



How Accurate are EPA's Fuel Economy Labels? New Analysis from Consumer Reports

Executive Summary

In 2005, Consumer Reports conducted an in-depth analysis on the accuracy of the Environmental Protection Agency's fuel economy labels for new cars and trucks. Consumer Reports ("CR") compared the Environmental Protection Agency (EPA) values with CR's own road test data to determine whether consumers could expect to achieve the fuel efficiency indicated on the EPA labels. That analysis was based on 303 vehicles tested by CR from model years 2000 to 2006 and found that the CR and EPA fuel-economy estimates were substantially and statistically different from one another. The 2005 review showed that CR's tests on 274 vehicles (90 percent) delivered lower fuel economy than reported on the EPA label with an average difference of 3.3 MPG or 10.3 percent.

In 2008, the EPA changed its method for estimating fuel economy by incorporating the effects of faster speeds and acceleration, air-conditioning use, and colder external temperature. In 2016, Consumer Reports conducted a new analysis to see if the discrepancy between its tests and the EPA label values had changed as a result of EPA's updated test procedures. This report is an update to CR's 2005 analysis using 397 CR-tested vehicles from model years 2009 through 2016. This report also incorporated findings from CR's modified 2015 Annual Questionnaire that included a question about fuel efficiency from over one million CR members. This new information was used to compare CR's measured fuel efficiency with owner-reported fuel efficiency.

Consumer Reports' updated findings show that the gap between EPA's label and CR's tests has narrowed and that overall, there is no significant difference between CR's test results and the EPA estimates. While the 2005 analysis found an average difference of 10.3%, the new analysis finds a difference of approximately 3.1% or 0.8 MPG. In the new analysis, 57% of CR-tested vehicles delivered lower fuel economy than the EPA label, but over 80% of those vehicles were within 1 MPG of the EPA estimates.

Like the 2005 analysis, the accuracy of EPA labels varies by engine type. CR tests found conventional gasoline engine were approximately 0.7 MPG less efficient compared to the EPA label, while diesel engines were about 0.7 MPG more efficient than the label. And testing procedures for hybrid engines may need further refinement--the average difference between EPA

labels and CR tests was approximately 3.3 MPG (9.1%), even in the new analysis. However, based on CR's survey results, hybrid owners reported higher average efficiency that was more in line with EPA estimates.

In 2016, the CR, EPA, and survey estimates of overall mpg are very similar. Through both its extensive survey and road test data, Consumer Reports' new analysis shows that EPA's updated fuel economy label is now much more accurate and reliable.

A full copy of the report will be can be found at consumersunion.org/research/epa-mpg-label-analysis-2016/