

On Cargo Capacity & Fuel Economy

In August 2011, *Consumer Reports* examined 15 “wagons/hatchbacks” in order to present the association between cargo capacity and fuel economy in such vehicles. After working with the data myself, I have determined that there is some correlation between the two, though it is not capable of implying causation. The association is not linear enough to provide a reliable model for prediction. However, a pattern is obviously present, though it shouldn’t be surprising if you have given the matter much thought.

Logically, it is assumed that a greater amount of cargo capacity also implies a greater weight, and lesser fuel economy as a result. As you can see on the right, the model agrees with this thinking. There is a slight negative association between the two variables. A least squares regression line with a negative line can be easily placed.

In this particular data, only vehicles with 20 average mpg or more, and 24 or more cubic feet of cargo were compared. Using the scatterplot, a customer could better understand which particular vehicle would best suit their requirements.

Effect of Cargo Capacity on Fuel Economy