25.8
Teen is trustworthy/a good driver	48	21.7
System is otherwise not applicable to the teen	37	16.7
Parent doesn't see need or benefit of MyKey	20	9.1
Parent doesn't know how to use	18	8.1
Parent hasn't had time to set up	14	6.3

MyKey users (N=521) reported obtaining information about MyKey primarily from a car dealer or salesperson. Most users reported first learning of MyKey at the dealership, from their salesperson (48.4%), followed by written materials at the dealership (36.3%) and outside sources before their first visit to a dealership (25.2%) (multiple responses accepted, see Figure 1). Respondents reported use of MyKey on both new and preowned vehicles, vehicles purchased from dealerships, and private individuals. Respondents who purchased a vehicle from a dealership were more likely to have heard of MyKey than those who purchased from a private

individual, regardless of whether the vehicle was new, preowned from a Ford dealer, or preowned from an independent dealership (97.1% vs. 2.9%; $\chi^2(1) = 26.02$, $p < .001$).

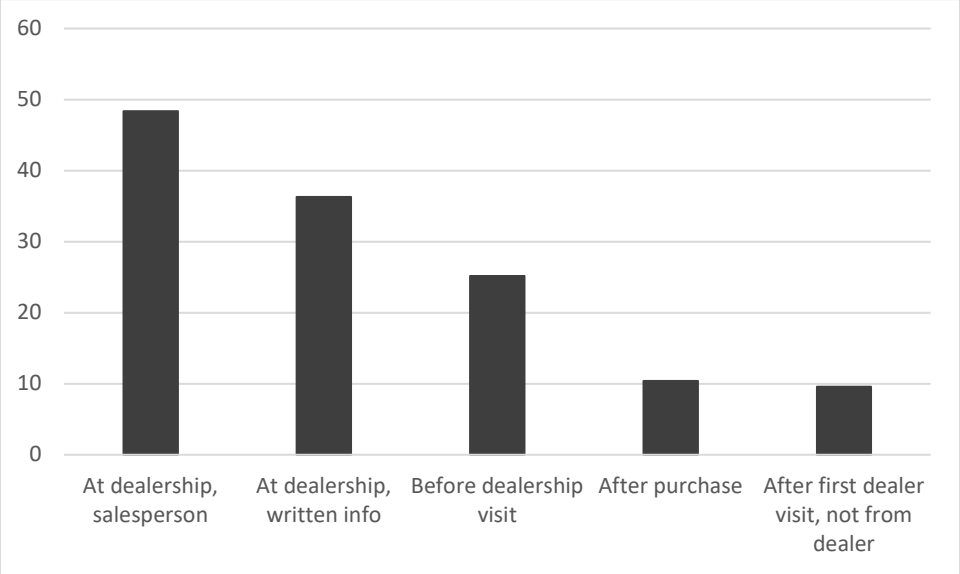

Figure 1. The percent of MyKey users who learned about their vehicle's MyKey features through different sources (multiple responses allowed).

Of MyKey's configurable features, parents reported using (or planning to use) about three features on average, both among parents who currently use MyKey and those who reported planning to use it in the future. Respondents in both groups focused on the speed-related features most frequently: 61.2% of MyKey users reported engaging the system's speed limiter, and 65.6% used the speed reminders, while 69.3% and 75.0% of those who plan to use MyKey in the future expect to use the speed limiter and speed reminders, respectively. The feature limiting the maximum volume of the vehicle's audio media was next-most popular both among current (52.6%) and future users (56.4%), followed by the features making it impossible to disable the traction control system, the 911 emergency system and the Do Not Disturb feature, and the radio content sensor. (see Figure 2 for current users and Figure 3 for future users).

The configurable features parents considered most important in keeping their teen driver safe followed a similar pattern, both among current and future users: 60.6% of current users and

62.1% of future users reported they felt this way about the speed-limiting feature, while 60.3% of current users and 61.9% of future users said so about the speed reminders (parents were allowed to make multiple responses). Next came the audio volume limiter, followed by the 'always on' traction control, 911 emergency assist and Do Not Disturb features, and last being the adult content restrictions on satellite radio (see Figures 2 and 3).

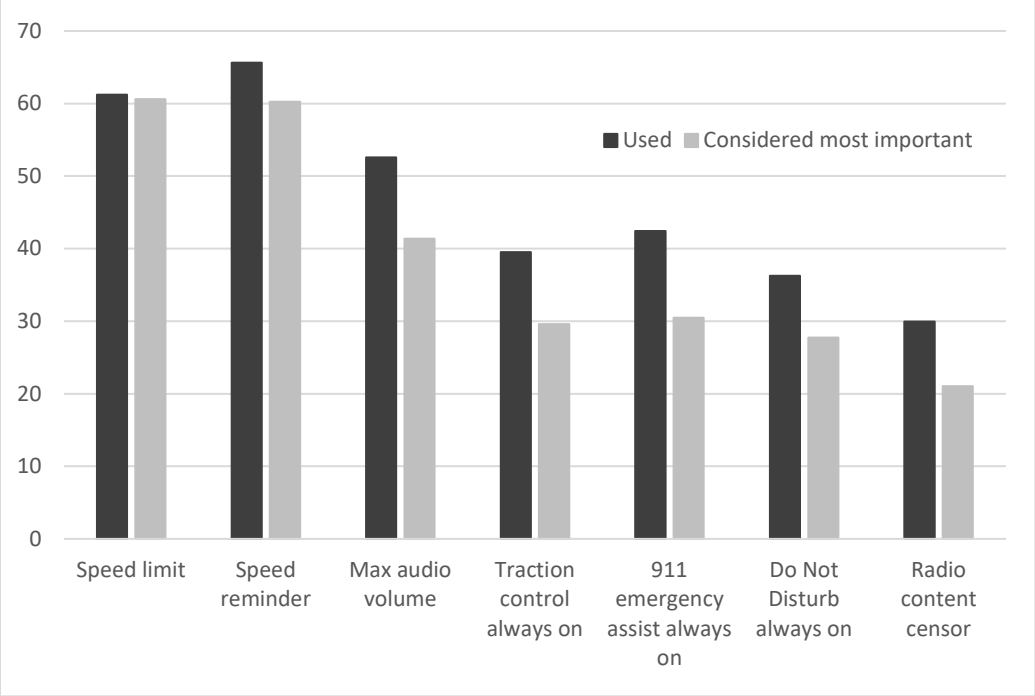

Figure 2. Percent of responses indicating configurable features used (left-hand bars) and considered 'most important' in keeping teen drivers safe by parents who use MyKey.

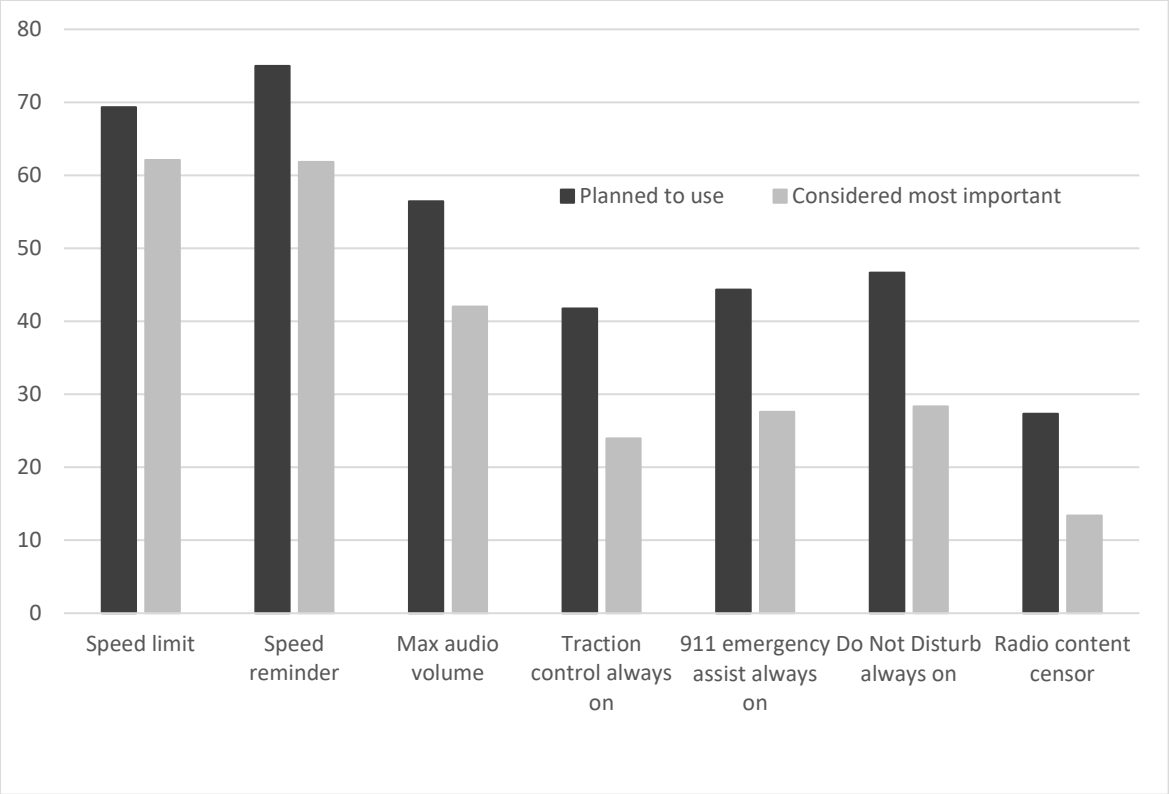

Figure 3. Percent of responses indicating configurable feature parents planned to use (left-hand bars) and considered 'most important' in keeping teen drivers safe by parents who plan to use MyKey in the future.

Discussion

About a third of surveyed parents use the MyKey features with their teen drivers, and another fifth report planning to use it with a teen driver in the future. While these numbers are promising, this system has not been adopted widely among parents of teen drivers with access to it. Parents who purchased their vehicle from a dealer, either new or preowned, were more likely to report knowledge of MyKey than those who purchased their vehicle from a private individual.

Those parents who reported knowledge of MyKey also reported getting their most useful information from the dealer from whom they purchased the vehicle, and from the user manual. Recent research has shown that many salespeople, especially at dealerships for 'mass market' brands, have limited knowledge of vehicles' advanced driver assistance and other safety features (Abraham, McAnulty, Mehler, & Reimer, 2017). The current study's results indicate that buyers

use and rely on information from dealers when learning about systems like MyKey, and this previously observed lack of information from salespeople could be a barrier to more parents using their MyKey systems. It highlights an opportunity for dealerships to improve safety feature use by optimizing the way they acquire and communicate information about them to their customers.

Parents who use or plan to use MyKey reported using, on average, about three of its configurable features. Most commonly parents reported using the vehicle's speed-limiting/alerting features, and using features that would limit distraction, force the traction control and 911 emergency systems on, or censor the radio content. Data do not yet exist quantifying what effect the speed limiter and speed reminders have on reducing teens' driving speeds, but considering the role speed plays in teen crash deaths, this focus is warranted. Over 30% of fatal crashes in which a teen driver aged 16, 17, or 18 was involved in 2016 cited driver speeding as a crash characteristic, compared with just 16% for drivers aged 30–59 (Insurance Institute for Highway Safety, 2018).

Not all parents who knew about MyKey used it, and their reasons for nonuse ranged from belief that their teen is responsible to a lack of information about the system and how it works. Most parents who reported using MyKey responded that it was either 'very easy' or 'easy' to set up and use, although a small handful of parents who reported nonuse cited lack of information about the system as their reason. Still, the current study does not indicate that difficulty of use created a significant barrier for parents who wanted to use MyKey.

This study has a few notable limitations. First, due to the sampling methods used, the experimenters were unable to control for the number of advanced features on each respondent's vehicle. This may have artificially depressed the number of parents who reported using and/or

relying upon the adult content filter on the satellite radio system, as not all vehicles were equipped. In addition, the survey did not allow for parents to report being aware of their vehicle's MyKey system unprompted. All parents heard a description of the system and were asked if they were aware of its presence in their vehicle, allowing for inaccurate responses from respondents.

Future work will need to address whether and in what ways systems like MyKey reduce teen crash risk. If MyKey and systems like it reduce teen driving speeds then it would be advantageous for these systems to be more widely available, to include the features that do the most good, and for those to whom it is available to use it with their teen drivers.

Acknowledgements

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Appendix: Survey of how parents use MyKey with their teen drivers

Hello, I'm _____ calling on behalf of the Insurance Institute for Highway Safety. We are conducting a study of parents with teenagers who drive. This is a brief survey and we appreciate a few minutes of your time so that your opinions may be included. Let me assure you that this is not a sales call and that you will not be identified in any way with your answers.
Are you in a place where it is safe to continue with this survey, understanding that it will take up to 10 minutes? Yes [Continue] No [Arrange for Callback]

Questions to determine fitness to participate

***NOTE TO PROGRAMMER**: We will wind up with several different modules to use depending on how parents answer these questions. Broadly, parents will either know about MyKey or they won't. Those who don't, might know about the features of MyKey, but not know the system by name. Those who do will have found out about the features at different stages of the purchasing process. In both groups, there will be parents who do and don't use some or all of the features of MyKey.*

1. Do you own (or lease) a Ford that is a model year 2010 or later?
   - 1 YES – [If yes, ask] 1a. How many Ford vehicles do you own (or lease) that are model 2010 or later?
   - 2 NO [Thank and end call]
   - 8 [VOL] Don't know [Thank and end call]
   - 9 [VOL] Refused [Thank and end call]

   1a. How many Ford vehicles do you own or lease that are model 2010 or later?

2. Do you have at least one teenager in your household, between the ages of 16 and 19?
   - 1 YES
   - 2 NO [Thank and end call]
   - 8 [VOL] Don't know [Thank and end call]
   - 9 [VOL] Refused [Thank and end call]

Teen detail questions

3. How many teenagers ages 16-19 do you have in your household [Record #]?
   1. If more than 1 teenager ages 16-19, ask Q4 to Q6 loop in sequence for each

4. What is the age of your (if more than 1 insert as needed—oldest/next oldest) teenager?
   - 16 16
   - 17 17
   - 18 18
   - 19 19
   - 99 [VOL] Prefer not to answer

5. What is the gender of this teen?
   - 1 Male
   - 2 Female
   - 3 [VOL] Other
   - 9 [VOL] Prefer not to answer

6. Does your [insert age/gender for each if more than 1] teen currently have a:
    1 Learner's Permit
    2 Provisional / intermediate license
    3 Full driver's license
    8 [VOL] None of the above
    9 [VOL] Prefer not to answer/Refused

NOTE: The intermediate license, or provisional license is the license, with restrictions, that teens get immediately following their driving test, and is the license they hold after their Learner's permit.

(ASK Q7 TO 13 SERIES FOR EACH FOR OWNED/LEASED IN Q1A)

Ford vehicle detail questions

Q7DSP (SHOW ONCE) You said you own (a) Ford vehicle(S) with a model year of 2010 or later. (SHOW EACH LOOP)

7. What (is the newest/next newest) model of Ford vehicle do you have? [open response]
    01 C-Max
    02 Edge
    03 Escape
    04 E-Series van
    05 Expedition
    06 Explorer
    07 F-150
    08 Fiesta
    09 Flex
    10 Focus
    11 Fusion
    12 Mustang
    13 Super Duty
    14 Taurus
    15 Transit Connect/Transit
    97 Other [please specify]

8. What is the model year of this vehicle? [open response]
    2010 2010
    2011 2011
    2012 2012
    2013 2013
    2014 2014
    2015 2015
    2016 2016
    2017 2017
    2018 2018
    9997 Other [please specify]
    9998 Unsure

[**NOTE TO PROGRAMMER**: See supplemental document for details about which models and years are included. If participant does not own a qualifying vehicle, thank and end call.]

9. Does a teen driver ever drive this Ford vehicle?
   1 YES
   2 NO [Skip to question 11]
   8 [VOL] Don't know [Skip to question 11]
   9 [VOL] Refused (Don't read) [Skip to question 11]

10. Is a teen driver the primary driver of your Ford vehicle?
   1 YES
   2 NO
   8 [VOL] Don't know
   9 [VOL] Refused

11. Will a teen driver drive this Ford vehicle in the future?
   1 YES
   2 NO [skip to instruction after Q13]
   8 [VOL] Don't know
   9 [VOL] Refused [skip to instruction after Q13]

12. How long ago was this Ford vehicle purchased or leased? [open response]
   1 Less than 6 months ago
   2 More than 6 months–12 months ago
   3 Over a year–2 years ago
   4 Over 2 years ago
   8 [VOL] Don't know
   9 [VOL] Refused

13. Was your car purchased new or preowned?
   1 New
   2 Preowned from a dealer
   3 Preowned from an independent used car seller
   4 Preowned from the previous owner
   97 Other [describe]
   98 [VOL] Don't know
   99 [VOL] Refused

INSTRUCTIONS FOR PROGRAMMER:

1) **Repeat Q7 to Q13 series in sequence for each Ford Vehicle (2010 or later).**
2) **Ask Q14 if any teen is "YES" in Q9 for a qualified Ford vehicle.**
3) **Ask Q14 if any teen is "YES or DON'T KNOW" in Q11 for a qualified Ford vehicle.**
4) **Otherwise, skip to Q30.**

Determine whether they know what MyKey is by name

READ CAREFULLY: Ford introduced the MyKey system in 2009. It is now standard on all new vehicles with Ford's Sync entertainment systems. The system allows one of the electronic keys (the MyKey) to be programmed to engage the MyKey system when the key is in use. When engaged, this system turns on Belt Minder, which will mute the radio if passengers are not buckled up as well as provide a warning. It also triggers an early low fuel warning and makes it impossible for the driver to disable any advanced crash avoidance technologies the car is equipped with (for example, Parking Aid, Forward Collision Warning, or Lane Departure Warning). Parents can also choose to engage the speed limiter, which physically limits the top speed of the vehicle, turn on speed

warnings at several different intervals, limit the maximum volume of audio media to 40%, and make it impossible to turn off the traction control and 911 assist systems.

PROGRAMMER; Following description of MyKey

14. Are you aware that your car is equipped with these features?
    - 1 YES
    - 2 NO [Skip to question 17]
    - 8 [VOL] Don't know [Skip to question 17]
    - 9 [VOL] Refused [Skip to question 17]

MyKey Use and usability questions

Determine whether parents who know what MyKey is use it, how they use it, and whether they like it.

15. You noted that you are aware of your car's MyKey features. Do you currently use them with your teen driver(s)?
    - 1 YES [Skip to question 18]
    - 2 NO
    - 8 [VOL] Don't know
    - 9 [VOL] Refused

16N. Why not? [open response]

16DKRF. Why do you say that? [open response]

17. Do you plan to use your car's MyKey features in the future?
    - 1 YES [ask questions 18–20 using future tense]
    - 2 NO
    - 8 [VOL] Don't know
    - 9 [VOL] Refused

18. Which features do (would) you utilize with your teen driver? [multiple choice, select all that apply]
    - 1 Adult content restrictions on satellite radio
    - 2 Setting upper vehicle speed limit
    - 3 Speed reminders
    - 4 Maximum audio volume at 45%
    - 5 Inhibit driver's ability to disable traction control system
    - 6 Inhibit driver's ability to disable 911 emergency assist
    - 7 Inhibit driver's ability to disable Do Not Disturb feature
    - 97 Other [specify]
    - 98 [VOL] Don't Know
    - 99 [VOL] Refused

IF the respondent indicates that they use the system's speed-reminder alerts, ask question 19.

19. You said that you (would) use the system's speed minder alerts. At what speed(s) do (would) you have them set? [open response].
    1 40
    2 45
    3 55
    4 60
    5 65
    97 Other [specify]
    98 [VOL] Don't Know
    99 [VOL] Refused

20. Which features of MyKey do you think are (would be) most helpful in keeping your teen driver(s) safe? [open response – repeat Q18 list]
    1 Adult content restrictions on satellite radio
    2 Setting upper vehicle speed limit
    3 Speed reminders
    4 Maximum audio volume at 45%
    5 Inhibit driver's ability to disable traction control system
    6 Inhibit driver's ability to disable 911 emergency assist
    7 Inhibit driver's ability to disable Do Not Disturb feature
    97 Other [specify]
    98 [VOL] Don't Know
    99 [VOL] Refused

User experience questions: quick questions about how parents feel about the system's usability

(If Yes to question 15. Otherwise skip to question 30). *Ask these questions only of parents who have already set up this system on their vehicle and are currently using it.*

21. How would you rate the ease or difficulty of setting the MyKey system? Would you say (READ CHOICES)?
    5 Very easy
    4 Easy
    3 Neither easy nor difficult
    2 Difficult
    1 Very difficult
    8 [VOL] Don't know
    9 [VOL] Refused

22. Have you read the MyKey set-up instructions in your vehicle's owner's manual?
    1 YES
    2 NO [Skip to question 24]

23. How would you rate the instructions provided in your vehicle's Owner's Manual? Would you say (READ CHOICES)?
    5 Very easy to follow
    4 Easy to follow
    3 Neither easy nor difficult to follow
    2 Difficult to follow
    1 Very difficult to follow
    8 [VOL] Don't know
    9 [VOL] Refused

24. Did you seek information or instructions from sources other than your vehicle's user manual when setting your MyKey?
    1 YES
    2 NO [Skip to question 27]
    8 [VOL] Don't know [Skip to question 27]
    9 [VOL] Refused [Skip to question 27]

25. Where did you seek information? [open response – read choices if helpful]
    1 Google/other search engine
    2 YouTube
    3 Dealer
    4 Friend/family member
    97 Other (specify)
    98 [VOL] Don't Know
    99 [VOL] Refused

26. Which source provided you with the most useful information in helping set up your MyKey system? [open response – read choices if helpful]
    1 User manual
    2 Google/other search engine
    3 YouTube
    4 Dealer
    5 Friend/family member
    97 Other (specify)
    98 [VOL] Don't Know
    99 [VOL] Refused

MyKey information/discovery

(If Yes to question 14. Otherwise skip to question 30) *Determine how parents became aware of the system: whether they began car shopping knowing about the system, found out about it at a dealer, or discovered it after purchase.*

27. How did you find out about your vehicle's MyKey features? [open response. Categorize response by options below]
    1 Family/friend
    2 Another Ford owner
    3 Ford marketing material
    4 Salesperson
    5 Online consumer information site
    6 News media (print, online, or televised)
    97 Other (specify)
    98 [VOL] Don't Know
    99 [VOL] Refused

28. When, in the process of car shopping, did you find out about the existence of MyKey? (Read choices)
    1 Before first dealership visit
    2 While at a dealership, reading car information
    3 While at a dealership, from a salesperson
    4 After first dealership visit, before purchase, from a source outside the dealership
    5 After purchase
    8 [VOL] Don't Know
    9 [VOL] Refused

29. Did you consider your teen driver(s) and their experience/safety driving the car when purchasing the vehicle?
    1 YES
    2 NO

Demographic questions

30. What is your gender?
    1 Male
    2 Female
    3 Other
    9 Prefer not to answer

31. What is your age?
    1 Under 40
    2 40–49
    3 50–59
    4 60 or older
    9 Prefer not to answer

32. What is your household income?
    1 Less than $50,000
    2 $50,000 to less than $75,000
    3 $75,000 to less than $100,000
    4 $100,000 or more
    9 Prefer not to answer

33. Finally, since this is a national study, which state is your primary residence in?
    AK ALASKA
    AL ALABAMA
    AR ARKANSAS
    AZ ARIZONA
    CA CALIFORNIA
    CO COLORADO
    CT CONNECTICUT
    DC DISTRICT OF COLUMBIA
    DE DELAWARE
    FL FLORIDA
    GA GEORGIA
    HI HAWAII
    IA IOWA
    ID IDAHO

IL ILLINOIS
IN INDIANA
KS KANSAS
KY KENTUCKY
LA LOUISIANA
MA MASSACHUSETTS
MD MARYLAND
ME MAINE
MI MICHIGAN
MN MINNESOTA
MO MISSOURI
MS MISSISSIPPI
MT MONTANA
NC NORTH CAROLINA
ND NORTH DAKOTA
NE NEBRASKA
NH NEW HAMPSHIRE
NJ NEW JERSEY
NM NEW MEXICO
NV NEVADA
NY NEW YORK
OH OHIO
OK OKLAHOMA
OR OREGON
PA PENNSYLVANIA
RI RHODE ISLAND
SC SOUTH CAROLINA
SD SOUTH DAKOTA
TN TENNESSEE
TX TEXAS
UT UTAH
VA VIRGINIA
VT VERMONT
WA WASHINGTON
WI WISCONSIN
WV WEST VIRGINIA
WY WYOMING