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CONSUMER PREFERENCES REGARDING VEHICLE-RELATED SAFETY RECALLS

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16. Abstract

This study explored the factors that influence consumer responses to safety recalls in general and to vehicle-related safety recalls in particular. The data consisted of the responses of 516 adults in the U.S. to an online survey.

The examined topics were as follows:

- Awareness of recalls by product category
- Likelihood of responding to safety recalls by product category
- Experience with the latest safety recall
- Preferred method for notification of vehicle-related safety recalls
- Consequences of not having vehicle-related safety-recall notices addressed for future vehicle registration and resale
- Options and factors making responding to vehicle-related safety-recall notices more likely
- Concerns that prevent responding to vehicle-related safety-recall notices

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Introduction

This survey was designed to examine the reasons for responding or not responding to safety recall notices, with a particular focus on vehicle-related safety recalls. The underlying aim was to better understand what could be done to increase the response rate.

The National Highway Traffic Safety Administration defines motor vehicle safety as "the performance of a motor vehicle or motor vehicle equipment in a way that protects the public against unreasonable risk of accidents occurring because of the design, construction, or performance of a motor vehicle, and against unreasonable risk of death or injury in an accident, and includes nonoperational safety of a motor vehicle" (NHTSA, 2011). A defect includes "any defect in performance, construction, a component, or material of a motor vehicle or motor vehicle equipment. Generally, a safety defect is defined as a problem that exists in a motor vehicle or item of motor vehicle equipment that poses a risk to motor vehicle safety, and may exist in a group of vehicles of the same design or manufacture, or items of equipment of the same type and manufacture" (NHTSA, 2011).

A recall is necessary "when a motor vehicle or item of motor vehicle equipment (including tires) does not comply with a Federal Motor Vehicle Safety Standard," or "when there is a safety-related defect in the vehicle or equipment" (NHTSA, 2011).

An individual recall could involve a singe vehicle (Consumerist, 2015) or millions of vehicles (Consumer Reports, 2016). Table 1 and Figure 1 show the number of recalls and the number of affected products from 1995 to 2015.

Table 1 Safety-related recalls and affected products, 1995-2015 (NHTSA, 2016).

| Vacan | Vehicles | | Equipment | | Child safety seats | | 7 | Γires |
|-------|----------|------------|-----------|------------|--------------------|-----------|---------|------------|
| Year | Recalls | Affected | Recalls | Affected | Recalls | Affected | Recalls | Affected |
| 1995 | 265 | 18,121,565 | 75 | 524,849 | 5 | 371,783 | 3 | 9,527 |
| 1996 | 304 | 17,826,392 | 30 | 852,747 | 5 | 824,823 | 2 | 1,242 |
| 1997 | 265 | 14,712,658 | 34 | 388,134 | 8 | 1,636,327 | 5 | 7,146 |
| 1998 | 365 | 17,146,878 | 35 | 513,239 | 4 | 928,406 | 4 | 597,159 |
| 1999 | 395 | 19,376,291 | 33 | 33,851,801 | 5 | 2,325,907 | 7 | 6,459 |
| 2000 | 541 | 24,636,743 | 73 | 1,182,952 | 6 | 4,383,295 | 6 | 14,412,550 |
| 2001 | 453 | 13,626,263 | 56 | 1,028,192 | 8 | 3,933,456 | 10 | 3,804,056 |
| 2002 | 434 | 18,435,673 | 51 | 1,104,284 | 8 | 5,044,756 | 13 | 679,626 |
| 2003 | 527 | 19,062,913 | 60 | 1,373,197 | 10 | 2,343,929 | 3 | 745 |
| 2004 | 600 | 30,806,580 | 78 | 1,273,691 | 3 | 357,475 | 17 | 571,290 |
| 2005 | 562 | 18,962,510 | 71 | 1,088,242 | 4 | 213,055 | 8 | 134,839 |
| 2006 | 490 | 11,203,534 | 96 | 2,133,644 | 5 | 129,825 | 22 | 589,629 |
| 2007 | 587 | 14,816,417 | 108 | 1,760,379 | 11 | 3,664,521 | 7 | 374,826 |
| 2008 | 683 | 10,207,696 | 66 | 2,630,738 | 10 | 1,296,036 | 21 | 8,065,975 |
| 2009 | 491 | 16,125,894 | 64 | 750,794 | 8 | 530,355 | 7 | 169,777 |
| 2010 | 647 | 19,691,419 | 55 | 2,843,584 | 4 | 54,774 | 16 | 55,477 |
| 2011 | 598 | 13,807,119 | 54 | 625,545 | 2 | 883,774 | 3 | 446,551 |
| 2012 | 582 | 16,486,229 | 55 | 575,584 | 4 | 71,563 | 18 | 1,136,314 |
| 2013 | 629 | 20,252,849 | 69 | 4,526,541 | 3 | 75,282 | 11 | 1,429,404 |
| 2014 | 779 | 50,989,948 | 79 | 2,121,305 | 6 | 7,847,416 | 13 | 368,720 |
| 2015 | 868 | 51,259,648 | 92 | 35,735,699 | 1 | 213,753 | 12 | 387,164 |

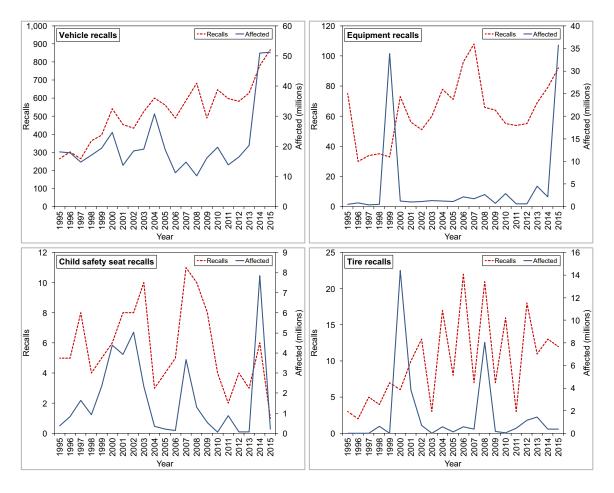


Figure 1. Safety-related recalls and affected products, 1995-2015 (NHTSA, 2016).

Compounding the problem of the large number of vehicle-related recalls is the relatively low response rate to recall notices. According to NHTSA, about 20% of vehicles that are recalled go unrepaired (NHTSA, 2014b).

There is general recognition of the problem with low response rates (e.g., NHTSA, 2015), and efforts are being made to improve these rates (e.g., a new mandatory mailing label; NHTSA, 2014a). However, additional information about the current views of consumers concerning vehicle-related safety recalls would be valuable to the efforts to increase the response rates. Therefore, this study was designed to obtain information about what American consumers think regarding the following issues related to vehicle-safety recalls: (1) awareness of recalls, (2) likelihood of responding to recall notices, (3) experience with their most recent notice, (4) preferred method for recall notification, (5) consequences of not having recalls addressed, (6) options and factors that increase the likelihood of responding to recalls, and (7) concerns that prevent responding to recalls.

Method

Survey instrument

An online survey was conducted using SurveyMonkey (www.surveymonkey.com). A questionnaire was developed to examine several topics related to consumer preferences regarding safety recalls, with the primary interest being vehicle-related safety recalls. The text of the questionnaire is included in the appendix. The survey was performed in March 2017.

Respondents

SurveyMonkey's Audience tool was used to recruit respondents 18 years and older from SurveyMonkey's respondent database in the United States. Fully completed surveys were received for 516 respondents. The margin of error at the 95% confidence level for the overall results is +/- 4.3%. Demographic breakdowns for the respondents are presented in Table 2. The age and gender breakdowns are similar to the latest U.S. Census demographics for age and gender. Figure 2 shows each U.S. Census region and the corresponding states.

Table 2
Demographic breakdowns for the 516 respondents.

| Demo | Percent | |
|-------------|------------------------|------|
| Gender | Female | 52.2 |
| Gender | Male | 47.8 |
| | 18 to 29 | 21.9 |
| A go group | 30 to 44 | 26.0 |
| Age group | 45 to 59 | 27.0 |
| | 60 or older | 25.1 |
| | \$0 to \$24,999 | 15.5 |
| | \$25,000 to \$49,999 | 21.0 |
| | \$50,000 to \$74,999 | 14.4 |
| | \$75,000 to \$99,999 | 13.0 |
| Income | \$100,000 to \$124,999 | 9.1 |
| meome | \$125,000 to \$149,999 | 5.0 |
| | \$150,000 to \$174,999 | 1.9 |
| | \$175,000 to \$199,999 | 2.1 |
| | \$200,000 or more | 3.9 |
| | Prefer not to answer | 14.0 |
| | New England | 5.7 |
| | Middle Atlantic | 12.7 |
| | East North Central | 17.2 |
| | West North Central | 7.5 |
| U.S. region | South Atlantic | 16.8 |
| | East South Central | 5.2 |
| | West South Central | 9.5 |
| | Mountain | 6.9 |
| | Pacific | 18.4 |

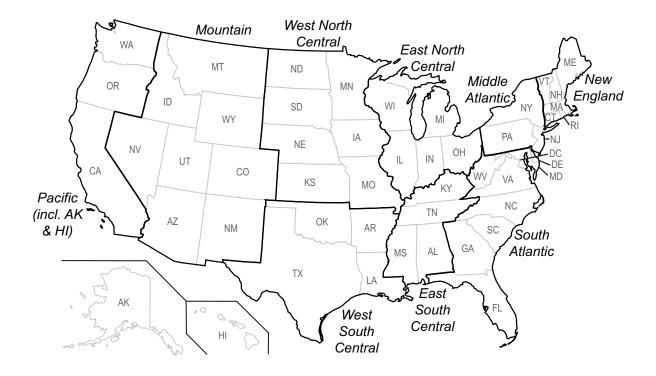


Figure 2. U.S. Census regions.

Results: General

Awareness of recalls by product category

Table 3 presents the percentages of respondents who were aware of a recall concerning a product that they own or use, by product category. The products are listed in the order of awareness. Respondents were most aware of recalls related to vehicles (67.6%), followed by food (38.8%), and household electronics (12.2%). About a fifth of respondents (19.8%) were not aware of any recalls.

Table 3
Percentages of respondents who were aware of a recall of a product that they actually own or use, by product category. (The percentages add up to more than 100%, because some respondents were aware of recall notices in more than one product category.)

| Product category | Percent |
|--|---------|
| Vehicles | 67.6 |
| Food | 38.8 |
| Household electronics | 12.2 |
| Child-safety seats | 12.0 |
| Major household appliances | 11.4 |
| Children's furniture | 8.7 |
| Vehicle tires | 8.7 |
| Other children's products | 8.3 |
| Prescription or over-the-counter drugs | 7.2 |
| Outdoor work equipment | 5.4 |
| Power tools | 4.8 |
| Other products | 1.7 |
| None of the above | 19.8 |

Likelihood of responding to safety-recall notices by product category

Table 4 presents the percentages of respondents who indicated that they would respond to a safety-recall notice and have the product repaired or replaced, by product category. The entries are in decreasing order of the *definitely would* responses. The products that respondents would most frequently *definitely have repaired or replaced* were vehicle tires (80.2%), followed closely by vehicles (79.8%), prescription drugs (74.4%), food (56.4%), and major household appliances (56.2%).

Table 4
Percentages of respondents who indicated different levels of likelihood of responding to a recall, by product category.

| Value | Description | Vehicle tires | Vehicles | Prescription or over-the-counter drugs | Food | Major household appliances | Power tools | Household electronics | Outdoor work equipment |
|-------|--------------------------------|------------------|----------|--|------|----------------------------------|-------------|-----------------------|------------------------------|
| 0 | Definitely would not respond | 1.7 | 2.1 | 4.7 | 4.5 | 2.1 | 4.3 | 1.9 | 4.3 |
| 1 | | 1.0 | 1.2 | 2.7 | 4.1 | 1.4 | 1.9 | 0.8 | 1.6 |
| 2 | | 0.8 | 0.4 | 0.8 | 2.9 | 1.0 | 1.4 | 0.6 | 1.0 |
| 3 | | 0.2 | 0.6 | 0.4 | 3.1 | 0.4 | 1.0 | 1.0 | 0.8 |
| 4 | | 0.6 | 0.4 | 0.8 | 2.1 | 1.4 | 1.9 | 2.5 | 1.2 |
| 5 | Unsure | 1.7 | 3.5 | 4.3 | 10.9 | 5.0 | 10.3 | 8.9 | 12.4 |
| 6 | | 0.8 | 0.6 | 1.0 | 2.1 | 3.7 | 4.3 | 5.0 | 3.7 |
| 7 | | 1.2 | 1.6 | 2.1 | 3.7 | 4.7 | 7.9 | 8.3 | 8.3 |
| 8 | | 4.8 | 3.5 | 3.5 | 5.2 | 13.6 | 11.2 | 16.5 | 14.7 |
| 9 | | 7.0 | 6.4 | 5.4 | 5.0 | 10.7 | 10.5 | 11.6 | 10.5 |
| 10 | Definitely would respond | 80.2 | 79.8 | 74.4 | 56.4 | 56.2 | 45.3 | 42.8 | 41.7 |

Experience with the most recent safety-recall notice

Speed of responding

Table 5 lists the percentages of respondents indicating how quickly they contacted manufacturer to have the product repaired or replaced the last time they received a safety-recall notice. Almost half of all respondents (48.4%) did so within a few days of receiving the notice, while 12.7% never did.

Table 5
Percentages of respondents indicating how quickly they contacted the manufacturer to have the product repaired or replaced the last time they received a safety-recall notice.

| Response | Percent |
|---|---------|
| Within a few days of receiving the notice | 48.4 |
| Within a few weeks of receiving a notice | 27.1 |
| Within a few months of receiving the notice | 7.8 |
| More than a few months after receiving the notice | 3.9 |
| Never | 12.7 |

Reason for not responding to the notice

Table 6 lists the percentages of reasons for not responding to the most recent safety-recall notice. The most frequent reason given was not being concerned about the problem (23.1%), followed by the product being already discarded/disposed of (17.3%).

Table 6
Percentages of reasons given for not responding to the latest safety-recall notice.

| Response | Percent |
|--|---------|
| Not concerned about the recall/problem | 23.1 |
| Discarded/disposed of the product | 17.3 |
| No longer own the product | 9.6 |
| Fixed/repaired it myself | 5.8 |
| Not enough time or too busy | 5.8 |
| Too far away | 5.8 |
| Other reason | 32.7 |

Speed of getting the product repaired or replaced

Table 7 lists the percentages of respondents indicating how quickly they had the product repaired or replaced for those who contacted the manufacturer. The most frequent response category was within a few weeks of contact (46.5%).

Table 7
Percentages of respondents indicating how quickly they had the product repaired or replaced the last time they received a safety-recall notice for those who contacted the manufacturer.

| Response | Percent |
|--|---------|
| Same day or within a few days of contact | 25.5 |
| Within a few weeks of contact | 46.5 |
| Within a few months of contact | 16.0 |
| More than a few months after contact | 7.3 |
| Never | 4.8 |

Reason for the delay in getting the product repaired or replaced

As indicated in Table 8, a manufacturer's decision was the reason for 55.0% of the delays in getting the product repaired or replaced.

Table 8
Percentages of respondents indicating the reason for the delay in getting the product repaired or replaced.

| Response | Percent |
|-------------------------------------|---------|
| Manufacturer's schedule or decision | 55.0 |
| My schedule or decision | 45.0 |

Reasons for not getting the product repaired or replaced after contacting manufacturer

There were only 17 cases when a respondent contacted the manufacturer but the product was never repaired or replaced. The reasons given were waiting for parts or appointment (6), repair not required (3), asked to pay for repair (2), and other reasons (6).

Results: Vehicle Related

Preferred method for notification of vehicle-related safety recalls

Table 9 lists various methods of notification of vehicle-related safety-recall notices in decreasing order of preference. The top five methods were mail (73.8%), email (64.3%), text message (33.1%), at dealerships when service is performed (32.4%), and by phone (32.2%).

Table 9
Preferred methods of notification of vehicle-related safety-recall notices.
(The percentages add up to more than 100%, because some respondents listed more than one method.)

| Method | Percent |
|---|---------|
| Mail | 73.8 |
| Email | 64.3 |
| Text message | 33.1 |
| At dealerships when service is performed | 32.4 |
| Phone | 32.2 |
| Advertising campaigns or public-service announcements | 28.5 |
| During annual vehicle registration or inspection | 25.8 |
| At repair shops (other than dealerships) | 19.8 |
| At oil-change shops | 18.6 |
| At tire service centers | 15.1 |
| On manufacturer's website | 17.8 |
| In-vehicle infotainment screens | 17.4 |
| Posters at dealerships and repair shops | 14.0 |
| On manufacturer's social media pages | 13.2 |
| Other notification | 0.4 |
| None of the above | 2.1 |

Consequences of not having vehicle-related safety recalls addressed

Vehicle registration

Table 10 indicates that 59.7% of respondents thought that the repair or replacement related to safety-recall notices should be required before the vehicle registration can be renewed every year, while 40.3% did not.

Table 10
Percentage of respondents who thought that the repair or replacement related to safety-recall notices should be required before the vehicle registration can be renewed every year.

| Response | Percent |
|---|---------|
| Required before vehicle registration can be renewed | 59.7 |
| Optional | 40.3 |

Reselling vehicle

Table 11 indicates that 60.7% of respondents thought that used vehicles should be required to have all existing recalls corrected before they can be resold, while 33.1% thought that the repairs should be optional, but the seller should be required to notify the new owner about all existing recalls.

Table 11
Percentage of respondents who thought that used vehicles should be required to have all existing recalls corrected before they can be resold, and of those who thought that this should be optional (with or without notifying the new owner).

| Response | Percent |
|--|---------|
| Required before vehicle can be resold | 60.7 |
| Optional, but required to notify the new owner of all existing recalls | 33.1 |
| Optional, no requirement to correct existing recalls or notify the new owner | 6.2 |

Options that increase the likelihood of responding to vehicle-related safety recalls

Table 12 lists the options making responding to vehicle-related safety-recall notices more likely. The most frequently mentioned option was ability to go to any of the manufacturer's dealerships (which is already allowed; 58.9%), ability to bundle the recall repair with regularly scheduled service or maintenance (52.1%), some type of incentive (50.6%), and ability to use own mechanic or repair shop (42.1%).

Table 12
Options making responding more likely. (The percentages add up to more than 100%, because some respondents listed more than one option.)

| Option | Percent |
|---|---------|
| Ability to go to any of the manufacturer's dealerships | 58.9 |
| Ability to bundle the recall repair with regularly scheduled service or maintenance | 52.1 |
| Some type of incentive (free oil change, free gas fill up, etc.) | 50.6 |
| Ability to use own mechanic or repair shop instead of dealership | 42.1 |
| Having a free loaner vehicle to use during repair | 1.4 |
| Other option | 1.4 |
| None of the above | 6.0 |

Concerns that prevent responding to vehicle-related safety recalls

Table 13 lists the concerns that prevent individuals from responding to vehicle-related safety-recall notices. The most frequently mentioned concerns were that they will try to sell additional repairs during the visit (38.4%), not having access to their vehicle while getting it repaired (37.2%), having to wait too long to get it repaired (35.9%), and being unsure how important it is to actually get the repair (30.0%).

Table 13
Concerns that prevent responding to vehicle-related safety-recall notices. (The percentages add up to more than 100%, because some respondents listed more than one concern.)

| Concern | Percent |
|---|---------|
| They will try to sell me additional repairs during the visit | 38.4 |
| Not having access to my vehicle while getting it repaired | 37.2 |
| Having to wait too long to get it repaired | 35.9 |
| Unsure how important it is to actually get the repair | 30.0 |
| Not knowing when (or how soon) I need to get the repair | 26.4 |
| Unsure if the recall applies to my specific vehicle | 26.2 |
| Not knowing what to do or who to contact after receiving the notice | 25.8 |
| Unsure if recall repairs are optional or required | 22.5 |
| Not having experienced the problem described in the recall | 19.4 |
| Other concern | 0.8 |
| None of the above | 19.6 |

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Factors that influence the likelihood of responding to vehicle-related safety recalls

Vehicle age

As indicated in Table 14, respondents were more likely to get the defect corrected for relatively new vehicles than for relatively old vehicles (82.8% and 50.4%, respectively, indicated that they definitely would get the defect corrected). Furthermore, respondents were less likely to be unsure about their action for relatively new vehicles than for relatively old vehicles (1.7% vs. 12.4%).

Table 14
Influence of vehicle age on the likelihood of responding to vehicle-related safety-recall notices. (The entries are percentages.)

| Value | Description | Relatively new vehicles | Relatively old vehicles |
|-------|--|-------------------------|-------------------------|
| 0 | Definitely would not get the defect corrected | 0.8 | 1.6 |
| 1 | | 0.8 | 1.0 |
| 2 | | 0.8 | 0.8 |
| 3 | | 0.4 | 2.1 |
| 4 | | 0.0 | 2.9 |
| 5 | Unsure | 1.7 | 12.4 |
| 6 | | 0.2 | 4.1 |
| 7 | | 2.3 | 8.7 |
| 8 | | 4.3 | 10.3 |
| 9 | | 6.0 | 5.8 |
| 10 | Definitely would get the defect corrected | 82.8 | 50.4 |

Safety-risk level

As indicated in Table 15, as the safety-risk level decreased, respondents were less likely to get the defect corrected. The percentages of respondents who would definitely get the defect corrected were 88.2% for high risk, 44.4% for moderate risk, and 28.7% for low risk. Furthermore, as the risk level decreased, the percentage of those who were unsure about their action increased (1.2%, 7.4%, and 22.7%, respectively).

Table 15
Influence of safety-risk level on the likelihood of responding to vehicle-related safety-recall notices. (The entries are percentages.)

| Value | Description | High risk | Moderate risk | Low risk |
|-------|--|-----------|---------------|----------|
| 0 | Definitely would not get the defect corrected | 1.2 | 1.4 | 2.7 |
| 1 | | 0.6 | 0.6 | 2.1 |
| 2 | | 0.0 | 0.6 | 4.7 |
| 3 | | 0.8 | 0.8 | 7.0 |
| 4 | | 0.2 | 1.2 | 4.3 |
| 5 | Unsure | 1.2 | 7.4 | 22.7 |
| 6 | | 0.6 | 5.4 | 8.1 |
| 7 | | 0.8 | 10.5 | 6.6 |
| 8 | | 2.5 | 17.2 | 8.5 |
| 9 | | 4.1 | 10.7 | 4.7 |
| 10 | Definitely would get the defect corrected | 88.2 | 44.4 | 28.7 |

Distance to the nearest repair facility

As indicated in Table 16, as the distance (in terms of time) to the nearest repair facility increased, respondents were less likely to get the defect corrected. The percentages of respondents who definitely would get the defect corrected were 80.6% for a distance of less than 15 minutes, 63.6% for 15 to 30 minutes, and 44.8% for more than 30 minutes. Furthermore, as the distance increased, the percentages of those who were unsure about their action increased (3.7%, 5.2%, and 12.4%, respectively).

Table 16
Effect of distance to the nearest repair facility on the likelihood of responding to vehicle-related safety-recall notices. (The entries are percentages.)

| Value | Description | Less than 15 minutes | 15 to 30 minutes | More than 30 minutes |
|-------|--|----------------------|------------------|----------------------|
| 0 | Definitely would not get the defect corrected | 1.4 | 1.2 | 1.9 |
| 1 | | 0.6 | 0.4 | 2.1 |
| 2 | | 0.2 | 0.4 | 1.2 |
| 3 | | 0.6 | 0.6 | 2.5 |
| 4 | | 0.6 | 1.0 | 2.7 |
| 5 | Unsure | 3.7 | 5.2 | 12.4 |
| 6 | | 0.6 | 2.3 | 5.8 |
| 7 | | 1.6 | 6.8 | 7.6 |
| 8 | | 4.1 | 11.0 | 10.9 |
| 9 | | 6.2 | 7.6 | 8.1 |
| 10 | Definitely would get the defect corrected | 80.6 | 63.6 | 44.8 |

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Wait time

As indicated in Table 17, as the wait time increased before a repair could actually be completed, respondents were less likely to get the defect corrected. The percentages of respondents who would definitely get the defect corrected were 74.0% for a wait time of 1 week or less, 48.8% for between 1 week and 1 month, 31.4% for between 1 month and 6 months, and 27.1% for longer than 6 months. Furthermore, as the wait time increased, the percentages of those who were unsure about their action increased (4.1%, 9.1%, 16.7%, and 18.6%, respectively).

Table 17
Influence of wait time before repair can actually be completed on the likelihood of responding to vehicle-related safety-recall notices. (The entries are percentages.)

| Value | Description | 1 week or less | Between 1 week and 1 month | Between 1 month and 6 months | Longer than 6 months |
|-------|---|-------------------|----------------------------------|------------------------------------|----------------------|
| 0 | Definitely would not get the defect corrected | 1.9 | 2.3 | 4.3 | 9.1 |
| 1 | | 1.0 | 1.0 | 2.5 | 8.3 |
| 2 | | 0.4 | 0.4 | 3.9 | 8.5 |
| 3 | | 0.2 | 1.6 | 3.9 | 5.2 |
| 4 | | 0.4 | 1.6 | 6.6 | 5.6 |
| 5 | Unsure | 4.1 | 9.1 | 16.7 | 18.6 |
| 6 | | 1.4 | 5.8 | 7.8 | 4.3 |
| 7 | | 2.7 | 7.0 | 7.9 | 4.5 |
| 8 | | 7.9 | 12.4 | 10.3 | 4.1 |
| 9 | | 6.0 | 10.1 | 4.8 | 4.7 |
| 10 | Definitely would get the defect corrected | 74.0 | 48.8 | 31.4 | 27.1 |

Gender and Age Effects

This section highlights selected important gender and age effects.

Gender effects

Male respondents were more aware of recalls for all product categories than were females, except for children's furniture, other children's products, and food.

Female respondents were more likely than male respondents to indicate that they definitely would respond to recalls related to vehicles, vehicle tires, major household appliances, and prescription drugs. However, that was not the case for household electronics, outdoor work equipment, power tools, and food.

Age effects

The oldest respondents (60+) were generally less aware of recalls than were younger respondents, but the situation was reversed for vehicles. However, they were the most likely age group to indicate that they definitely would respond to recalls concerning products in all examined categories.

Respondents in the oldest three age groups (30+) listed mail more often than email as a preferred method of being notified of vehicle-related safety recalls, but the order of preference was reversed for the respondents in the youngest age group (18-29).

Some type of incentive (e.g., free oil change) would be more important for the youngest two age groups (18-44) in making them more likely to respond to vehicle-related safety-recall notices than would be the case for the oldest two age groups (45+).

Respondents in the youngest age group (18-29) tended to be more likely to mention the concerns in Table 13 as preventing them from responding to vehicle-related safety-recall notices than older respondents.

Key Findings

Awareness of recalls for all products

 Respondents were most aware of recalls related to vehicles. About two-thirds were aware of such recalls

Likelihood of responding to safety-recall notices for all products

• Respondents were most likely to respond to vehicle-tire recalls (about four-fifths).

Experience with the latest safety-recall notice for all products

- About half of respondents contacted manufacturers within a few days of receiving the notice.
- The main reason given for not responding to the latest recall (listed by about a quarter of respondents) was not being concerned about the problem.
- About three-quarters of respondents indicated that the defect was addressed within a few weeks of the initial contact.
- Manufacturer's schedule/decision and respondent's schedule/decision were about equally responsible for any delays in addressing the problem.

Preferred method for notification of vehicle-related safety recalls

• Two methods dominated respondents' preference for notification of vehicle-related safety-recalls: mail (about three quarters of respondents), and email (about two thirds). (However, for respondents in the youngest age group [18-29] the order of these two methods was reversed.)

Consequences of not having vehicle-related safety-recall notices addressed

- About three-fifths of respondents thought that vehicle-related safety recalls should be addressed before the vehicle registration can be renewed every year.
- About three-fifths of respondents thought that vehicle-related safety recalls should be addressed before the vehicle can be resold.

Options that increase the likelihood of responding to *vehicle-related* safety recalls

About half of respondents thought that their likelihood of responding to recall
notices would be increased if they were able to bundle recall repairs with
regularly scheduled service. Similarly, about half of respondents thought that
receiving some type of incentive (e.g., free oil change) would have the same
effect.

Concerns that prevent responding to *vehicle-related* safety-recall notices

• About one-third of respondents were concerned that they would be subject to efforts in the repair facility to have them buy additional repairs during the visit.

Factors that influence the likelihood of responding to vehicle-related safety recalls

- Respondents were 3.1 times more likely to get the defect corrected for high-risk recalls than for low-risk recalls.
- Respondents were 2.7 times more likely to get the defect corrected if wait time before repair was 1 week or less compared to a wait longer than 6 months.
- Respondents were 1.8 times more likely to get the defect corrected if the distance to the nearest repair facility was less than 15 minutes compared to a distance more than 30 minutes.
- Respondents were 1.6 times more likely to get the defect corrected for relatively new vehicles than for relatively old vehicle.

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Appendix: Questionnaire

Product-safety recalls

| INTRODUCTION | |
|--|--|
| We are conducting a survey regarding notification of product-safety recalls. | |
| We are interested in the types of products for which you might have received a safety-recall notice, and the reasons that you might or might not respond to a recall notice. | |
| Q1 | |
| Please rank your overall likelihood of responding to a safety-recall notice and having to product repaired or replaced for free by the manufacturer for the following product types. | |
| Please rate your likelihood of responding to the recall using the following 0-10 scale: | |
| 0 = Definitely <i>would not</i> get it repaired or replaced | |
| 1 | |
| 2 3 | |
| 4 | |
| 5 = Unsure | |
| 6 | |
| 7 | |
| 8 | |
| 9 10 = Definitely <i>would</i> get it repaired or replaced | |
| 10 – Definitely would get it repaired of replaced | |
| Vehicles: | |
| Vehicle tires: | |
| Major household appliances: | |
| Household electronics: | |
| Outdoor work equipment: | |

[the order of all options above was randomized]

Power tools:

Prescription drugs:

Food:

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| | | |

Have you ever been made aware that there was a recall, or received a recall notice, for any of the following products *that you actually own or use*?

Please select all that apply: [the order of options in the box was randomized]

| | Vehicles Vehicle times |
|-----|--|
| | Vehicle tires |
| | Child-safety seats |
| | Children's furniture (crib, dresser, etc.) |
| | Other children's, infant, or baby products |
| | Major household appliances (oven, refrigerator, dryer, washer, etc.) |
| | Household electronics (stereo, blender, iron, TV, etc.) |
| | Outdoor work equipment (lawn mower, chainsaw, leaf blower, etc.) |
| | Power tools (saw, drill, sander, etc.) |
| | Food |
| | Prescription drugs |
| | None of the above \rightarrow <i>SKIP TO Q6</i> |
| | Other product (please describe): |
| | |
| | |
| | |
| Q3 | |
| | |
| Th | inking about the last time you received a safety-recall notice, how quickly did you |
| cor | ntact the manufacturer to have the product repaired or replaced? |
| | |
| | Within a few days of receiving the notice |
| | Within a lew days of feetiving the notice |
| | , |
| | Within a few weeks of receiving the notice |
| | Within a few weeks of receiving the notice Within a few months of receiving the notice |
| | Within a few weeks of receiving the notice Within a few months of receiving the notice More than a few months after receiving the notice |
| | Within a few weeks of receiving the notice Within a few months of receiving the notice |

| Q4 |
|---|
| Thinking about <u>the last time</u> you received a safety-recall notice, how long did it take to <i>actually</i> have the product repaired or replaced by the manufacturer after you contacted them? |
| □ Same day or within a few days of contact → SKIP TO Q6 □ Within a few weeks of contact □ Within a few months of contact □ More than a few months after contact □ Never – the product was not repaired or replaced Please tell us why the product was not repaired or replaced: → SKIP TO Q6 |
| Q5 |
| Was the delay in getting the product repaired or replaced due to your schedule or decision, or due to the manufacturer's schedule or decision? |
| ☐ My schedule or decision |
| ☐ Manufacturer's schedule or decision |

| Q6 | | |
|----|--|--|

How would you prefer to be notified of a **vehicle-related safety recall**? This includes products such as your vehicle, its tires, and child-safety seats.

Please select all that apply: [the order of options in the box was randomized]

| □ Mail | | | |
|---|--|--|--|
| □ Phone | | | |
| □ Email | | | |
| ☐ Text message | | | |
| ☐ On manufacturer's website | | | |
| ☐ On manufacturer's social media pages | | | |
| ☐ In-vehicle infotainment screen | | | |
| ☐ Advertising campaign or public service announcements | | | |
| ☐ Posters displayed at dealerships and repair shops | | | |
| ☐ At dealership when service is performed | | | |
| ☐ At repair shop (other than the dealership) when service is performed | | | |
| ☐ At oil change shops | | | |
| ☐ At tire service centers | | | |
| ☐ During annual vehicle registration or inspection | | | |
| □ None of the above | | | |
| ☐ Other notification (please describe): | | | |
| | | | |
| | | | |
| Q7 | | | |
| For vehicle-related safety recalls, do you feel that responding to the recall notice and having the repair or replacement performed (free of charge) should be <i>required</i> before the vehicle registration can be renewed each year, or should correcting the defect be <i>optional</i> ? | | | |
| □ Required – renewal of vehicle registration should not be permitted until corrected □ Optional – the owner should decide if they want to correct the defect | | | |
| Q8 | | | |
| | | | |
| For vehicle-related safety recalls, do you feel that <i>used vehicles</i> should be required to have all existing recalls corrected before they can be resold? | | | |
| □ Required | | | |
| ☐ Optional – but <i>required</i> to notify the new owner of all existing recalls | | | |
| ☐ Optional – no requirement to correct existing recalls or notify the new owner | | | |

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Q11

If you received a vehicle-related safety-recall notice, how likely would you be to respond to the notice and have the defect corrected if the age of your vehicle was either relatively *NEW* or relatively *OLD*?

Please rate your likelihood of responding to the recall using the following 0-10 scale:

| 0 = Definitely <i>would</i> | not get the defect corrected |
|------------------------------|------------------------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 = Unsure | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 = Definitely <i>would</i> | d get the defect corrected |
| NEWER vehicle: | |
| OLDER vehicle: | |

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If you received a vehicle-related safety-recall notice, how likely would you be to respond to the notice and have the defect corrected if the safety risk was identified as **LOW**, **MODERATE**, or **HIGH**?

Please rate your likelihood of responding to the recall using the following 0-10 scale:

| 0 = Definitely <i>would</i> | not get the defect corrected |
|------------------------------|------------------------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 = Unsure | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 = Definitely <i>would</i> | d get the defect corrected |
| LOW risk: | |
| MODERATE risk: | |
| HIGH risk: | |

Q13

If you received a vehicle-related safety-recall notice, how likely would you be to respond to the notice and have the defect corrected based on the *distance or convenience to the closest repair facility*?

Please rate your likelihood of responding to the recall using the following 0-10 scale:

| 0 = Definitely would not get the defect corr | ected |
|---|-------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 = Unsure | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 = Definitely <i>would</i> get the defect correct | ed |
| Less than 15 minutes to repair facility: | |
| 15 to 30 minutes to repair facility: | |
| More than 30 minutes to repair facility: | |

| • | ` | - | 4 |
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| | | | |

If you received a vehicle-related safety-recall notice, how likely would you be to respond to the notice and have the defect corrected based on the *wait time before the repair can actually be completed*?

Please rate your likelihood of responding to the recall using the following 0-10 scale:

| 0 = Definitely <i>would not</i> get the defect corrected | |
|--|--|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 = Unsure | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 = Definitely <i>would</i> get the defect corrected | |
| Wait time of 1 week or less: | |
| Wait time between 1 week and 1 month: | |
| Wait time between 1 month and 6 months: | |
| Wait time longer than 6 months: | |
| | |

END

Thank you for participating in this survey!