

2011 Ohio E-Check Customer Satisfaction Survey



**Prepared by
Voinovich School of Leadership and Public Affairs – Ohio University**

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Executive Summary

The 2011 Ohio E-Check Customer Satisfaction Survey was mailed to 1,200 motorists evenly divided among those whose vehicles were tested in Zone 1 and Zone 4.¹ A total of 523 completed surveys were returned for a 43.6 percent response rate. In anticipation of the new decentralized vehicle emissions testing program, the survey instrument was modified to address planned changes to the program. Even with these modifications, the majority of the survey remains unchanged from prior years, allowing for comparison of past and current results.

Findings from the 2011 survey demonstrate the same high rates of motorist satisfaction as in the previous five surveys. There have been increases in awareness of the E-Check website as well as the relationship between vehicle emissions and the environment. In addition, motorists' experiences at the E-Check station were once again predominately very positive. Customer approval of Ohio EPA's management of the E-Check program has also increased significantly over the past five years.

In response to the questions addressing motorist interest in alternative emissions testing systems, respondents continue to express strong preference for the current independent testing system as compared to a system that also allows for testing at authorized automotive repair stations. Over the four years, nearly half indicated they would not feel confident of their test results if their vehicles were repaired at the same facility at which the test took place, while each year approximately 20 percent indicated they would be confident in their results under these circumstances.

Overall Satisfaction with the E-Check Experience

- Overall satisfaction with the E-Check experience remains high. For the second year, 95 percent of all respondents answered yes when asked, "Were you satisfied with your overall experience when you received your last E-Check test?" Similarly, when satisfaction was queried as a scaled question, 95 percent of 2011 respondents agreed or strongly agreed they were satisfied with their most recent test experience.
- Compared to those who were dissatisfied with their E-Check experience, satisfied respondents were significantly more likely to understand why their vehicle needed to be tested and feel their

¹ Zone 1 consists of Geauga, Lake, Lorain, Medina, Portage and Summit counties while Cuyahoga County is the entirety of Zone 4. See map on page 5.

test results were explained well. Satisfied respondents were also significantly more likely than dissatisfied respondents to believe that motor vehicles create more ozone pollution than industry.

Vehicle Maintenance and Repair

- Regarding the three questions on the benefits of regular vehicle maintenance, respondents were least familiar with the impact of regular maintenance on their vehicle's gas mileage.
- Among those having repairs performed on their vehicle before their initial E-Check test, the mean amount spent was \$578 and the median amount was \$300.
- In 2011, the average cost of repairs for respondents' vehicles that failed the initial E-Check test was \$390 while the median cost was \$320.

Usage of E-Check Information Resources

- The survey appears to show a shift from telephone to internet as the primary means by which people obtain information about the E-Check program. More respondents are aware of and use the E-Check website than the toll-free information number. Despite this overall increase, website usage varies by respondent age, household income and education.
- The majority of respondents (at least 95 percent each year) have not contacted Ohio EPA for assistance with the program or to discuss their test experience.

Recalling the E-Check Experience

- Overall, the vast majority of motorists continue to be satisfied with the various aspects of their E-Check experience. In 2011, at least 95 percent of respondents reported the waiting area was clean, the test results were accurate, and the individuals conducting the test were polite, knew how to do their job, and treated them well. At least 92 percent of respondents felt the individuals conducting the test were helpful and that the testing location was easy to find. Eighty-eight percent of respondents in 2011 found the waiting time at the E-Check station to be acceptable and were not concerned that their vehicle would be damaged during testing.
- Satisfaction rates were not as high for a few aspects of the E-Check testing experience. Seventy-five percent of the 2011 respondents felt their test results were explained well, but 30 percent would have liked a better explanation of what happened to their vehicle during testing.

Understanding E-Check Requirements

- Respondents continue to express the greatest level of difficulty understanding why the E-Check program is not a statewide requirement. In 2011, 60 percent of respondents reported difficulty

understanding this requirement compared to 63 percent in 2010, 61 percent in 2009 and 66 percent in 2008.

- There was an increase in respondents reporting it was hard to understand E-Check exemptions and extensions. In 2011, 46 percent reported difficulty understanding this requirement while prior surveys ranged from 22 percent to 33 percent.

Opinions Regarding Emissions Testing Options

- For the fourth year in a row, respondents expressed the greatest level of support (71 percent) for the current testing system, while a minority of respondents (22 percent) expressed interest in a system providing testing locations at authorized repair stations as well as the current E-Check stations.
- Forty-nine percent of respondents expressed disagreement with an emissions testing system that provides testing and automotive repair services at the same location, while a minority of respondents (20 percent) expressed support for such a testing system. In addition, a minority of respondents (19 percent) agreed they would be confident in test results if their vehicle was repaired at the same facility where it was tested.

Vehicle Emissions, the Environment, and Ohio EPA

- The percentage of respondents aware of the relationship between vehicle emissions and the environment has increased significantly over the past five years. In 2011, 79 percent agreed that vehicle emissions testing helps reduce air pollution, and 74 percent reported they are helping to reduce air pollution by having their vehicle E-Checked, compared to 67 and 61 percent, respectively, in 2006.
- Forty-four percent of 2011 respondents indicated motor vehicles create more ozone pollution than industry. However, each year approximately one-third of all respondents have not answered this question, perhaps indicating a lack of knowledge.
- The approval rating for Ohio EPA's management of the E-Check program has increased significantly from 68 percent in 2006 to 81 percent in 2011, an increase of 13 percentage points.

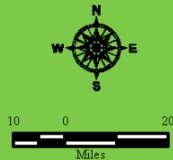
Introduction

Starting in 2000, motorist satisfaction with the Ohio E-Check program has been evaluated annually by means of independently administered surveys. Until 2005, changes to the survey instrument and the E-Check population prohibited analysis of variations and trends from year to year. Since 2006, however, the testing program, survey population and most survey items have remained the same, making it possible to compare results across time.

This report reviews the results of the current survey and compares results from the last six years when possible. Survey results are illustrated with graphs of the response from the 2006 through 2011 surveys. Statistical testing was conducted between the 2006² and 2011 studies, and these results are reported as well. Also noted in the report are any statistically significant differences in the 2011 survey results due to E-Check zone, reported satisfaction with the E-Check program or demographic variations among respondents. The response rate to the 2011 survey was 43.6 percent, a three-percentage point decrease from the 2010 response rate of 46.8 percent.

² For questions added after 2006, the first year available is used for statistical testing.

Counties Participating in E-Check Vehicle Emissions Testing as of January 2012



Legend

Zone (Number of Surveys Returned)

	Zone 1 (270)
	Zone 4 (253)

Sources: Ohio E-Check Program, Ohio Department of Natural Resources
 Map Design: D. Simon
 Voinovich School of Leadership and Public Affairs
 Ohio University
 July, 2012

How the Survey Was Conducted

Survey Instrument

This year the survey instrument remains generally the same as the previous three years with three minor changes. First, a few modifications were made to the survey instrument in anticipation of changes to the vehicle emissions testing program. These changes focused on replacing language specific to the centralized vehicle emissions testing program (e.g., E-Check station) with language more appropriate for a decentralized system (e.g., testing location). These changes are noted in the survey results section where comparisons are made to prior years. Secondly, a question was added to assess the ease of finding needed information on the E-Check website. Finally, the item asking about difficulty understanding the requirements related to exemptions and extensions was moved to be the last question in that section of the instrument. No changes were made to the letters and postcards that are used in the deployment of the survey, and the sample size of 600 households per zone is also duplicative of the previous studies. A copy of the survey instrument is provided as Appendix I.

Sample Selection

The sample was selected from among all vehicles tested for emissions between December 1, 2011 and January 31, 2012. The Voinovich School was provided with a database of tested vehicles from each of the two zones. Project staff applied a random number generator to this database to ultimately select 600 vehicle owners from each zone to receive the survey. To provide adequate representation of customers who failed the emissions test, care was taken to ensure that 13 percent of the selected vehicles failed their initial emissions test. Also as part of this selection process, vehicles associated with potentially troublesome addresses were removed from the sample, including those that appeared to be fleet vehicles, those owned by businesses, and those for which only a partial or out of state address was provided.

Survey Process

Four mailings were used to maximize response in correspondence with the methodology outlined by Don A. Dillman in Mail and Internet Surveys: The Tailored Design Method, 2nd Edition. The first of these mailings, an advance postcard explaining the survey and requesting the participation of prospective respondents, took place on March 16, 2012. The survey instrument, cover letter, and a stamped, return-addressed envelope were mailed on March 22, followed by a thank you/reminder postcard sent out on April 2. On April 12, the fourth and final mailing to non-respondents took place. This fourth mailing included a cover letter, the survey form, and a stamped, return-addressed envelope. The cover letter

reiterated the importance of the project and again encouraged prospective respondents to return their survey.

Survey Response

2011 Survey Response Rate

	All Zones		Zone 1		Zone 4	
	N	%	N	%	N	%
Number of surveys mailed	1200		600		600	
Number of surveys returned	523	43.6%	270	45.0%	253	42.2%

The Voinovich School received 523 completed surveys through June 2012, for a response rate of 43.6 percent. This response rate is three percentage points lower than the 2010 survey. The response rate per zone was 45 percent from Zone 1, and 42.2 percent from Zone 4. The response rates for the various E-Check surveys conducted since 2000 have ranged between 41 and 62 percent.³

Comparison of E-Check Survey Response Rates

Year Survey Conducted	Response	N	%
2000	744	1,200	62.0%
2001	659	1,200	54.9%
2003	604	983	61.4%
2004	547	1,200	45.6%
2005 (OBD-II survey)	626	1,200	52.2%
2005	494	1,200	41.2%
2006	575	1,200	47.9%
2007	564	1,200	47.0%
2008	505	1,200	42.1%
2009	629	1,200	52.4%
2010	562	1,200	46.8%
2011	523	1,200	43.6%

³ 2000 through 2004 response rates obtained from E-Check survey reports prepared by The Ohio State University Center for Survey Research.

Survey Results

This section outlines the responses to the 2011 E-Check Customer Satisfaction Survey. When available, survey results dating back to 2006 are graphically presented alongside this year's results for comparison. This section also includes the results of chi-square⁴ testing conducted on the disaggregated 2011 survey results, as well as between the 2006 and the 2011 results. Where appropriate, the 2011 results are also reported by:

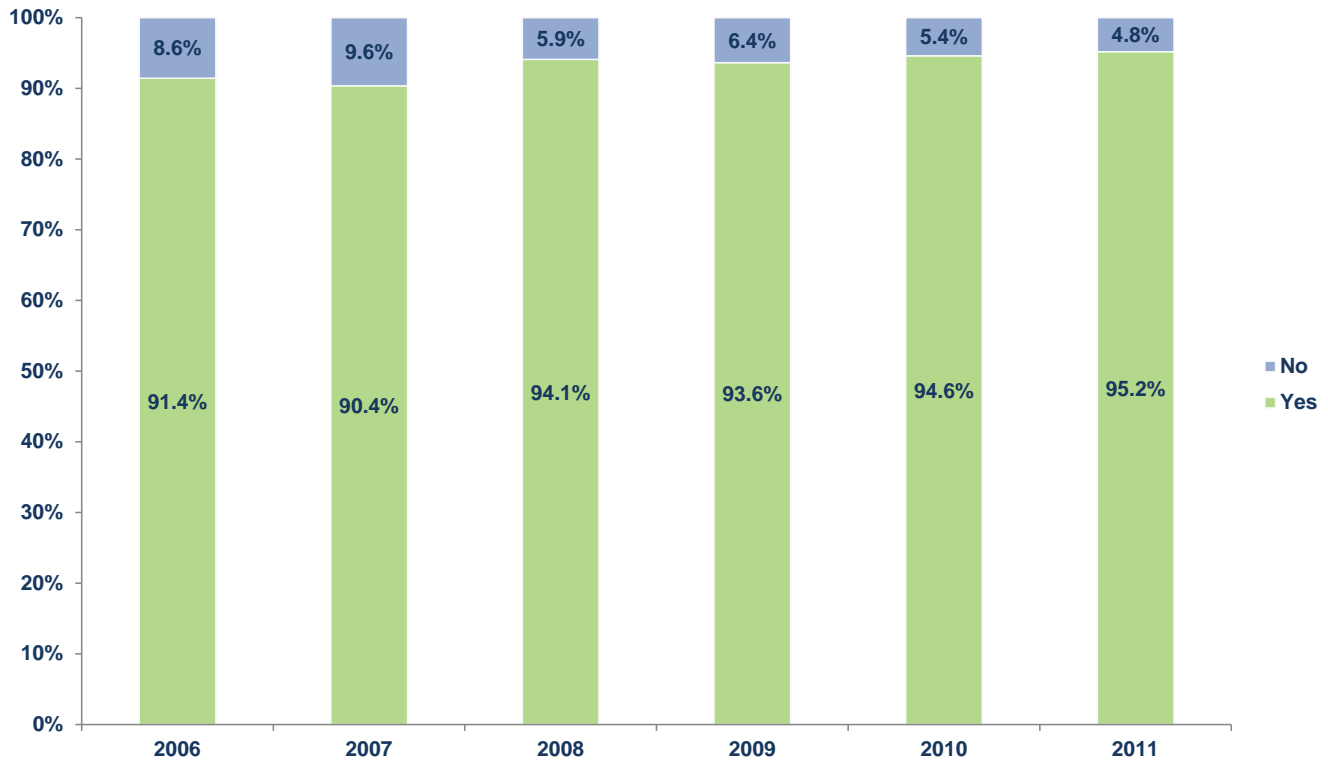
- E-Check zone
- Reported satisfaction with the E-Check test experience (Question 1 and Question 23)
- Age, gender, race, household income, and educational level of the survey respondents.

In addition, Appendix II contains frequency distributions for each item on the 2011 survey for all respondents and by E-Check zone. Where appropriate, Appendix II also documents margin of error on the survey results, based on a 95 percent confidence interval.

⁴ A chi-square test is used to determine if two variables are significantly related. Significant cross-tabulations are indicated in the report by the notation ($p < .05$) where p = probability that a finding of interest was reached by chance.

Satisfaction with the E-Check Experience

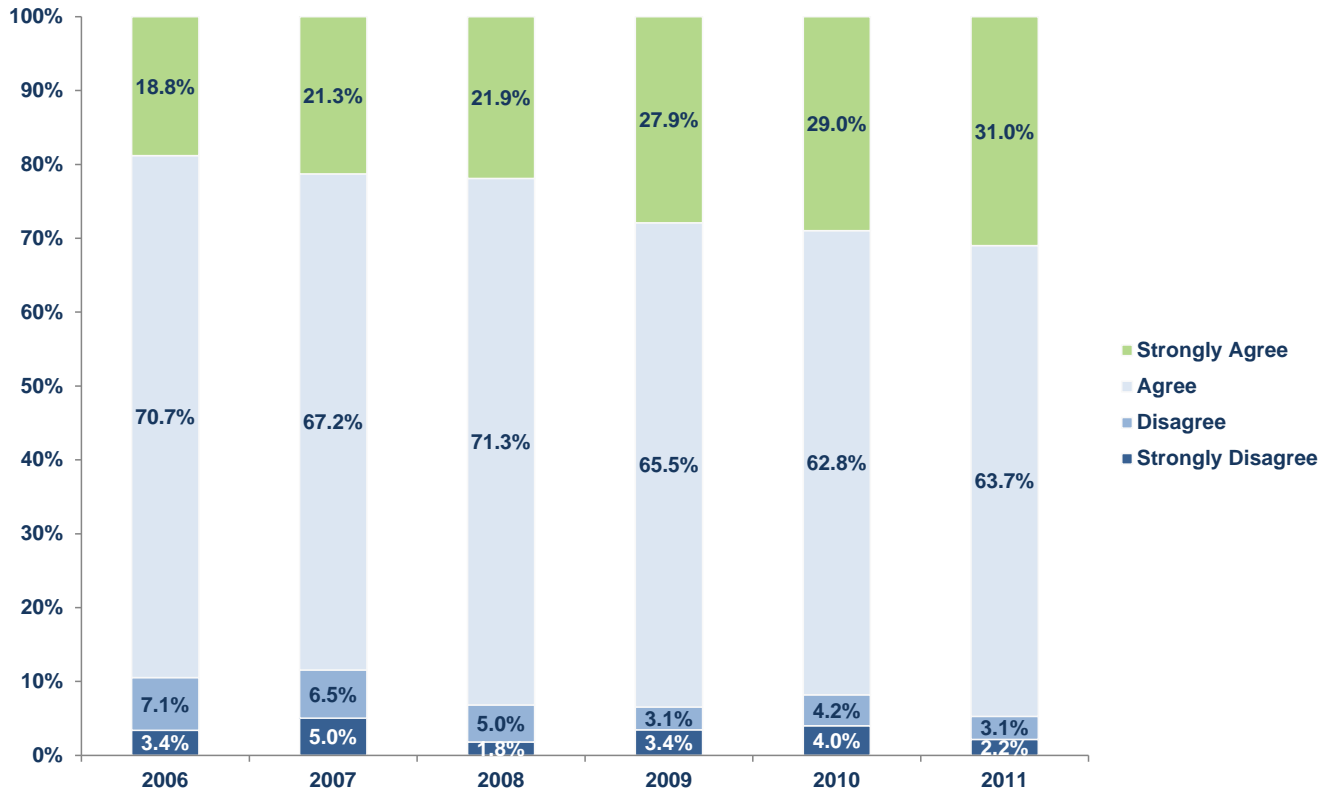
Were you satisfied with your overall experience when you received your last E-Check test?



The survey includes two questions, Question 1 and Question 23, which address overall satisfaction with their most recent E-Check experience.

- In response to Question 1, 95.2 percent of 2011 respondents answered “yes,” they were satisfied with their most recent E-Check test.

I was satisfied with my overall test experience.



- In response to Question 23, the percentage of the sample that agreed or strongly agreed that they were satisfied with their most recent test experience was 94.7 percent in 2011.

Satisfaction with Overall Experience by County of Residence

County	Yes	No
Cuyahoga	97.0%	3.0%
Geauga	90.0%	10.0%
Lake	90.9%	9.1%
Lorain	96.6%	3.4%
Medina	97.4%	2.6%
Portage	100.0%	0.0%
Summit	90.6%	9.4%

- Satisfaction varies from 90 percent to 100 percent across the counties participating in the E-Check program. The highest levels of respondent satisfaction are from Portage County, and the lowest levels are from Geauga, Summit, and Lake Counties.

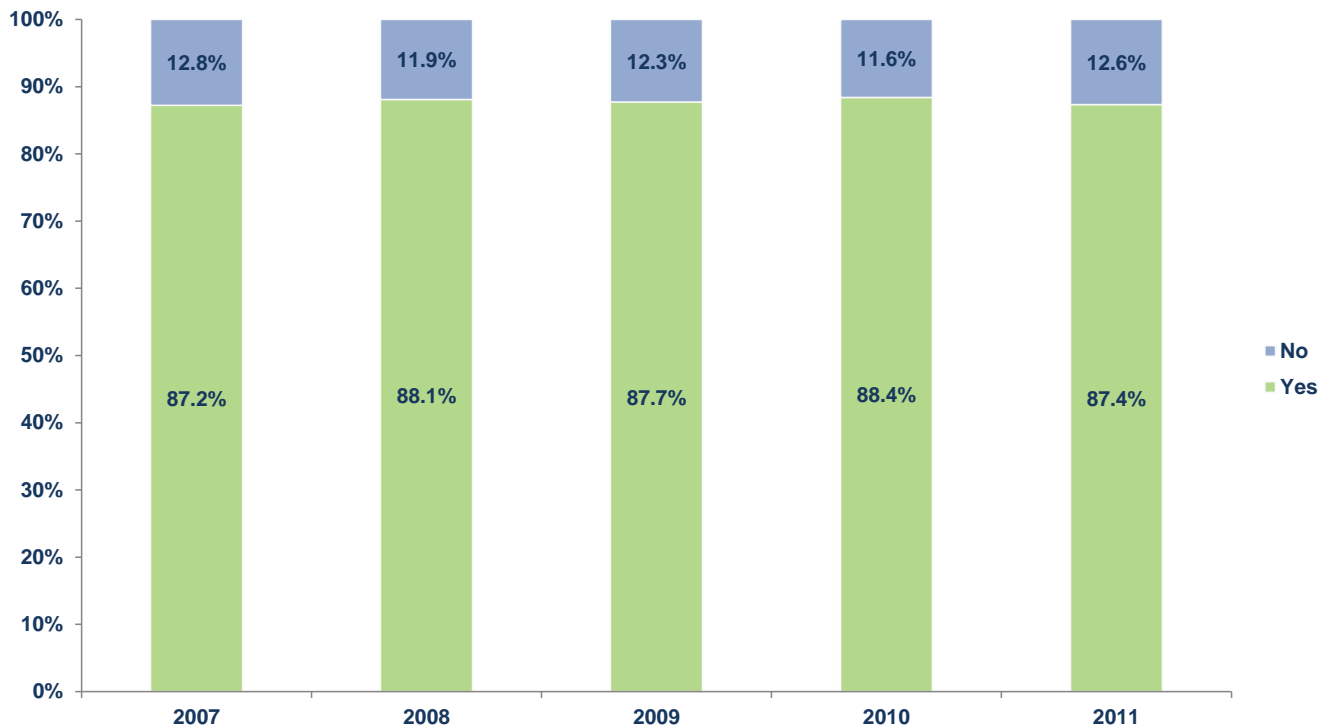
Satisfaction with Overall Experience by E-Check Station

Station	Yes	No	Total
1	52	3	55
2	28	1	29
3	30	1	31
4	18	0	18
5	16	0	16
6	38	0	38
7	12	1	13
8	28	1	29
10	21	2	23
11	25	0	25
12	15	4	19
13	13	1	14
14	7	0	7
15	18	0	18
16	6	1	7
17	23	1	24
18	24	2	26
19	24	3	27
20	25	2	27
21	26	1	27
22	3	0	3
23	15	1	16
24	27	0	27

- Customers from each of the 23 E-Check stations participated in the survey.
- There is little variation in satisfaction level by the station where the respondent's vehicle was tested. None of the stations had more than four respondents reporting they were not satisfied with their most recent test experience.

Prior Knowledge of Vehicle Maintenance Benefits

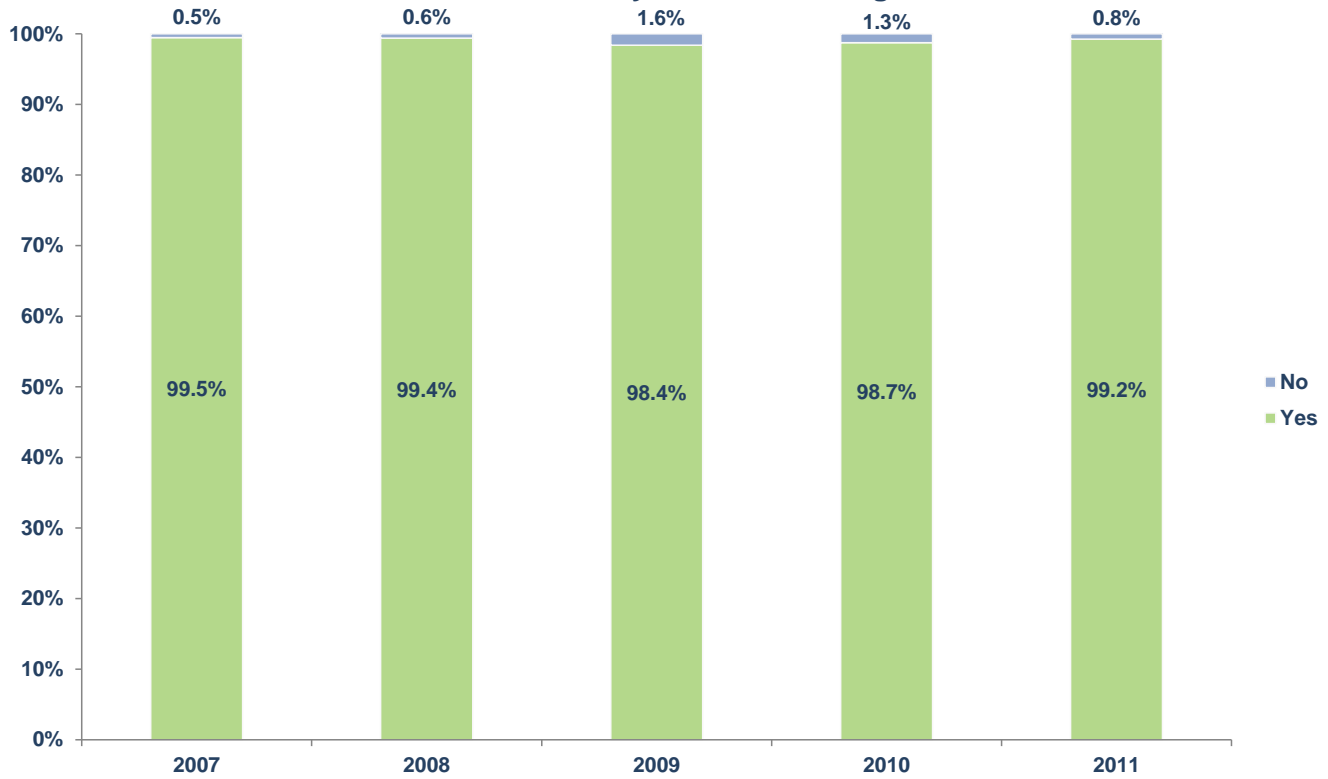
Before seeing this survey, were you aware that regular vehicle maintenance such as replacing air filters can improve your vehicle's gas mileage by as much as 10 percent and can save up to 34 cents per gallon?



Starting in 2007, the E-Check Customer Opinion Survey examined respondents' understanding of the potential benefits of regular vehicle maintenance to the vehicle and the environment.

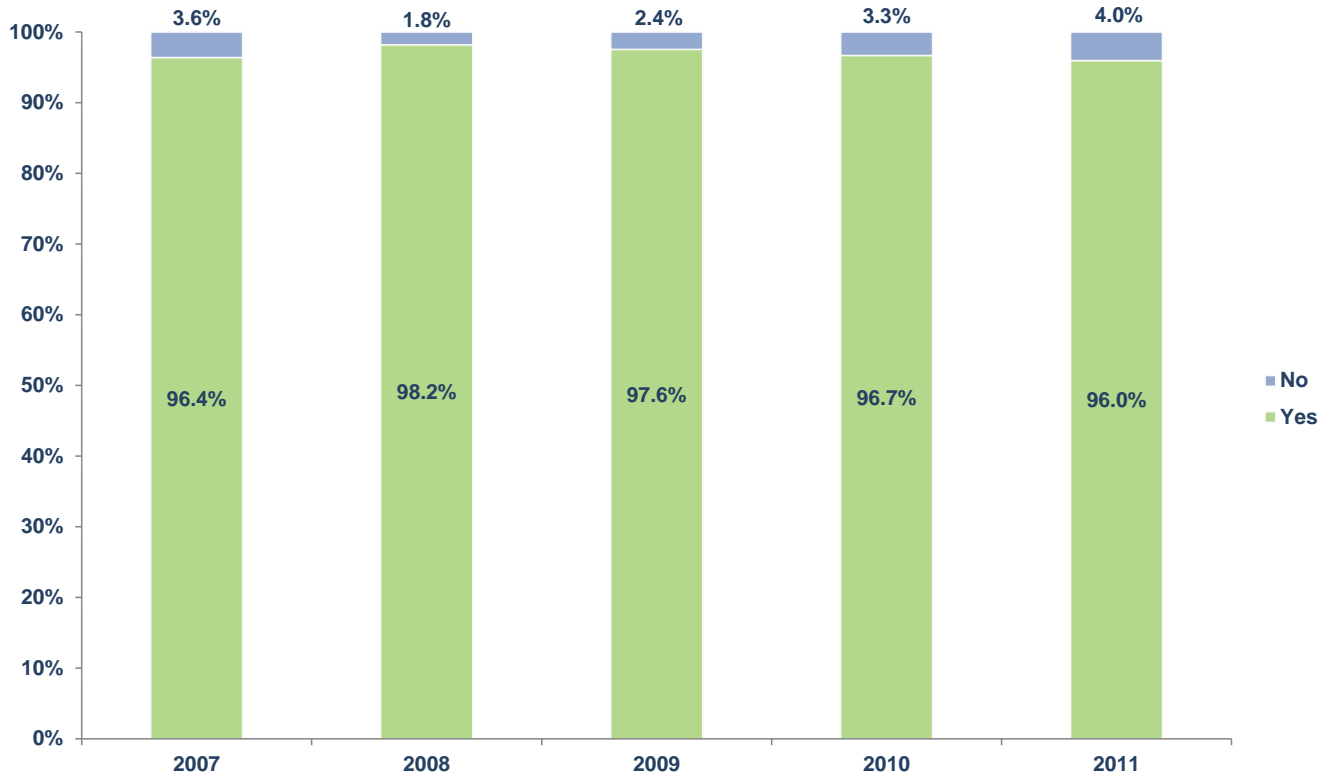
- When respondents were asked about the impact of regular vehicle maintenance on gas mileage, 12.6 percent were unaware that regular maintenance could improve a vehicle's gas mileage by as much as 10 percent. This is consistent with results from prior years.

Before seeing this survey, were you aware that regular vehicle maintenance can increase your vehicle's engine life?



- In 2011, less than one percent of respondents were unaware that regular maintenance can increase their vehicle's engine life.

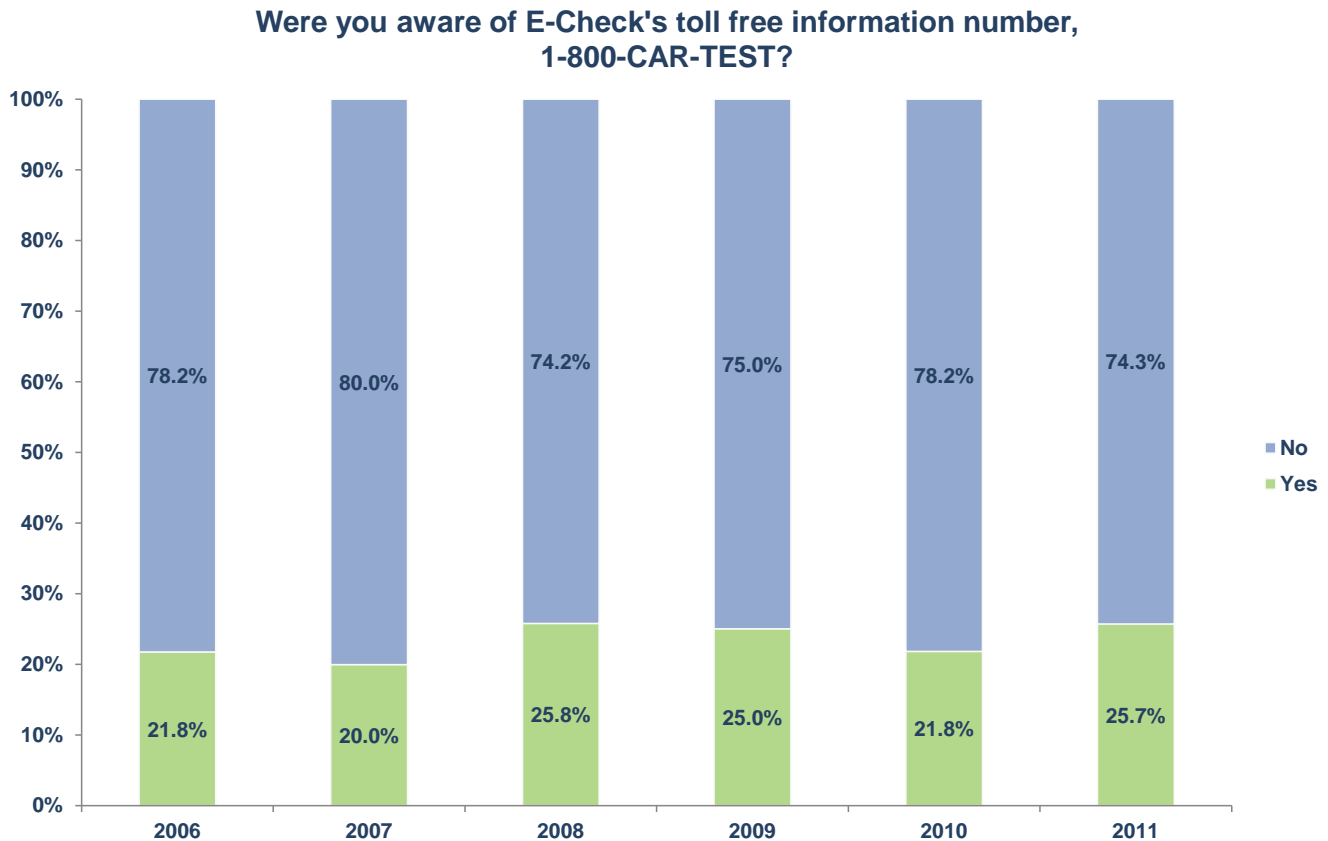
Before seeing this survey, were you aware that with regular maintenance your vehicle is more likely to pass the emissions test?



- In 2011, 96 percent of survey respondents reported knowing that, with regular maintenance, their vehicle is more likely to pass the emissions test.

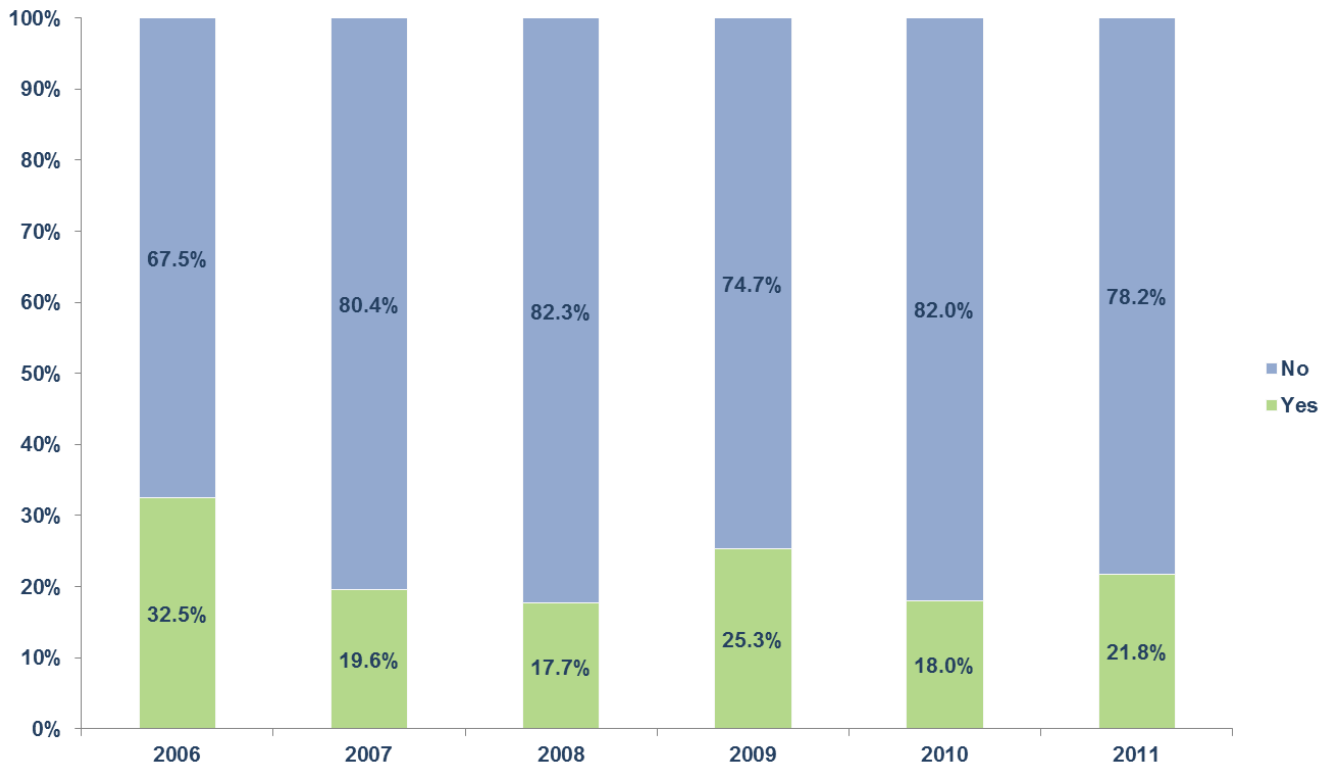
Awareness and Usage of E-Check Information Resources

The following survey findings relate to respondents' knowledge and usage of the various sources of information for the E-Check program.



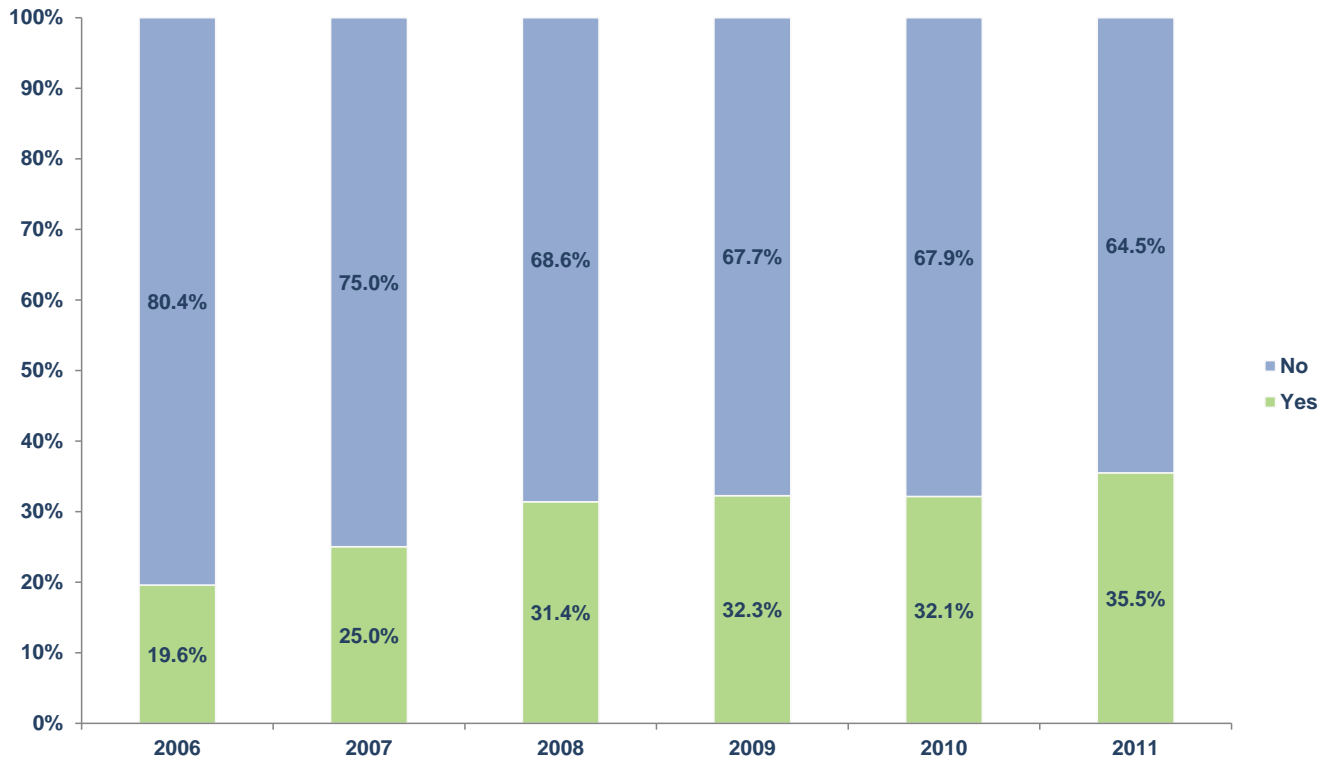
- In 2011, 25.7 percent of respondents reported they were aware of E-Check's toll-free information number.
- Proportionally, more respondents aged 60 and older were aware of E-Check's toll-free information number than those aged 59 or less ($p < .05$).
- More of the respondents from households with a two-year degree or less reported awareness of the toll-free information number than respondents from households with at least a bachelor's degree ($p < .05$).

Have you used the 1-800-CAR-TEST number to get information about the E-Check program?



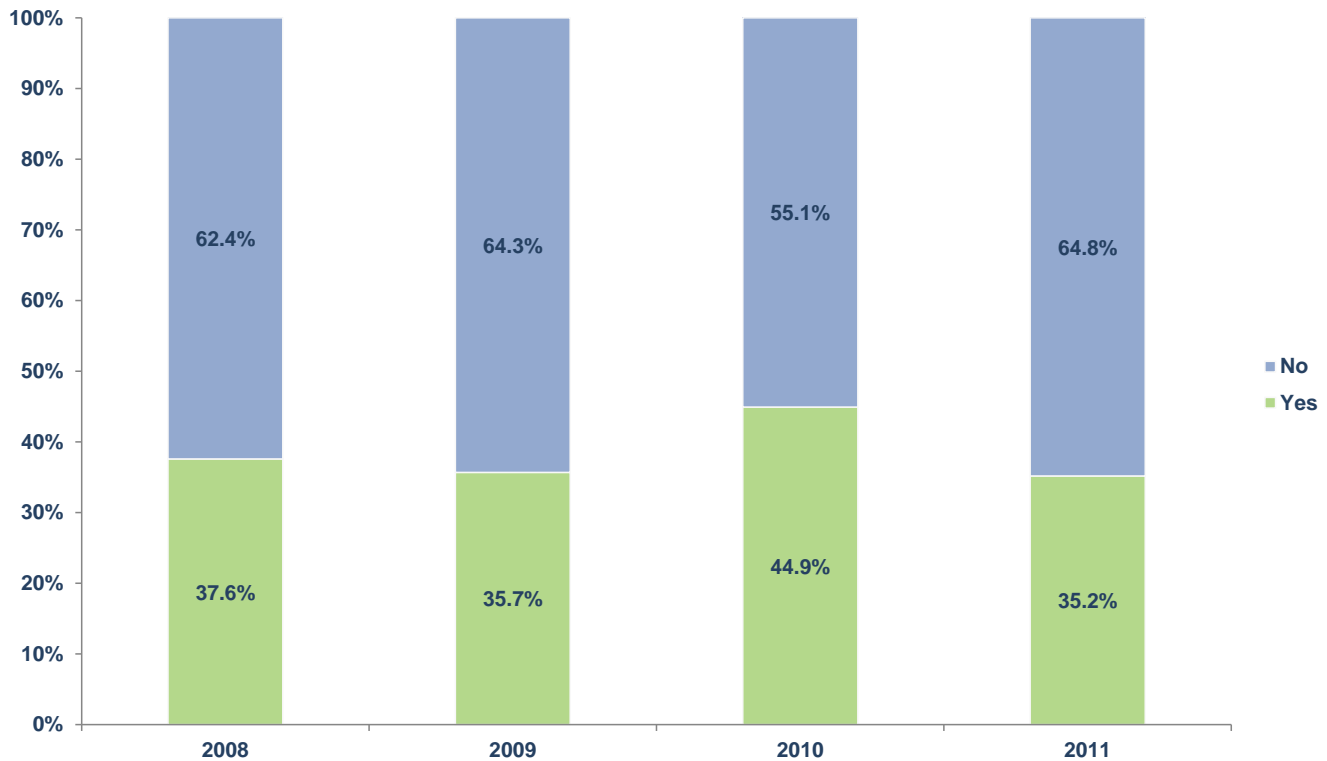
- Among the respondents to the 2011 survey who knew about 1-800-CAR-TEST, 21.8 percent used this resource to get information about the E-Check program.

Before seeing this survey, were you aware of the E-Check website,
www.ohiocheck.org?



- Over one third of respondents reported they were aware of the E-Check website. This represents a 15.9 percentage point increase from 2006 ($p < .05$).
- Proportionally, more respondents aged 59 or less were aware of the E-Check website than those aged 60 or older ($p < .05$).

Have you visited the E-Check website to get information about the E-Check program?



- Of the respondents who were aware of www.ohiocheck.org, 35.2 percent have visited the website to get information about the E-Check program⁵.
- Almost all (95.1 percent) of the respondents who visited the E-Check website found the information helpful and reported it was easy to find the needed information on the website⁶.
- Proportionally, more respondents aged 59 or less reported visiting the E-Check website to get information about the E-Check program than those aged 60 and older ($p < .05$).
- More of those with an annual household income of \$50,000 or more reported visiting the website than respondents with a household income less than \$50,000 ($p < .05$).
- More of the respondents from households with at least a bachelor's degree reported visiting the E-Check website than respondents from households where the highest level of education is a two-year degree or less ($p < .05$).

⁵ In 2008, a question was added to gauge respondent's usage of the E-Check website for information about the program.

⁶ In 2011, a question was added to assess the ease of finding information on the website.

Assistance with E-Check Program

Did you contact any of these resources regarding your most recent test experience, or for assistance with E-Check?

Year	I phoned 1-800-CAR-TEST				I sent an e-mail to E-Check			
	Yes		No		Yes		No	
	N	%	N	%	N	%	N	%
2006	1	0.9%	115	99.1%	3	2.6%	114	97.4%
2007	3	2.6%	111	97.4%	1	0.7%	144	99.3%
2008	9	2.0%	444	98.0%	0	0.0%	446	100.0%
2009	16	3.0%	525	97.0%	1	0.2%	536	99.8%
2010	10	2.0%	479	98.0%	2	0.4%	483	99.6%
2011	9	2.0%	444	98.0%	0	0.0%	447	100.0%

- Each year, three percent or fewer of the respondents who were aware of the E-Check toll-free number called it regarding their most recent test experience or for assistance with E-Check.
- Of the nine respondents who reported calling-1-800-CAR-TEST in 2011, six found it helpful, one did not find it helpful and two did not respond to this question.
- None of the 2011 respondents reported sending an e-mail to E-Check regarding their test experience or for assistance with the program.

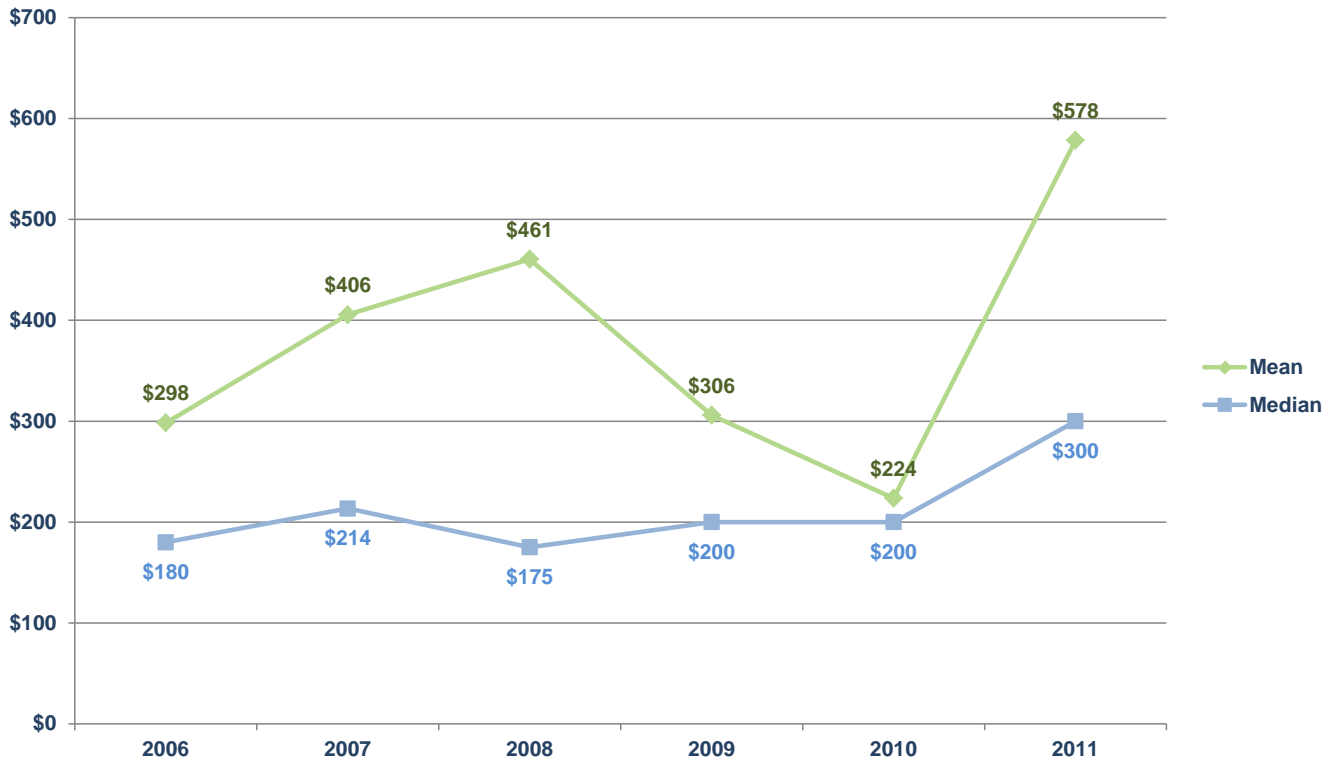
Did you contact any of these resources regarding your most recent test experience, or for assistance with E-Check?

Year	I phoned Ohio EPA				I visited an EPA Office			
	Yes		No		Yes		No	
	N	%	N	%	N	%	N	%
2006	11	2.0%	535	98.0%	10	1.8%	533	98.2%
2007	12	2.3%	520	97.7%	4	0.7%	541	99.3%
2008	8	1.8%	440	98.2%	9	2.0%	438	98.0%
2009	7	1.3%	533	98.7%	13	2.4%	529	97.6%
2010	8	1.6%	483	98.4%	26	5.2%	471	94.8%
2011	6	1.3%	444	98.7%	18	4.0%	437	96.0%

- Each year, one to two percent of respondents report calling Ohio EPA regarding the E-Check program.
- Of the six respondents who reported calling Ohio EPA in 2011, four indicated that the call was helpful and two did not respond to this question.
- In 2011, 18 respondents reported visiting an Ohio EPA office regarding the E-Check program. Of the respondents that visited an Ohio EPA office for assistance, 14 reported that it was helpful, one reported it was not helpful and three did not answer this follow-up question.

Preparing for the E-Check Test

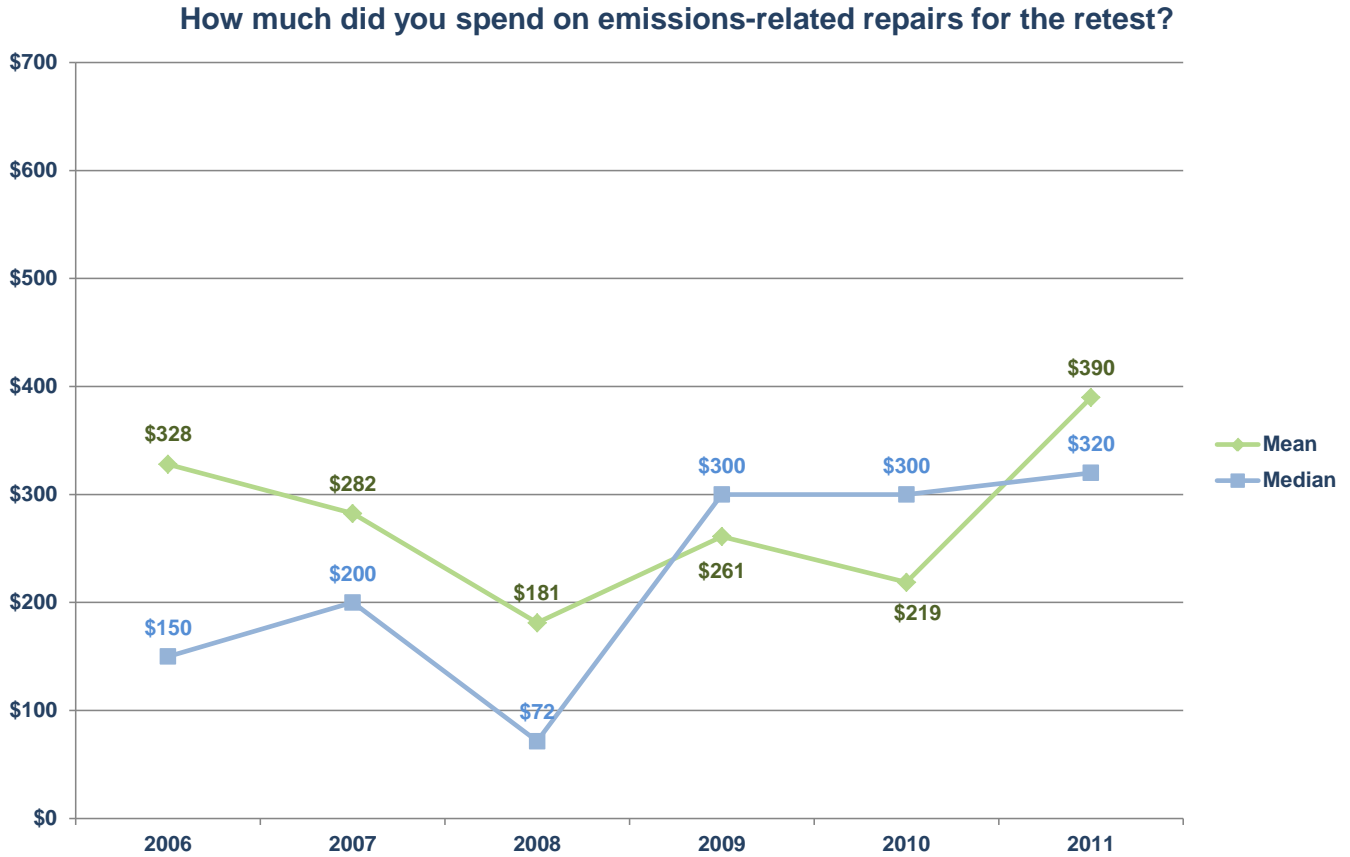
How much did you spend on emissions-related repairs before the initial test?



- Approximately 11 percent of 2011 respondents reported taking their vehicle in for repairs prior to having their E-Check test.
- In 2011, the mean (average) amount spent in anticipation of E-Check testing was \$578, and the median⁷ amount was \$300.

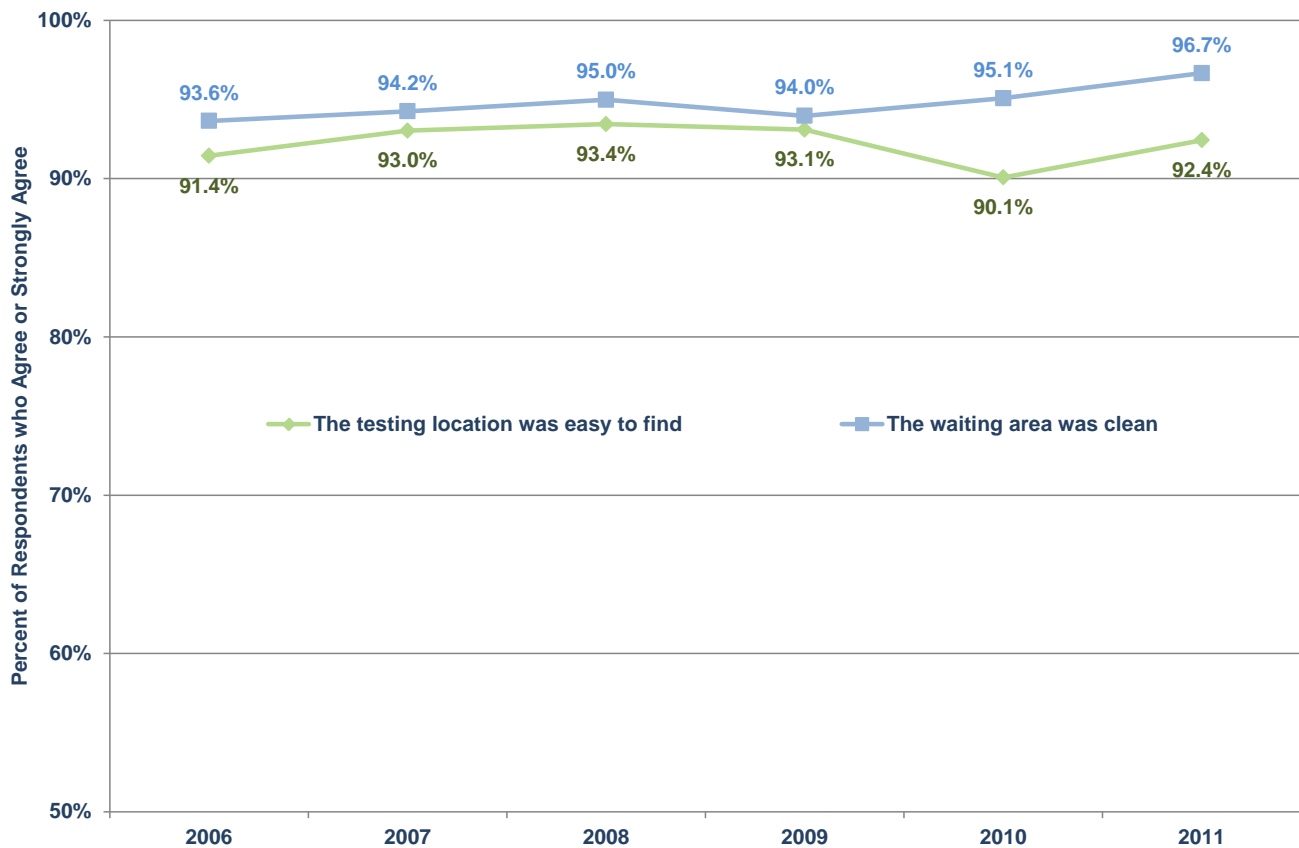
⁷ Median: Of all reported repair amounts, the middle one from the highest to the lowest values.

Failing E-Check



- In 2011, 5.5 percent of respondents reported that their vehicle failed the initial E-Check test.
- Among those whose vehicles failed the test, the mean (average) amount spent on repairs was \$390, and the median amount was \$320.

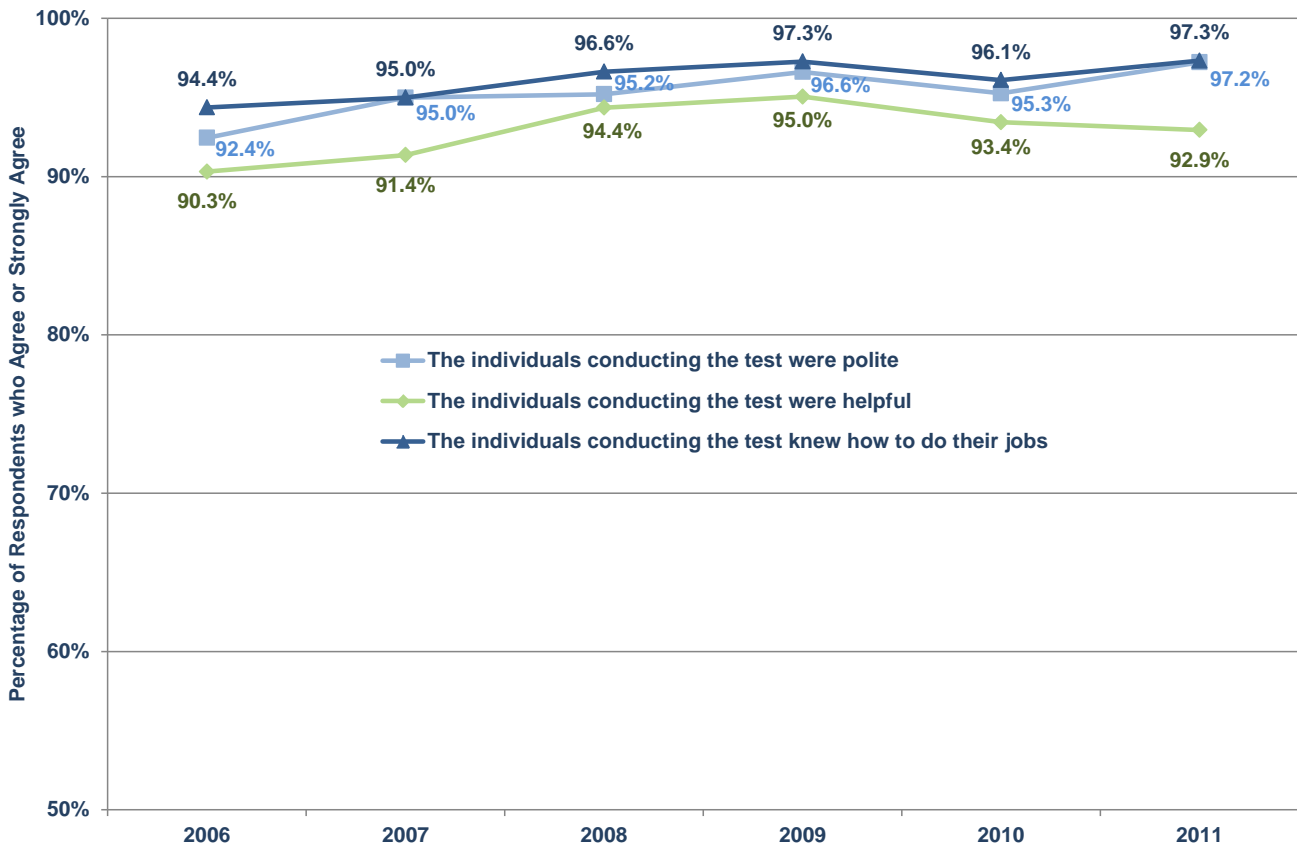
Recalling the E-Check Experience



- In 2011, 96.7 percent of respondents either agreed or strongly agreed that the waiting area was clean⁸. The percentage of respondents reporting that the waiting area was clean has been consistently high across the six-year period.
- The percentage of respondents that agreed the testing location⁹ was easy to find was 92.4 in 2011.
- Proportionally, more Zone 1 respondents agreed the E-Check station was easy to find than those from Zone 4 ($p < .05$).

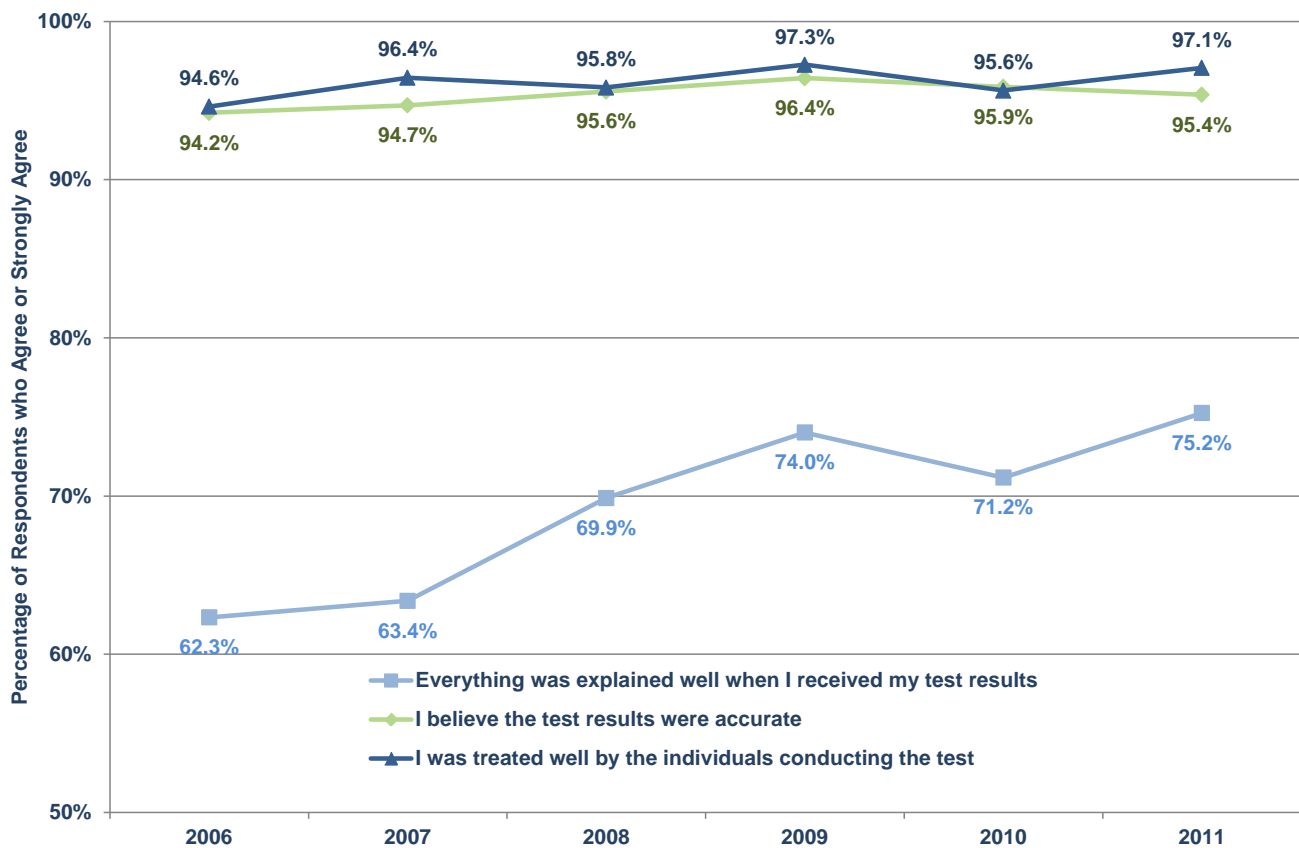
⁸ Prior to 2011, the wording for this item was, “The waiting booth was clean.”

⁹ Prior to 2011, the wording for this item was, “The E-Check station was easy to find.”



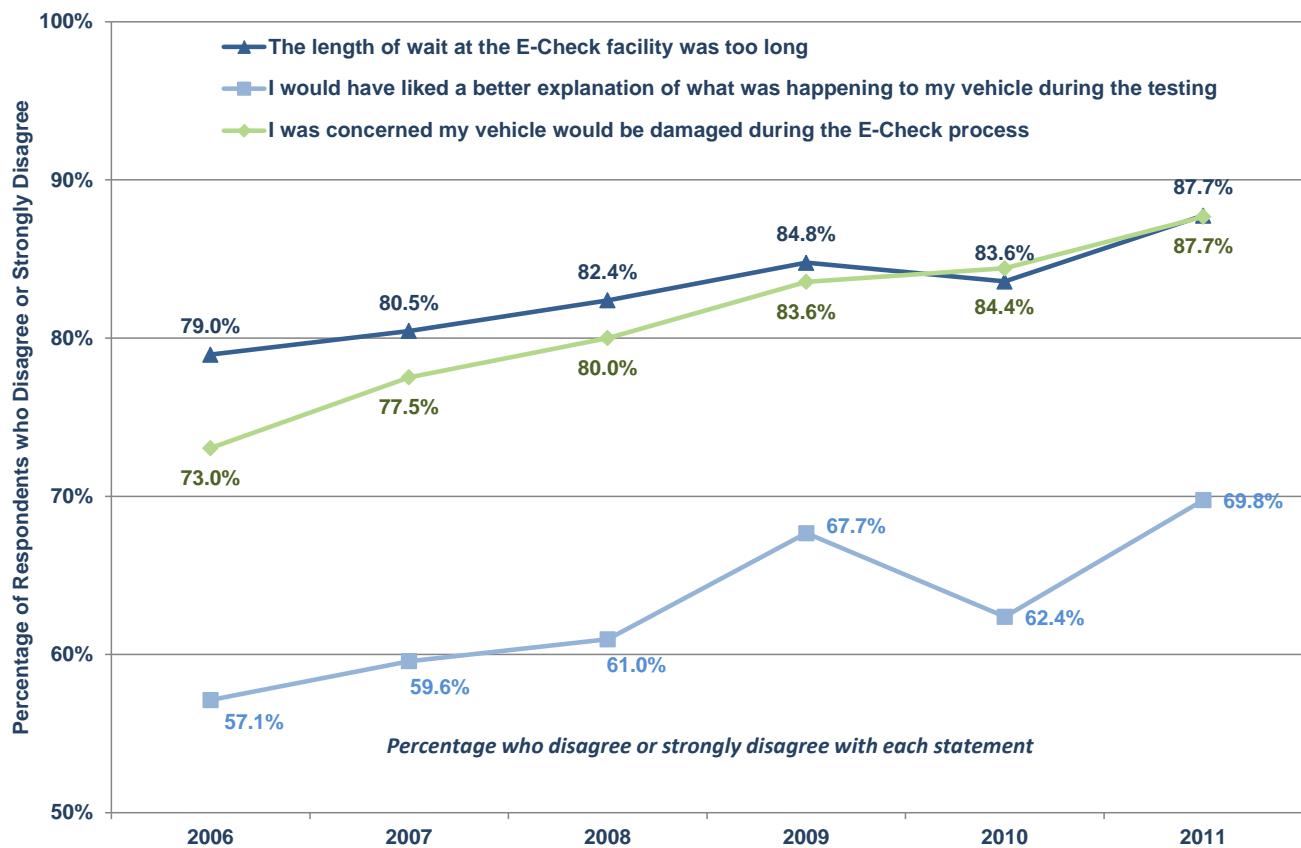
- The survey respondents continue to be highly satisfied with the individuals conducting the emissions testing¹⁰.
- Most of the 2011 respondents (97.2 percent) agreed or strongly agreed that the individuals conducting the test were polite.
- In 2011, 92.9 percent of survey respondents agreed or strongly agreed that the individuals conducting the test were helpful.
- Most respondents (97.3 percent) expressed agreement when asked if the individuals conducting the test knew how to do their job.

¹⁰ For the 2011 survey, question wording referencing “E-Check employees” was changed to “individuals conducting the test.”



- The percentage of respondents that either agreed or strongly agreed that everything was explained well when they received their test results increased almost 13 percentage points from 62.3 percent in 2006 to 75.2 percent in 2011 ($p < .05$).
- Proportionally, more respondents who agreed everything was explained well when they received their results were satisfied with their E-Check experience than those who disagreed ($p < .05$).
- For the sixth consecutive year, over 94 percent of respondents affirmed their belief that the E-Check test results were accurate.
- In 2011, 97.1 percent of respondents agreed or strongly agreed they were treated well by the individuals conducting the test¹¹.

¹¹ For the 2011 survey, question wording referencing “E-Check employees” was changed to “individuals conducting the test.”

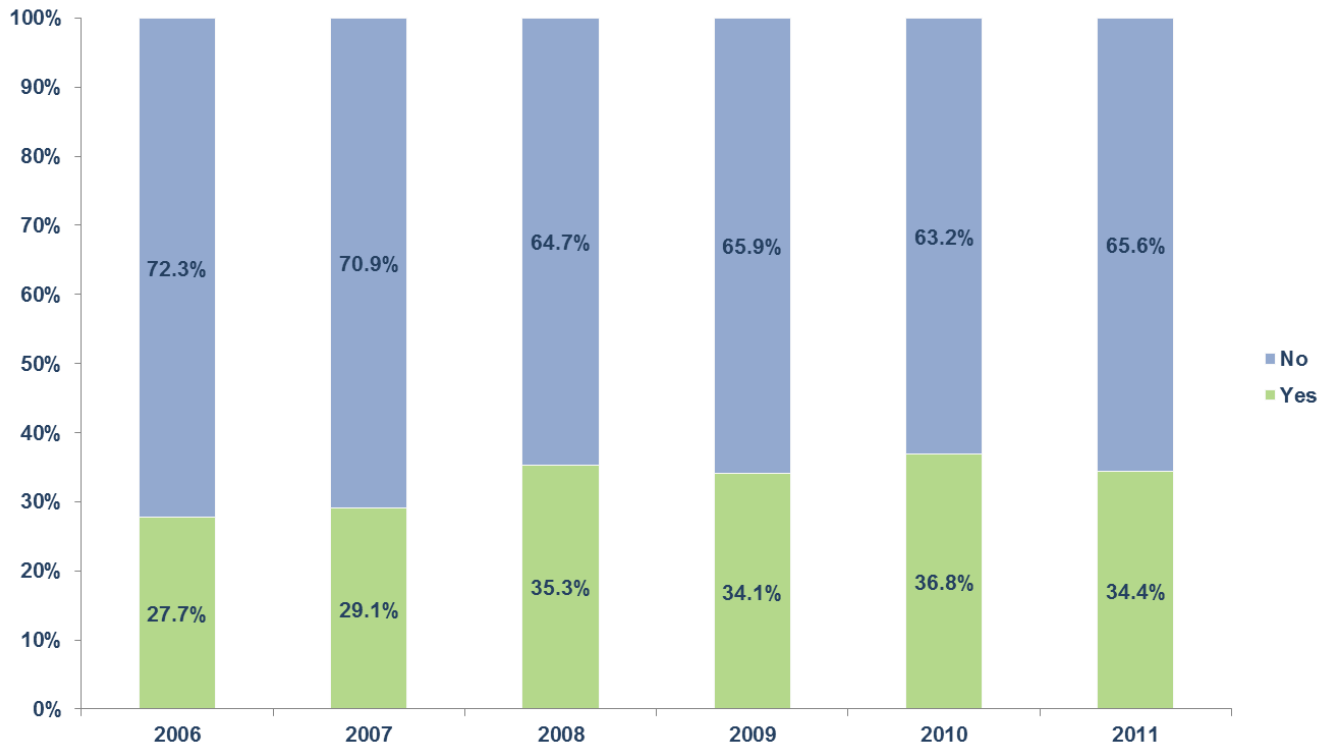


This chart shows the percentage of respondents who *disagreed* or *strongly disagreed* with the three survey items designed to capture customer criticism of the E-Check process.

- Almost 88 percent of all respondents in 2011 did not feel their wait time at the E-Check facility was too long compared to 79 percent in 2006 ($p < .05$).
- Approximately 70 percent of 2011 respondents expressed disagreement with the statement “I would have liked a better explanation of what was happening to my vehicle during the testing.” This is a 12.7 percentage point improvement from 2006 when 57.1 percent disagreed or strongly disagreed ($p < .05$).
- In 2011, 87.7 percent of respondents disagreed or strongly disagreed with the statement “I was concerned my vehicle would be damaged during the E-Check process.” This is a 14.7 percentage point improvement compared to the 73 percent of respondents in 2006 ($p < .05$).
- Proportionally, more Zone 1 respondents expressed concern that their vehicles would be damaged during the testing process than those from Zone 4 ($p < .05$).

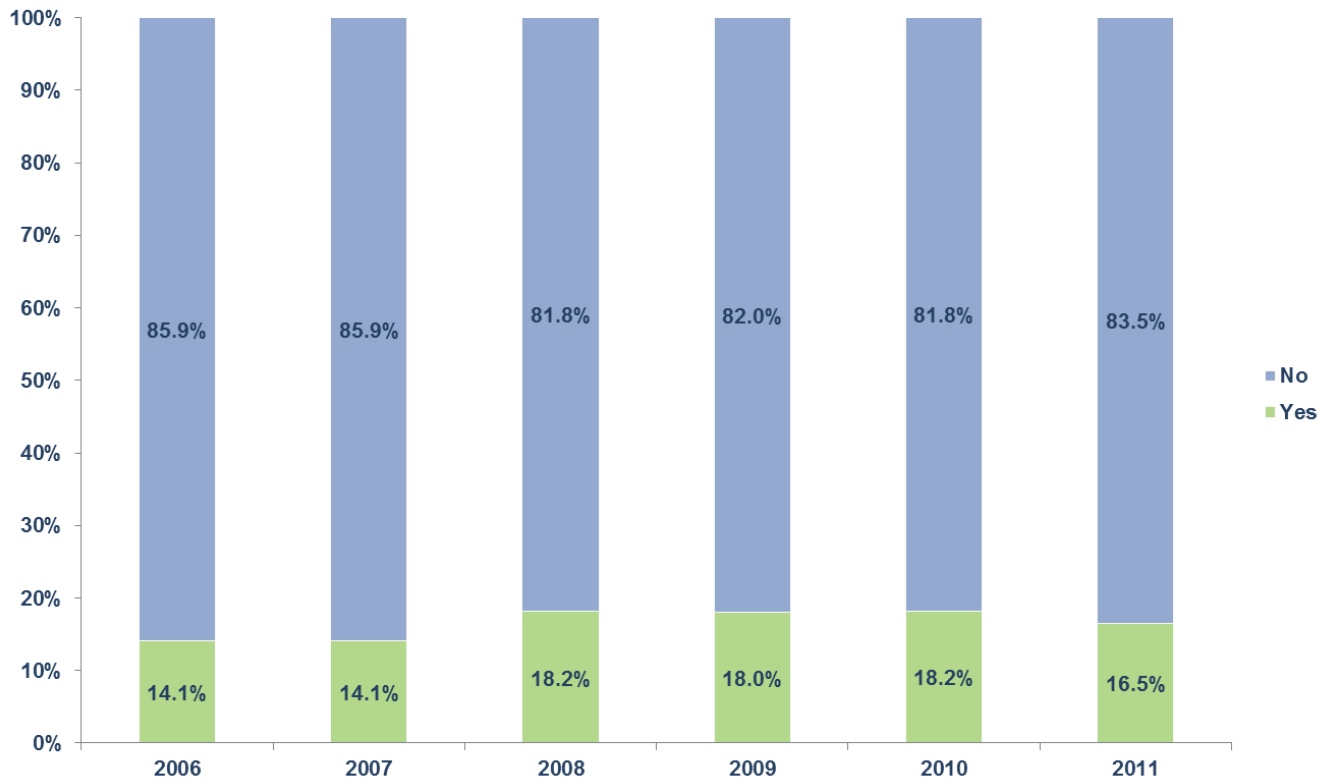
Understanding E-Check Requirements

Do you find the following E-Check requirements hard to understand...
E-Check vehicle testing standards (technical thresholds that determine pass/fail)?



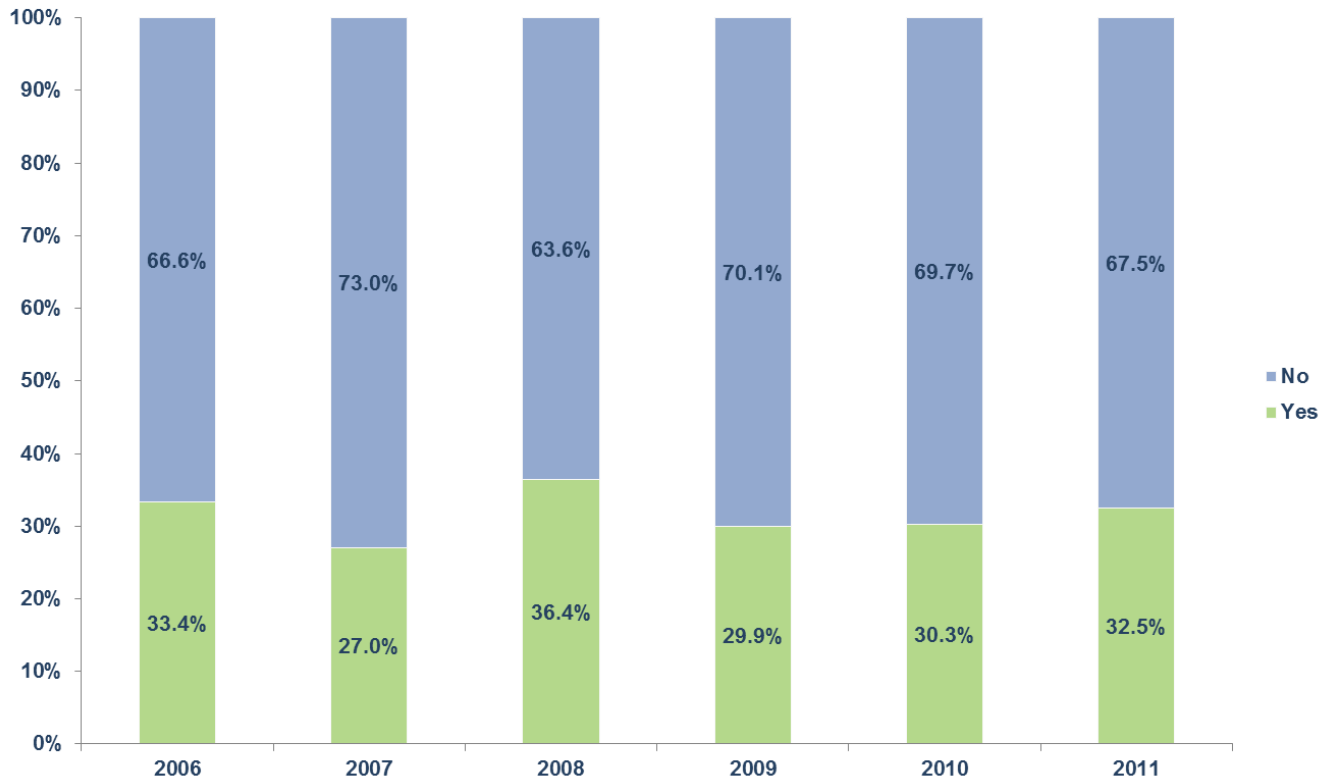
- The percentage of respondents reporting difficulty understanding E-Check vehicle testing standards (technical thresholds that determine pass or fail) increased from 27.7 percent in 2006 to 34.4 percent in 2011 ($p < .05$).

**Do you find the following E-Check requirements hard to understand...
When my vehicle needs testing?**



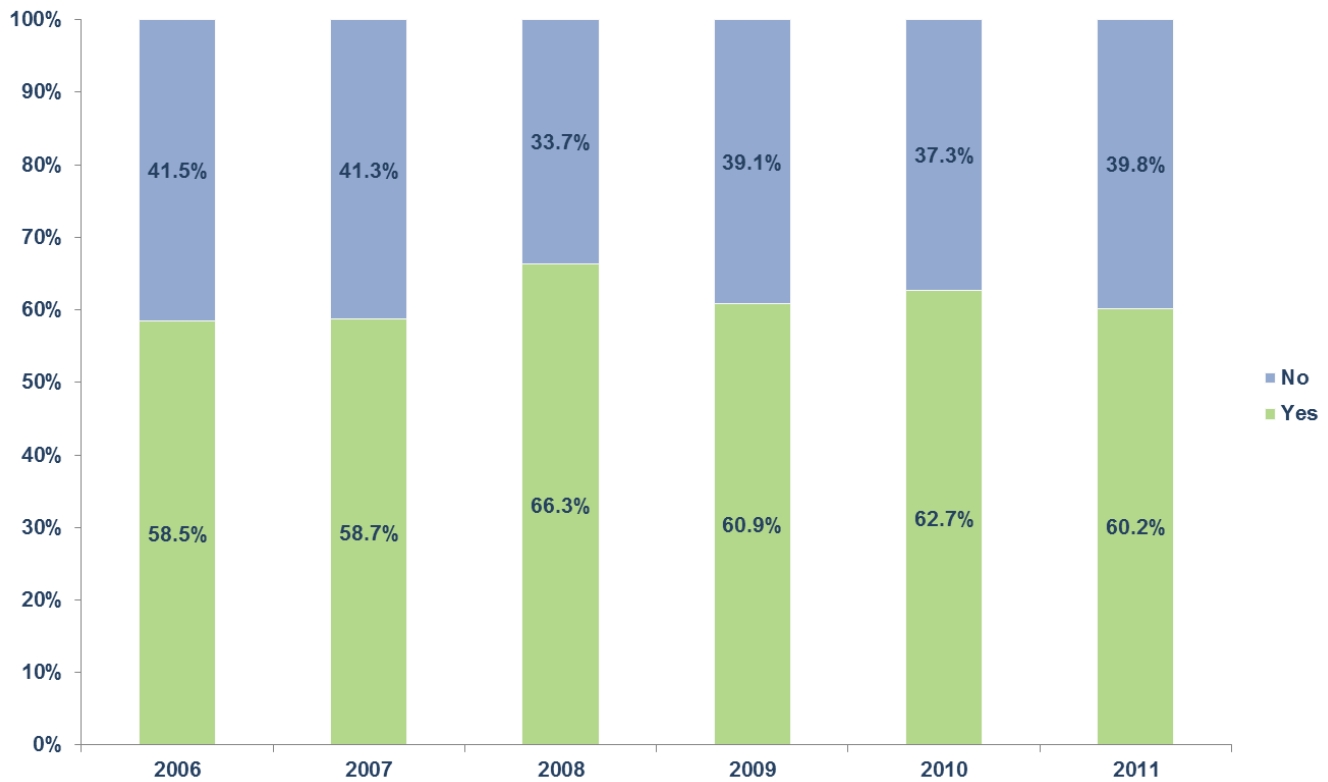
- In 2011, 16.5 percent of survey respondents reported it was difficult to understand E-Check requirements regarding when their vehicle needs to be tested.
- Proportionally, more respondents aged 60 and older found it hard to understand when their vehicle needs testing than those aged 59 or less ($p < .05$).

Do you find the following E-Check requirements hard to understand...
Why my vehicle needs testing?



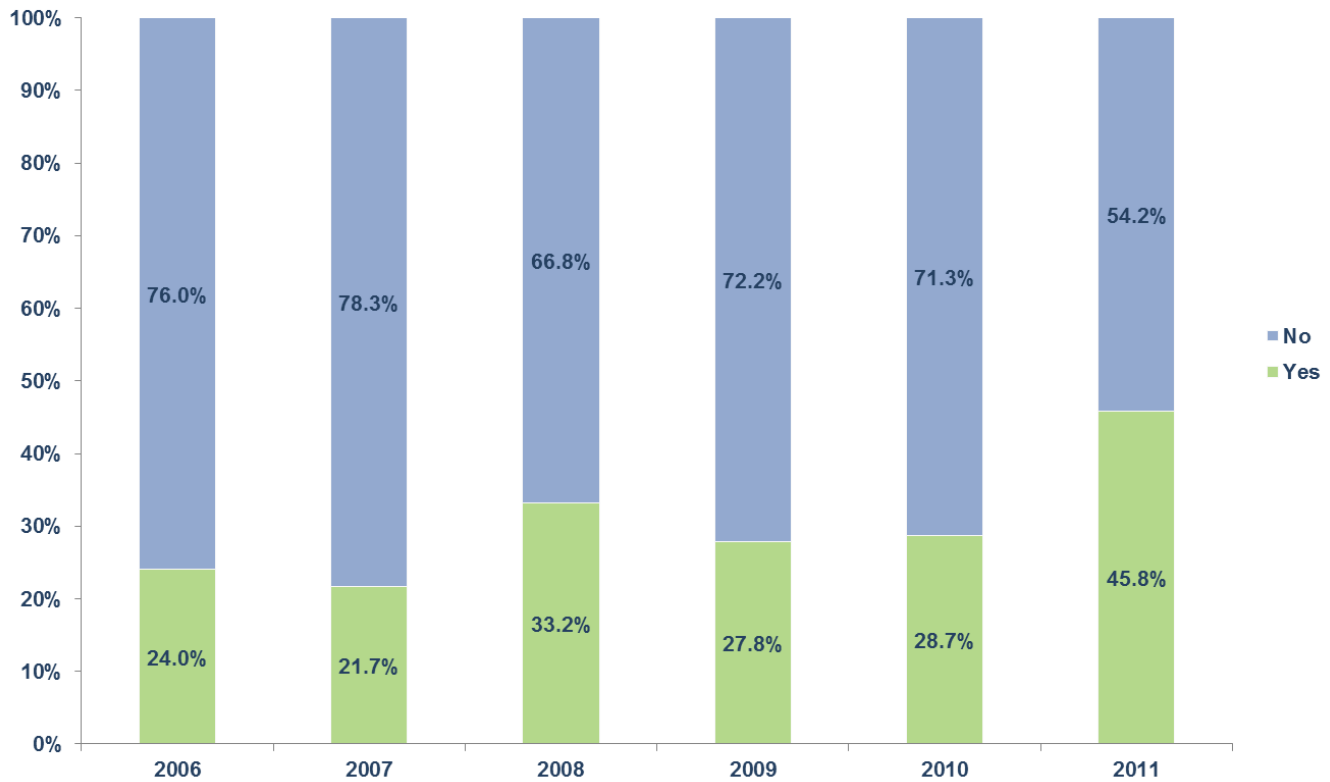
- Almost one third of respondents reported they find it hard to understand why their vehicle needs to be tested.
- Proportionally, more dissatisfied respondents reported it was hard to understand why their vehicle needs testing than satisfied respondents ($p < .05$).

Do you find the following E-Check requirements hard to understand...
Why E-Check testing is not statewide?



- Sixty percent of the 2011 respondents affirmed that it is hard to understand why E-Check testing is not a required statewide program.

**Do you find the following E-Check requirements hard to understand...
E-Check exemptions and extensions**

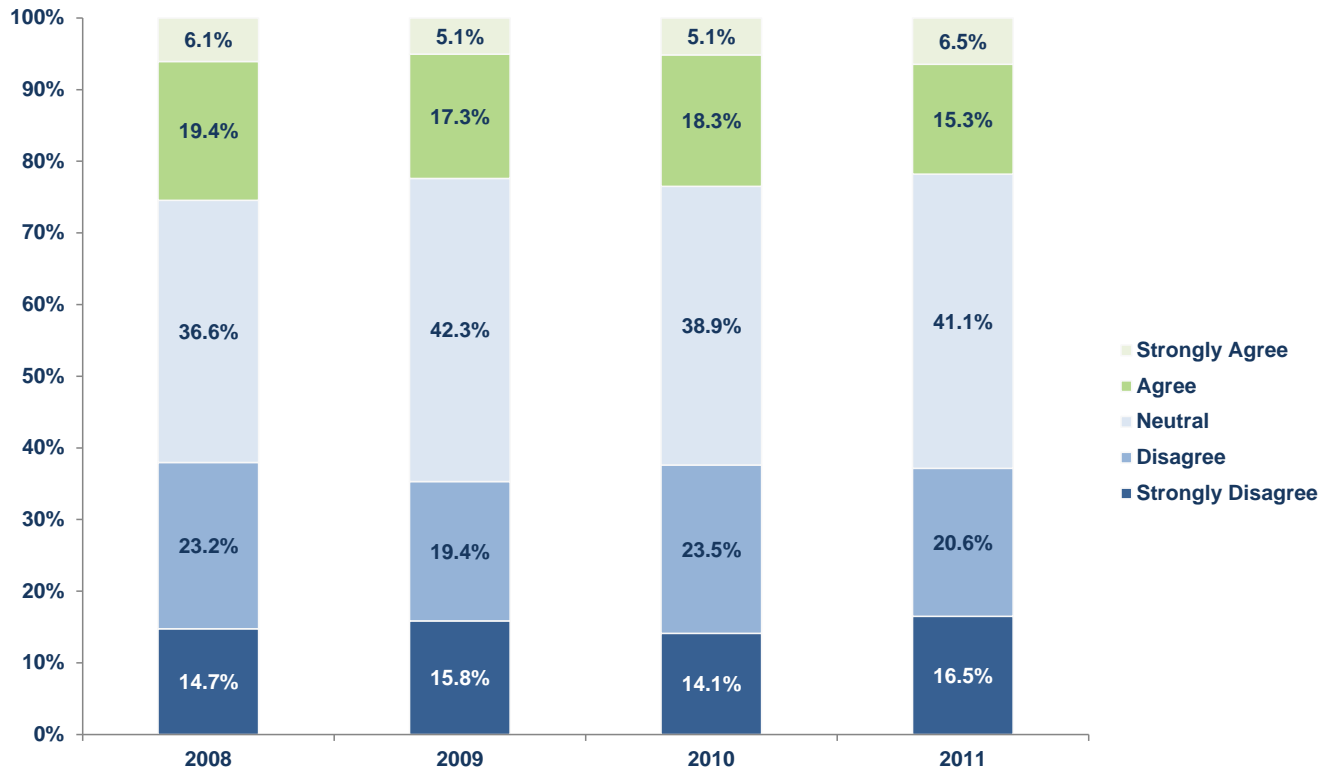


- In 2011, 45.8 percent of respondents categorized E-Check exemptions and extensions¹² as hard to understand compared to 24 percent in 2006 ($p < .05$).

¹² For the 2011 survey, this question was moved from the first item to the last item in the section focused on E-Check requirements.

Opinions Regarding Emissions Testing Options

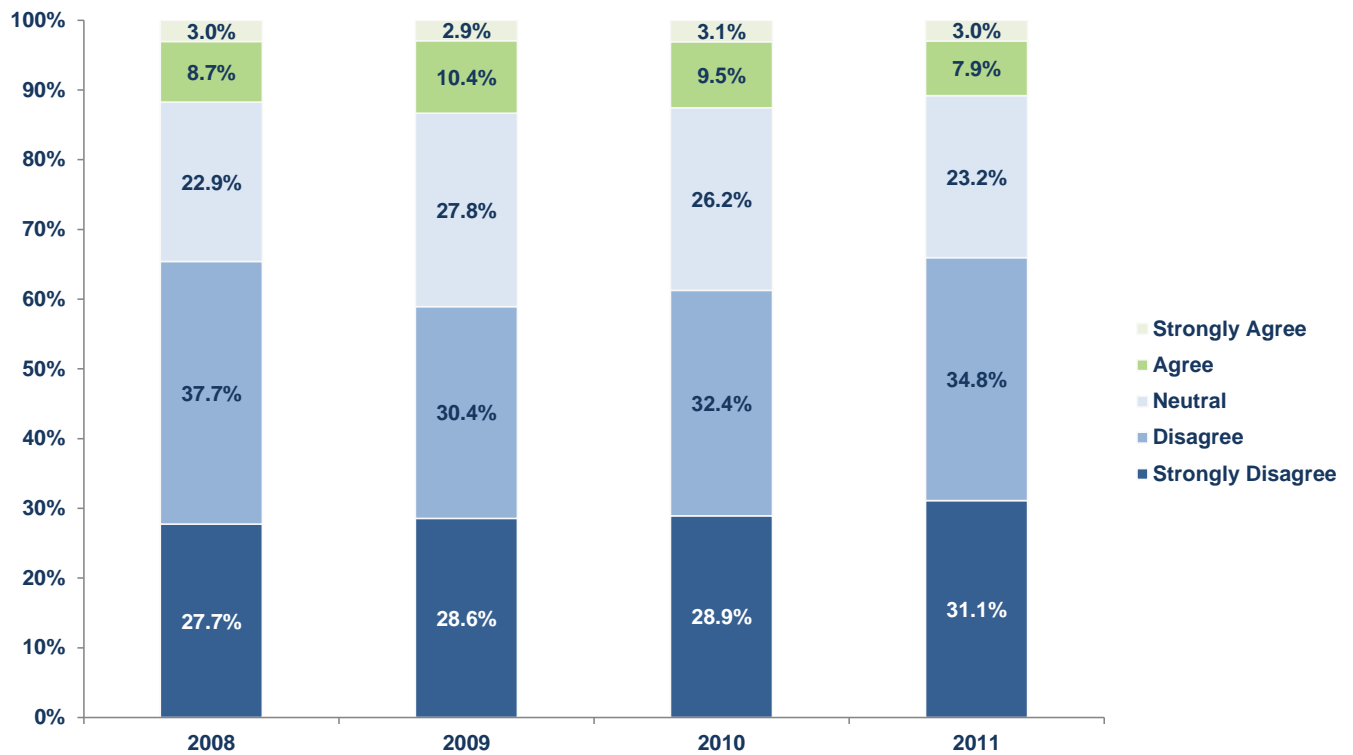
I am interested in an emissions testing system that provides more testing locations at authorized automotive repair stations and the current E-Check Stations.



In 2008, new questions were added to the E-Check Customer Opinion Survey to examine respondents' preferences for potential changes to the emissions testing program and about various features of emissions testing at authorized automotive repair stations.

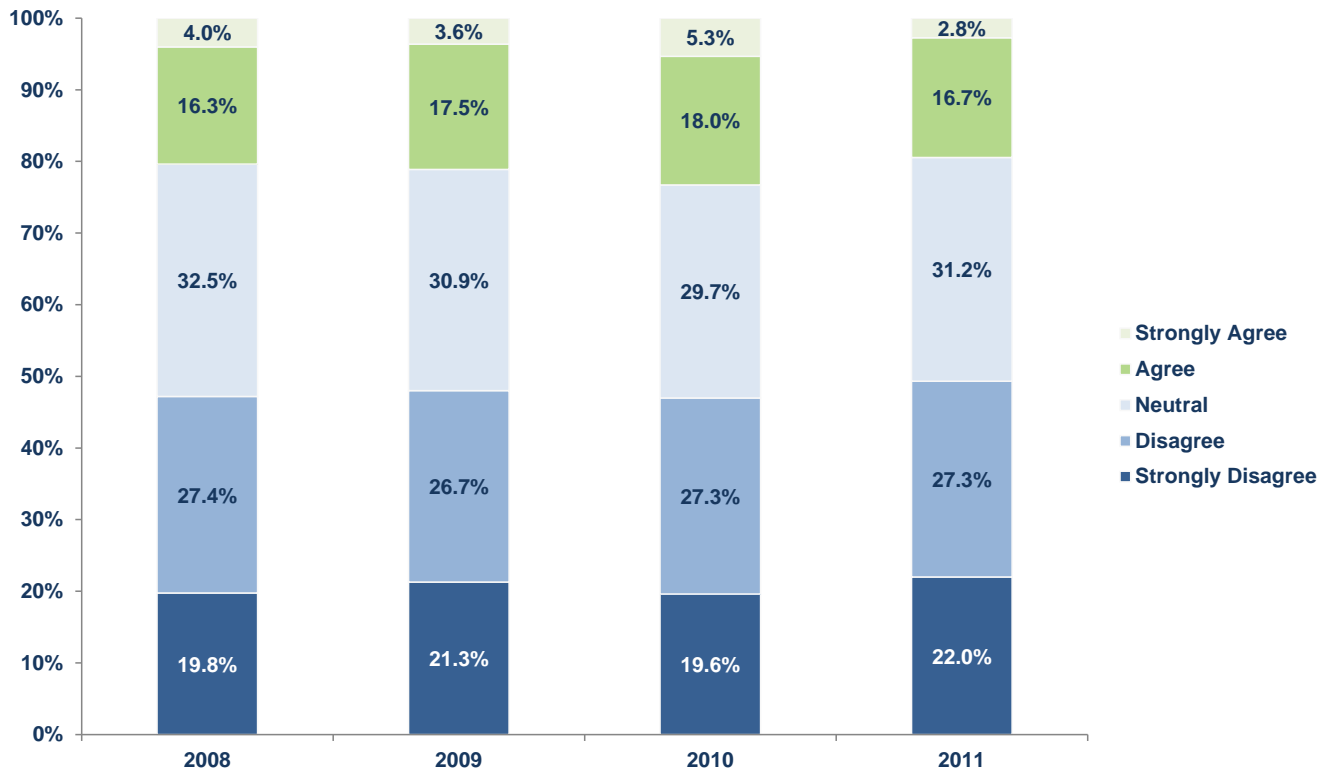
- When asked if they were interested in an emissions testing system that provides more testing locations at authorized automotive repair stations and the current E-Check Stations, 37.1 percent disagreed or strongly disagreed, another 41.1 percent had no opinion, and 21.8 percent agreed or strongly agreed with this option.

I am interested in an emissions testing system that provides testing locations at authorized automotive repair stations, even if I may have to wait to receive testing services, make an appointment, or drop the vehicle off for a period of time.



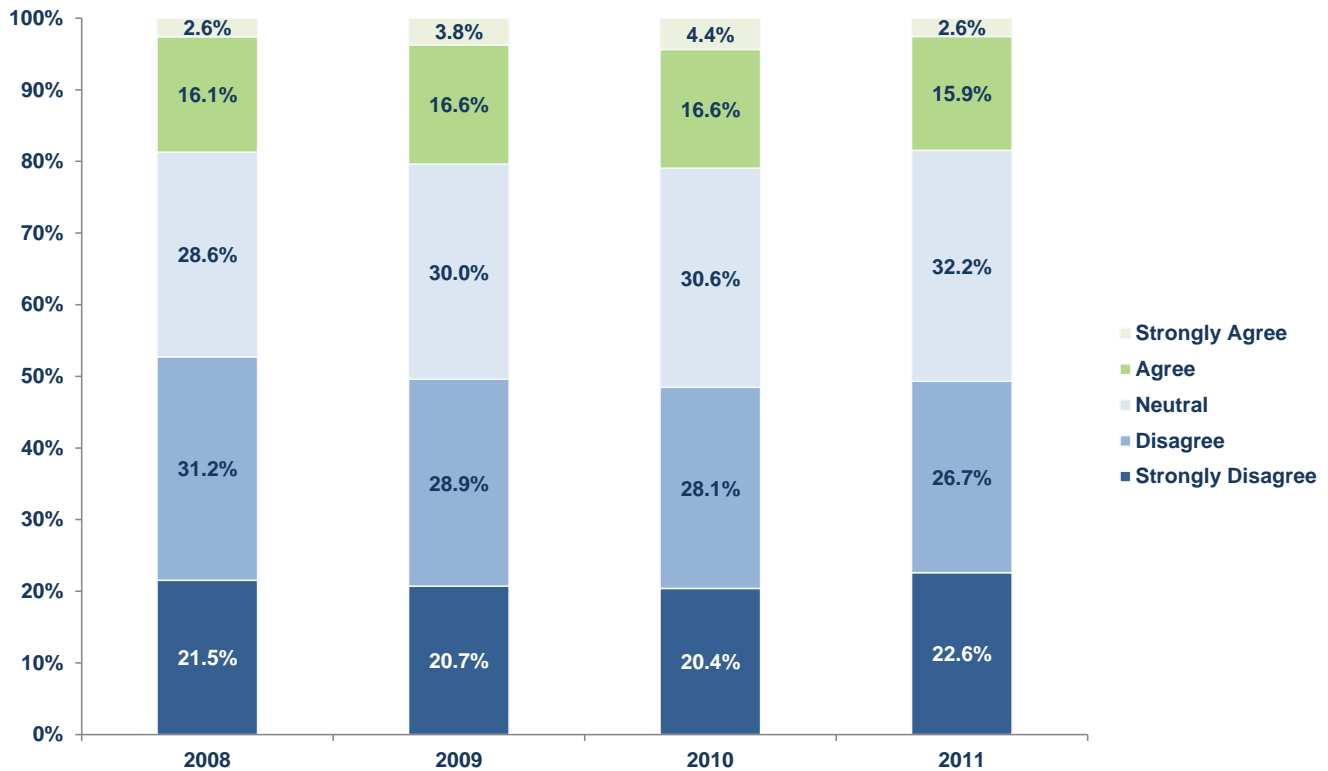
- Each year, respondents expressed the greatest level of disagreement with the option offering testing at authorized automotive repair stations that might require waiting to receive testing, making an appointment, or dropping off their vehicle for a period of time. Approximately 66 percent of 2011 respondents disagreed or strongly disagreed with this option while 10.9 percent expressed agreement.

I am interested in an emissions testing system that provides automotive repair services at the same location where vehicles are tested.



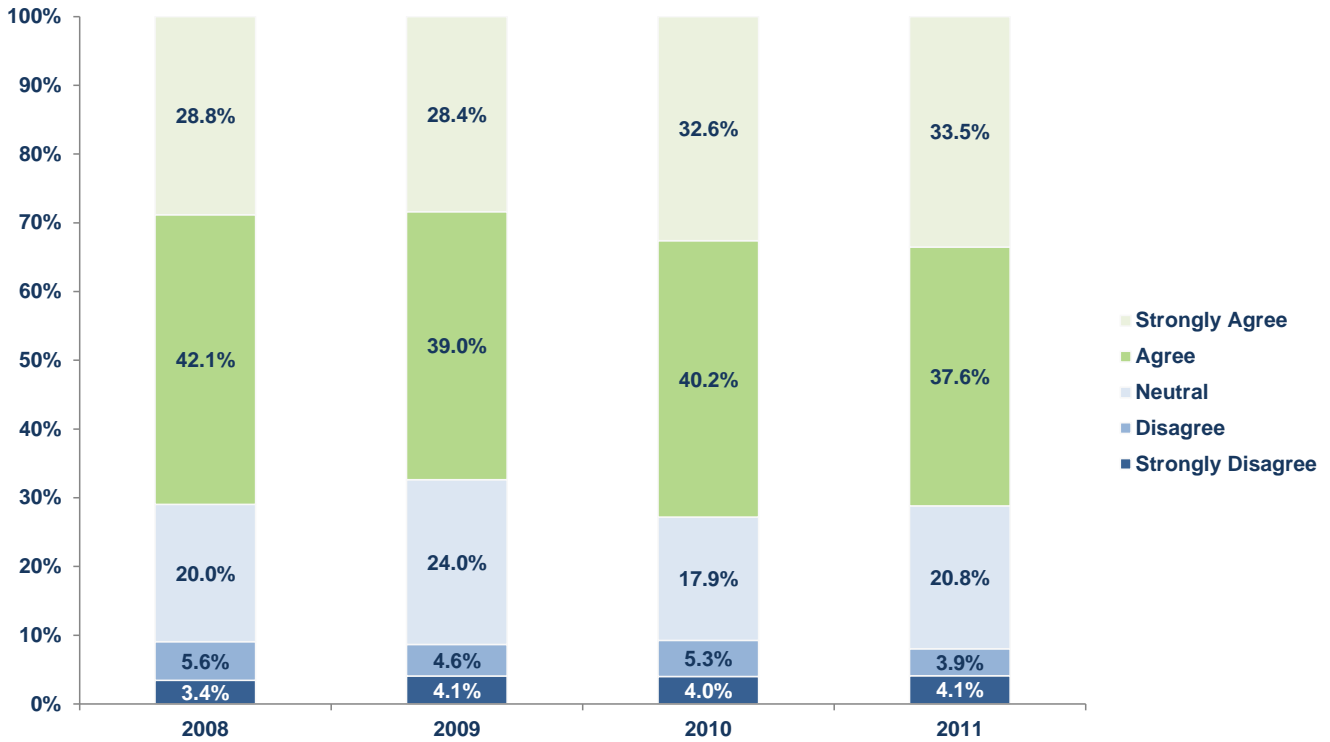
- In 2011, almost half of respondents indicated they would not be interested in an emissions testing system that provides automotive repair services at the same location where vehicles are tested, while 19.5 percent expressed an interest in such a testing system.

I would feel confident in my test results if my vehicle was repaired at the same facility where it is tested.



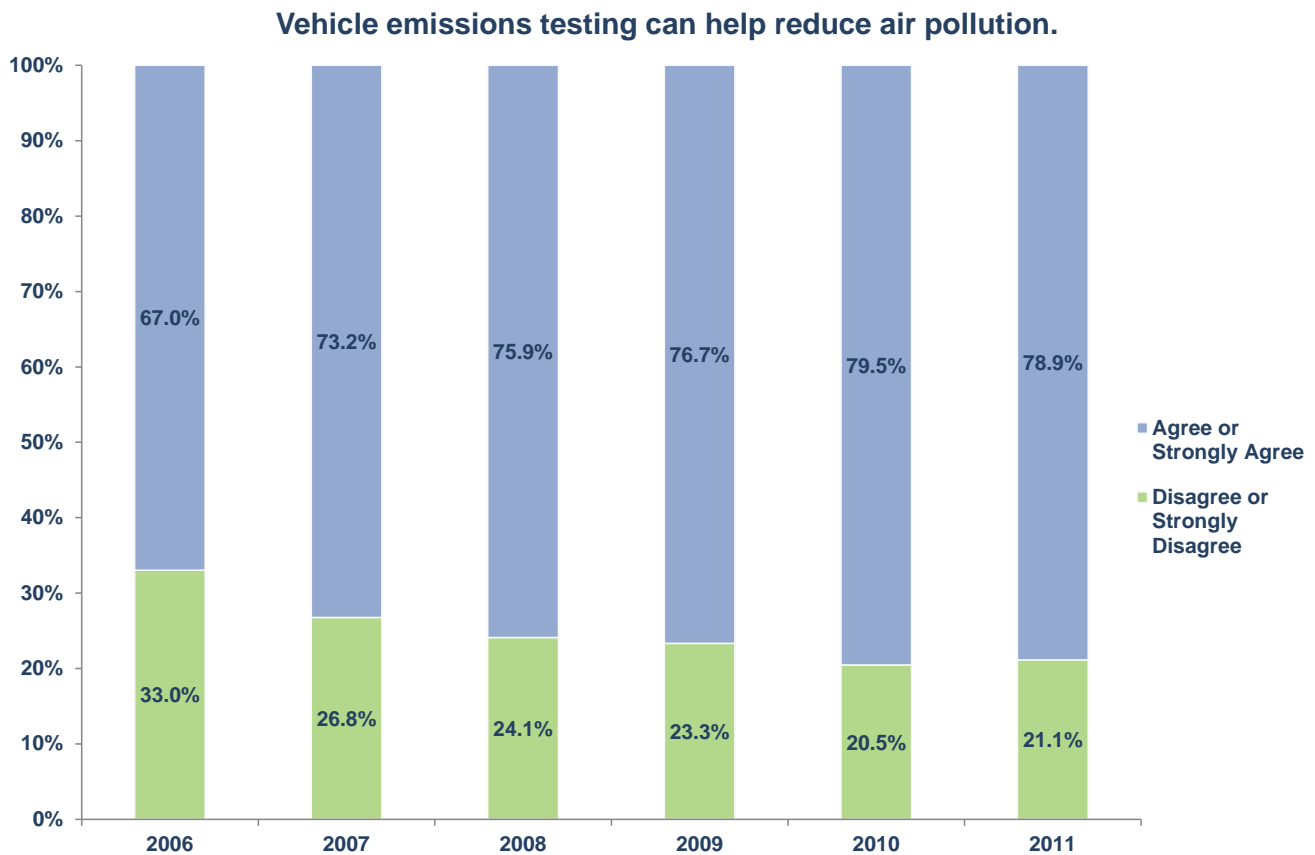
- For the fourth straight year, approximately half of respondents disagreed or strongly disagreed that they would be confident in their test results if their vehicle was repaired at the same facility where it was tested, while 18.5 percent agreed or strongly agreed they would be confident in their test results under these circumstances.

I prefer the current testing system where you take your vehicle to a facility that only provides testing services, where no appointments are necessary, and where your vehicle is tested on a first-come first-serve basis.



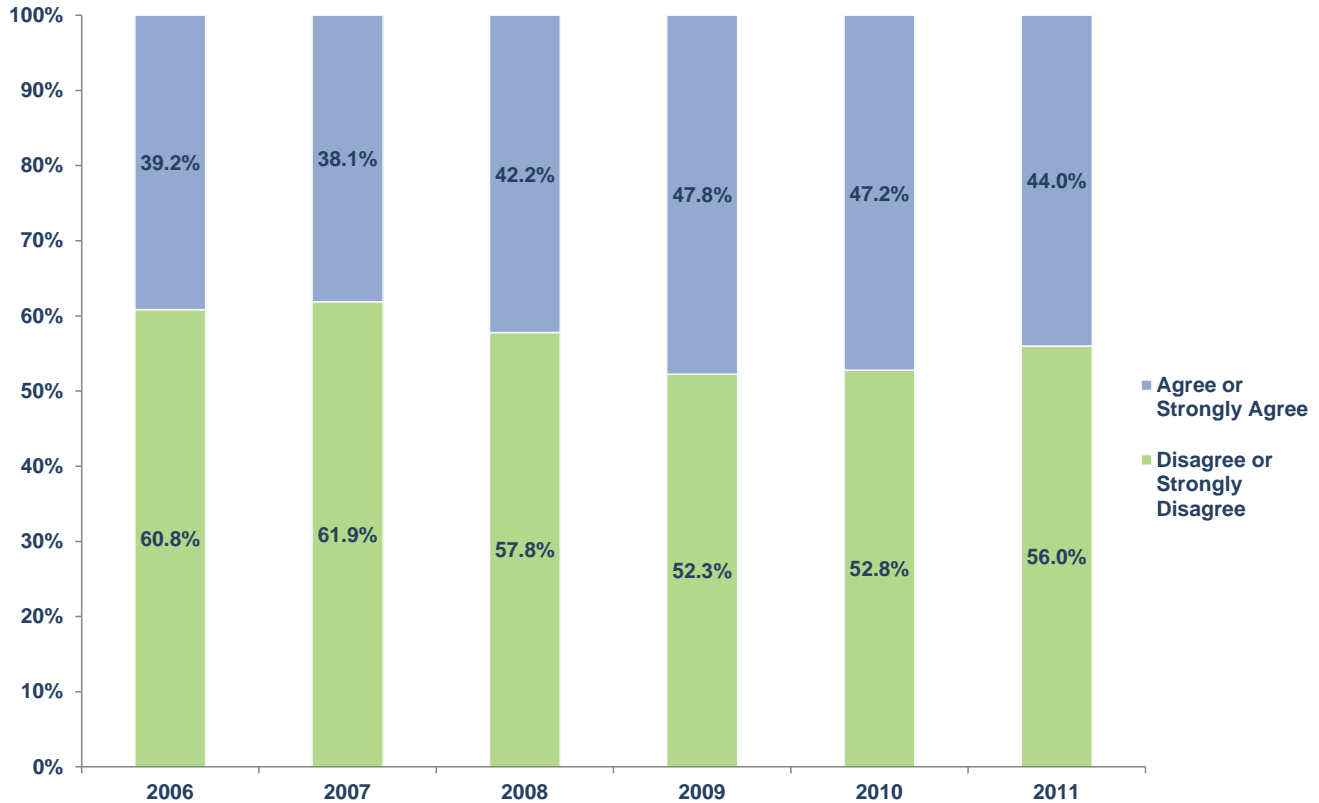
- Over the four years, respondents have expressed the greatest level of agreement with the current testing system. In 2011, 71.1 percent of respondents expressed a preference for the current testing system. In addition, this option has consistently had the lowest level of disagreement, ranging from 8 percent to 9.3 percent over the four years. In 2011, 8 percent disagreed or strongly disagreed with the current testing system, and 20.8 percent had no opinion.

Vehicle Emissions and the Environment



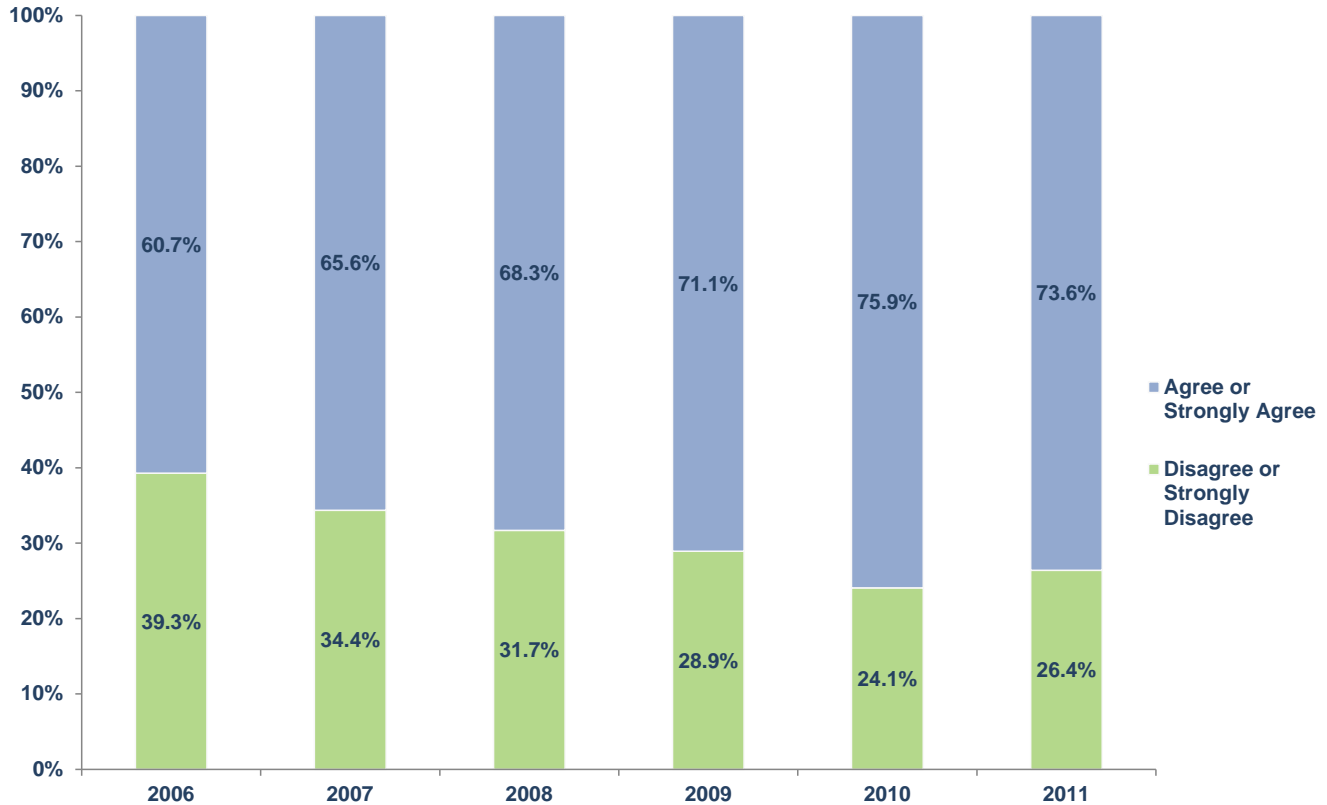
- In 2011, 78.9 percent of respondents agreed that vehicle emissions testing can help reduce air pollution, an increase of twelve percentage points from the 67 percent in 2006 ($p < .05$).

Motor vehicles create more ozone pollution than industry.



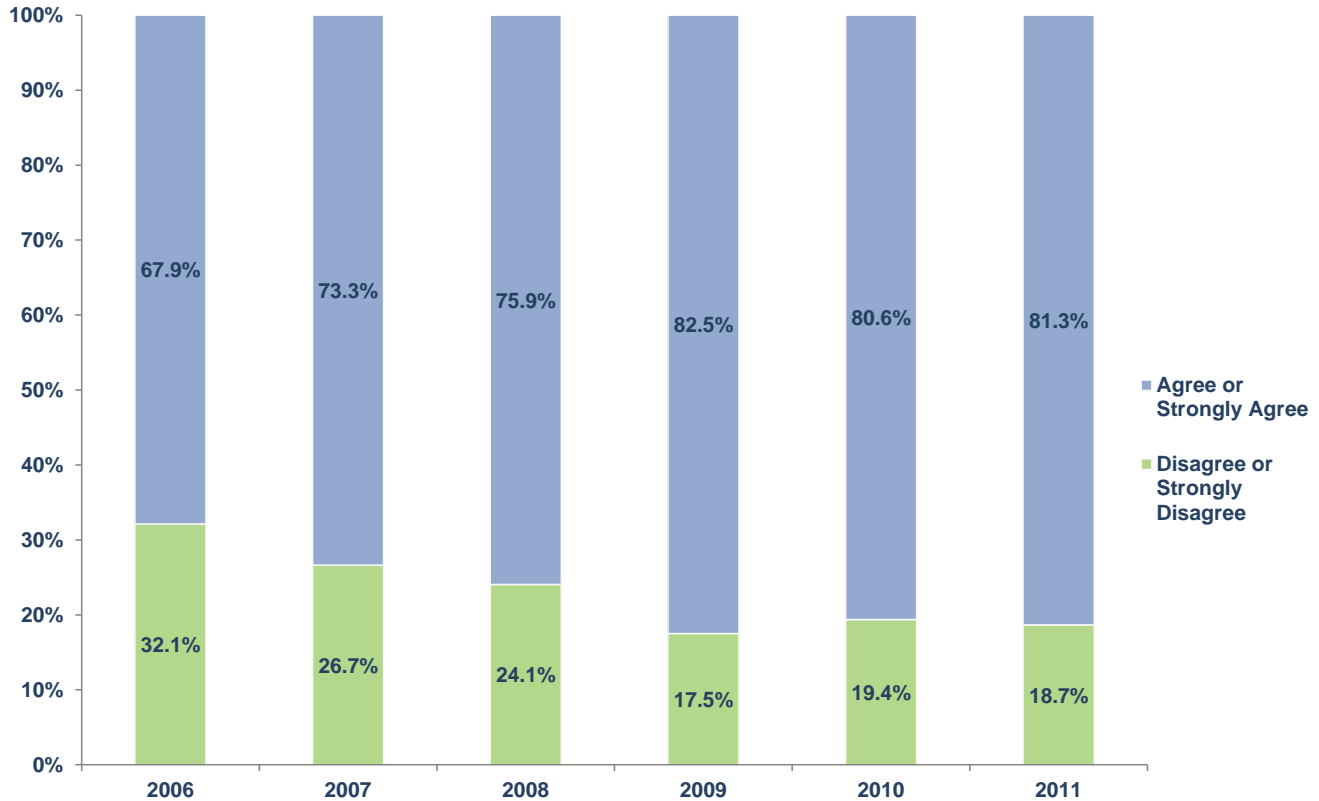
- In 2011, 44 percent of respondents agreed or strongly agreed that motor vehicles create more ozone pollution than industry.
- Proportionally, more satisfied respondents agreed that motor vehicles create more ozone pollution than industry than those that were dissatisfied with their testing experience ($p < .05$).
- More of the respondents from households with at least a bachelor's degree agreed with this statement than respondents from households where the highest level of education is a two-year degree or less ($p < .05$).
- Each year, approximately a third of respondents marked "don't know" or left blank the question regarding motor vehicles and industry pollution, perhaps indicating a lack of knowledge. This question had the lowest response rate of any question on the survey.

I am helping to reduce air pollution by having my vehicle E-Checked.



- Proportionally, more 2011 respondents (73.6 percent) agreed they are helping to reduce air pollution by participating in the E-Check program compared to 60.7 percent in the 2006 survey ($p < .05$).
- More Zone 4 respondents agreed they are helping to reduce air pollution by having their vehicle E-Checked than those from Zone 1 ($p < .05$).
- Proportionally, more female respondents agreed with this statement than male respondents ($p < .05$).

The Ohio EPA is doing a good job of running the E-Check program.



- This year, 81.3 percent of respondents agreed that Ohio EPA is doing a good job of running the E-Check program, a 13.4 percentage point increase from the 67.9 percent of respondents in 2006 ($p < .05$).
- Proportionally, more Zone 4 respondents agreed that Ohio EPA is doing a good job of running the E-Check program than those from Zone 1 ($p < .05$).
- Proportionally, more female respondents agreed with this statement than male respondents ($p < .05$).

Demographic Questions

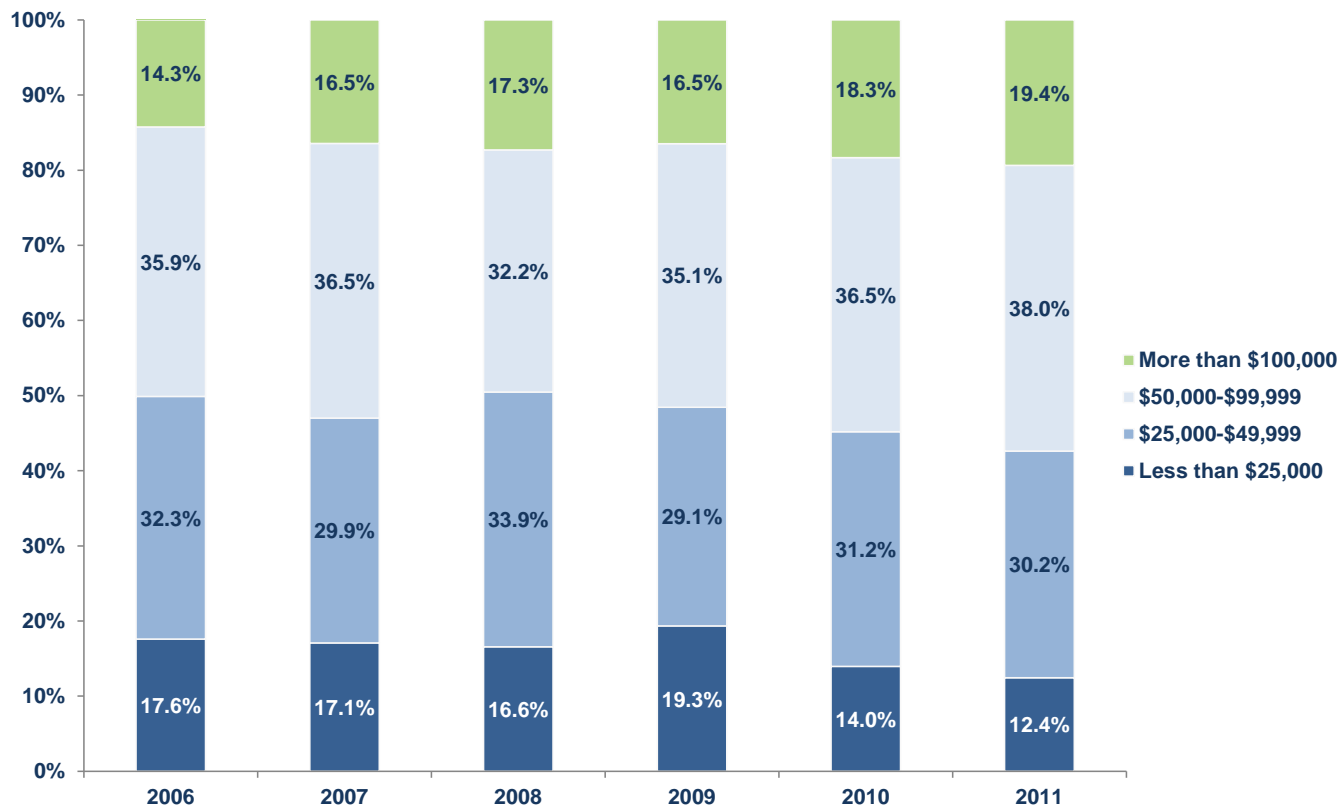
Year	Male	Female
2006	51.5%	48.5%
2007	58.1%	41.9%
2008	58.0%	42.0%
2009	59.5%	40.5%
2010	59.6%	40.4%
2011	55.9%	44.1%

- Each year, more males than females participate in the E-Check Customer Satisfaction Survey.

Year	Less than 20	20-29	30-39	40-49	50-59	60-69	70+
2006	0.4%	5.6%	9.6%	19.4%	24.6%	19.6%	20.7%
2007	0.2%	4.6%	10.2%	19.6%	25.7%	20.7%	18.9%
2008	0.0%	4.1%	9.1%	19.5%	26.2%	21.7%	19.5%
2009	0.0%	3.9%	10.0%	18.8%	28.9%	21.4%	17.0%
2010	0.4%	2.9%	8.8%	17.2%	26.9%	22.5%	21.2%
2011	0.2%	3.5%	8.9%	15.6%	29.0%	24.1%	18.7%

- Each year, approximately half of the respondents reported their age as between 50 and 69 years old.

Your total annual household income:



- Each year, approximately half of respondents have an annual household income of \$50,000 or more.

Your race (mark all that apply):

Year	White	African-American	Asian-American	American Indian	Latin American (Hispanic)	Other
2006	90.9%	5.7%	0.8%	0.4%	1.5%	0.8%
2007	88.1%	7.2%	1.3%	0.2%	1.3%	1.9%
2008	87.8%	9.1%	1.1%	0.8%	1.7%	0.6%
2009	84.8%	10.4%	2.4%	0.9%	2.1%	1.2%
2010	88.8%	8.0%	3.0%	1.0%	1.3%	1.0%
2011	88.1%	8.5%	2.0%	1.0%	1.6%	0.8%

Note: Starting in 2008, total does not equal 100 percent because respondents could select more than one response.

- Each year, the majority of respondents indicate their race or ethnicity as white.

Individual that took the vehicle to the E-Check station

Year	The vehicle owner	A relative of the vehicle owner	A friend of the vehicle owner	Other
2006	93.3%	5.2%	0.0%	1.5%
2007	94.4%	5.1%	0.2%	0.4%
2008	94.5%	5.3%	0.2%	0.0%
2009	95.2%	4.4%	0.3%	0.0%
2010	95.8%	4.1%	0.0%	0.2%
2011	94.3%	5.3%	0.0%	0.4%

- The vast majority of respondents take their own vehicle to the E-Check station.

The adult in your home with the highest education has:

Year	Less than a high school diploma	High school diploma	Two-year degree	Bachelor's degree	Master's degree	Professional/ Doctoral degree
2006	2.5%	38.0%	13.6%	24.8%	16.1%	5.1%
2007	2.3%	32.3%	17.0%	26.3%	14.4%	7.8%
2008	2.5%	33.6%	16.5%	25.1%	16.1%	6.3%
2009	1.7%	33.0%	17.9%	25.0%	16.0%	6.3%
2010	1.1%	35.2%	16.7%	26.0%	13.9%	7.0%
2011	1.4%	33.3%	14.4%	26.8%	17.3%	6.7%

- Each year, all educational levels have been represented in the survey. Approximately half of the responding households have at least a bachelor's degree.

Appendix I: 2011 Ohio E-Check Customer Opinion Survey

Ohio E-Check Customer Opinion Survey



Instructions for completing survey:

Mark answers like this: ● Not like this: ☒ ☑

1. Were you satisfied with your overall experience when you received your last E-Check test? Yes No

Before seeing this survey...

2. Were you aware that regular vehicle maintenance such as replacing air filters can improve your vehicle's gas mileage by as much as 10 percent and can save up to 34 cents per gallon? Yes No

3. Were you aware that regular vehicle maintenance can increase your vehicle's engine life? Yes No

4. Were you aware that with regular maintenance your vehicle is more likely to pass the emissions test? Yes No

5. Were you aware of E-Check's toll-free information number, 1-800-CAR-TEST? Yes No

6. Have you used the 1-800-CAR-TEST number to get information about the E-Check program? Yes No

7. Were you aware of the E-Check website, www.ohiocheck.org? Yes No

➔
Please turn over for more questions

Before seeing this survey...

8. Have you visited the E-Check website to get information about the E-Check program? Yes No (If no, skip to #9)
 Was it easy to find the information you needed on the website? Yes No
 Was the information helpful? Yes No

9. Did you contact any of these resources regarding your most recent test experience, or for assistance with E-Check?

I phoned 1-800-CAR-TEST	<input type="radio"/> Yes <input type="radio"/> No	If yes, was it helpful?	<input type="radio"/> Yes <input type="radio"/> No
I visited an EPA Office	<input type="radio"/> Yes <input type="radio"/> No	If yes, was it helpful?	<input type="radio"/> Yes <input type="radio"/> No
I phoned Ohio EPA	<input type="radio"/> Yes <input type="radio"/> No	If yes, was it helpful?	<input type="radio"/> Yes <input type="radio"/> No
I sent an e-mail to E-Check	<input type="radio"/> Yes <input type="radio"/> No	If yes, was it helpful?	<input type="radio"/> Yes <input type="radio"/> No

E-Check test preparation and results

10. Before having the initial E-Check test, did you have any repairs performed on your vehicle? Yes No
 If yes, how much did you spend on emissions-related repairs before the initial test? \$.00

11. Did your vehicle fail the initial E-Check test? Yes No
 If yes, how much did you spend on emissions-related repairs for the retest? \$.00

For each of the following statements please think about your most recent E-Check experience:

	Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
12. The length of wait at the E-Check facility was too long.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. The waiting area was clean.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. The individuals conducting the test were polite.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. The individuals conducting the test were helpful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. The individuals conducting the test knew how to do their jobs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I was concerned my vehicle would be damaged during the E-Check process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I would have liked a better explanation of what was happening to my vehicle during the testing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Everything was explained well when I received my test results.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I believe the test results were accurate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. I was treated well by the individuals conducting the test.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. The testing location was easy to find.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. I was satisfied with my overall test experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


Please continue on next page

Do you find the following E-Check requirements hard to understand...

- 24. E-Check vehicle testing standards (technical thresholds that determine pass/fail)? Yes No
- 25. When my vehicle needs testing? Yes No
- 26. Why my vehicle needs testing? Yes No
- 27. Why E-Check testing is not statewide? Yes No
- 28. E-Check exemptions and extensions? Yes No

Comment Section: Please tell us which questions previous you are referring to:

Question # _____

Question # _____

In some states, motorists can choose to have their emissions testing take place at facilities such as E-Check that exclusively conduct emissions testing, or at authorized automotive repair stations. Please give us your opinions regarding these testing options.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
29. I am interested in an emissions testing system that provides more testing locations at authorized automotive repair stations and the current E-Check Stations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. I am interested in an emissions testing system that provides testing locations at authorized automotive repair stations, even if I may have to wait to receive testing services, make an appointment, or drop the vehicle off for a period of time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. I am interested in an emissions testing system that provides automotive repair services at the same location where vehicles are tested.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. I would feel confident in my test results if my vehicle was repaired at the same facility where it is tested.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. I prefer the current testing system where you take your vehicle to a facility that only provides testing services, where no appointments are necessary, and where your vehicle is tested on a first-come, first-serve basis.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

 **Please turn over for more questions**

2952336099

For each of the following statements, please fill in the circle that best describes your opinion:

	Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
34. Vehicle emissions testing can help reduce air pollution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. Motor vehicles create more ozone pollution than industry.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. I am helping to reduce air pollution by having my vehicle E-Checked.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. The Ohio EPA is doing a good job of running the E-Check program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please answer some questions so we can compare your answers to those of others.

38. Your gender: Male Female

39. Your age: Less than 20 20-29 30-39 40-49 50-59 60-69 70+

40. Your total annual household income: Less than \$25,000 \$25,000-\$49,999 \$50,000-\$99,999 more than \$100,000

41. Your race (mark all that apply): White African - American Asian - American American Indian Latin American (Hispanic) Other _____

42. Are you... The vehicle owner A friend of the vehicle owner A relative of the vehicle owner Other _____

43. The adult in your home with the highest education has: Less than a high school diploma High school diploma Two-year degree Bachelor's degree Master's degree Professional/Doctoral degree

Comment Section: Please tell us which questions you are referring to:

Question # _____

Question # _____

Thank you for participating in the E-Check Customer Opinion Survey!

**Please return your completed survey within two weeks in the stamped addressed envelope to:
Ohio University-Voinovich School, Building 22-The Ridges, Athens, Ohio 45701**

Appendix II: 2011 E-Check Frequency Tables

1. Were you satisfied with your overall experience when you received your last E-Check test?

	All Zones			Zone 1		Zone 4	
	N	%	ME*	N	%	N	%
Yes	494	95.2%	1.8%	251	94.0%	243	96.4%
No	25	4.8%	1.8%	16	6.0%	9	3.6%
Total	519	100.0%		267	100.0%	252	100.0%

Before seeing this survey...

2. Were you aware that regular vehicle maintenance such as replacing air filters can improve your vehicle's gas mileage by as much as 10 percent and can save up to 34 cents per gallon?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	456	87.4%	2.8%	240	88.9%	216	85.7%
No	66	12.6%	2.8%	30	11.1%	36	14.3%
Total	522	100.0%		270	100.0%	252	100.0%

3. Were you aware that regular vehicle maintenance can increase your vehicle's engine life?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	518	99.2%	0.7%	267	98.9%	251	99.6%
No	4	0.8%	0.7%	3	1.1%	1	0.4%
Total	522	100.0%		270	100.0%	252	100.0%

4. Were you aware that with regular vehicle maintenance your vehicle is more likely to pass the emissions test?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	499	96.0%	1.7%	257	96.3%	242	95.7%
No	21	4.0%	1.7%	10	3.7%	11	4.3%
Total	520	100.0%		267	100.0%	253	100.0%

5. Were you aware of E-Check's toll-free information number, 1-800-CAR-TEST?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	134	25.7%	3.7%	70	26.0%	64	25.4%
No	387	74.3%	3.7%	199	74.0%	188	74.6%
Total	521	100.0%		269	100.0%	252	100.0%

6. Have you used the 1-800-CAR-TEST number to get information about the E-Check program?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	29	21.8%	7.0%	15	21.4%	14	22.2%
No	104	78.2%	7.0%	55	78.6%	49	77.8%
Total	133	100.0%		70	100.0%	63	100.0%

*ME=margin of error

7. Were you aware of the E-Check website www.ohiocheck.org?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	185	35.5%	4.1%	104	38.5%	81	32.3%
No	336	64.5%	4.1%	166	61.5%	170	67.7%
Total	521	100.0%		270	100.0%	251	100.0%

8. Have you visited the E-Check website to get information about the E-Check program?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	63	35.2%	7.0%	29	29.0%	34	43.0%
No	116	64.8%	7.0%	71	71.0%	45	57.0%
Total	179	100.0%		100	100.0%	79	100.0%

If yes, was it easy to find the information you needed on the website?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	58	95.1%	5.4%	26	92.9%	32	97.0%
No	3	4.9%	5.4%	2	7.1%	1	3.0%
Total	61	100.0%		28	100.0%	33	100.0%

If yes, was the information helpful?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	58	95.1%	5.4%	25	89.3%	33	100.0%
No	3	4.9%	5.4%	3	10.7%	0	0.0%
Total	61	100.0%		28	100.0%	33	100.0%

9. Did you contact any of these resources regarding your most recent test experience, or for assistance with E-Check?

I phoned 1-800-CAR-TEST

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	9	2.0%	1.3%	5	2.1%	4	1.8%
No	444	98.0%	1.3%	229	97.9%	215	98.2%
Total	453	100.0%		234	100.0%	219	100.0%

If yes, was it helpful?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	6	85.7%	25.9%	4	80.0%	2	100.0%
No	1	14.3%	25.9%	1	20.0%	0	0.0%
Total	7	100.0%		5	100.0%	2	100.0%

I visited an EPA office

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	18	4.0%	1.8%	12	5.0%	6	2.8%
No	437	96.0%	1.8%	226	95.0%	211	97.2%
Total	455	100.0%		238	100.0%	217	100.0%

If yes, was it helpful?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	14	93.3%	12.6%	9	100.0%	5	83.3%
No	1	6.7%	12.6%	0	0.0%	1	16.7%
Total	15	100.0%		9	100.0%	6	100.0%

I phoned Ohio EPA

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	6	1.3%	1.1%	4	1.7%	2	0.9%
No	444	98.7%	1.1%	230	98.3%	214	99.1%
Total	450	100.0%		234	100.0%	216	100.0%

If yes, was it helpful?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	4	100.0%	0.0%	2	100.0%	2	100.0%
No	0	0.0%	0.0%	0	0.0%	0	0.0%
Total	4	100.0%		2	100.0%	2	100.0%

I sent an e-mail to E-Check

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	0	0.0%	0.0%	0	0.0%	0	0.0%
No	447	100.0%	0.0%	232	100.0%	215	100.0%
Total	447	100.0%		232	100.0%	215	100.0%

If yes, was it helpful?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	0	0.0%	0.0%	0	0.0%	0	0.0%
No	0	0.0%	0.0%	0	0.0%	0	0.0%
Total	0	0.0%		0	0.0%	0	0.0%

10. Before having the initial E-Check test, did you have any repairs performed on your vehicle?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	56	10.9%	2.7%	28	10.5%	28	11.4%
No	457	89.1%	2.7%	239	89.5%	218	88.6%
Total	513	100.0%		267	100.0%	246	100.0%

10a. If yes, how much did you spend on emissions-related repairs before the initial test?

	All Zones			Zone 1		Zone 4	
	N			N		N	
Maximum	\$4,000			\$4,000		\$2,400	
Minimum	\$25			\$25		\$25	
Mean (average)	\$578			\$602		\$556	
Median	\$300			\$300		\$300	

11. Did your vehicle fail the initial E-Check test?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	28	5.5%	2.0%	15	5.7%	13	5.3%
No	483	94.5%	2.0%	249	94.3%	234	94.7%
Total	511	100.0%		264	100.0%	247	100.0%

11a. If yes, how much did you spend on the repairs for the retest?

	All Zones			Zone 1		Zone 4	
	N			N		N	
Maximum	\$1,200			\$780		\$1,200	
Minimum	\$26			\$26		\$100	
Mean (average)	\$390			\$391		\$388	
Median	\$320			\$350		\$216	

For statements 12-23, please think about your most recent E-Check experience:

12. The length of wait at the E-Check facility was too long.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	20	4.0%	1.7%	13	4.9%	7	2.9%
Agree	42	8.3%	2.4%	25	9.5%	17	7.0%
Disagree	272	53.8%	4.3%	136	51.7%	136	56.0%
Strongly disagree	172	34.0%	4.1%	89	33.8%	83	34.2%
Total	506	100.0%		263	100.0%	243	100.0%

13. The waiting area was clean.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	135	26.5%	3.8%	69	25.9%	66	27.2%
Agree	357	70.1%	3.8%	190	71.4%	167	68.7%
Disagree	14	2.8%	1.4%	6	2.3%	8	3.3%
Strongly disagree	3	0.6%	0.7%	1	0.4%	2	0.8%
Total	509	100.0%		266	100.0%	243	100.0%

14. The individuals conducting the test were polite.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	204	40.6%	4.3%	101	38.4%	103	42.9%
Agree	285	56.7%	4.3%	156	59.3%	129	53.8%
Disagree	10	2.0%	1.2%	5	1.9%	5	2.1%
Strongly disagree	4	0.8%	0.8%	1	0.4%	3	1.3%
Total	503	100.0%		263	100.0%	240	100.0%

15. The individuals conducting the test were helpful.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	164	33.1%	4.0%	76	29.1%	88	37.4%
Agree	297	59.9%	4.3%	167	64.0%	130	55.3%
Disagree	28	5.6%	2.0%	14	5.4%	14	6.0%
Strongly disagree	7	1.4%	1.0%	4	1.5%	3	1.3%
Total	496	100.0%		261	100.0%	235	100.0%

16. The individuals conducting the test knew how to do their job.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	188	38.8%	4.2%	85	33.9%	103	44.0%
Agree	284	58.6%	4.3%	158	62.9%	126	53.8%
Disagree	7	1.4%	1.0%	5	2.0%	2	0.9%
Strongly disagree	6	1.2%	0.9%	3	1.2%	3	1.3%
Total	485	100.0%		251	100.0%	234	100.0%

17. I was concerned my vehicle would be damaged during the E-Check process.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	17	3.4%	1.5%	12	4.7%	5	2.0%
Agree	45	8.9%	2.4%	28	10.9%	17	6.9%
Disagree	278	55.3%	4.3%	136	52.9%	142	57.7%
Strongly disagree	163	32.4%	4.0%	81	31.5%	82	33.3%
Total	503	100.0%		257	100.0%	246	100.0%

18. I would have liked a better explanation of what was happening to my vehicle during the testing.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	34	6.9%	2.1%	16	6.2%	18	7.6%
Agree	116	23.4%	3.6%	60	23.3%	56	23.5%
Disagree	259	52.2%	4.3%	136	52.7%	123	51.7%
Strongly disagree	87	17.5%	3.2%	46	17.8%	41	17.2%
Total	496	100.0%		258	100.0%	238	100.0%

19. Everything was explained well when I received my test results.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	97	19.4%	3.4%	51	19.8%	46	18.9%
Agree	280	55.9%	4.3%	142	55.3%	138	56.6%
Disagree	108	21.6%	3.5%	54	21.0%	54	22.1%
Strongly disagree	16	3.2%	1.5%	10	3.9%	6	2.5%
Total	501	100.0%		257	100.0%	244	100.0%

20. I believe the test results were accurate.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	132	27.8%	3.8%	62	25.0%	70	30.8%
Agree	321	67.6%	4.2%	173	69.8%	148	65.2%
Disagree	14	2.9%	1.4%	10	4.0%	4	1.8%
Strongly disagree	8	1.7%	1.1%	3	1.2%	5	2.2%
Total	475	100.0%		248	100.0%	227	100.0%

21. I was treated well by the individuals conducting the test.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	181	35.4%	4.1%	87	32.7%	94	38.2%
Agree	316	61.7%	4.2%	173	65.0%	143	58.1%
Disagree	11	2.1%	1.2%	5	1.9%	6	2.4%
Strongly disagree	4	0.8%	0.8%	1	0.4%	3	1.2%
Total	512	100.0%		266	100.0%	246	100.0%

22. The testing location was easy to find.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	166	32.2%	4.0%	77	28.7%	89	36.0%
Agree	310	60.2%	4.2%	178	66.4%	132	53.4%
Disagree	31	6.0%	2.0%	11	4.1%	20	8.1%
Strongly disagree	8	1.6%	1.1%	2	0.7%	6	2.4%
Total	515	100.0%		268	100.0%	247	100.0%

23. I was satisfied with my overall test experience.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	158	31.0%	4.0%	74	27.7%	84	34.6%
Agree	325	63.7%	4.2%	176	65.9%	149	61.3%
Disagree	16	3.1%	2.0%	10	3.7%	6	2.5%
Strongly disagree	11	2.2%	1.1%	7	2.6%	4	1.6%
Total	510	100.0%		267	100.0%	243	100.0%

Do you find the following E-Check requirements hard to understand...

24. E-Check vehicle testing standards (technical thresholds that determine pass/fail)?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	171	34.4%	4.2%	85	33.1%	86	35.8%
No	326	65.6%	4.2%	172	66.9%	154	64.2%
Total	497	100.0%		257	100.0%	240	100.0%

25. When my vehicle needs testing?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	83	16.5%	3.2%	45	17.1%	38	15.9%
No	419	83.5%	3.2%	218	82.9%	201	84.1%
Total	502	100.0%		263	100.0%	239	100.0%

26. Why my vehicle needs testing?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	162	32.5%	4.1%	93	35.6%	69	29.0%
No	337	67.5%	4.1%	168	64.4%	169	71.0%
Total	499	100.0%		261	100.0%	238	100.0%

27. Why E-Check testing is not done statewide?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	302	60.2%	4.3%	154	58.6%	148	61.9%
No	200	39.8%	4.3%	109	41.4%	91	38.1%
Total	502	100.0%		263	100.0%	239	100.0%

28. E-Check exemptions and extensions?

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Yes	225	45.8%	4.4%	112	43.6%	113	48.3%
No	266	54.2%	4.4%	145	56.4%	121	51.7%
Total	491	100.0%		257	100.0%	234	100.0%

In some states, motorists can choose to have their emissions testing take place at facilities such as E-Check that exclusively conduct emissions testing, or at authorized automotive repair stations. Please give us your opinion regarding these testing options.

29. I am interested in an emissions testing system that provides more testing locations at authorized automotive repair stations and the current E-Check Stations.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	33	6.5%	2.1%	16	6.1%	17	6.9%
Agree	78	15.3%	3.1%	33	12.5%	45	18.4%
Neutral	209	41.1%	4.3%	111	42.0%	98	40.0%
Disagree	105	20.6%	3.5%	55	20.8%	50	20.4%
Strongly disagree	84	16.5%	3.2%	49	18.6%	35	14.3%
Total	509	100.0%		264	100.0%	245	100.0%

30. I am interested in an emissions testing system that provides testing locations at authorized automotive repair stations, even if I may have to wait to receive testing services, make an appointment, or drop the vehicle off for a period of time.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	15	3.0%	1.5%	10	3.8%	5	2.0%
Agree	40	7.9%	2.3%	17	6.5%	23	9.4%
Neutral	118	23.2%	3.7%	57	21.7%	61	24.9%
Disagree	177	34.8%	4.1%	91	34.6%	86	35.1%
Strongly disagree	158	31.1%	4.0%	88	33.5%	70	28.6%
Total	508	100.0%		263	100.0%	245	100.0%

31. I am interested in an emissions testing system that provides automotive repair services at the same location where vehicles are tested.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	14	2.8%	1.4%	8	3.0%	6	2.4%
Agree	85	16.7%	3.2%	43	16.3%	42	17.1%
Neutral	159	31.2%	4.0%	73	27.8%	86	35.0%
Disagree	139	27.3%	3.9%	77	29.3%	62	25.2%
Strongly disagree	112	22.0%	3.6%	62	23.6%	50	20.3%
Total	509	100.0%		263	100.0%	246	100.0%

32. I would feel confident in my test results if my vehicle was repaired at the same facility where it is tested.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	13	2.6%	1.4%	8	3.0%	5	2.0%
Agree	81	15.9%	3.2%	36	13.7%	45	18.3%
Neutral	164	32.2%	4.0%	85	32.3%	79	32.1%
Disagree	136	26.7%	3.6%	68	25.9%	68	27.6%
Strongly disagree	115	22.6%	3.6%	66	25.1%	49	19.9%
Total	509	100.0%		263	100.0%	246	100.0%

33. I prefer the current testing system where you take your vehicle to a facility that only provides testing services, where no appointments are necessary, and where your vehicle is tested on a first-come first-serve basis.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	171	33.5%	4.1%	83	31.4%	88	35.8%
Agree	192	37.6%	4.2%	102	38.6%	90	36.6%
Neutral	106	20.8%	3.5%	53	20.1%	53	21.5%
Disagree	20	3.9%	1.7%	10	3.8%	10	4.1%
Strongly disagree	21	4.1%	1.7%	16	6.1%	5	2.0%
Total	510	100.0%		264	100.0%	246	100.0%

For each of the following statements, please fill the circle that best describes your opinion:

34. Vehicle emissions testing can help reduce air pollution.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	97	21.4%	3.3%	45	19.3%	52	23.5%
Agree	261	57.5%	4.3%	130	55.8%	131	59.3%
Disagree	61	13.4%	2.8%	37	15.9%	24	10.9%
Strongly disagree	35	7.7%	2.2%	21	9.0%	14	6.3%
Total	454	100.0%		233	100.0%	221	100.0%

35. Motor vehicles create more ozone pollution than industry.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	28	8.6%	2.0%	10	5.9%	18	11.5%
Agree	115	35.4%	3.6%	59	34.9%	56	35.9%
Disagree	126	38.8%	3.7%	66	39.1%	60	38.5%
Strongly disagree	56	17.2%	2.7%	34	20.1%	22	14.1%
Total	325	100.0%		169	100.0%	156	100.0%

36. I am helping to reduce air pollution by having my vehicle E-Checked.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	60	13.9%	2.8%	21	9.5%	39	18.5%
Agree	258	59.7%	4.4%	130	58.8%	128	60.7%
Disagree	73	16.9%	3.1%	42	19.0%	31	14.7%
Strongly disagree	41	9.5%	2.4%	28	12.7%	13	6.2%
Total	432	100.0%		221	100.0%	211	100.0%

37. The Ohio EPA is doing a good job of running the E-Check program.

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Strongly Agree	68	16.3%	2.9%	27	12.4%	41	20.4%
Agree	272	65.1%	4.3%	136	62.7%	136	67.7%
Disagree	49	11.7%	2.5%	35	16.1%	14	7.0%
Strongly disagree	29	6.9%	2.0%	19	8.8%	10	5.0%
Total	418	100.0%		217	100.0%	201	100.0%

Please answer some questions so we can compare your answers to those of others.

38. Your gender:

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Male	274	55.9%		146	56.8%	128	54.9%
Female	216	44.1%		111	43.2%	105	45.1%
Total	490	100.0%		257	100.0%	233	100.0%

39. Your age:

	All Zones			Zone 1		Zone 4	
	N	%	ME	N	%	N	%
Less than 20	1	0.2%		1	0.4%	0	0.0%
20-29	18	3.5%		13	4.9%	5	2.0%
30-39	46	8.9%		25	9.3%	21	8.5%
40-49	80	15.6%		41	15.3%	39	15.9%
50-59	149	29.0%		77	28.7%	72	29.3%
60-69	124	24.1%		66	24.6%	58	23.6%
70 or older	96	18.7%		45	16.8%	51	20.7%
Total	514	100.0%		268	100.0%	246	100.0%

40. Your total annual household income:

	All Zones			Zone 1		Zone 4	
	N	%		N	%	N	%
Less than \$25,000	54	12.4%		31	14.0%	23	10.8%
\$25,000-\$49,999	131	30.2%		65	29.3%	66	31.1%
\$50,000-\$99,999	165	38.0%		87	39.2%	78	36.8%
More than \$100,000	84	19.4%		39	17.6%	45	21.2%
Total	434	100.0%		222	100.0%	212	100.0%

41. Your race:

	All Zones			Zone 1		Zone 4	
	N	%		N	%	N	%
White	436	88.1%		246	95.7%	190	79.8%
African-American	42	8.5%		6	2.3%	36	15.1%
Asian-American	10	2.0%		4	1.6%	6	2.5%
American Indian	5	1.0%		4	1.6%	1	0.4%
Latin American	8	1.6%		2	0.8%	6	2.5%
Other	4	0.8%		3	1.2%	1	0.4%

Total does not equal 100 percent because respondents were allowed to select all that apply.

42. Are you . . .

	All Zones			Zone 1		Zone 4	
	N	%		N	%	N	%
The vehicle owner	477	94.3%		245	93.5%	232	95.1%
Relative of vehicle owner	27	5.3%		16	6.1%	11	4.5%
Friend of vehicle owner	0	0.0%		0	0.0%	0	0.0%
Other	2	0.4%		1	0.4%	1	0.4%
Total	506	100.0%		262	100.0%	244	100.0%

43. The adult in your home with the highest education has:

	All Zones			Zone 1		Zone 4	
	N	%		N	%	N	%
Less than a high school diploma	7	1.4%		4	1.6%	3	1.3%
High school diploma	164	33.3%		91	35.7%	73	30.8%
Two-year degree	71	14.4%		40	15.7%	31	13.1%
Bachelor's degree	132	26.8%		63	24.7%	69	29.1%
Master's degree	85	17.3%		42	16.5%	43	18.1%
Professional/doctoral degree	33	6.7%		15	5.9%	18	7.6%
Total	492	100.0%		255	100.0%	237	100.0%



OHIO UNIVERSITY

**Voinovich School of
Leadership and Public Affairs**

**Building 21, The Ridges
Athens, OH 45701-2979**

**T: 740.593.9381
F: 740.593.4393**