

A carbon tax would not cause too much grief at the gas pump

Low-income households would be the most pressed, should be targeted for rebates

ANN ARBOR (Sept. 13, 2017) -- A new report from the University of Michigan Energy Survey offers insight into how American consumers would react to a carbon tax. A tax of \$40 per ton of carbon -- which adds 36¢ per gallon to the price of gasoline -- still leaves more than 90% of U.S. consumers inside their comfort zones for fuel prices and travel choices. But the report, based on asking consumers how much they feel they can afford to pay for fuel, also finds that much greater pressure would be felt by consumers in the lower third of the distribution by household income.

Launched in fall 2013 when fuel prices were much higher than they are now, the U-M Energy Survey polls a nationally representative sample of Americans about their views on the affordability, reliability and environmental impact of energy. These energy-related questions are appended four times a year to the University of Michigan Surveys of Consumers, the in-depth telephone interviews that are the source of the well-known Index of Consumer Sentiment.

Interviewers ask consumers how much the price of gasoline would have to rise before it would cause them to change how they get around. Researchers compare those responses to actual gasoline prices and to consumers' self-reported incomes as also tallied by the surveys.

"On average, consumers said that gasoline would have to be over \$5.00 per gallon before they would consider it unaffordable," says John DeCicco, the survey director and a research professor at the University of Michigan Energy Institute. "So there is a good bit of leeway for a carbon tax to be added before most Americans would experience serious pain at the pump."

Earlier this year, a group of Republican elders and business leaders formed the Climate Leadership Council to advance a carbon tax, which would place a levy on energy sources in proportion to how much carbon dioxide (CO₂) they emit, as a conservative solution to global warming. Their proposal calls for taxing carbon at \$40 per ton while rebating revenues back to consumers through dividends and reducing the regulations imposed on business.

Relative to a base level of \$2.80 per gallon, that would push the pump price up to \$3.16 per gallon. The number of Americans who would then find fuel to be unaffordable would rise from 2% to 7.5%, still keeping over 90% of consumers below their thresholds for pain at the pump.

"However, these average findings mask significant differences in consumer views," DeCicco points out. "We found a wide range of answers to our question about the price of gasoline."

The new report takes a close look at the responses of consumers from across the spectrum. Some consumers already feel that gasoline is unaffordable at \$2.80 per gallon, the average price over the nearly four years since the survey was launched. On the other hand, every survey sample found

some consumers who replied that gasoline would have to exceed \$10, \$20 and even in some cases over \$50 per gallon before it would prod them to make significant changes in how they get around.

Because consumers' views of affordability depend on their income, the U-M analysis grouped survey respondents into thirds (terciles) -- low, middle and high -- according to self-reported income.

"A carbon tax of \$40 per ton would push 14% of low-income consumers to where they feel they would have to significantly change their travel choices," DeCicco noted. "In contrast, 7% of middle-income and only 4% of high-income consumers would find themselves in that situation."

The study also examined lower and higher taxes of \$10 and \$100 per ton of carbon, implying 9¢ and 89¢ more per gallon, respectively. The \$10 tax would have little effect. But at \$100 per ton -- a level that some economists say is needed to deeply cut carbon -- 21% of low-income consumers would feel that gasoline is unaffordable.

Many carbon tax proposals, including the one from the Climate Leadership Council, include dividends for consumers. But policymakers can find many ways to use new tax revenues. The survey findings highlight how targeting rebates for low-income households would help the Americans who most feel that higher pump prices will impact their daily lives.

Regarding the unique approach taken by the U-M Energy Survey, "We assess each individual's personal feelings about the price of fuel based on their own needs and experience," DeCicco explains. "Moreover, we do so independently of the reason for a price change, so that we avoid pushing people's buttons, so to speak, by framing the survey in terms of taxes, climate action or other potentially volatile policy issues."

For more on these findings, see <https://www.umenergysurvey.com/carbon-tax-how-much-too-much/> and download the full report, "Carbon Taxes and the Affordability of Gasoline," at http://www.umenergysurvey.com/assets/C-taxG-aff_12Sep2017.pdf

The Energy Survey is a quarterly rider on the University of Michigan Surveys of Consumers, which can be accessed at <http://www.sca.isr.umich.edu/>. For more information about the participating research units, visit the websites for the Energy Institute at <http://energy.umich.edu/> and for the Institute for Social Research at <http://home.isr.umich.edu/>.

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