Online Appendix: Not for Publication

Are Consumers Poorly Informed about Fuel Economy? Evidence from Two Experiments

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A Data Appendix

A.A Dealership and Online Survey Data

Basic data cleaning steps for dealership data included the following:

- Some survey observations were test cases. We removed these from the tablet app data by inspecting comments by RAs or respondent names for words such as "test" or "fake."
- The follow-up phone survey was delivered twice to some households. In these cases, we kept the more complete observation, or if both were equally complete, one of the repeated observations was randomly chosen.
- Some people provided a range of numbers for expected fuel costs on the follow-up phone survey. In these cases, we used the midpoint of the range.

In the follow-up surveys for both experiments, some people reported a new vehicle purchased that had the same make, model, and model year as their current vehicle in the baseline survey; these cases were coded as not having purchased new cars.

There are a limited number of apparently careless survey responses, in particular for the stated preference results for the online survey the fuel cost belief data from both surveys. We cleaned these in the following ways:

- We dropped all gasoline price expectations of less than \$1 or greater than or equal to \$10 per gallon.
- We dropped all expected annual miles driven less than 1,000 or greater than 75,000.
- We dropped all expected vehicle annual fuel costs less than \$100 if the respondent reported expecting to drive 2,000 or more miles per year.
- We dropped several common patterns of careless responses, for example writing that annual maintenance, insurance, and fuel costs would all equal \$X per year, with \$X$\leq$10.

A.B Fuel Economy, Census, and National Household Travel Survey Data

We use the official EPA vehicle-level fuel economy data available from www.fueleconomy.gov/feg/download.shtml. Vehicles reported in the survey were matched to vehicles in the EPA data based on manufacturer, year, and model name as well as secondary characteristics such as fuel type, transmission, engine size and number of cylinders. If one or more of the secondary characteristics were missing, creating possible matches to more than one vehicle in the EPA data, we used the average fuel economy rating of all such possible matches.

At baseline, individuals report miles they expect to drive and the proportion of city vs. highway driving. Combining these self-reported city/highway proportions with fuel economy numbers from the EPA data, we computed average fuel economy and fuel intensity (defined as inverse of fuel economy) for each person-car combination in the data.

We gathered median income and median education for each respondent's zip code from the 2014 American Community Survey (ACS) 5-year estimates. Mean imputation was used to impute missing values of these and other covariates used in the regressions.

National average covariates in Table 1 were estimated from the 2009 National Household Transportation Survey (NHTS). We define a new car buyer as a household having bought a vehicle with model year 2008 or 2009. Individuals less than 22 years old were dropped while calculating the average household age for it to be closer to that of the household head's. Annual miles driven are from the BESTMILE variable. The NHTS reports "unadjusted" combined fuel economy, which we adjusted using the scaling factors in Table 10.1 of EPA (2016).

B Treatment Effects on Beliefs, and Beliefs as a Moderator

Does the information treatment make consumers' fuel cost beliefs more accurate? And do baseline beliefs moderate the effects of information on purchased vehicle fuel economy? This appendix explores these questions using the online experiment data. We cannot do parallel analyses for the dealership experiment because we did not elicit control group baseline beliefs.[20]

We consider two classes of belief errors: systematic bias (i.e. the extent to which the same person tends to have relatively high or relatively low valuation ratios ϕ_i across multiple surveys), and belief noise (i.e. the magnitude of $|\phi_i - 1|$). As discussed in Section III.B, the survey reports (and thus the valuation ratios we construct) are likely a combination of consumers' actual beliefs plus some survey measurement error. Appendix Table A6, Panel (b), separates the former from the latter by demonstrating the correlation in these two types of belief errors across the baseline and endline surveys. Column 2 of that table quantifies systematic bias that persists across surveys: people with ϕ_{12} one unit higher (lower) at baseline have ϕ_{12} an average of 0.145 units higher (lower) at follow-up. Column 4 of that table quantifies the persistence of noisy beliefs: people with $|\phi_i - 1|$ one unit higher (lower) at baseline have $|\phi_i - 1|$ an average of 0.093 units higher (lower) at follow-up. If the treatment information makes beliefs more accurate, it will reduce these correlations between baseline and follow-up belief errors.

Appendix Table A1 tests the extent to which the treatment reduces these correlations. Column

[20] We did not want to meaningfully draw attention to fuel costs in the control group. Because the online survey could involve more questions, we asked the above question to both treatment and control, but obscured the importance of fuel costs by also asking parallel questions about insurance and maintenance. Because customers were more hurried in the dealerships, such additional questions were not practical, so we elicited fuel cost beliefs from the treatment group only, at the beginning of the treatment intervention.

1 repeats the estimate from column 2 of Appendix Table A6, Panel (b), except adding the treatment indicator and its interaction with the baseline valuation ratio. The estimates are imprecise: we cannot reject that the treatment more than doubles, or fully reverses, the 0.145 coefficient relating baseline and follow-up beliefs.

Column 2 tests whether the treatment reduces belief noise $|\phi_i - 1|$, repeating the estimate from column 4 of Appendix Table A6, Panel (b), except again adding the treatment indicator and its interaction with baseline belief noise. In this column, we again cannot reject that the treatment more than doubles, or fully reverses, the 0.093 coefficient relating baseline and follow-up beliefs.

Columns 3 and 4 present comparable regressions, except with purchased vehicle fuel intensity as the dependent variable. Here again, we have imprecise zeros, where we cannot reject that the treatment fully eliminates the extent to which baseline belief errors predict purchases.

In summary, it is not possible to infer whether the treatment makes fuel cost beliefs meaningfully more precise, or whether baseline beliefs meaningfully moderate the treatment effect.

Table A1: **Effects on Beliefs, and Beliefs as a Moderator**

	(1) Valuation ratio: purchased - 2nd choice	(2) Abs. belief error: purchased - 2nd choice	(3) Purchased vehicle fuel intensity	(4) Purchased vehicle fuel intensity
Treatment × valuation ratio: 1st - 2nd choice	0.09		0.00	
	(0.09)		(0.05)	
Treatment × abs. belief error: 1st - 2nd choice		0.01		0.00
		(0.09)		(0.04)
Treatment	0.04	-0.03	0.02	0.03
	(0.09)	(0.13)	(0.05)	(0.07)
Valuation ratio: 1st - 2nd choice	0.08		-0.04	
	(0.07)		(0.04)	
Abs. belief error: 1st - 2nd choice		0.08		-0.02
		(0.07)		(0.03)
N	1,035	1,127	1,230	1,343
R^2	0.04	0.04	0.40	0.40
Dependent variable mean	0.69	1.33	4.08	4.08

Notes: Columns 1 and 3 exclude observations with negative valuation ratios at baseline or endline. The dependent variable in columns 3 and 4 is purchased vehicle fuel intensity (in gallons per 100 miles). Valuation ratios are winsorized to the range $-1 \leq \phi \leq 4$. All columns control for gender, age, race, natural log of income, miles driven per year, an indicator for whether the current vehicle is a Ford, current vehicle fuel intensity, consideration set average fuel intensity, and treatment group closure time indicators. Robust standard errors are in parentheses.

C Proof of Proposition 1

We first derive the socially optimal price of fuel economy credits. A necessary condition for the socially optimal credit price t^* is that $\frac{dW(t)}{dt} = 0$. Taking this first-order condition, we have

$$\begin{aligned}\frac{dW(t)}{dt} &= \underbrace{\sum_l \sum_j \left[\frac{dP_{lj}(t,\mathbf{b}_l)}{dt} te_j + e_j P_{lj}(t,\mathbf{b}_l)\right]}_{\textit{Change in credit revenue}} \\ &\quad \underbrace{- \sum_l \sum_j e_j P_{lj}(t,\mathbf{b}_l)}_{\textit{Change in perceived CS}} \\ &\quad \underbrace{+ \sum_l \sum_j b_{lj} G_{lj} \frac{dP_{lj}(t,\mathbf{b}_l)}{dt}}_{\textit{Change in bias}}. \end{aligned} \tag{6}$$

Re-arranging gives

$$t \cdot \sum_l \sum_j \frac{dP_{lj}(t,\mathbf{b}_l)}{dt} e_j = -\sum_l \sum_j b_{lj} G_{lj} \frac{dP_{lj}(t,\mathbf{b}_l)}{dt},$$

and re-arranging further gives

$$t^* = \frac{-\sum_l \sum_j \frac{dP_{lj}}{dt} b_{lj} G_{lj}}{\sum_l \sum_j \frac{dP_{lj}}{dt} e_{lj}}. \tag{7}$$

The numerator is the average bias (in dollar terms), weighted by the demand slopes. The denominator translates this average marginal bias from units of dollars to units of dollars per unit fuel intensity. The result that the optimal internality tax equals the average marginal internality parallels the Diamond (1973) result that the optimal externality tax equals the average marginal externality.

To see this most clearly, imagine that all consumers undervalue fuel costs by the same proportion, so $b_{lj} = b < 0$. Further imagine that $G_{lj} = \chi e_j$, where χ reflects discount rates and driving patterns and is constant across consumers. Then the optimal credit price is just $t^* = -b\chi$ per unit of fuel intensity, i.e. a tax that exactly offsets the bias in evaluating each vehicle.

Using this result, we now derive Proposition 1. In the text, we defined the effect of a pure nudge $Q \equiv \sum_l \sum_j e_j \left[P_{lj}(0,\mathbf{0}) - P_{lj}(0,\mathbf{b}_l)\right]$ and the stringency of the fuel economy standard $S(t) \equiv \sum_l \sum_j e_j \left[P_{lj}(t,\mathbf{b}_l) - P_{lj}(0,\mathbf{b}_l)\right]$. Further define $\Lambda_{lj} \equiv \exp\left(\eta_l(-e_j t^* - b_{lj} G_{lj})\right)$ for all vehicles ($j \geq 1$), and $\Lambda_{l0} = 0$ for the outside option ($j = 0$). Intuitively, Λ_{lj} is the "mistargeting" of the second-best policy: the value (in exponentiated utils) of the distortion between the credit price for vehicle

j, which is $e_j t^*$, and the bias that it is intended to offset, which is $b_{lj} G_{lj}$.

If b and χ are homogeneous, then $t^* = -b\chi$, so $-e_j t^* - b_{lj} G_{lj} = e_j b\chi - b\chi e_j = 0$, and thus $\Lambda_{lj} = 1$. (Intuitively, when bias (in dollar terms) is homogeneous, a fuel economy standard that imposes a uniform credit price has no mistargeting.) Therefore,

$$\sum_l \sum_j e_j P_{lj}(t, \mathbf{b}_l) = \sum_l \frac{\sum_j e_j \exp(V_{lj}(0,\mathbf{0})) \cdot \Lambda_{lj}}{\sum_j \exp(V_{lj}(0,\mathbf{0})) \cdot \Lambda_{lj}} = \sum_l \frac{\sum_j e_j \exp(V_{lj}(0,\mathbf{0}))}{\sum_j \exp(V_{lj}(0,\mathbf{0}))} = \sum_l \sum_j e_j P_{lj}(0,\mathbf{0}) \tag{8}$$

We thus have $S(t^*) = \sum_l \sum_j e_j \left[P_{lj}(t, \mathbf{b}_l) - P_{lj}(0, \mathbf{b}_l)\right] = \sum_l \sum_j e_j \left[P_{lj}(0,\mathbf{0}) - P_{lj}(0, \mathbf{b}_l)\right] = Q$, which proves Proposition 1.

Proposition 1 also holds if the following orthogonality conditions hold across all vehicles j, within all types l: $Cov\left(e_j \exp(V_{lj}(0,\mathbf{0})), \Lambda_{lj}\right) = 0$ and $Cov\left(\exp(V_{lj}(0,\mathbf{0}), \Lambda_{lj}\right) = 0$. Intuitively, these conditions require that the mistargeting of the second best policy Λ_{lj} is unrelated to fuel intensity e_j and true preferences $V_{lj}(0,\mathbf{0})$. Under these conditions, the second equality in Equation (8) holds because

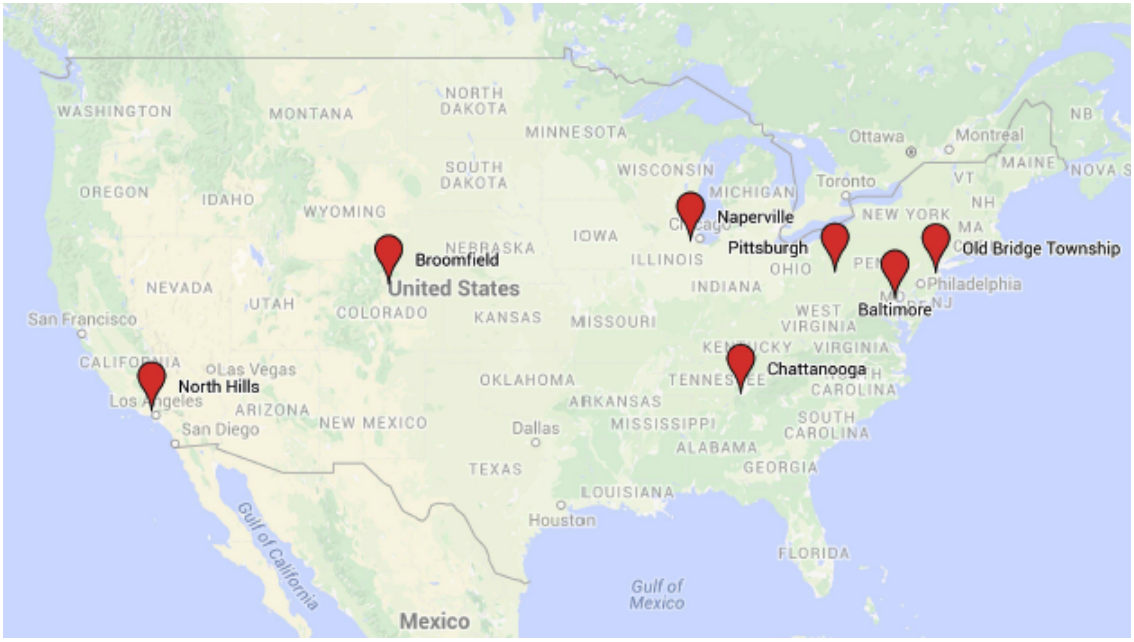
$$\sum_l \frac{\sum_j e_j \exp(V_{lj}(0,\mathbf{0})) \cdot \Lambda_{lj}}{\sum_j \exp(V_{lj}(0,\mathbf{0})) \cdot \Lambda_{lj}} = \sum_l \frac{\left[\sum_j e_j \exp(V_{lj}(0,\mathbf{0}))\right] \cdot \left[\sum_j \Lambda_{lj}\right] + J^2 Cov\left(e_j \exp(V_{lj}(0,\mathbf{0})), \Lambda_{lj}\right)}{\left[\sum_j \exp(V_{lj}(0,\mathbf{0}))\right] \cdot \left[\sum_j \Lambda_{lj}\right] + J^2 Cov\left(\exp(V_{lj}(0,\mathbf{0}), \Lambda_{lj}\right)} \tag{9}$$

$$= \sum_l \frac{\left[\sum_j e_j \exp(V_{lj}(0,\mathbf{0}))\right] \cdot \left[\sum_j \Lambda_{lj}\right]}{\left[\sum_j \exp(V_{lj}(0,\mathbf{0}))\right] \cdot \left[\sum_j \Lambda_{lj}\right]} = \sum_l \frac{\sum_j e_j \exp(V_{lj}(0,\mathbf{0}))}{\sum_j \exp(V_{lj}(0,\mathbf{0}))}, \tag{10}$$

where the equality between the first and second lines holds due to the orthogonality conditions.

D Appendix Tables and Figures

Figure A1: **Ford Dealership Experiment Locations**



Notes: This map shows the locations of the seven Ford dealerships in the dealership information provision experiment.

Table A2: **Treatment Group Balance on Observables**

	Treatment	Control	Difference
Male	0.57	0.59	-0.01
	(0.01)	(0.01)	(0.02)
Age	40.20	40.02	0.18
	(0.37)	(0.37)	(0.53)
White	0.69	0.71	-0.02
	(0.01)	(0.01)	(0.02)
Income ($000s)	72.26	73.04	-0.78
	(0.79)	(0.78)	(1.11)
Miles driven/year (000s)	14.64	15.37	-0.72
	(0.36)	(0.48)	(0.61)
Current vehicle is Ford	0.35	0.37	-0.01
	(0.02)	(0.01)	(0.02)
Current fuel intensity (gallons/100 miles)	4.66	4.77	-0.11
	(0.04)	(0.04)	(0.05)
Consideration set fuel intensity (gallons/100 miles)	4.26	4.38	-0.12
	(0.04)	(0.04)	(0.05)
p-value of F-test of joint significance		0.18	
N	958	1,031	1,989

(a) **Dealership Experiment**

	Treatment	Control	Difference
Male	0.56	0.57	-0.01
	(0.01)	(0.01)	(0.01)
Age	54.52	54.49	0.03
	(0.23)	(0.27)	(0.36)
White	0.84	0.83	0.00
	(0.01)	(0.01)	(0.01)
Income ($000s)	110.57	117.49	-6.92
	(1.83)	(2.89)	(3.26)
Miles driven/year (000s)	11.48	11.54	-0.06
	(0.13)	(0.17)	(0.21)
Current vehicle is Ford	0.12	0.11	0.00
	(0.01)	(0.01)	(0.01)
Current fuel intensity (gallons/100 miles)	4.61	4.61	0.00
	(0.02)	(0.02)	(0.03)
Consideration set fuel intensity (gallons/100 miles)	4.15	4.13	0.03
	(0.01)	(0.02)	(0.02)
p-value of F-test of joint significance		0.27	
N	3,771	2,545	6,316

(b) **Online Experiment**

Notes: These tables present tests of balance between treatment and control groups in the dealership and online experiments. In each case, the sample is the set of observations that were allocated to treatment or control. The bottom row reports the p-value of an F-test of a regression of the treatment indicator on all covariates. Standard errors in parentheses.

Table A3: **Attrition by Treatment Condition**

	(1) Dealership	(2) Online
Treatment	0.001	0.016
	(0.018)	(0.011)
N	1,989	6,316
R^2	0.00	0.02
Dependent variable mean	0.81	0.76

Notes: This table presents regressions of an attrition indicator variable on the treatment indicator variable, in the sample of valid observations that were allocated to treatment or control. Estimates with the online experiment data also include treatment group closure time indicators. Robust standard errors are in parentheses.

Table A4: **Tests of Differential Attrition from Treatment vs. Control by Baseline Covariates**

	(1) Dealership	(2) Online
Male	-0.050	-0.053
	(0.027)	(0.018)
Age	-0.003	0.000
	(0.001)	(0.001)
White	-0.056	-0.021
	(0.029)	(0.023)
ln(Income)	-0.028	-0.038
	(0.038)	(0.011)
Miles driven/year (000s)	-0.000	-0.000
	(0.001)	(0.001)
Current vehicle is Ford	-0.021	-0.023
	(0.026)	(0.029)
Current fuel intensity (gallons/100 miles)	0.007	0.009
	(0.011)	(0.009)
Consideration set fuel intensity (gallons/100 miles)	0.004	-0.010
	(0.012)	(0.011)
Treatment × Male	0.020	0.027
	(0.040)	(0.023)
Treatment × Age	0.003	-0.000
	(0.002)	(0.001)
Treatment × White	-0.011	-0.014
	(0.043)	(0.029)
Treatment × ln(Income)	0.051	0.019
	(0.053)	(0.015)
Treatment × Miles driven/year (000s)	0.000	-0.001
	(0.001)	(0.001)
Treatment × Current vehicle is Ford	0.008	0.022
	(0.039)	(0.036)
Treatment × Current fuel intensity (gallons/100 miles)	0.000	-0.006
	(0.016)	(0.012)
Treatment × Consideration set fuel intensity (gallons/100 miles)	-0.012	0.000
	(0.017)	(0.014)
N	1,989	6,316
R^2	0.01	0.03
Dependent variable mean	0.81	0.76
p-value (joint significance of Treatment × Baseline covariates)	0.77	0.84

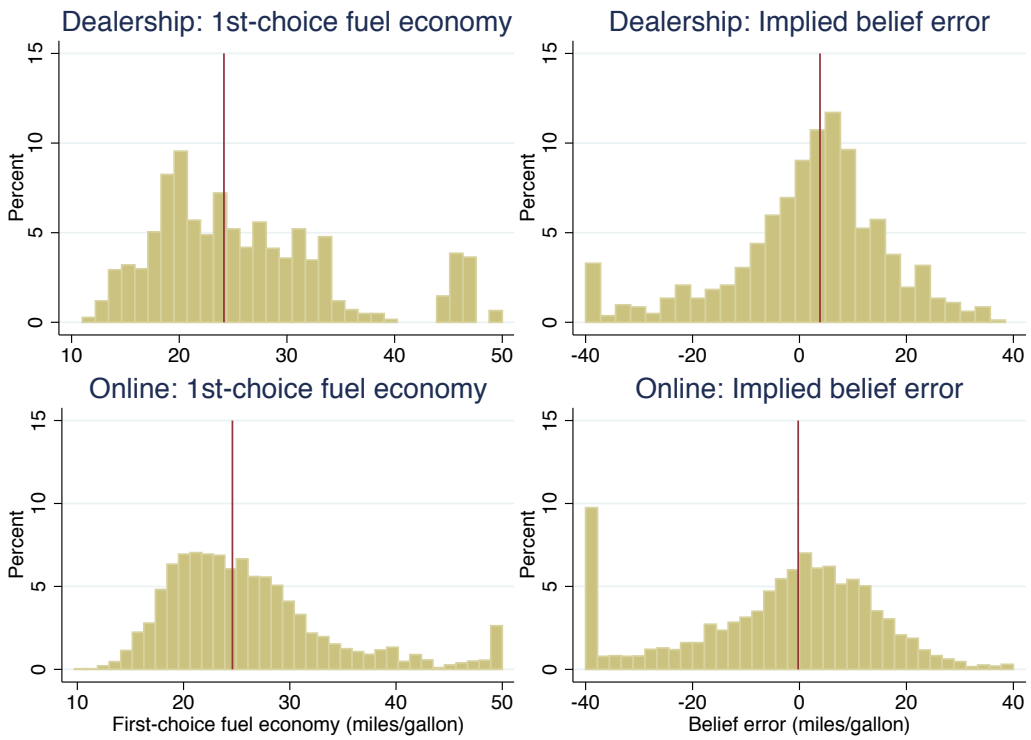
Notes: This table presents regressions of an attrition indicator variable on the treatment indicator variable and interactions with baseline covariates, in the sample of valid observations that were allocated to treatment or control. Estimates with the online experiment data also include treatment group closure time indicators. Robust standard errors are in parentheses.

Table A5: **Tests of Differential Attrition by Baseline Covariates**

	(1) Dealership	(2) Online
Male	-0.041	-0.038
	(0.020)	(0.011)
Age	-0.001	0.000
	(0.001)	(0.000)
White	-0.061	-0.029
	(0.022)	(0.015)
ln(Income)	-0.004	-0.028
	(0.026)	(0.007)
Miles driven/year (000s)	-0.000	-0.000
	(0.001)	(0.001)
Current vehicle is Ford	-0.017	-0.008
	(0.019)	(0.018)
Current fuel intensity (gallons/100 miles)	0.007	0.005
	(0.008)	(0.006)
Consideration set fuel intensity (gallons/100 miles)	-0.003	-0.009
	(0.009)	(0.007)
N	1,989	6,316
R^2	0.01	0.02
Dependent variable mean	0.81	0.76

Notes: This table presents regressions of an attrition indicator variable on baseline covariates, in the sample of valid observations that were allocated to treatment or control. Estimates with the online experiment data also include treatment group closure time indicators. Robust standard errors are in parentheses.

Figure A2: **Heterogeneity in Vehicles Considered, and Belief Errors in MPG Units**



Notes: The left two histograms present the distributions of fuel economy for consumers' first-choice vehicles. The right two histograms present the implied belief error between the first- and second-choice vehicles—that is, the error in perceived first-choice MPG that would explain the discrepancy between reported and true fuel cost differences between the first- and second-choice vehicles. Outlying observations are collapsed into the outermost bars.

Table A6: **Are Elicited Beliefs Meaningful?**

	(1) Valuation ratio: purchased	(2) Valuation ratio: purchased - 2nd choice	(3) Purchased vehicle fuel intensity	(4) Abs. belief error: purchased - 2nd choice
Valuation ratio: 1st choice	0.541			
	(0.128)			
Valuation ratio: 1st - 2nd choice		0.248	0.134	
		(0.181)	(0.157)	
Valuation ratio: purchased - 2nd choice			-0.169	
			(0.113)	
Abs. belief error: 1st - 2nd choice				0.240
				(0.175)
N	127	44	44	59
R^2	0.28	0.05	0.04	0.04
Dependent variable mean	0.96	1.03	4.17	1.78

(a) **Dealership Experiment**

	(1) Valuation ratio: purchased	(2) Valuation ratio: purchased - 2nd choice	(3) Purchased vehicle fuel intensity	(4) Abs. belief error: purchased - 2nd choice
Valuation ratio: 1st choice	0.395			
	(0.034)			
Valuation ratio: 1st - 2nd choice		0.145	-0.040	
		(0.045)	(0.034)	
Valuation ratio: purchased - 2nd choice			-0.094	
			(0.026)	
Abs. belief error: 1st - 2nd choice				0.094
				(0.047)
N	1,255	925	925	1,127
R^2	0.18	0.01	0.02	0.01
Dependent variable mean	1.07	0.88	4.06	1.33

(b) **Online Experiment**

Notes: In column 1, valuation ratios are the ratio of perceived to actual annual fuel cost, calculated using Equation (1). In columns 2 and 3, valuation ratios are the ratio of perceived to annual fuel cost differences between the two vehicles, calculated using Equation (2). In column 4, the absolute belief error is the absolute value of the valuation ratio (from Equation (2)) minus one. Columns 2 and 3 exclude observations with negative valuation ratios. Valuation ratios are winsorized to the range $-1 \leq \phi \leq 4$. Robust standard errors are in parentheses.

Table A7: **Table 3, Panel (a), Including Coefficients on Covariates**

	(1) Power	(2) Fuel economy	(3) Price	(4) Leather interior	(5) Sunroof
Treatment	-0.04	-0.56	-0.24	-0.06	0.10
	(0.06)	(0.06)	(0.05)	(0.09)	(0.08)
Male	0.07	-0.59	-0.33	0.05	0.01
	(0.07)	(0.06)	(0.05)	(0.09)	(0.08)
Age	-0.00	-0.00	-0.01	0.01	-0.02
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
White	-0.46	-0.26	-0.13	-0.52	-0.55
	(0.09)	(0.08)	(0.07)	(0.11)	(0.11)
ln(Income)	0.11	-0.43	-0.46	0.83	0.32
	(0.05)	(0.04)	(0.04)	(0.06)	(0.06)
Miles driven/year (000s)	0.01	0.00	-0.00	0.01	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Current vehicle is Ford	-0.07	0.10	0.11	-0.27	-0.32
	(0.10)	(0.09)	(0.08)	(0.13)	(0.13)
Current fuel intensity (gallons/100 miles)	0.09	0.06	0.07	0.04	-0.03
	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Consideration set fuel intensity (gallons/100 miles)	0.33	-0.49	-0.12	0.41	0.19
	(0.04)	(0.03)	(0.03)	(0.05)	(0.04)
N	5,036	5,036	5,036	5,036	5,036
R^2	0.04	0.13	0.06	0.07	0.04
Dependent variable mean	6.62	7.68	8.31	4.65	3.80

Notes: This table presents estimates of Equation (3). The table parallels Panel (a) of Table 3, except also reporting the coefficients on all covariates. The dependent variables are responses to the question, "How important to you are each of the following features? (Please rate from 1-10, with 10 being "most important.)" Data are from the online experiment, immediately after the treatment and control interventions. All columns control for treatment group closure time indicators. Robust standard errors are in parentheses.

Table A8: **Table 3, Panel (b), Including Coefficients on Covariates**

	(1) Leather interior	(2) 5 MPG improvement	(3) 15 MPG improvement	(4) Power: 0-60 MPH 1 second faster
Treatment	4.49	-92.18	-237.96	16.89
	(16.77)	(15.81)	(35.14)	(19.35)
Male	14.00	36.10	122.09	116.47
	(16.65)	(15.88)	(35.01)	(19.38)
Age	-1.25	-6.31	-16.20	-6.37
	(0.64)	(0.60)	(1.36)	(0.82)
White	-75.49	-5.92	90.28	-157.05
	(24.82)	(23.52)	(50.18)	(35.81)
ln(Income)	146.31	73.21	187.55	36.91
	(11.93)	(10.90)	(24.96)	(14.14)
Miles driven/year (000s)	3.85	4.15	10.65	2.41
	(1.18)	(1.09)	(2.89)	(0.94)
Current vehicle is Ford	-35.59	43.05	38.27	-3.59
	(23.76)	(25.03)	(51.89)	(33.70)
Current fuel intensity (gallons/100 miles)	-0.40	9.16	21.32	-6.05
	(8.49)	(8.12)	(18.10)	(10.00)
Consideration set fuel intensity (gallons/100 miles)	53.07	19.64	26.23	51.78
	(9.86)	(8.13)	(18.77)	(11.06)
N	4,609	4,512	4,512	4,609
R^2	0.06	0.06	0.07	0.05
Dependent variable mean	380	409	1043	242

Notes: This table presents estimates of Equation (3). The table parallels Panel (b) of Table 3, except also reporting the coefficients on all covariates. Dependent variables are responses to the question, "Imagine we could take your most likely choice, the [first choice vehicle], and change it in particular ways, keeping everything else about the vehicle the same. How much additional money would you be willing to pay for the following?" In both panels, the feature is listed in the column header. Data are from the online experiment, immediately after the treatment and control interventions. All columns control for treatment group closure time indicators. Robust standard errors are in parentheses.

Table A9: **Table 3, Panel (c), Including Coefficients on Covariates**

	(1) Expected fuel intensity (gallons/100 miles)
Treatment	-0.032
	(0.004)
Male	0.013
	(0.005)
Age	-0.000
	(0.000)
White	-0.008
	(0.006)
ln(Income)	0.007
	(0.006)
Miles driven/year (000s)	-0.000
	(0.000)
Current vehicle is Ford	0.003
	(0.007)
Current fuel intensity (gallons/100 miles)	0.003
	(0.003)
Consideration set fuel intensity (gallons/100 miles)	0.985
	(0.005)
N	5,018
R^2	0.97
Dependent variable mean	4.12

Notes: This table presents estimates of Equation (3). The table parallels Panel (c) of Table 3, except also reporting the coefficients on all covariates. The dependent variable is the weighted average fuel intensity (in gallons per 100 miles) of the two vehicles in the consideration set, weighted by post-intervention stated purchase probability. Data are from the online experiment, immediately after the treatment and control interventions. All columns control for treatment group closure time indicators. Robust standard errors are in parentheses.

Table A10: **Separate Estimates of Effects for Each of the Four Online Treatments**

	(1) Stated preference	(2) Purchased vehicle
Base Only	-0.028	0.001
	(0.007)	(0.063)
Base + Relative	-0.026	0.037
	(0.009)	(0.065)
Base + Climate	-0.034	0.122
	(0.007)	(0.059)
All	-0.040	-0.055
	(0.008)	(0.070)
N	5,018	1,489
R^2	0.97	0.39
Dependent variable mean	4.08	4.09
p-value(Treatment effects equal)	0.54	0.12
p-value(Treatment effects equal 0)	0.00	0.16

Notes: This table presents estimates of Equation (3), with separate treatment indicators for each of the four online treatment groups. In column 1, the dependent variable is the weighted average fuel intensity (in gallons per 100 miles) of the two vehicles in the consideration set, weighted by post-intervention stated purchase probability. In column 2, the dependent variable is weighted average fuel intensity of the vehicle the consumer actually purchased, using data from the follow-up survey. Both columns control for gender, age, race, natural log of income, miles driven per year, an indicator for whether the current vehicle is a Ford, current vehicle fuel intensity, consideration set average fuel intensity, and treatment group closure time indicators. Robust standard errors are in parentheses.

Table A11: **Effects of Information on Annual Fuel Cost of Purchased Vehicles**

	(1)	(2)	(3)	(4)	(5)	(6)
		Dealership			Online	
Treatment	32.1	80.0	6.2	37.5	24.9	-17.3
	(151.8)	(65.5)	(95.9)	(50.8)	(25.9)	(42.1)
N	371	371	371	1,444	1,444	1,444
R^2	0.00	0.81	0.85	0.00	0.78	0.84
Dependent variable mean	2398	2398	2398	1467	1467	1467
Controls	No	Yes	Yes	No	Yes	Yes
Weighted	No	No	Yes	No	No	Yes
90% confidence interval lower bound	-218.4	-28.0	-152.1	-46.3	-17.9	-86.9

Notes: This table presents estimates of Equation (3). The dependent variable is the fuel cost (in dollars per year) of the vehicle purchased, given the fuel economy ratings and consumers' self-reported miles driven, city vs. highway share, and per-gallon gasoline price. All columns control for gender, age, race, natural log of income, miles driven per year, an indicator for whether the current vehicle is a Ford, current vehicle fuel intensity, and consideration set average fuel intensity. Columns 4-6 also control for treatment group closure time indicators. Samples in columns 3 and 6 are weighted to match the national population of new car buyers.

Are Consumers Poorly-Informed about Fuel Economy? Evidence from Two Experiments

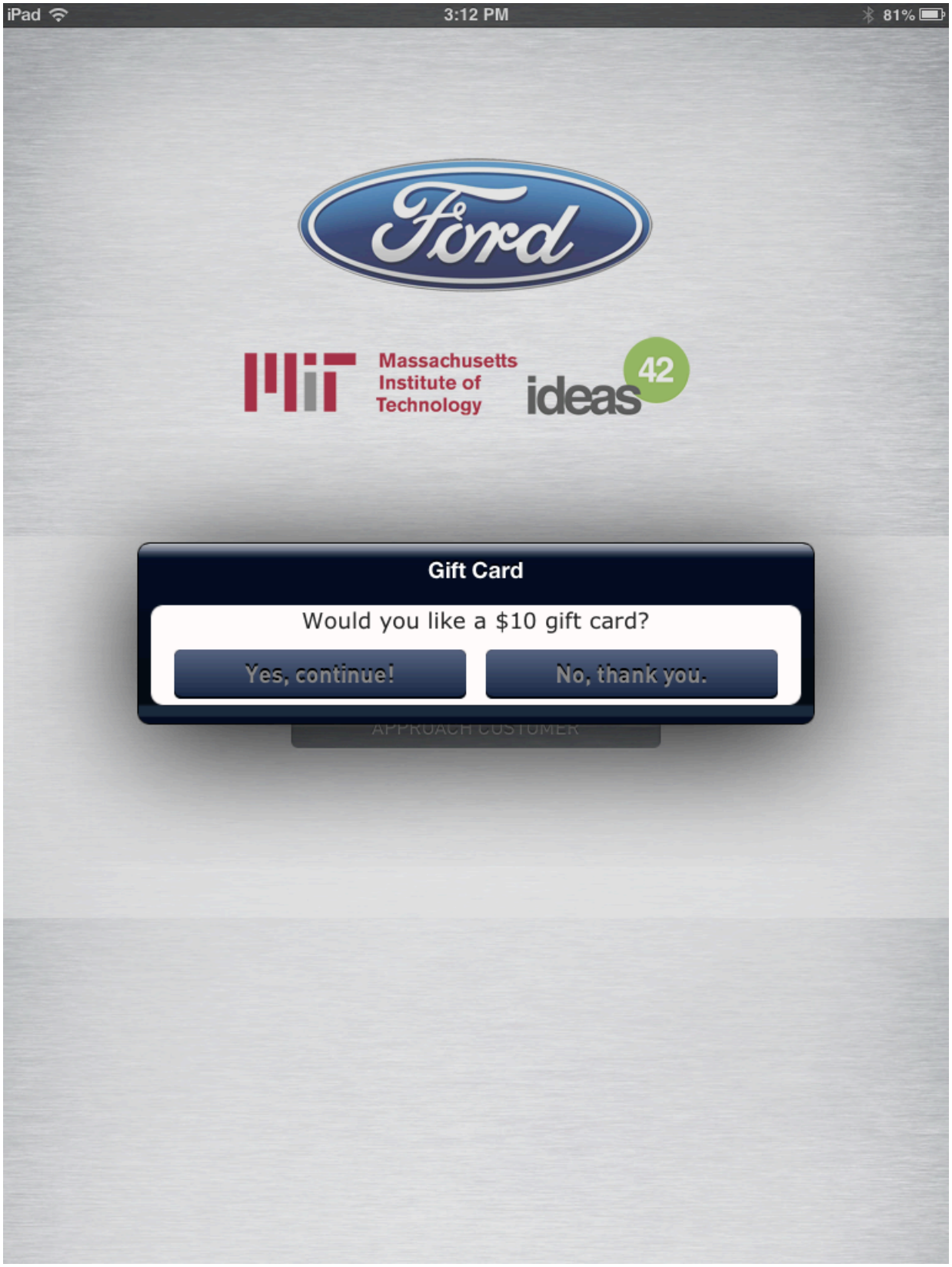
Hunt Allcott and Christopher Knittel

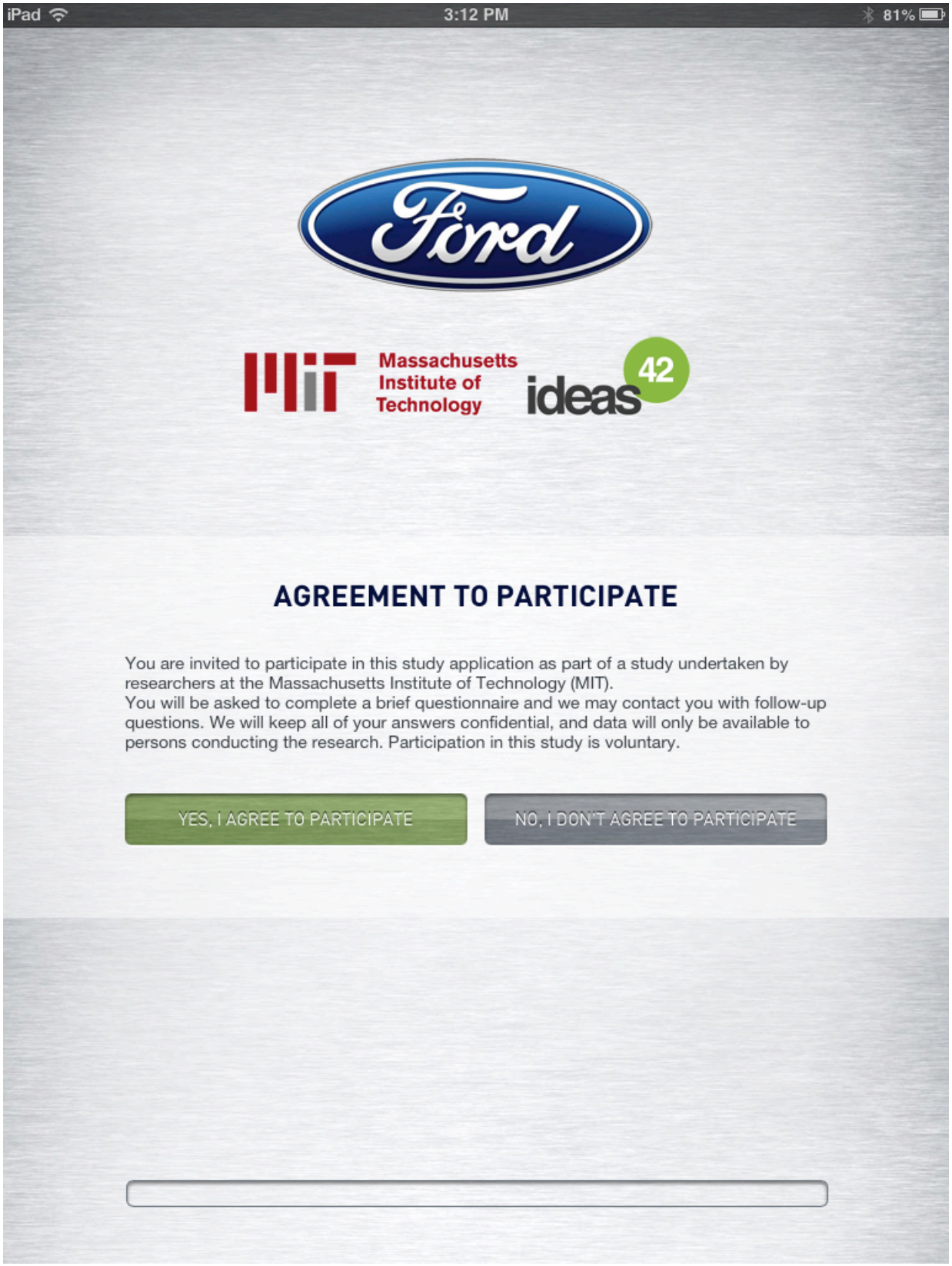
January 13, 2017

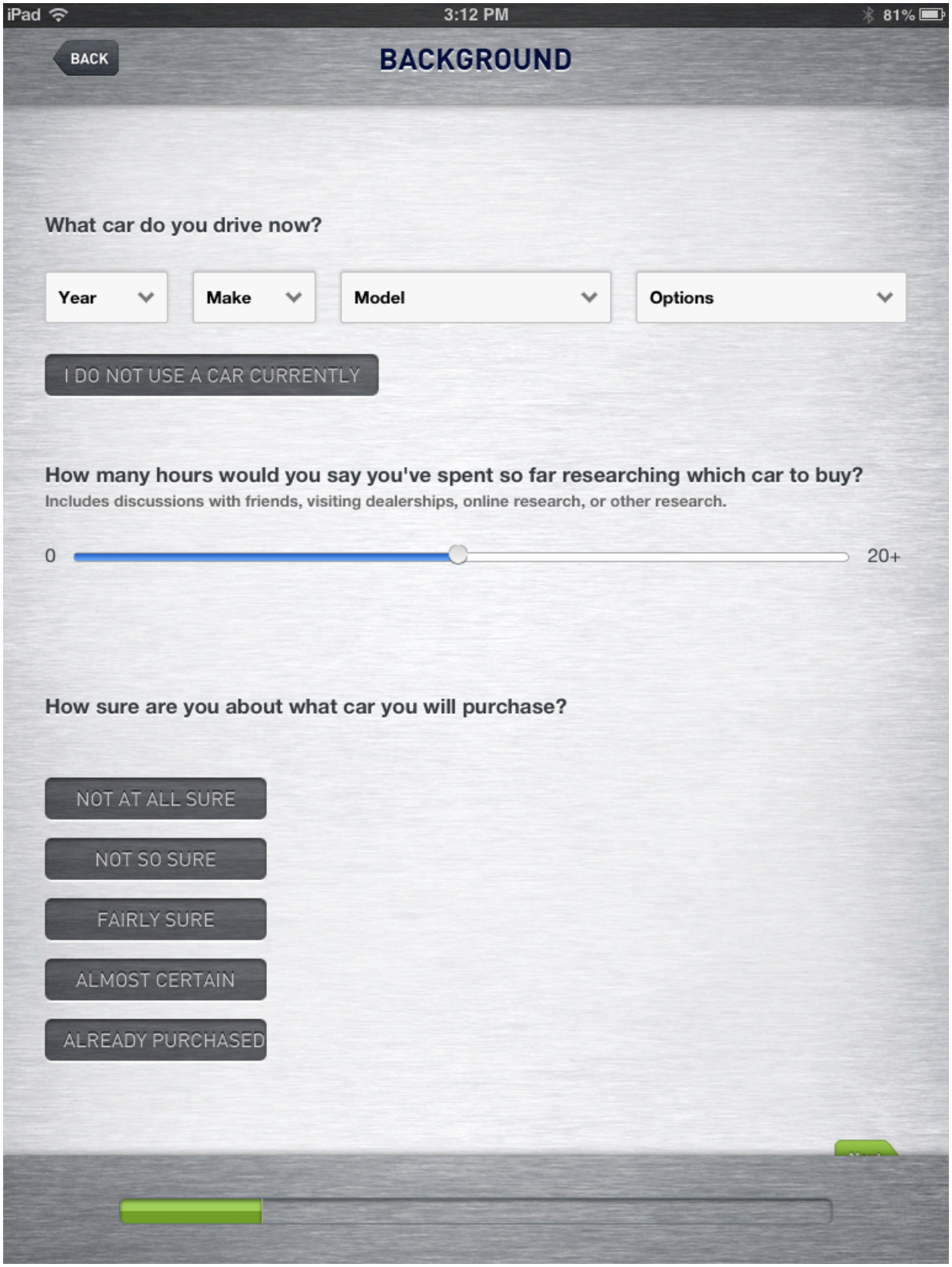
Abstract

This online appendix presents screen shots from the dealership and online interventions

I Dealership Experiment Screen Shots


iPad
3:12 PM
81%
Massachusetts
Institute of
Technology
ideas 42
Gift Card
Would you like a $10 gift card?
Yes, continue!
No, thank you.


iPad
3:12 PM
81%
Massachusetts Institute of Technology
ideas 42
AGREEMENT TO PARTICIPATE
You are invited to participate in this study application as part of a study undertaken by researchers at the Massachusetts Institute of Technology (MIT).
You will be asked to complete a brief questionnaire and we may contact you with follow-up questions. We will keep all of your answers confidential, and data will only be available to persons conducting the research. Participation in this study is voluntary.
YES, I AGREE TO PARTICIPATE
NO, I DON'T AGREE TO PARTICIPATE


iPad
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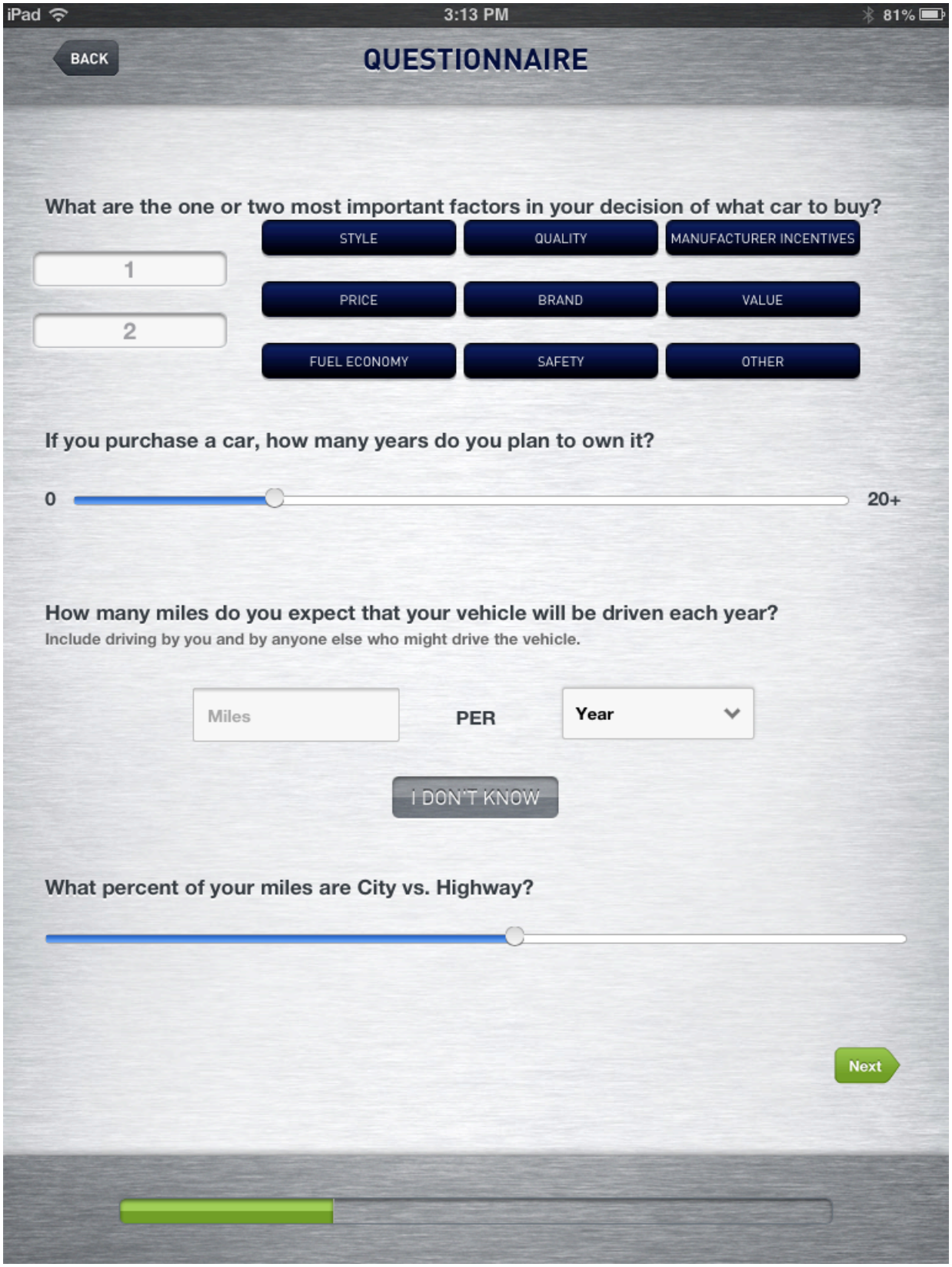
81%
BACK
BACKGROUND
What car do you drive now?
Year
Make
Model
Options
I DO NOT USE A CAR CURRENTLY
How many hours would you say you've spent so far researching which car to buy?
Includes discussions with friends, visiting dealerships, online research, or other research.
0
20+
How sure are you about what car you will purchase?
NOT AT ALL SURE
NOT SO SURE
FAIRLY SURE
ALMOST CERTAIN
ALREADY PURCHASED


iPad
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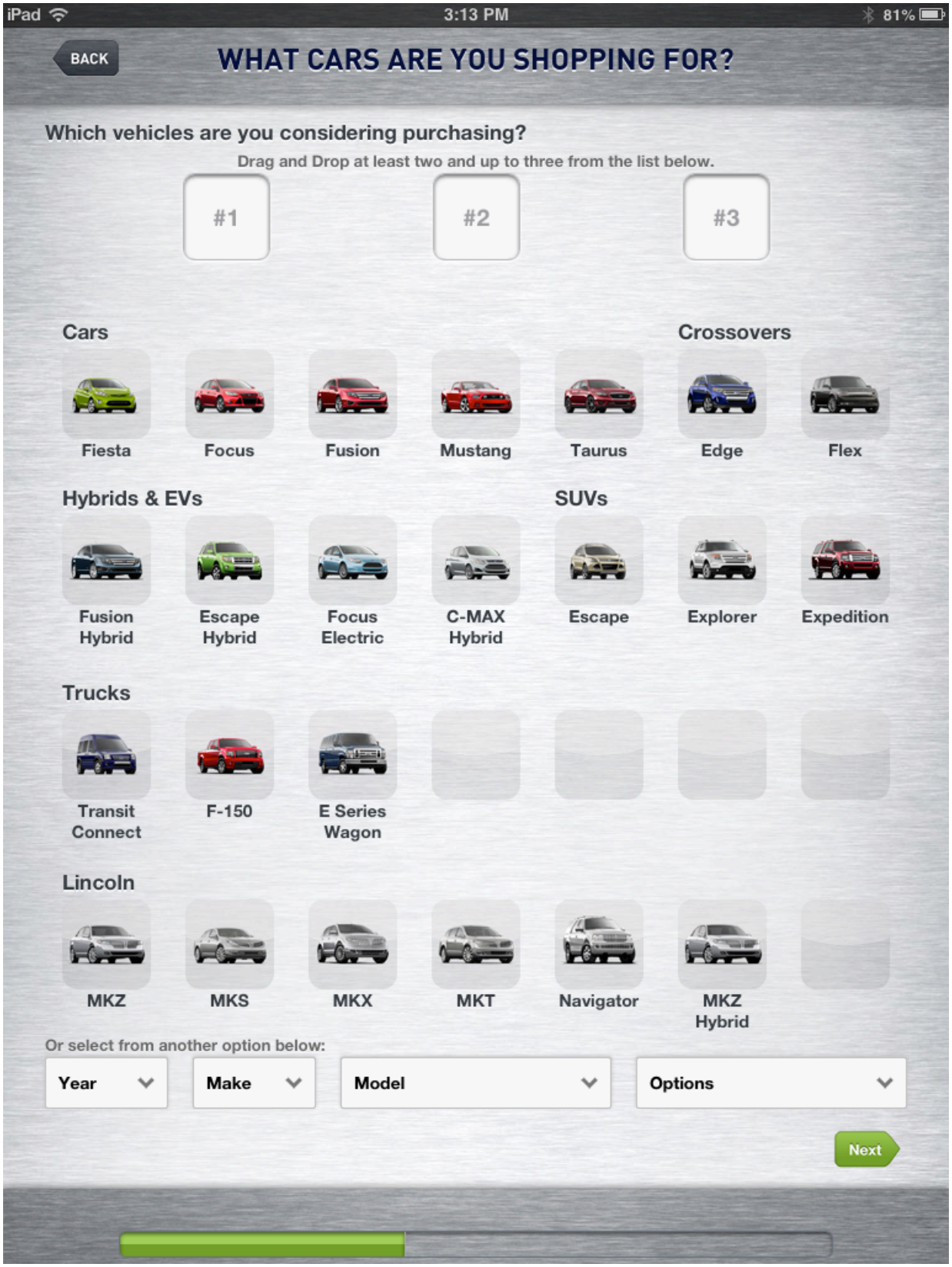
81%
BACK
QUESTIONNAIRE
What are the one or two most important factors in your decision of what car to buy?
1
2
STYLE
QUALITY
MANUFACTURER INCENTIVES
PRICE
BRAND
VALUE
FUEL ECONOMY
SAFETY
OTHER
If you purchase a car, how many years do you plan to own it?
0
20+
How many miles do you expect that your vehicle will be driven each year?
Include driving by you and by anyone else who might drive the vehicle.
Miles
PER
Year
I DON'T KNOW
What percent of your miles are City vs. Highway?
Next


iPad
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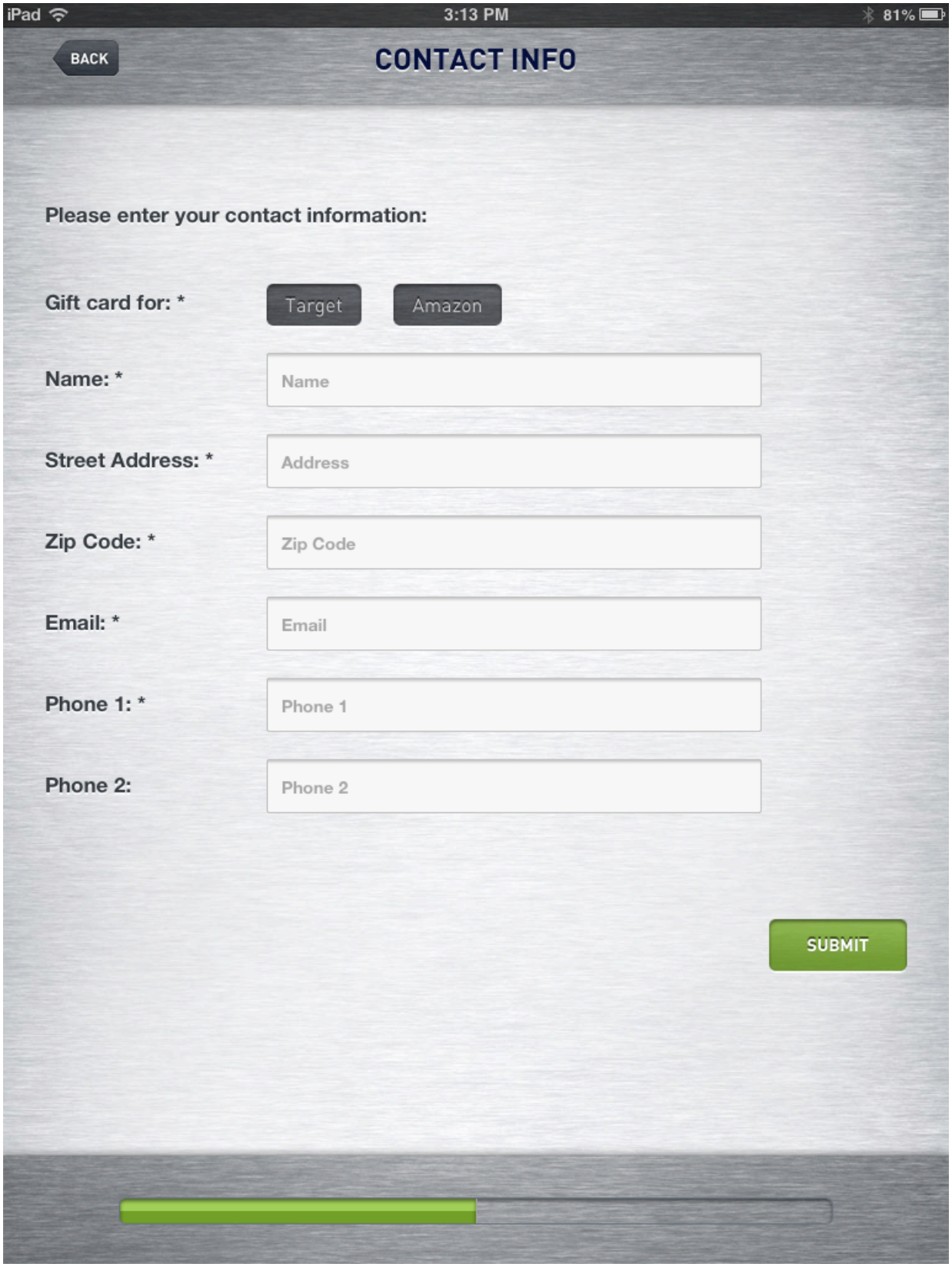
81%
BACK
WHAT CARS ARE YOU SHOPPING FOR?
Which vehicles are you considering purchasing?
Drag and Drop at least two and up to three from the list below.
#1
#2
#3
Cars
Crossovers
Fiesta
Focus
Fusion
Mustang
Taurus
Edge
Flex
Hybrids & EVs
SUVs
Fusion Hybrid
Escape Hybrid
Focus Electric
C-MAX Hybrid
Escape
Explorer
Expedition
Trucks
Transit Connect
F-150
E Series Wagon
Lincoln
MKZ
MKS
MKX
MKT
Navigator
MKZ Hybrid
Or select from another option below:
Year
Make
Model
Options
Next


iPad
3:13 PM
81%
BACK
CONTACT INFO
Please enter your contact information:
Gift card for: *
Target
Amazon
Name: *
Name
Street Address: *
Address
Zip Code: *
Zip Code
Email: *
Email
Phone 1: *
Phone 1
Phone 2:
Phone 2
SUBMIT

iPad 3:14 PM 80%

BACK

FUEL COSTS

What do you expect will be the cost of a gallon of regular gas? 3.744

How much money do you think will be spent to buy gas for each vehicle every week?

Include money spent by you or anyone else on gas for your vehicle. (Give your best guess.)

Fiesta

$

Taurus

$

Edge

$

Next, think about two individuals, both of whom are considering upgrading their vehicles:

LOW MPG PAIR
Old Vehicle: **12 MPG**
New Vehicle: **14 MPG**

HIGH MPG PAIR
Old Vehicle: **22 MPG**
New Vehicle: **24 MPG**

Would you expect there to be a difference in fuel cost savings between the individuals? No difference?

A. PERSON 2 (22 --> 24) WOULD SAVE MORE MONEY

B. PERSONS 1 AND 2 WOULD SAVE ABOUT THE SAME AMOUNT

C. PERSON 1 (12 --> 14) WOULD SAVE MORE MONEY

D. PERSON 1 (12 --> 14) WOULD SAVE 3 TIMES AS MUCH MONEY

SUBMIT


iPad
3:14 PM
80%
BACK
FUEL COSTS
What do you expect will be the cost of a gallon of regular gas?
3.744
How much money do you think will be spent to buy gas for each vehicle every week?
Back
Miles per Gallon can be confusing!
The person switching from 12 MPG to 14 MPG would save three times more money than the person switching from 22 MPG to 24 MPG.
12 MPG avg. annual costs: $4,688
14 MPG avg. annual costs: $4,018
PERSON 1's savings: 12 to 14 MPG: $670
22 MPG avg. annual costs: $2,557
24 MPG avg. annual costs: $2,344
PERSON 2's savings: 22 to 24 MPG: $213
12 MPG
14 MPG
22 MPG
24 MPG
One complete line equals $500 in annual fuel costs (estimated)
That's why we're giving you information about fuel economy in terms of how much you'll pay each year, for every option you're considering.
Okay
C. PERSON 1 (12 --> 14) WOULD SAVE MORE MONEY
D. PERSON 1 (12 --> 14) WOULD SAVE 3 TIMES AS MUCH MONEY
SUBMIT

iPad 3:15 PM 80%

BACK

FUEL ECONOMY CALCULATOR

Fuel costs of the car options you were considering, at $3.74 per gallon:

	ANNUAL FUEL COSTS (Savings)	LIFETIME FUEL COSTS
CURRENT VEHICLE 2010 Ford Crown Victoria Ffv Auto 4-spd 8-cyl 4.6L	$2,000 ($0)	$20,579
 **VEHICLE #1** 2013 Ford Fiesta FWD Auto 6-spd 4-cyl 1.6L	$1,156 ($844)	$11,890
 **VEHICLE #2** 2013 Ford Taurus AWD Auto 6-spd 6-cyl 3.5L	$1,807 ($193)	$18,593
 **VEHICLE #3** 2013 Ford Edge AWD Auto 6-spd 6-cyl 3.7L	$1,966 ($34)	$20,233

It will save you $844 each year in fuel costs to drive a Ford Fiesta FWD compared to a Ford Crown Victoria Ffv.

A Ford Fiesta FWD will save you $8,689 over its lifetime compared to a Ford Crown Victoria Ffv.

That's the same as it would cost for:

17.4 iPads

8.7 Tickets to Hawaii

174 Pairs of Levi's Jeans

iPad 3:15 PM 80%

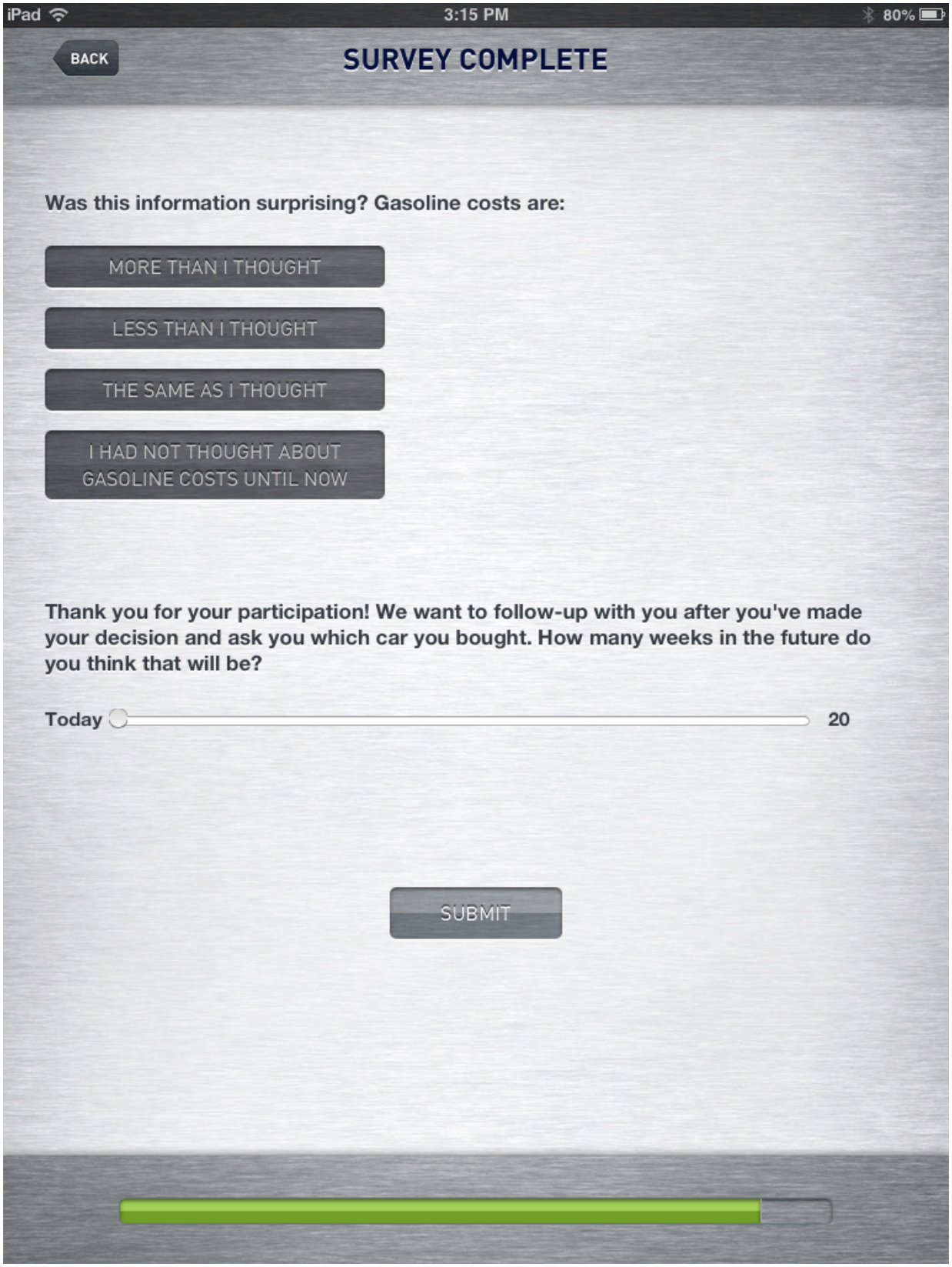
BACK

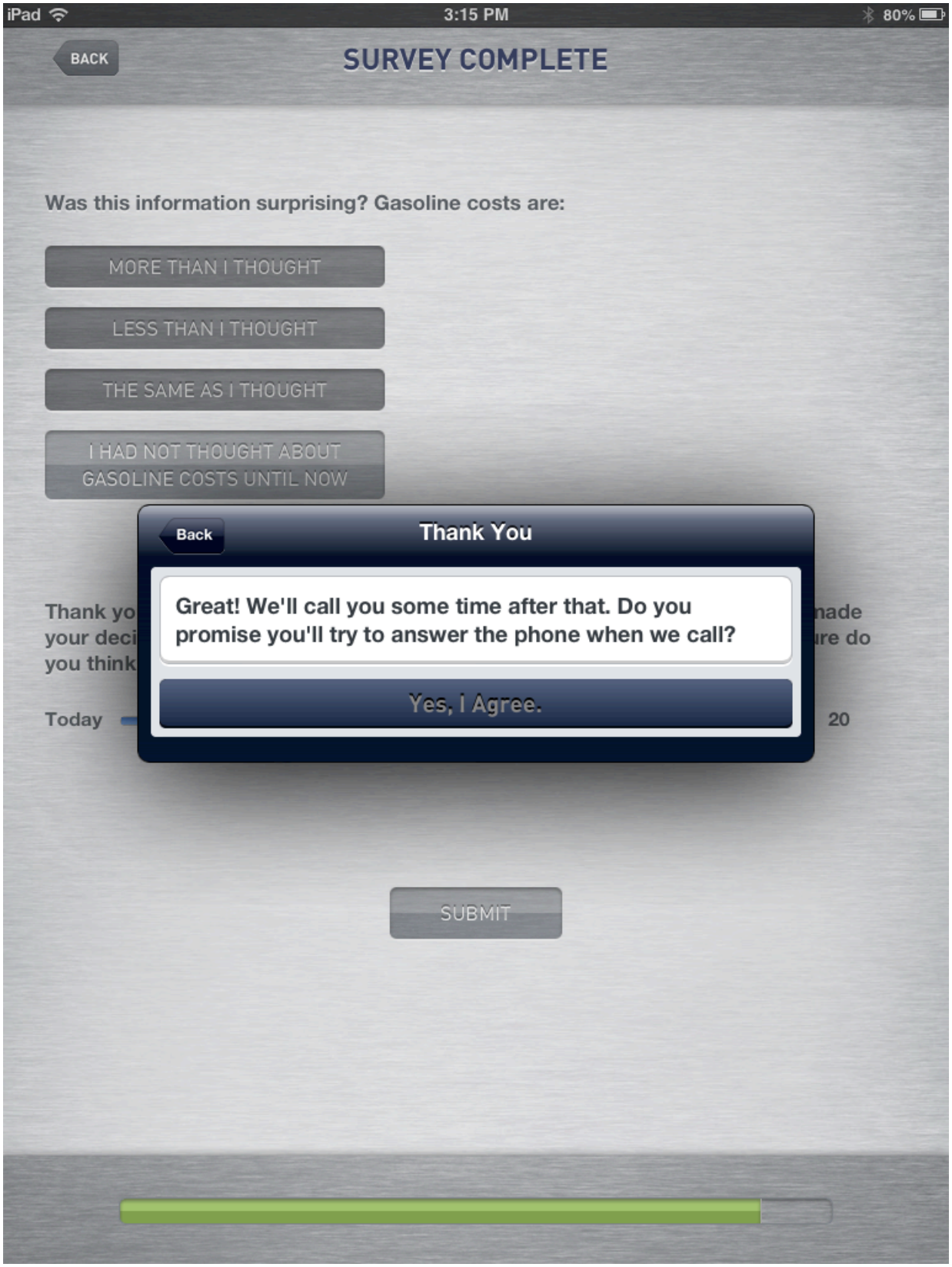
FUEL CALCULATOR DETAILS BY MODEL

Fuel costs can vary a lot within models.

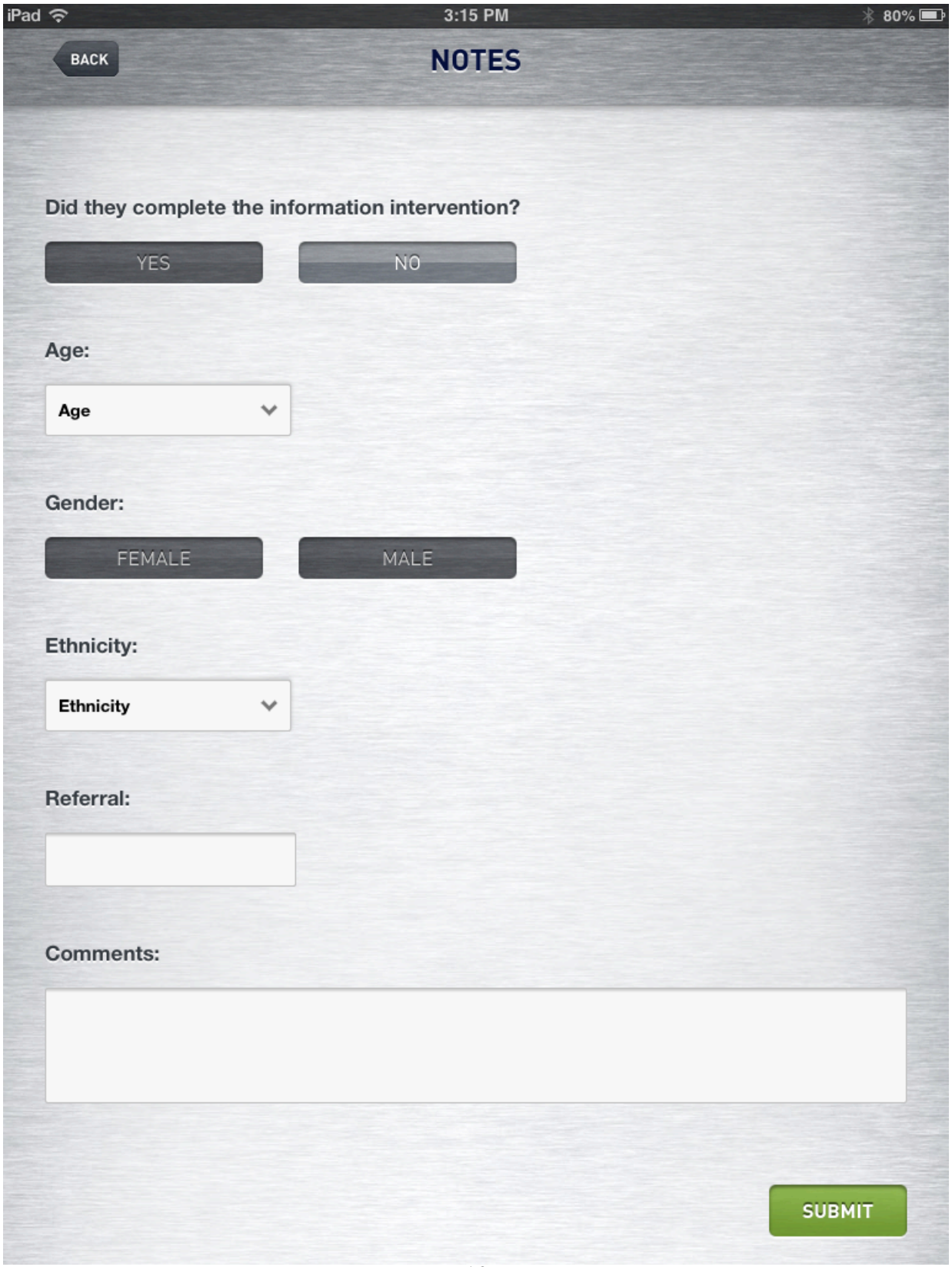
		ANNUAL FUEL COSTS	LIFETIME FUEL COSTS
#1 	2013 Ford Fiesta SFE FWD Auto 6-spd 4-cyl 1.6L	$1,144	$11,767
	2013 Ford Fiesta FWD Manual 5-spd 4-cyl 1.6L	$1,156	$11,890
	2013 Ford Fiesta FWD Auto 6-spd 4-cyl 1.6L	$1,156	$11,890
#2 	2013 Ford Taurus FWD EcoBoost Auto 6-spd 4-cyl 2L	$1,474	$15,167
	2013 Ford Taurus FWD Flex Fuel Auto 6-spd 6-cyl 3.5L	$1,671	$17,198
	2013 Ford Taurus FWD Auto 6-spd 6-cyl 3.5L	$1,671	$17,198
	2013 Ford Taurus AWD Flex Fuel Auto 6-spd 6-cyl 3.5L	$1,807	$18,593
	2013 Ford Taurus AWD Auto 6-spd 6-cyl 3.5L	$1,807	$18,593
#3 	2013 Ford Edge FWD EcoBoost Auto 6-spd 4-cyl 2L	$1,556	$16,012
	2013 Ford Edge FWD Auto 6-spd 6-cyl 3.5L	$1,724	$17,737
	2013 Ford Edge FWD Auto 6-spd 6-cyl 3.7L	$1,751	$18,019
	2013 Ford Edge AWD Auto 6-spd 6-cyl 3.5L	$1,837	$18,903
	2013 Ford Edge AWD Auto 6-spd 6-cyl 3.7L	$1,966	$20,233

PRINT RECEIPT SUBMIT


iPad
3:15 PM
80%
BACK
SURVEY COMPLETE
Was this information surprising? Gasoline costs are:
MORE THAN I THOUGHT
LESS THAN I THOUGHT
THE SAME AS I THOUGHT
I HAD NOT THOUGHT ABOUT GASOLINE COSTS UNTIL NOW
Thank you for your participation! We want to follow-up with you after you've made your decision and ask you which car you bought. How many weeks in the future do you think that will be?
Today
20
SUBMIT


iPad
3:15 PM
80%
BACK
SURVEY COMPLETE
Was this information surprising? Gasoline costs are:
MORE THAN I THOUGHT
LESS THAN I THOUGHT
THE SAME AS I THOUGHT
I HAD NOT THOUGHT ABOUT GASOLINE COSTS UNTIL NOW
Back
Thank You
Great! We'll call you some time after that. Do you promise you'll try to answer the phone when we call?
Yes, I Agree.
Today
20
SUBMIT

I.A RA Notes Screen



Note: The research assistant filled out this screen after every completion or refusal.

I.B Attachment to Follow-Up Email

Ford/MIT/Ideas42 survey - ShowFuelEconomyCalculator TreatmentInfo

FUEL ECONOMY CALCULATOR

Fuel costs of the car options you were considering, at $4.00 per gallon:

	ANNUAL FUEL COSTS (Savings)	LIFETIME FUEL COSTS
CURRENT VEHICLE 2005 Dodge Neon/Srt-4/Sx 2.0 Auto 4-spd 4-cyl 2L	$1,569 ($0)	$13,450
VEHICLE #1 2013 Ford Fiesta FWD Auto 6-spd 4-cyl 1.6L	$1,297 ($271)	$11,124
VEHICLE #2 2013 Ford Fusion FWD Auto 6-spd 4-cyl 2.5L	$1,558 ($10)	$13,363

It will save you **$271** each year in fuel costs to drive a Ford Fiesta FWD compared to a 2005 Dodge Neon/Srt-4/Sx 2.0.
A Ford Fiesta FWD will save you **$2,327** over its lifetime compared to a 2005 Dodge Neon/Srt-4/Sx 2.0.

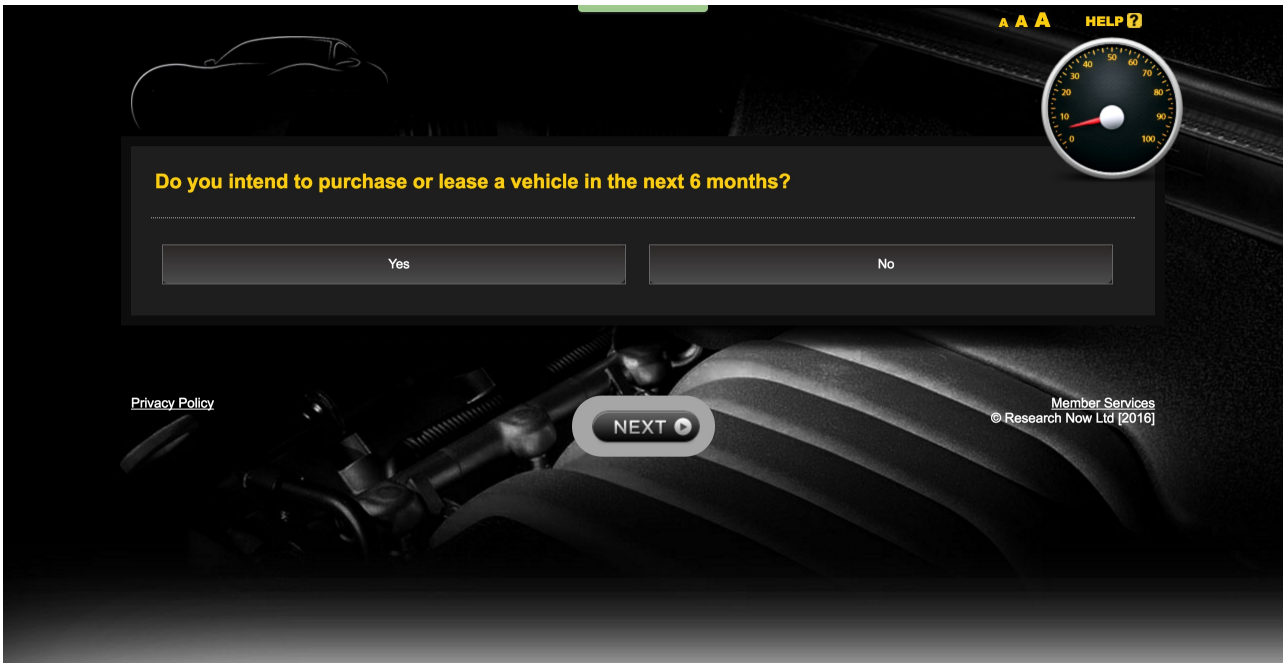
That's the same as it would cost for:

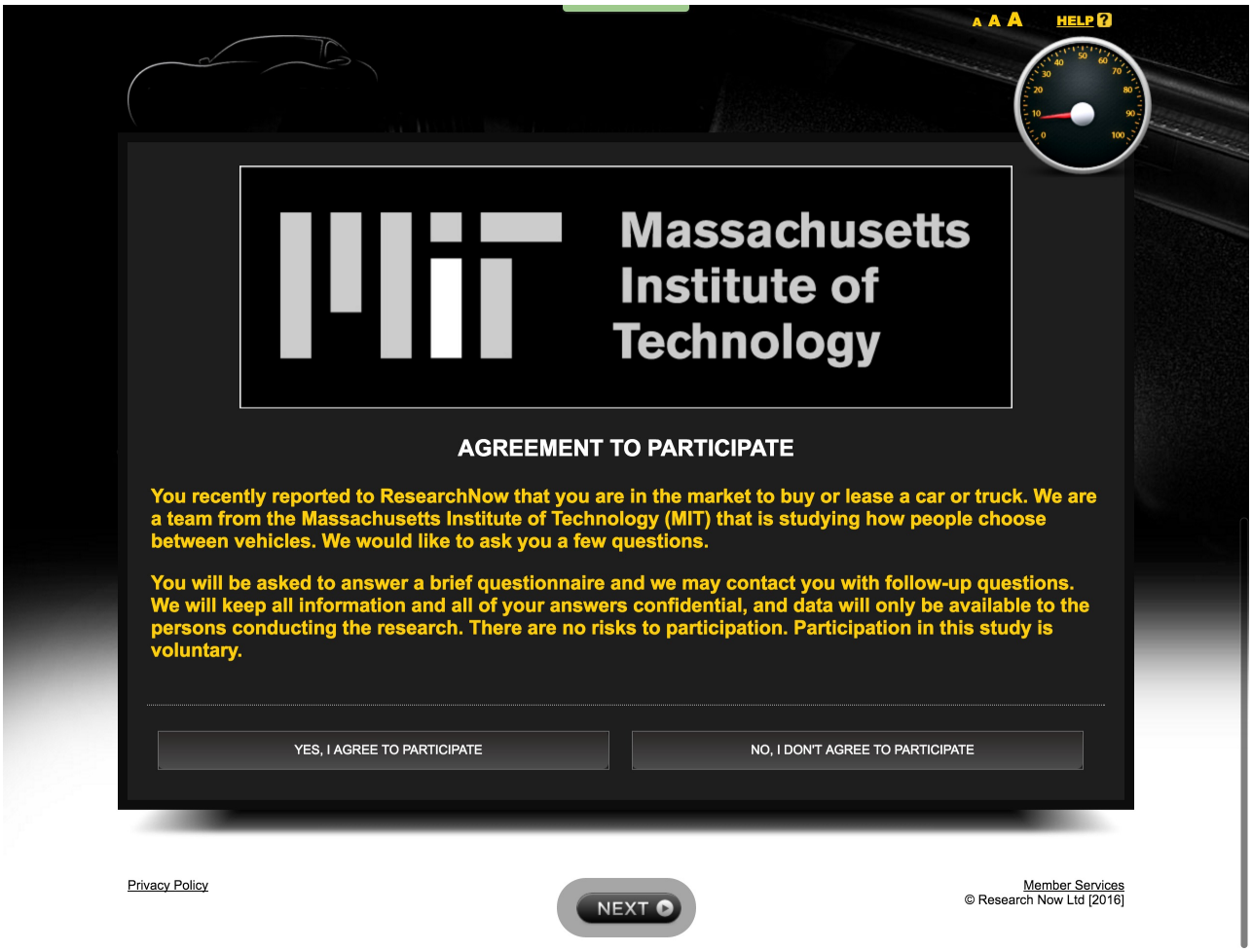
4.7 iPads
2.3 Tickets to Hawaii
47 Pairs of Levi's Jeans

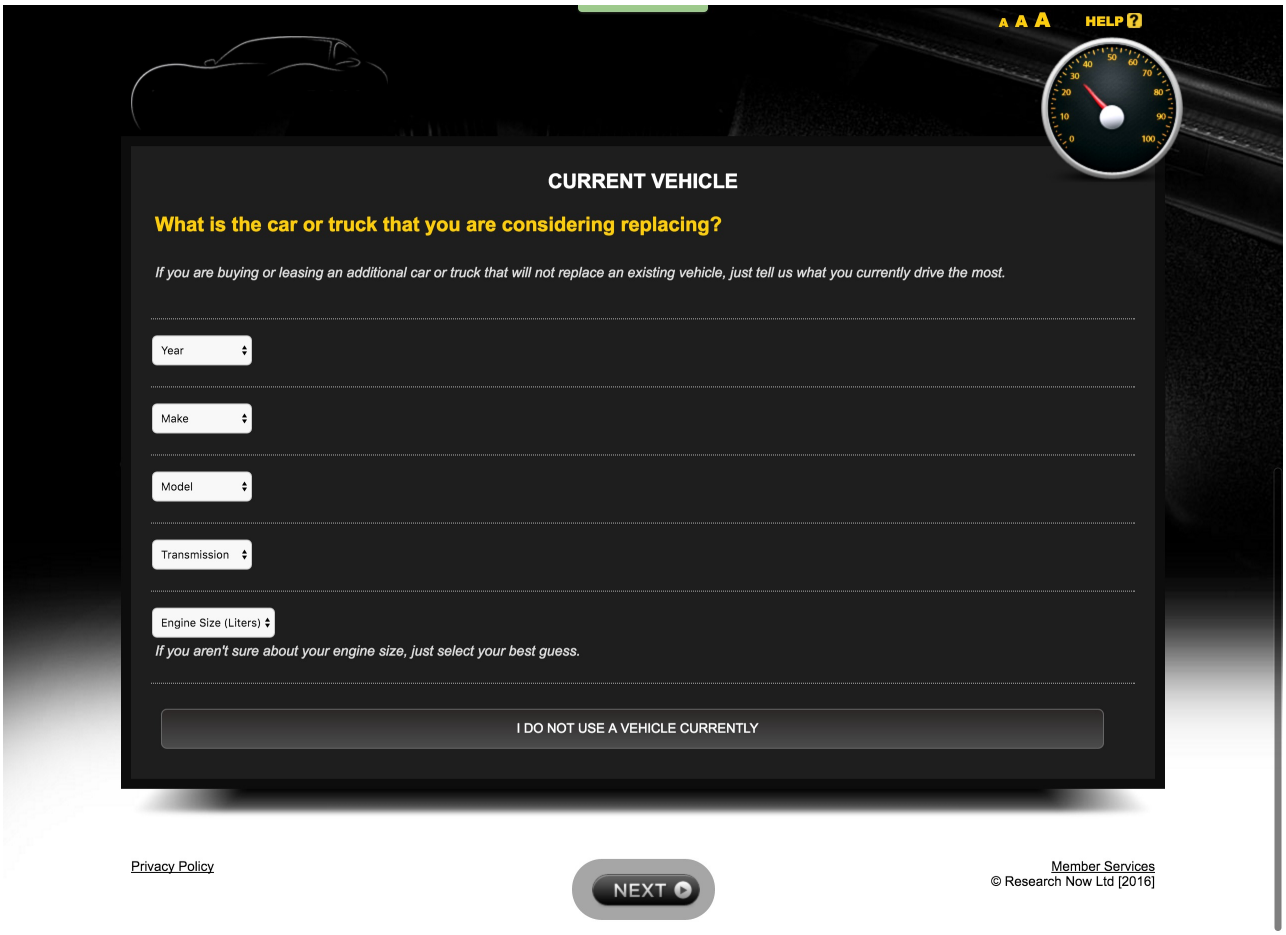
Note: This information (with the customer's current vehicle and consideration set) was sent as an email attachment to the treatment group.

II Online Experiment Screen Shots

II.A Introductory Screens Shown to All Participants




A A A
HELP
Massachusetts Institute of Technology
AGREEMENT TO PARTICIPATE
You recently reported to ResearchNow that you are in the market to buy or lease a car or truck. We are a team from the Massachusetts Institute of Technology (MIT) that is studying how people choose between vehicles. We would like to ask you a few questions.
You will be asked to answer a brief questionnaire and we may contact you with follow-up questions. We will keep all information and all of your answers confidential, and data will only be available to the persons conducting the research. There are no risks to participation. Participation in this study is voluntary.
YES, I AGREE TO PARTICIPATE
NO, I DON'T AGREE TO PARTICIPATE
Privacy Policy
NEXT
Member Services
© Research Now Ltd [2016]


A A A
HELP
CURRENT VEHICLE
What is the car or truck that you are considering replacing?
If you are buying or leasing an additional car or truck that will not replace an existing vehicle, just tell us what you currently drive the most.
Year
Make
Model
Transmission
Engine Size (Liters)
If you aren't sure about your engine size, just select your best guess.
I DO NOT USE A VEHICLE CURRENTLY
Privacy Policy
NEXT
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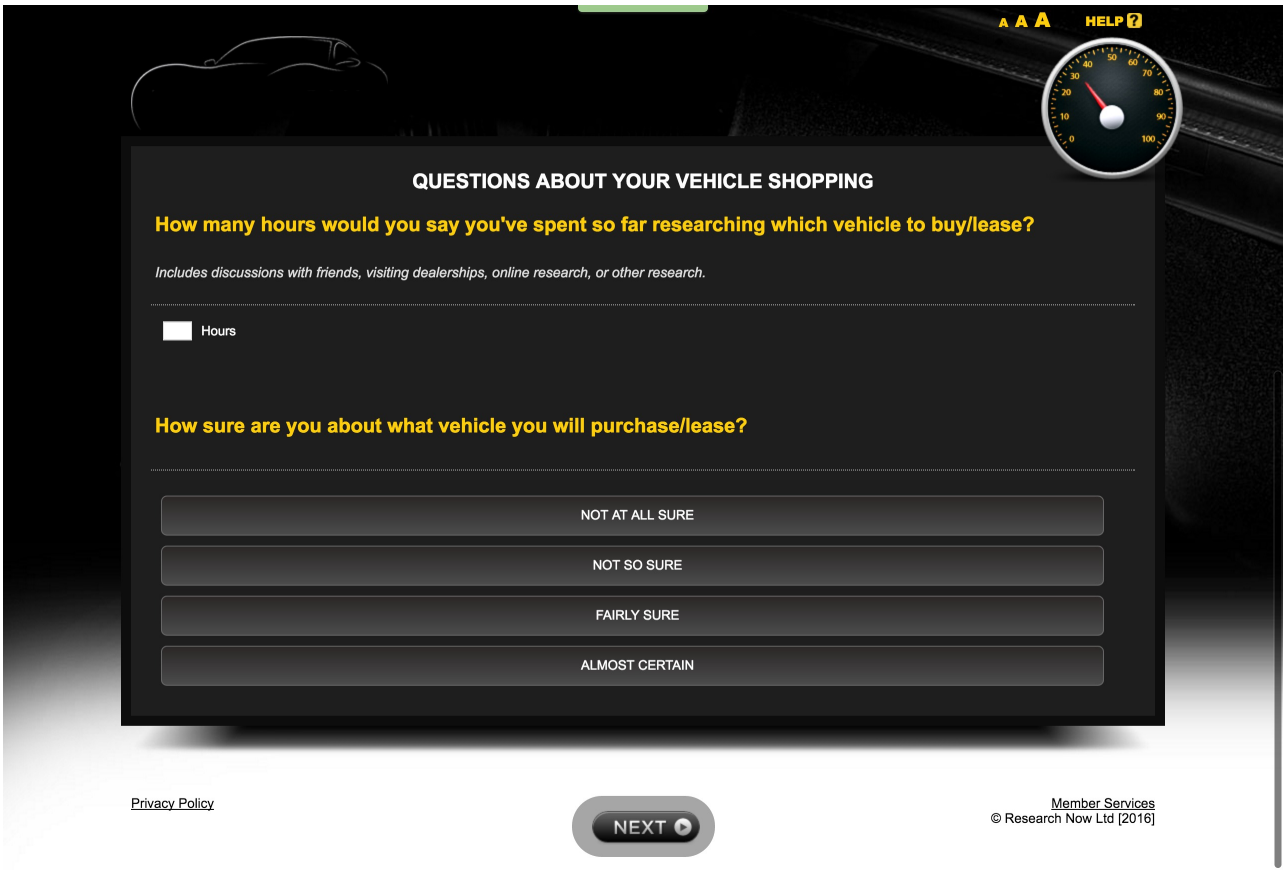
A A A
HELP
QUESTIONS ABOUT YOUR VEHICLE SHOPPING
How many hours would you say you've spent so far researching which vehicle to buy/lease?
Includes discussions with friends, visiting dealerships, online research, or other research.
Hours
How sure are you about what vehicle you will purchase/lease?
NOT AT ALL SURE
NOT SO SURE
FAIRLY SURE
ALMOST CERTAIN
Privacy Policy
NEXT
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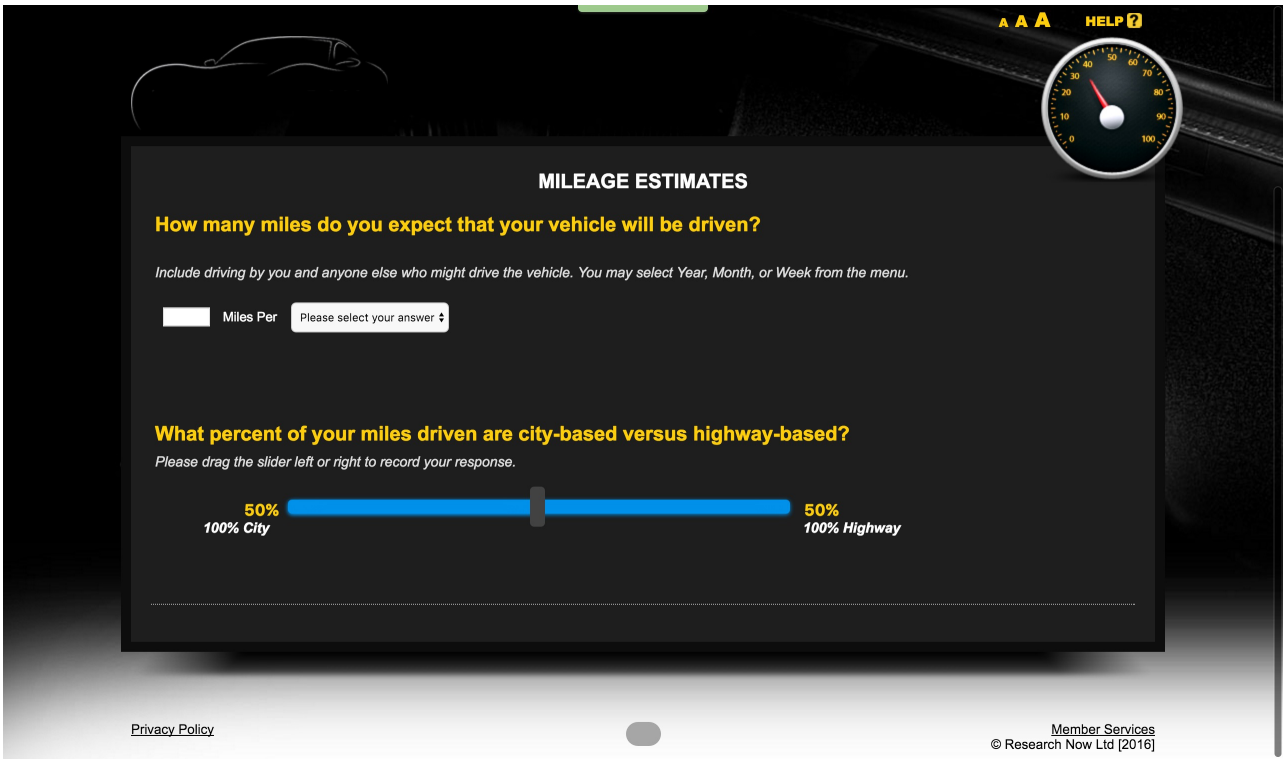
A A A
HELP
MILEAGE ESTIMATES
How many miles do you expect that your vehicle will be driven?
Include driving by you and anyone else who might drive the vehicle. You may select Year, Month, or Week from the menu.
Miles Per
Please select your answer
What percent of your miles driven are city-based versus highway-based?
Please drag the slider left or right to record your response.
50%
100% City
50%
100% Highway
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A A A
HELP
WHAT CARS ARE YOU SHOPPING FOR?
What is the car or truck that you think you are most likely to purchase or lease?
Year
Make
Model
Transmission
Engine Size (Liters)
If you aren't sure about your engine size, just select your best guess.
Imagine that your most likely model did not exist. What is the car or truck that you would be most likely to purchase or lease instead?
Year
Make
Model
Transmission
Engine Size (Liters)
If you aren't sure about your engine size, just select your best guess.
Privacy Policy
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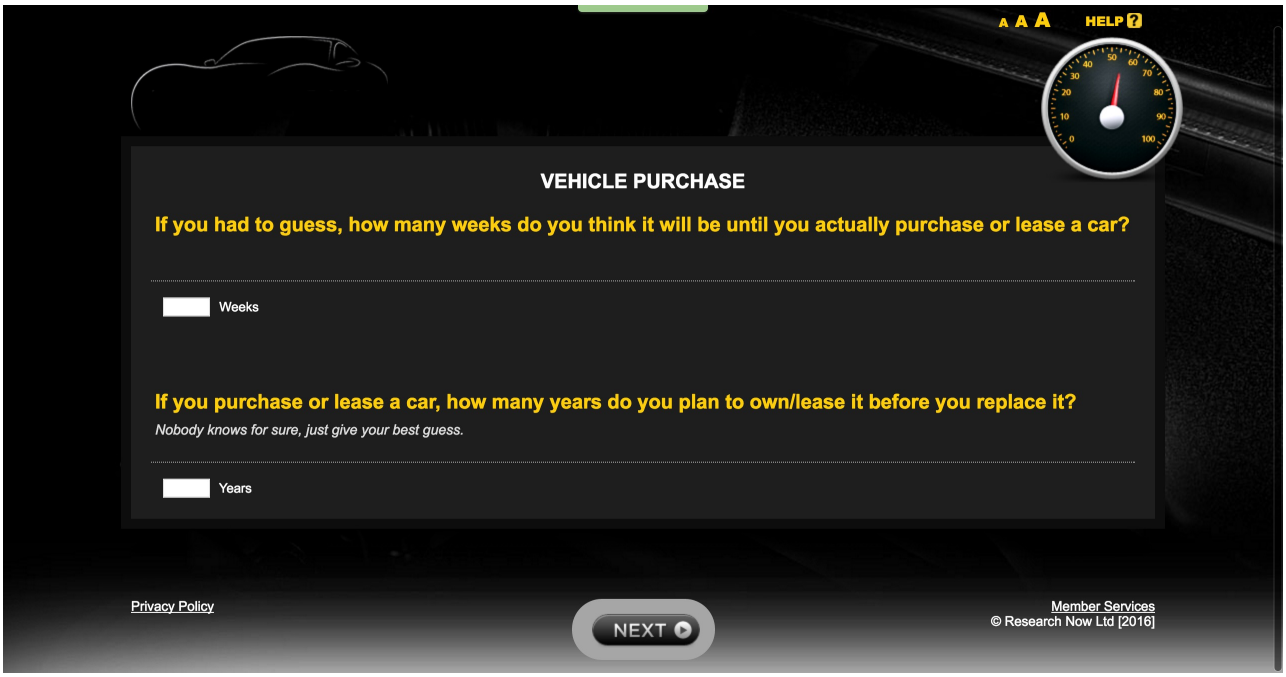
A A A
HELP
VEHICLE PURCHASE
If you had to guess, how many weeks do you think it will be until you actually purchase or lease a car?
Weeks
If you purchase or lease a car, how many years do you plan to own/lease it before you replace it?
Nobody knows for sure, just give your best guess.
Years
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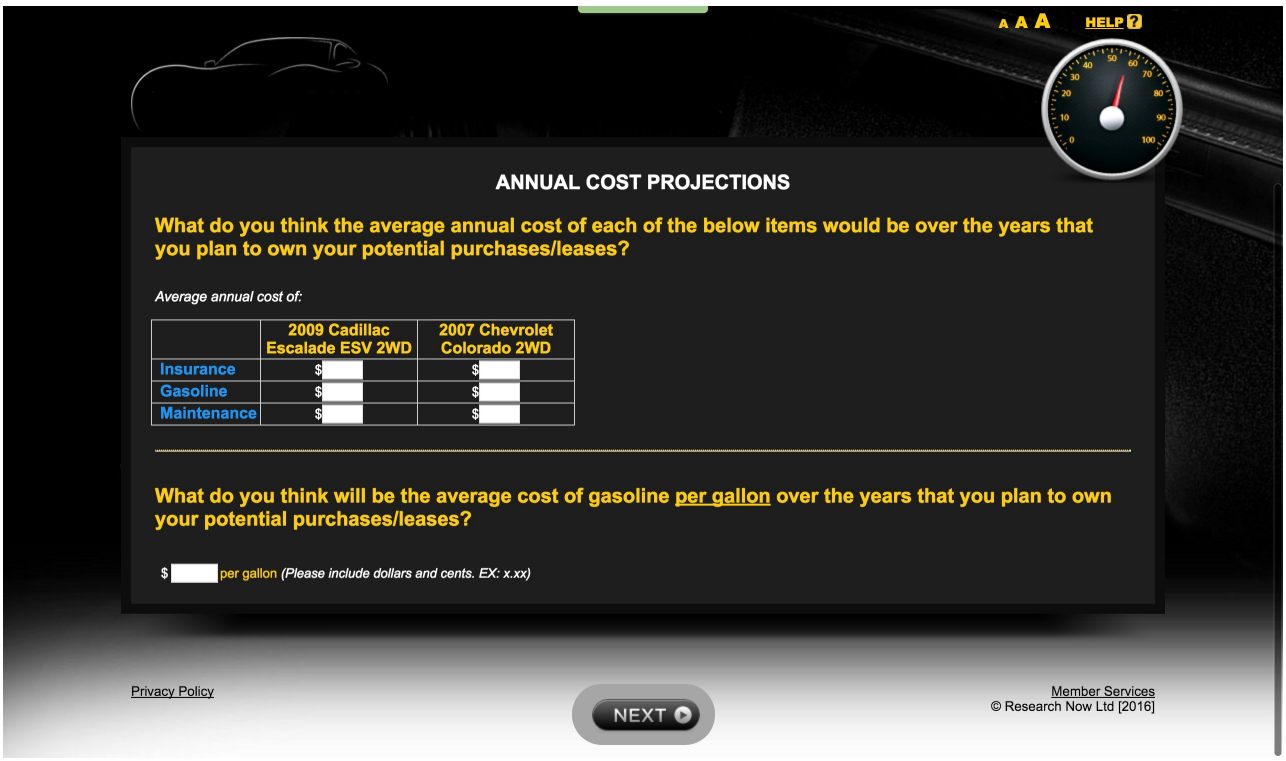
A A A
HELP
ANNUAL COST PROJECTIONS
What do you think the average annual cost of each of the below items would be over the years that you plan to own your potential purchases/leases?
Average annual cost of:
2009 Cadillac Escalade ESV 2WD
2007 Chevrolet Colorado 2WD
Insurance
Gasoline
Maintenance
What do you think will be the average cost of gasoline per gallon over the years that you plan to own your potential purchases/leases?
per gallon (Please include dollars and cents. EX: x.xx)
Privacy Policy
NEXT
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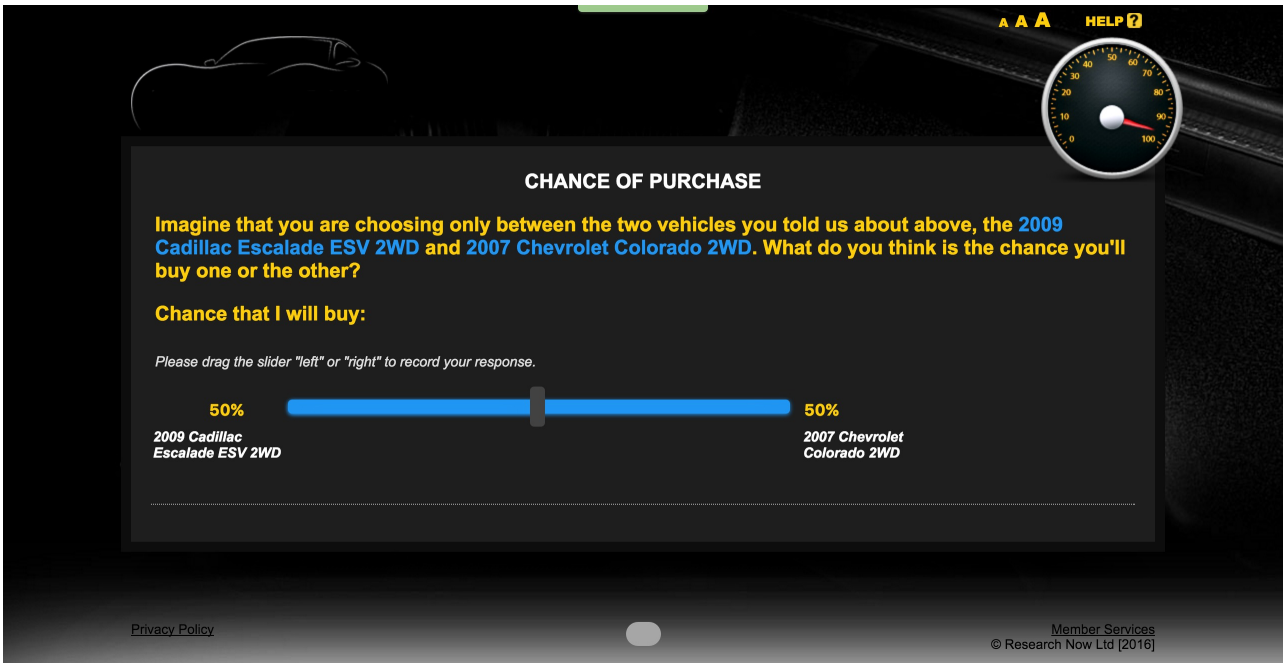
A A A
HELP
CHANCE OF PURCHASE
Imagine that you are choosing only between the two vehicles you told us about above, the 2009 Cadillac Escalade ESV 2WD and 2007 Chevrolet Colorado 2WD. What do you think is the chance you'll buy one or the other?
Chance that I will buy:
Please drag the slider "left" or "right" to record your response.
50%
2009 Cadillac Escalade ESV 2WD
50%
2007 Chevrolet Colorado 2WD
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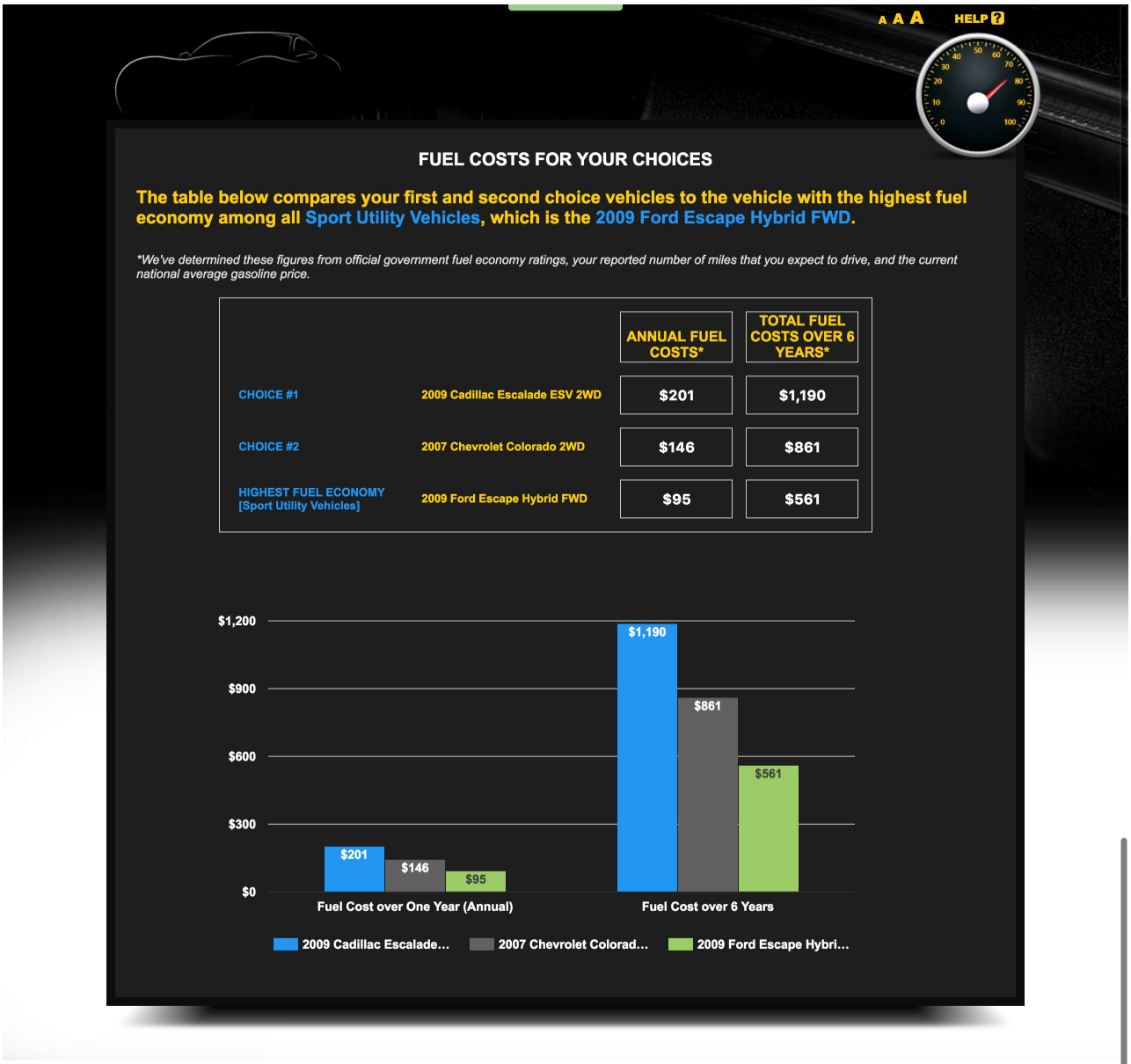
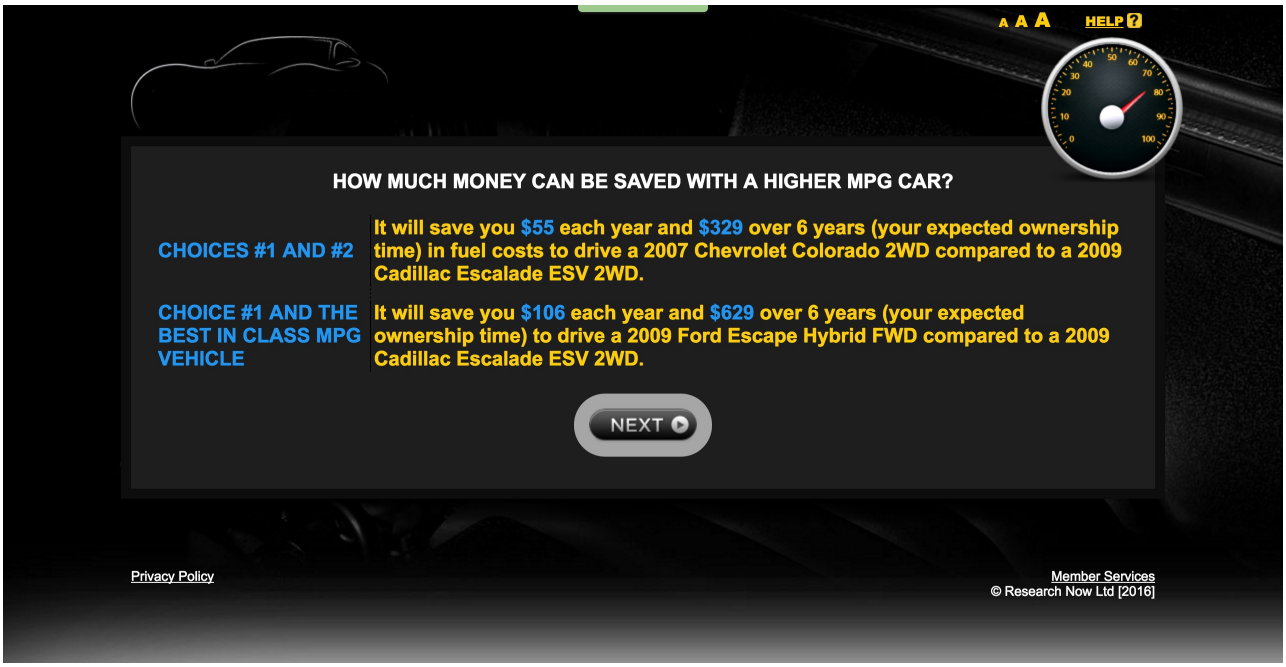
II.B Treatment Screens




A A A
HELP
HOW MUCH MONEY CAN BE SAVED WITH A HIGHER MPG CAR?
CHOICES #1 AND #2
It will save you $55 each year and $329 over 6 years (your expected ownership time) in fuel costs to drive a 2007 Chevrolet Colorado 2WD compared to a 2009 Cadillac Escalade ESV 2WD.
CHOICE #1 AND THE BEST IN CLASS MPG VEHICLE
It will save you $106 each year and $629 over 6 years (your expected ownership time) to drive a 2009 Ford Escape Hybrid FWD compared to a 2009 Cadillac Escalade ESV 2WD.
NEXT
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A A A
HELP
You would save $629 over 6 years to drive a 2009 Ford Escape Hybrid FWD compared to a 2009 Cadillac Escalade ESV 2WD.
That's the same as it would cost for...
182 Gallons of Milk
16 Weeks of Lunch
NEXT
Privacy Policy
Member Services
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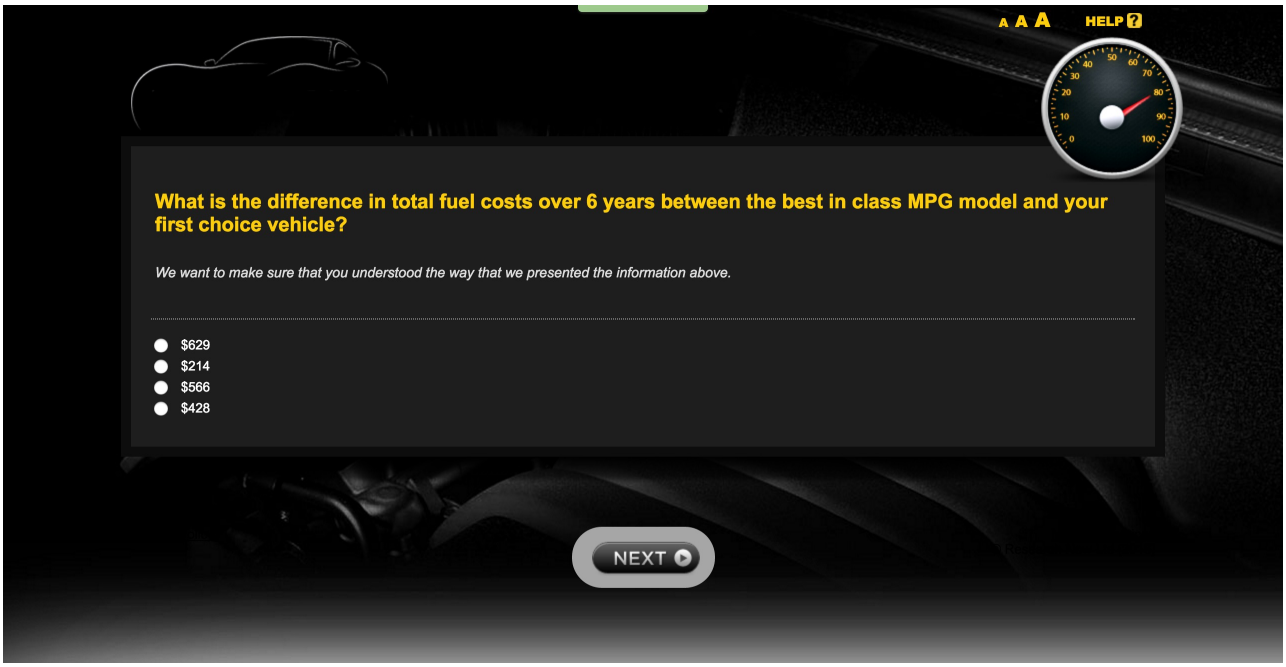
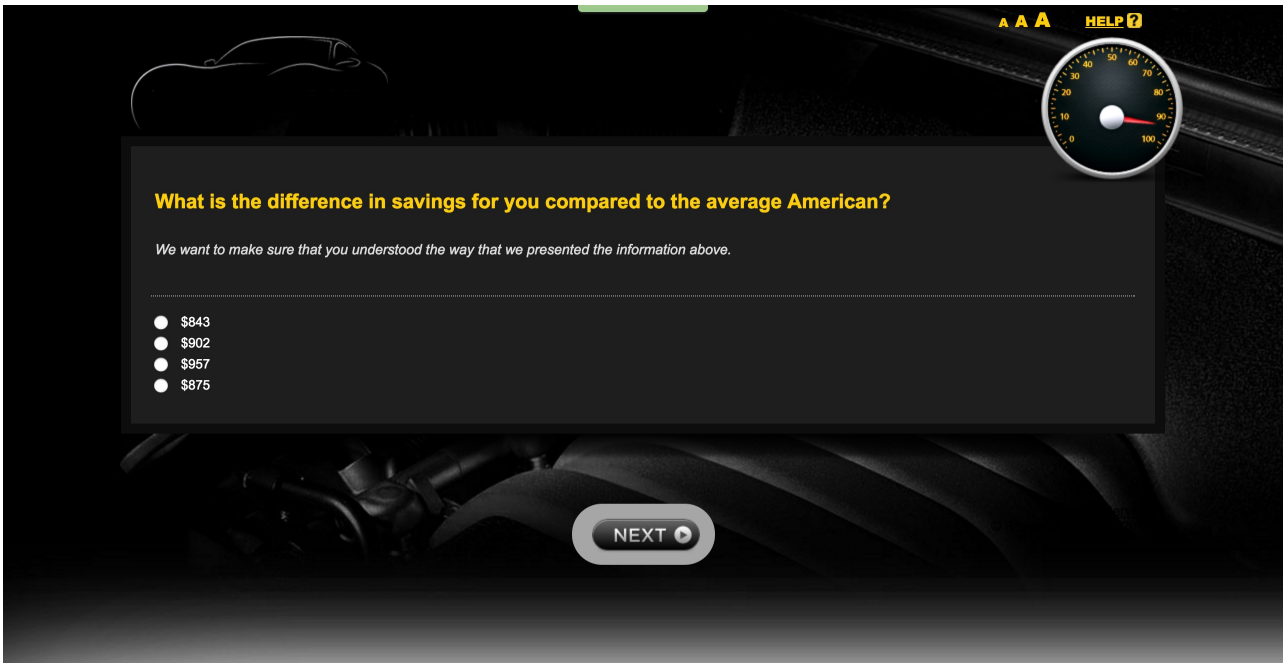


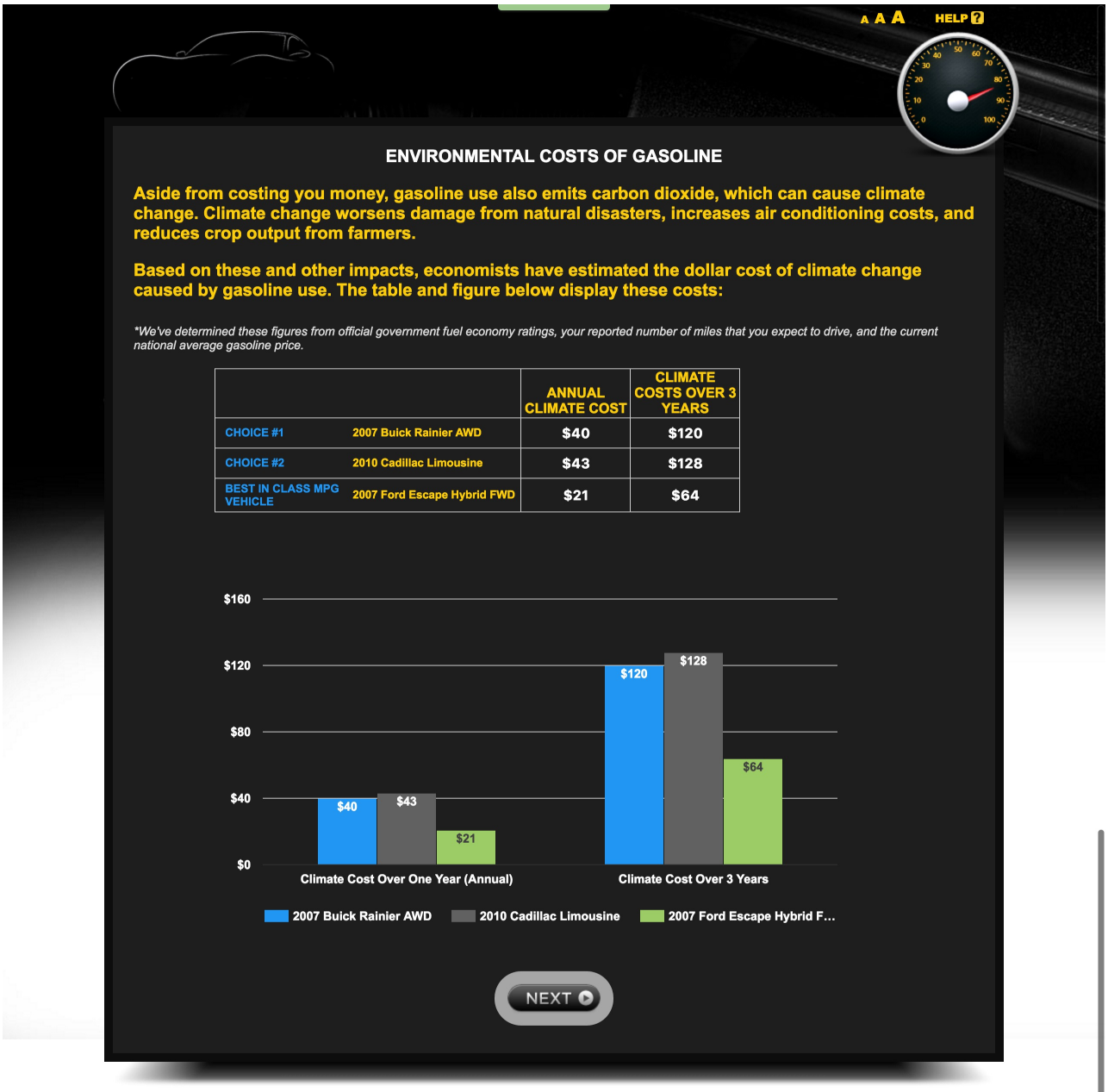
Note: The respondent had to answer this question correctly before advancing to the next screen.

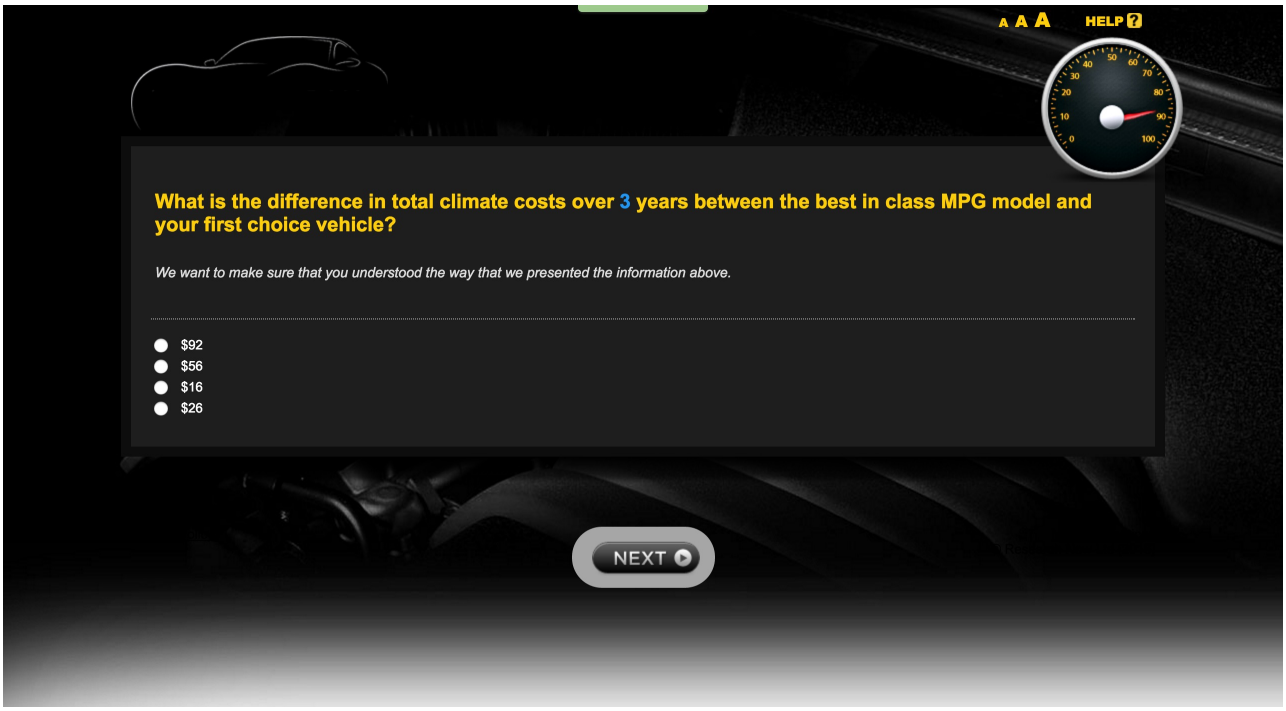
II.C Relative Treatment Screens



Note: The respondent had to answer this question correctly before advancing to the next screen.

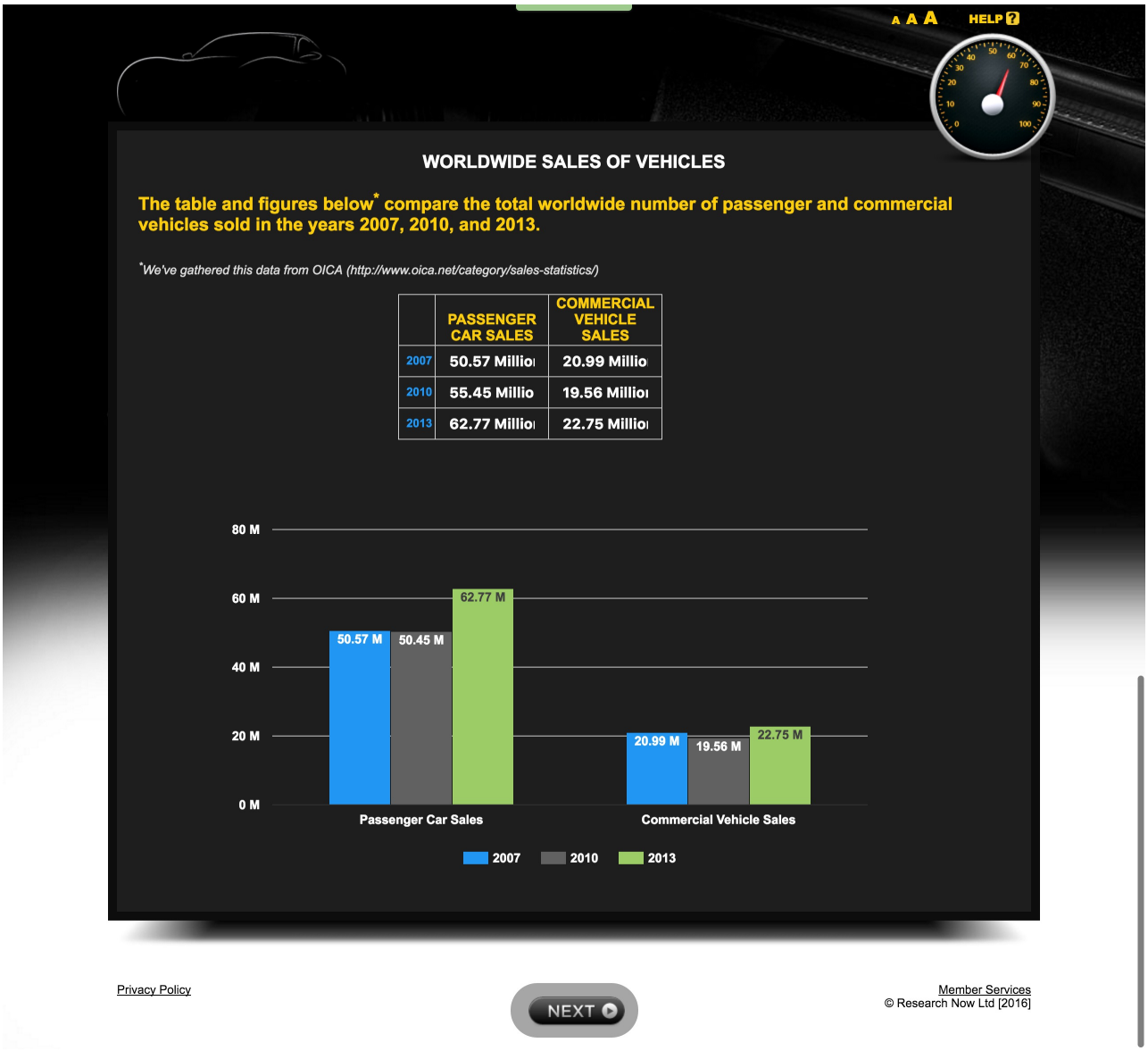
II.D Climate Treatment Screens



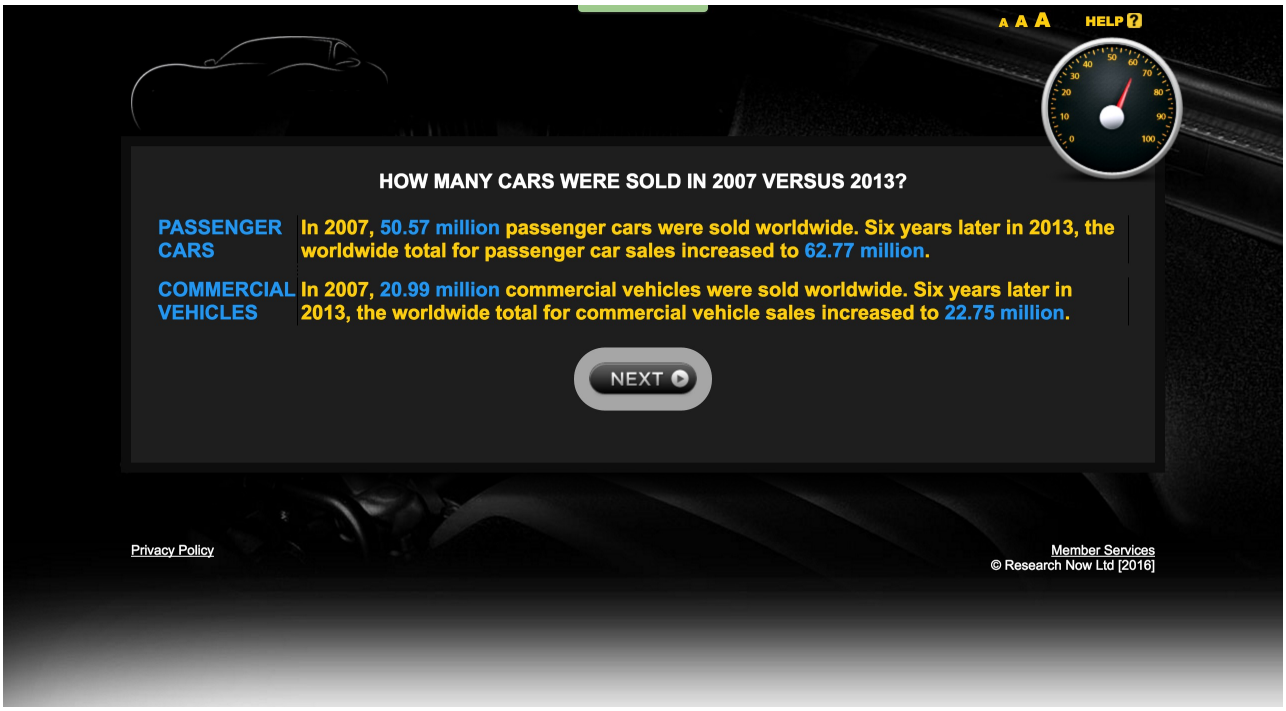


Note: The respondent had to answer this question correctly before advancing to the next screen.

II.E Control Screens



Note: These four screens are designed to parallel the four treatment screens in II.B.


A A A
HELP
HOW MANY CARS WERE SOLD IN 2007 VERSUS 2013?
PASSENGER CARS
In 2007, 50.57 million passenger cars were sold worldwide. Six years later in 2013, the worldwide total for passenger car sales increased to 62.77 million.
COMMERCIAL VEHICLES
In 2007, 20.99 million commercial vehicles were sold worldwide. Six years later in 2013, the worldwide total for commercial vehicle sales increased to 22.75 million.
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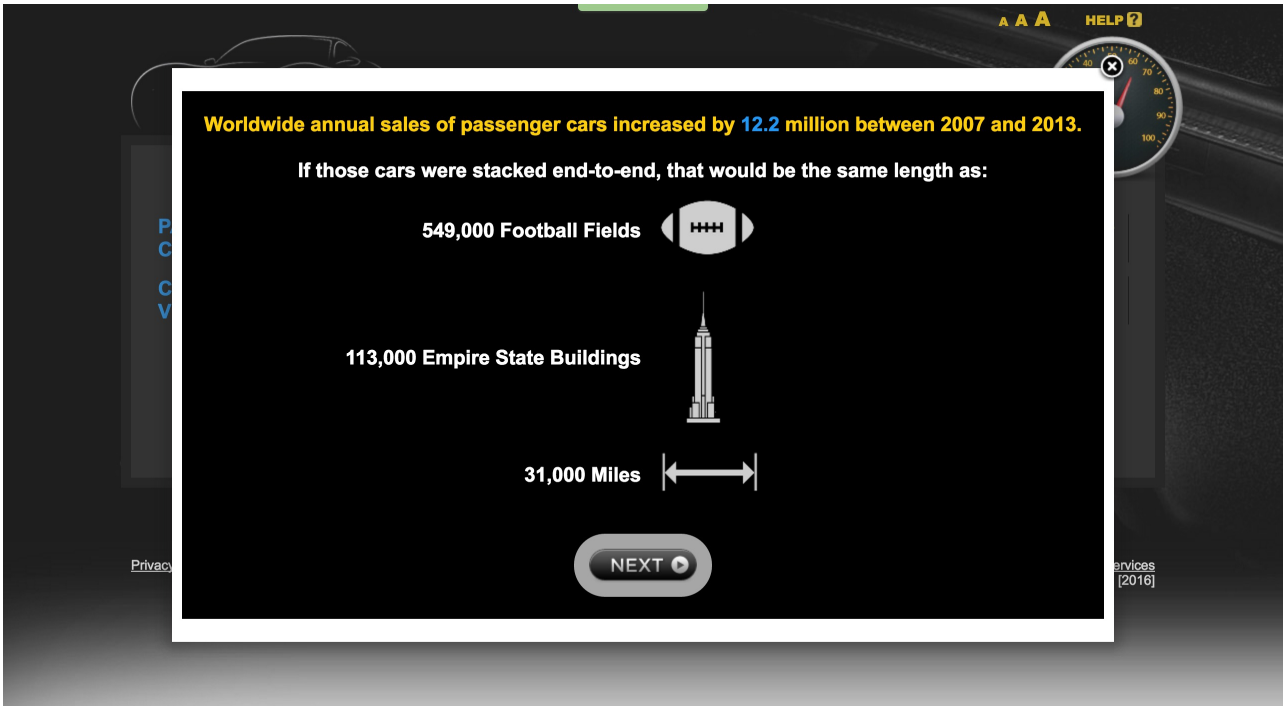
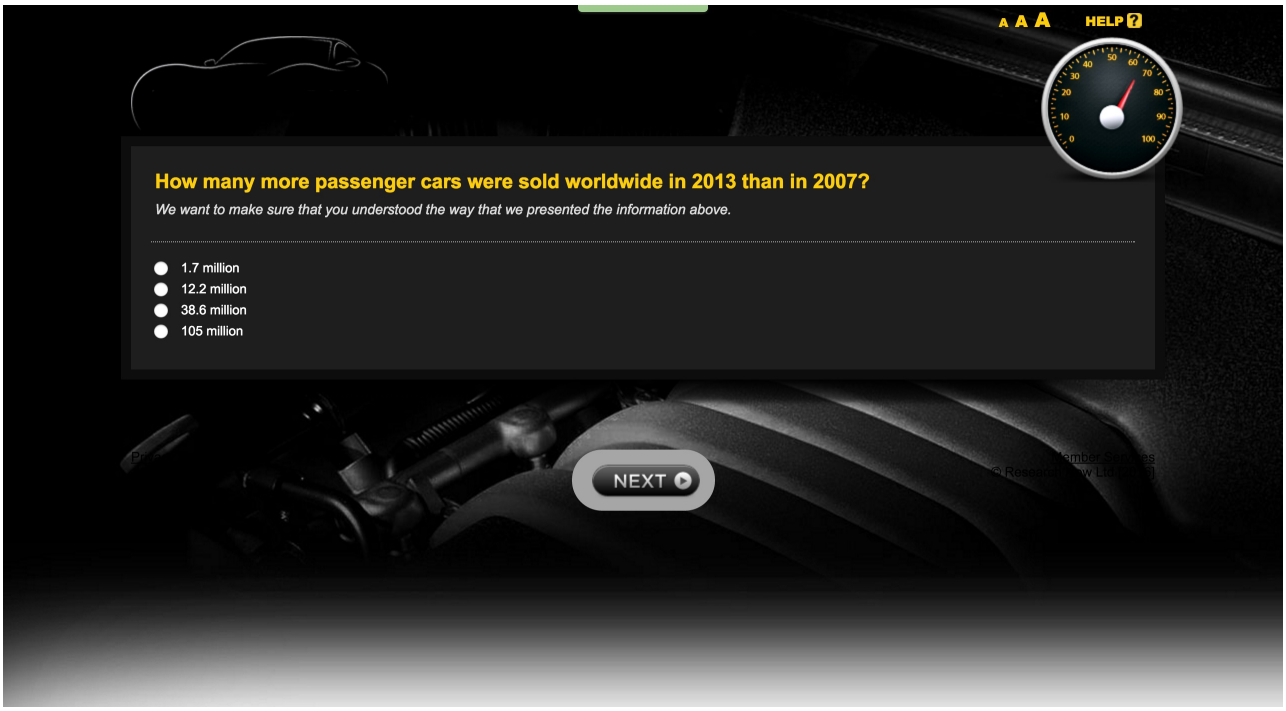
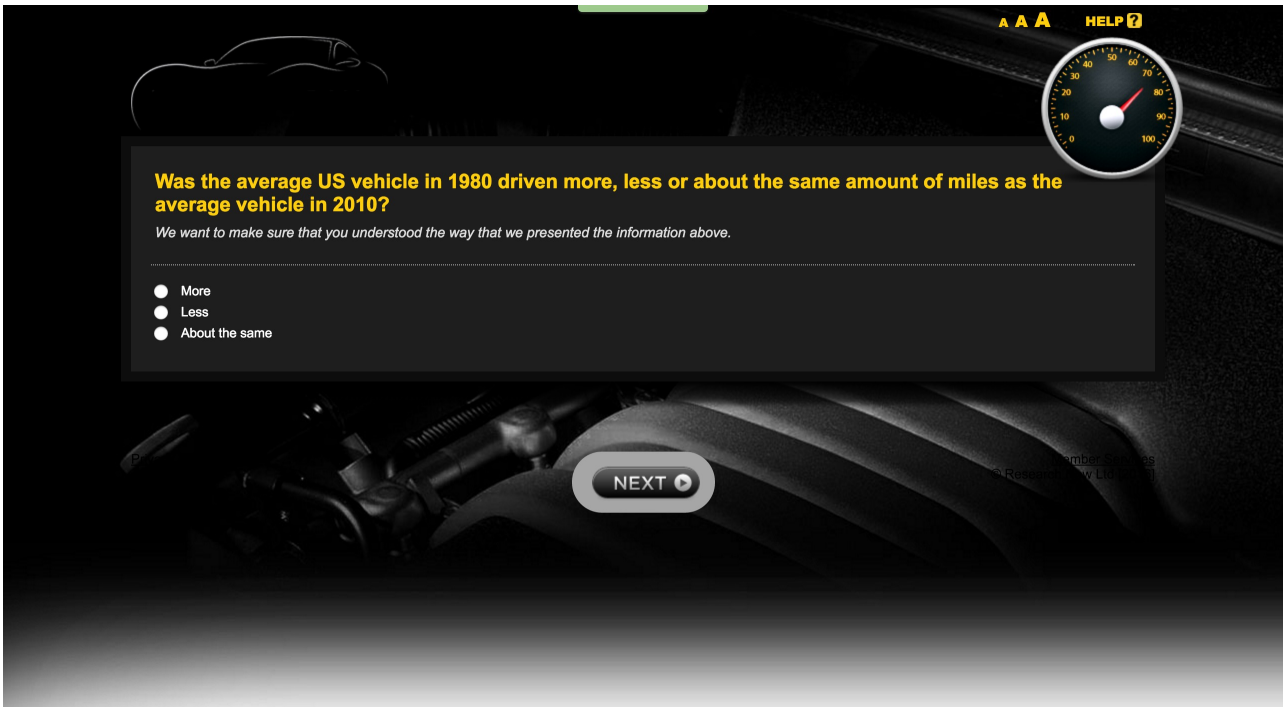

A A A
HELP
Worldwide annual sales of passenger cars increased by 12.2 million between 2007 and 2013.
If those cars were stacked end-to-end, that would be the same length as:
549,000 Football Fields
113,000 Empire State Buildings
31,000 Miles
NEXT



Note: The respondent had to answer this question correctly before advancing to the next screen.

II.F Mileage Control Screens

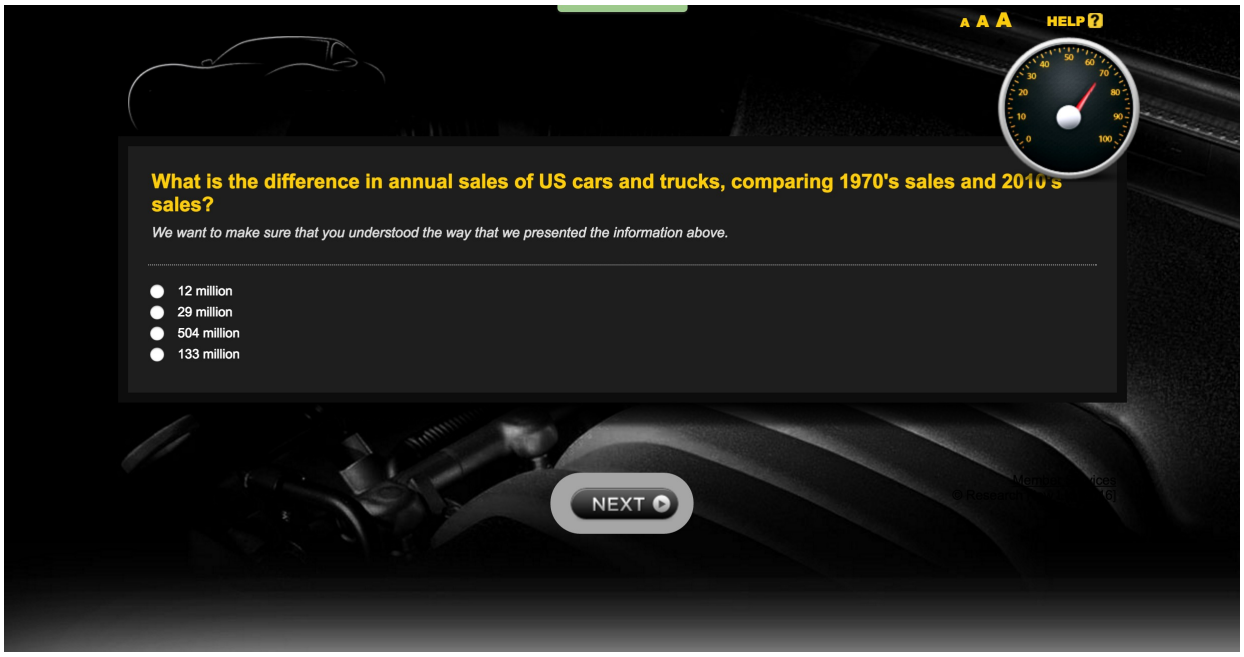
Note: These four screens are designed to parallel the two relative treatment screens in II.C.



Note: The respondent had to answer this question correctly before advancing to the next screen.

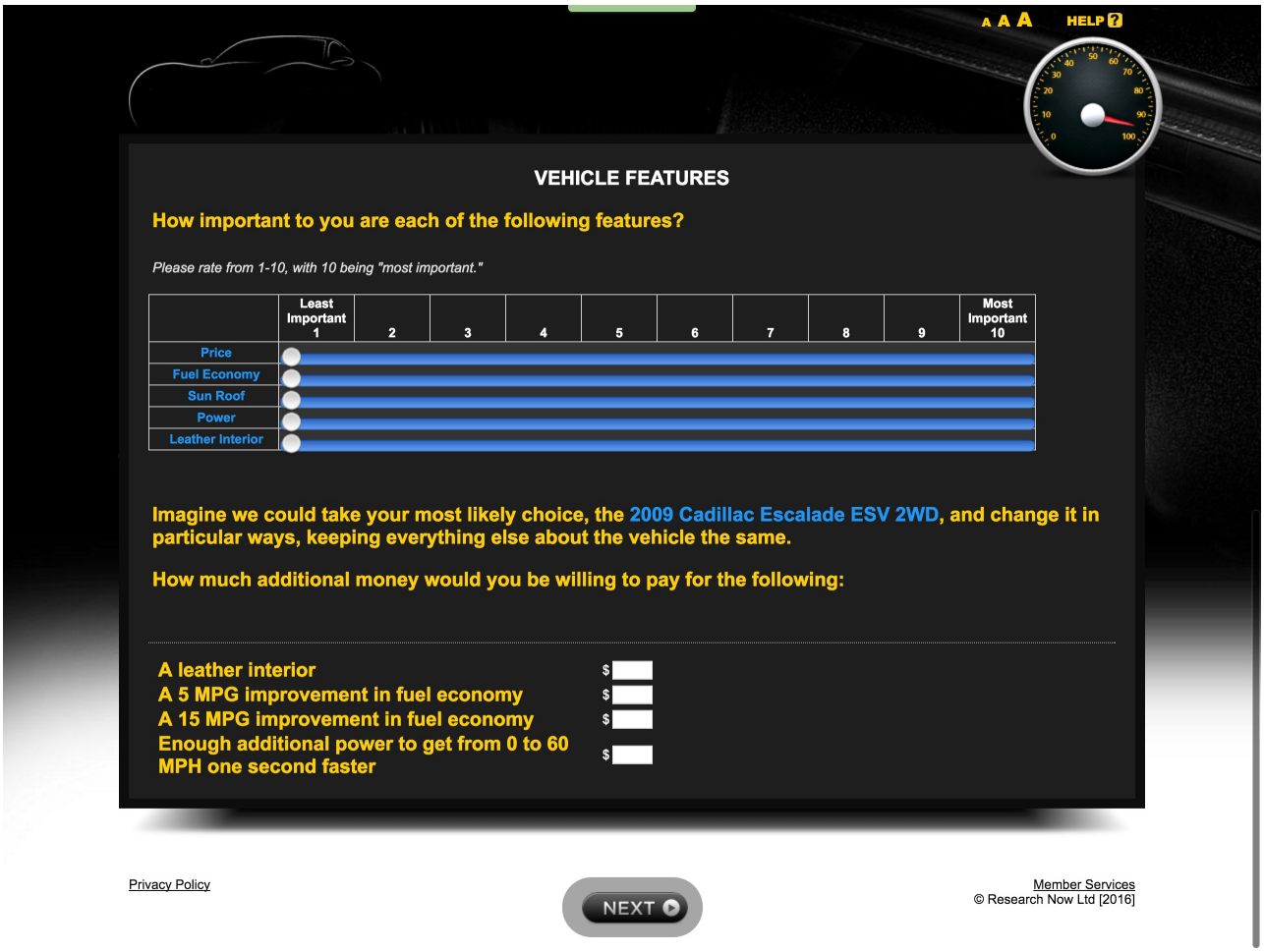
II.G Sales Control Screens

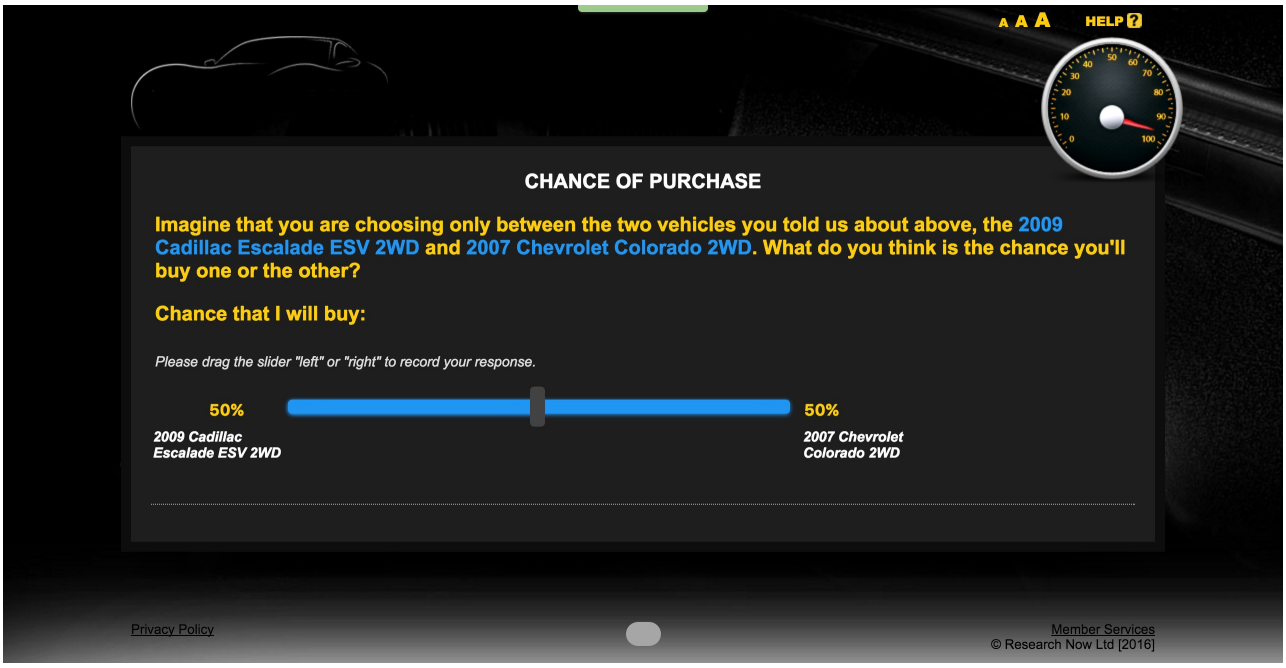
Note: These two screens are designed to parallel the two climate treatment screens in II.D.



Note: The respondent had to answer this question correctly before advancing to the next screen.

II.H Closing Screens Shown to All Participants




A A A
HELP
CHANCE OF PURCHASE
Imagine that you are choosing only between the two vehicles you told us about above, the 2009 Cadillac Escalade ESV 2WD and 2007 Chevrolet Colorado 2WD. What do you think is the chance you'll buy one or the other?
Chance that I will buy:
Please drag the slider "left" or "right" to record your response.
50%
50%
2009 Cadillac Escalade ESV 2WD
2007 Chevrolet Colorado 2WD
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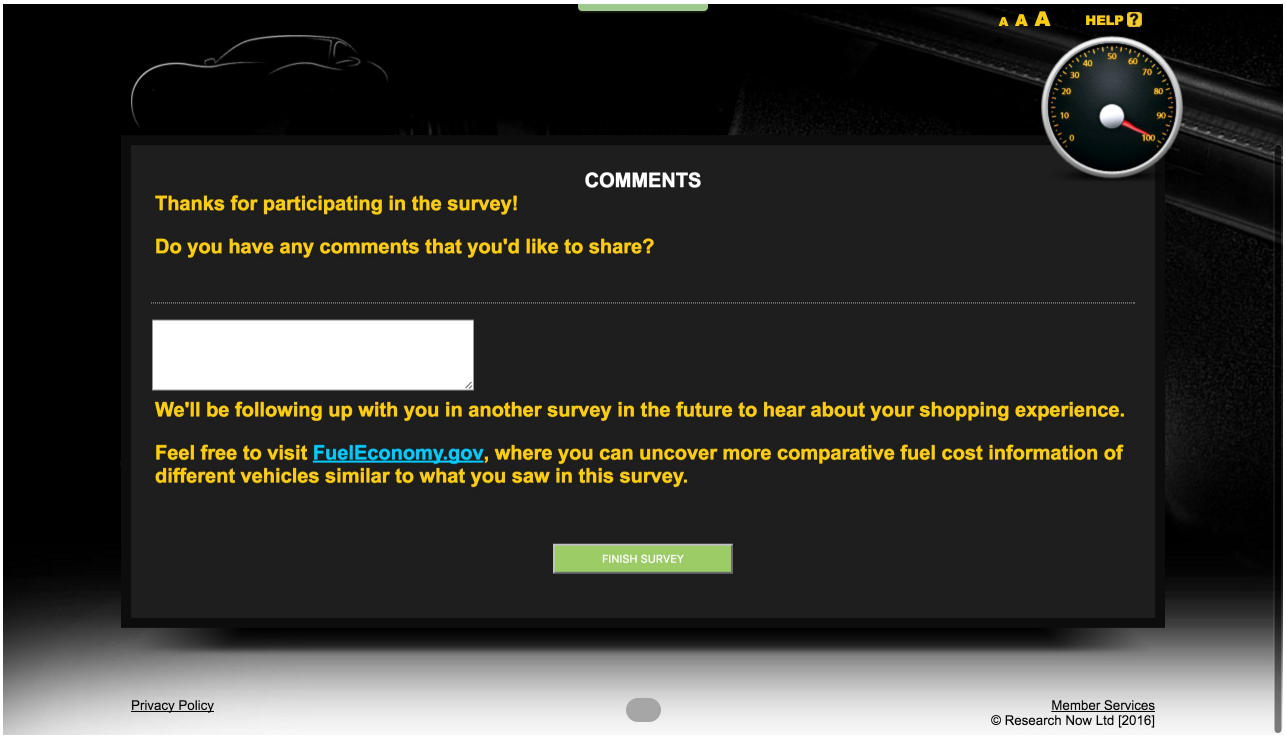
A A A
HELP
COMMENTS
Thanks for participating in the survey!
Do you have any comments that you'd like to share?
We'll be following up with you in another survey in the future to hear about your shopping experience.
Feel free to visit FuelEconomy.gov, where you can uncover more comparative fuel cost information of different vehicles similar to what you saw in this survey.
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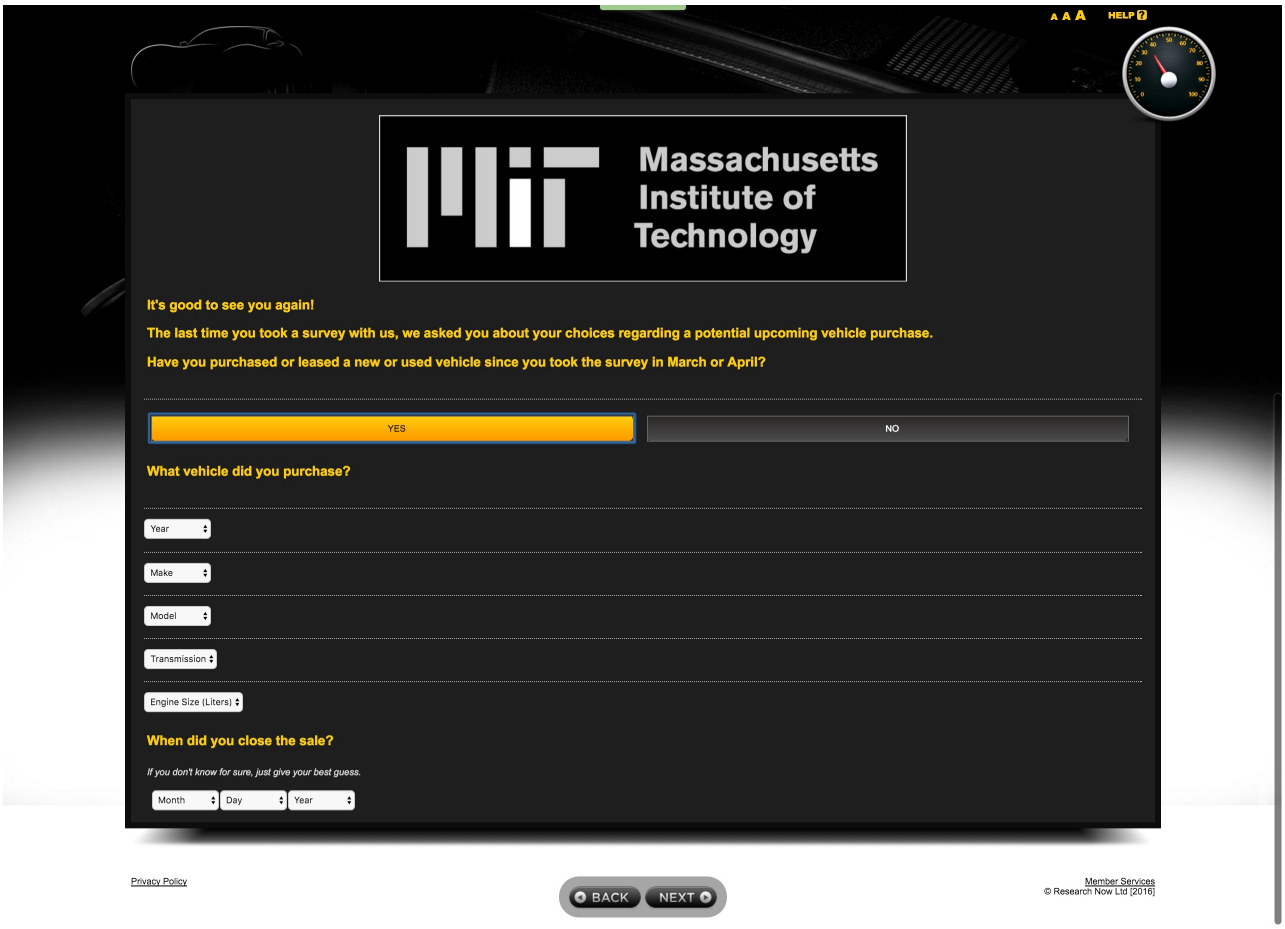
II.I Follow-Up Survey


A A A
HELP
Massachusetts Institute of Technology
It's good to see you again!
The last time you took a survey with us, we asked you about your choices regarding a potential upcoming vehicle purchase.
Have you purchased or leased a new or used vehicle since you took the survey in March or April?
YES
NO
What vehicle did you purchase?
Year
Make
Model
Transmission
Engine Size (Liters)
When did you close the sale?
If you don't know for sure, just give your best guess.
Month
Day
Year
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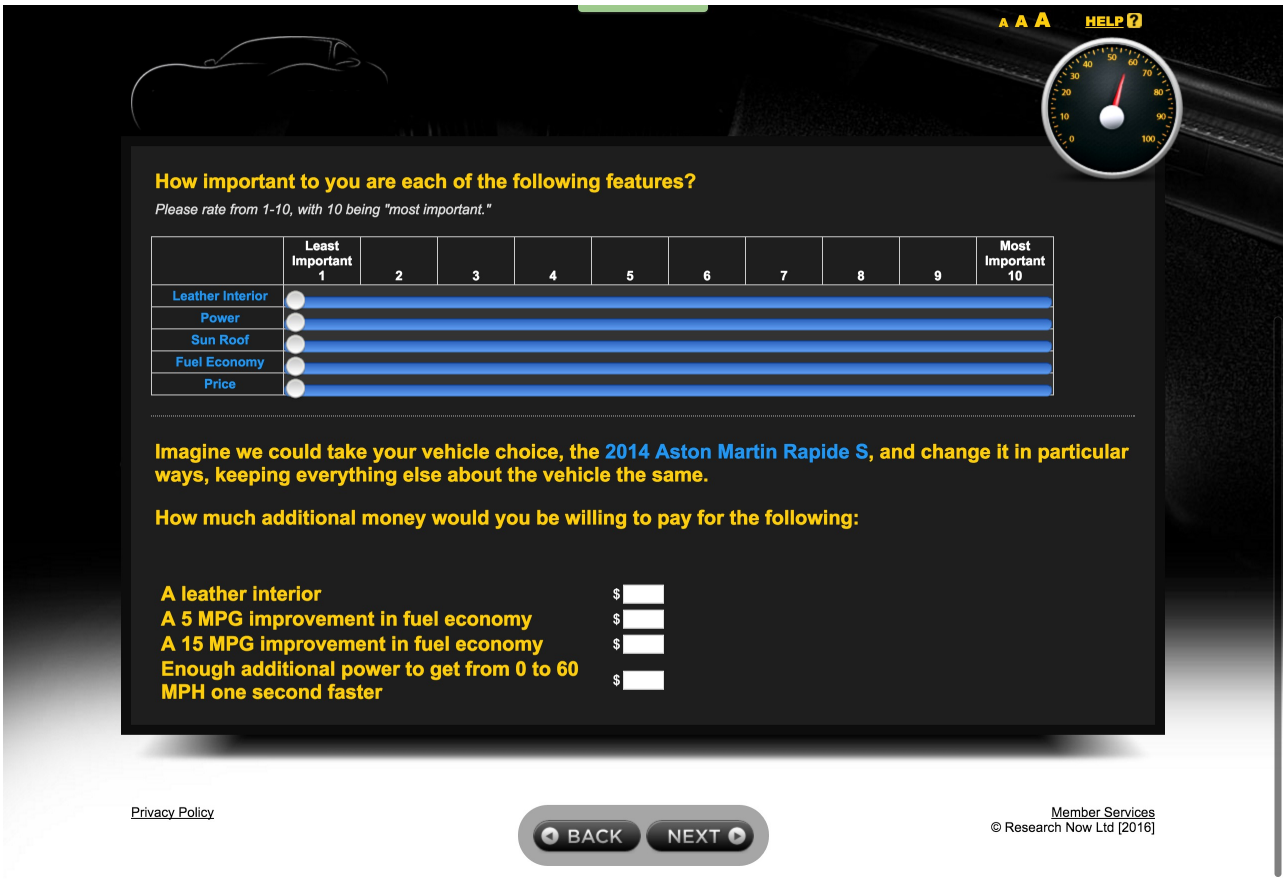
A A A
HELP
How important to you are each of the following features?
Please rate from 1-10, with 10 being "most important."
Least Important 1
2
3
4
5
6
7
8
9
Most Important 10
Leather Interior
Power
Sun Roof
Fuel Economy
Price
Imagine we could take your vehicle choice, the 2014 Aston Martin Rapide S, and change it in particular ways, keeping everything else about the vehicle the same.
How much additional money would you be willing to pay for the following:
A leather interior
A 5 MPG improvement in fuel economy
A 15 MPG improvement in fuel economy
Enough additional power to get from 0 to 60 MPH one second faster
$
$
$
$
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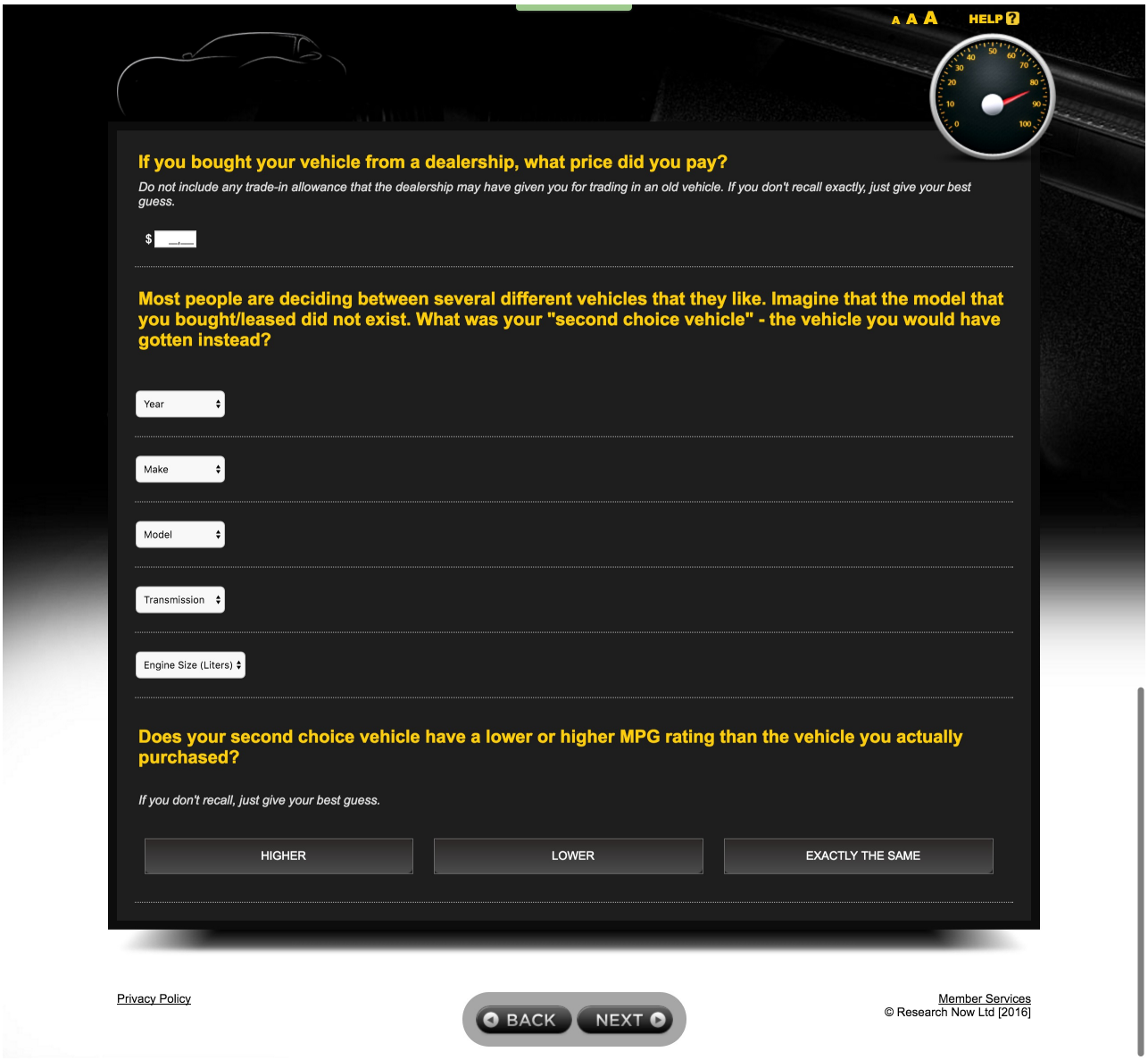
A A A
HELP
If you bought your vehicle from a dealership, what price did you pay?
Do not include any trade-in allowance that the dealership may have given you for trading in an old vehicle. If you don't recall exactly, just give your best guess.
$
Most people are deciding between several different vehicles that they like. Imagine that the model that you bought/leased did not exist. What was your "second choice vehicle" - the vehicle you would have gotten instead?
Year
Make
Model
Transmission
Engine Size (Liters)
Does your second choice vehicle have a lower or higher MPG rating than the vehicle you actually purchased?
If you don't recall, just give your best guess.
HIGHER
LOWER
EXACTLY THE SAME
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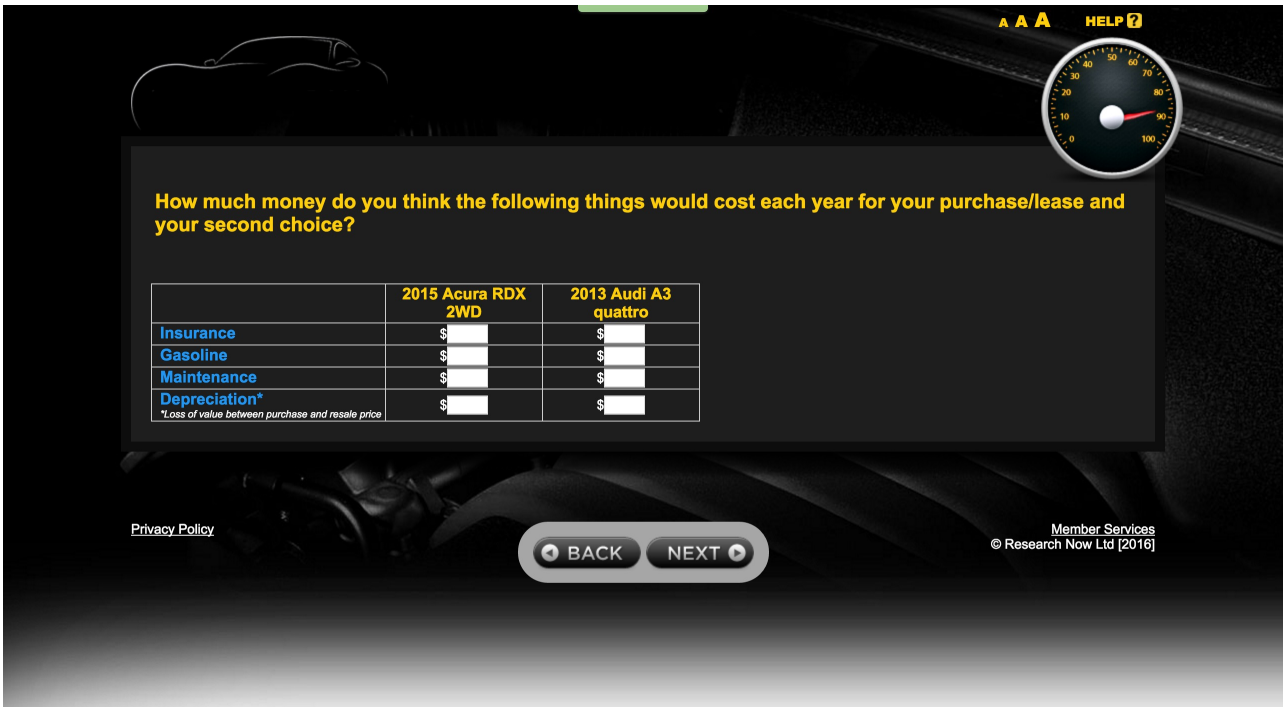
A A A
HELP
How much money do you think the following things would cost each year for your purchase/lease and your second choice?
2015 Acura RDX 2WD
2013 Audi A3 quattro
Insurance
Gasoline
Maintenance
Depreciation*
*Loss of value between purchase and resale price
$
$
$
$
$
$
$
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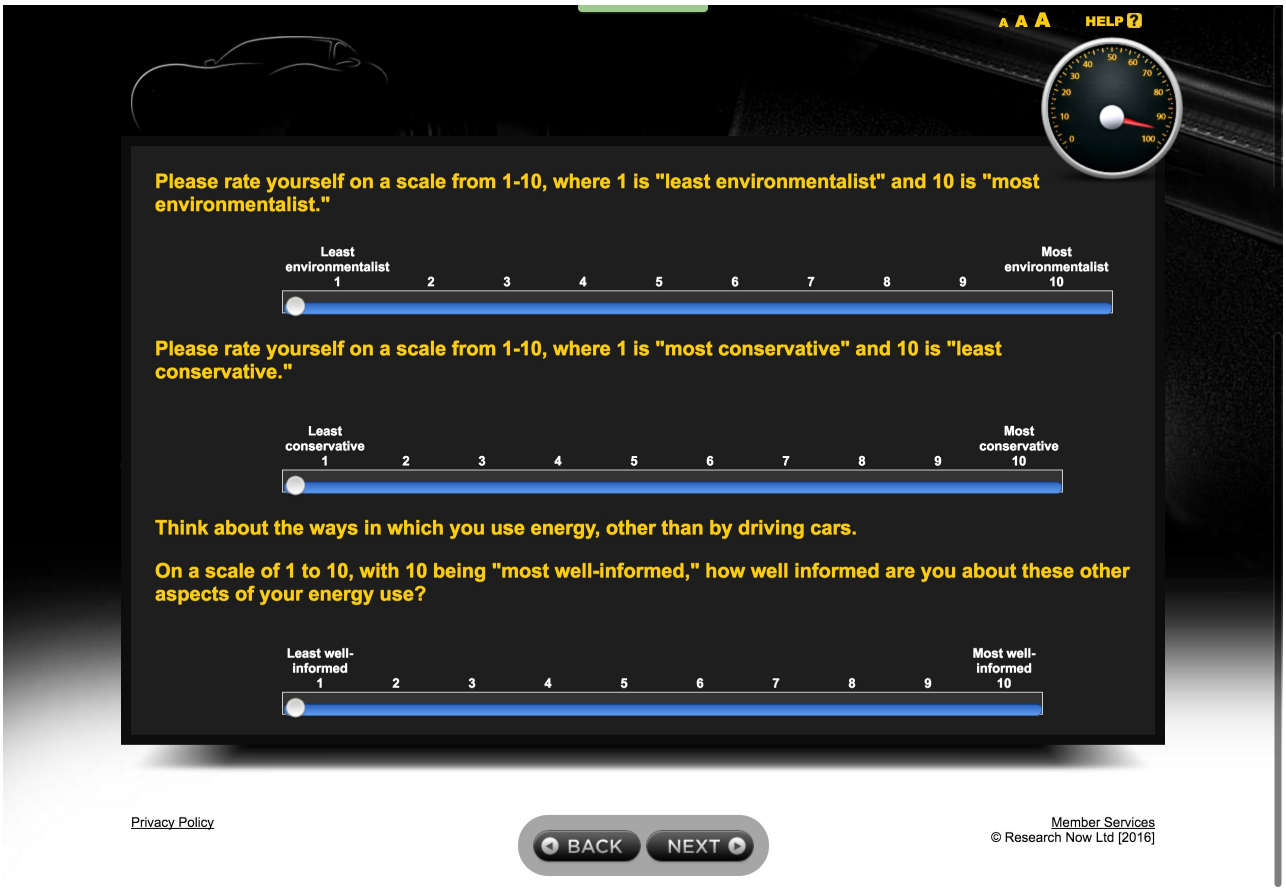
A A A
HELP
Please rate yourself on a scale from 1-10, where 1 is "least environmentalist" and 10 is "most environmentalist."
Least environmentalist
1 2 3 4 5 6 7 8 9 10
Most environmentalist
Please rate yourself on a scale from 1-10, where 1 is "most conservative" and 10 is "least conservative."
Least conservative
1 2 3 4 5 6 7 8 9 10
Most conservative
Think about the ways in which you use energy, other than by driving cars.
On a scale of 1 to 10, with 10 being "most well-informed," how well informed are you about these other aspects of your energy use?
Least well-informed
1 2 3 4 5 6 7 8 9 10
Most well-informed
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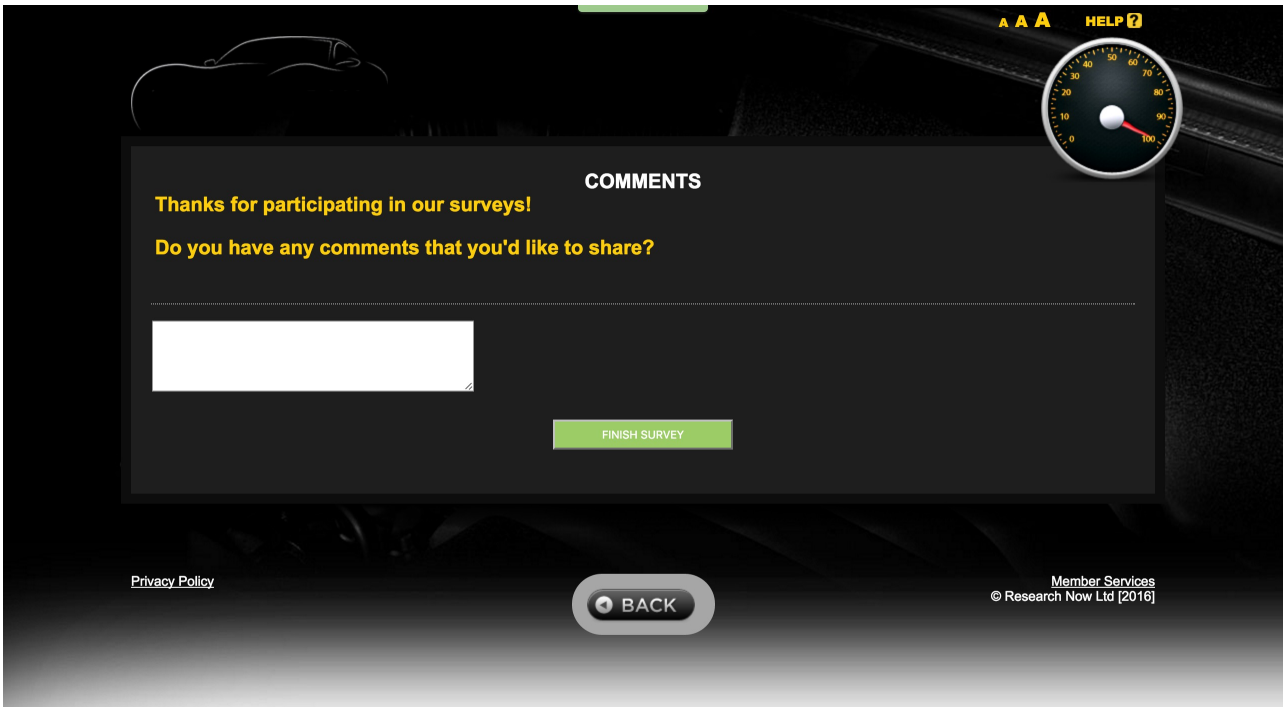
A A A
HELP
COMMENTS
Thanks for participating in our surveys!
Do you have any comments that you'd like to share?
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