What if gasoline became unaffordable?
Americans say that they are most likely to use different transportation

Results from 7 Quarterly Samples, Oct 2013 - Apr 2015
August 2015

KEY FINDINGS

- The most common changes in travel behavior that Americans say that they would make are using different transportation (47%) followed by driving less (34%).

- Consumers whose incomes were in the lowest third were more likely to express willingness to use different transportation than those in the top income bracket.

- Compared to those in the middle and top income brackets, consumers in the lowest income bracket were less likely to say they would drive a smaller or more efficient vehicle.

- When consumers had recently experienced a notable increase in gasoline prices, they expressed a greater willingness to use different transportation.

This summer, in most parts of the country, average pump prices have been nearly a dollar per gallon lower than the previous three years. But the price of oil can be quite volatile, and so what do consumers say they’d do if gasoline became unaffordable?

Personal vehicles are a staple form of transportation for most U.S. consumers, whether for traveling to work or escaping to distant places. Moreover, cars have a long-standing symbolic link with Americans’ sense of independence. Not surprisingly, pressures to reduce car use often evoke psychological resistance.

Since its inception in October 2013, the University of Michigan Energy Survey has asked U.S. consumers, in an open-ended format, about what they would do differently to get around if gasoline prices reached a level that they thought would be personally unaffordable. Understanding consumers’ responses can shed light on this important energy-related aspect of decision making.

Averaging across the past seven quarters of cross-sectional data (October 2014 through April 2015), Americans who own a personal vehicle (95% of 3,523 surveyed) have consistently reported the most willingness to use different modes of transportation (e.g., public transportation, biking, walking). As shown in Figure 1, almost half of consumers (47%) indicated they would use different transportation, followed by driving less (34%). Less common options, although expressed by a sizable number of consumers, were

<table>
<thead>
<tr>
<th>Use Different Transportation</th>
<th>Drive Less</th>
<th>Smaller/More Efficient Vehicle</th>
<th>Car Pool</th>
<th>Combine Trips</th>
<th>Would Not Change Driving Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>47%</td>
<td>34%</td>
<td>19%</td>
<td>17%</td>
<td>9%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Figure 1. Percent of consumers who say that they would engage in the above fuel-saving strategies when gasoline became unaffordable, across all survey quarters (Oct 2013 - April 2015).

The Energy Survey is a quarterly rider on the University of Michigan Surveys of Consumers and is based on telephone interviews with a representative sample of 500 U.S. households. For more details, see www.energy.umich.edu/project/energy-survey.
driving a smaller or more efficient vehicle [19%] and carpooling [17%]. Fewer [9%] reported that they would consolidate the number of times they drove [combine trips]. Very few [3%] said that they would not change their travel behavior.

The nearly two-year period examined here experienced some notable swings in national average gasoline prices, from a per-gallon high of $3.75 in June of 2014 to a low of $2.17 this past January. Nevertheless, most responses to the travel behavior question changed little over this period. The only notable change was in the most recent sample (April 2015), when a significantly greater proportion of respondents (54%) said that they would use different transportation (compared to 48% or fewer consumers in previous quarterly samples).

Digging deeper into the data, we do find a greater difference in how consumers say they would alter their travel behavior based on self-reported income. Shown in Figure 2, consumers in the lowest income bracket were more likely than those in the middle and top brackets to say they would use different transportation (55% vs. 44% and 40%).

Respondents in the middle income bracket were somewhat more likely than those in the low and top brackets to say they would drive less.

Finally, those in the lowest income bracket were least likely to say they would drive a smaller or more efficient vehicle (12% vs. 18% and 28%). A car with higher gas mileage per gallon would reduce a consumer’s driving costs; however, a limited family budget is a clear barrier to acquiring a different vehicle.

Our data also reveal how consumers’ answers may be affected by relatively large increases or decreases in the price of gasoline. The results presented in Table 1 reflect groupings of consumers from different quarterly samples who had recently experienced gasoline prices either increasing or decreasing by ±10%. Consumers who experienced very little change (±2%) in preceding months were coded as “stayed the same.”

Consumers who experienced an increase in gasoline prices were more likely than those who did not experience a change or experienced a decrease to say that they would use different transportation (51% vs. 43% and 47%). Those who experienced relatively little change in fuel prices (“stayed the same”) were more likely to say that they would drive less than consumers who experienced an increase or decrease in prices (37% vs. 33% and 32%).

Thus, when consumers at large (i.e., not broken down by income) are asked what they would do if faced with gasoline prices they consider unaffordable, using different transportation and driving less were the only responses that appear sensitive to whether they had recently experienced a notable change in gasoline prices. Consumers’ expressed likelihood of adopting other fuel saving strategies were unaffected, at least by the price swings experienced over the quarters we’ve observed to date.

In sum, a sizable fraction of Americans appear to be willing to curtail their vehicle use in favor of using different transportation or driving less if confronted with unaffordable gasoline prices. Smaller fractions say that they would carpool or use a more efficient vehicle. Consumers’ stated willingness to make such changes in travel behavior is affected by constraining factors, in particular income.

Table 1. Percent of consumers who say how they would modify their travel behavior in a particular way, classified by the change in gasoline price most recently experienced when the survey was taken.

<table>
<thead>
<tr>
<th>Gasoline Prices:</th>
<th>Went down</th>
<th>Stayed the same</th>
<th>Went up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use different transportation</td>
<td>47%</td>
<td>43%</td>
<td>51%</td>
</tr>
<tr>
<td>Drive less</td>
<td>32%</td>
<td>37%</td>
<td>33%</td>
</tr>
<tr>
<td>Smaller/more efficient vehicle</td>
<td>20%</td>
<td>19%</td>
<td>19%</td>
</tr>
<tr>
<td>Car pool</td>
<td>18%</td>
<td>17%</td>
<td>15%</td>
</tr>
<tr>
<td>Combine Trips</td>
<td>10%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Would not change</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
</tr>
</tbody>
</table>

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