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A vehicle for bivariate data analysis.

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Summary: Instead of reserving the study of probability and statistics for special fourth-year high school courses, the Common Core State Standards for Mathematics (CCSSM) takes a “statistics for all” approach. The standards recommend that students in grades 6–8 learn to summarize and describe data distributions, understand probability, draw random samples, make inferences, and describe associations. In response to the growing needs of the nation in the area of data literacy, changes to the mathematics education landscape require that students be given the opportunity to use statistics to create mathematical meaning from data. This article addresses this challenge by presenting a “vehicle” to meet many of the Common Core’s expectations. Many eighth graders eagerly look forward to the freedom and social status that accrue from driving an automobile. The author has found that many eighth graders, in spite of being on the verge of driving in his state of Montana, know little about cars. They hold misconceptions about which models are best sellers, how fuel economy varies, how engine power differs, and how much cars cost. In this article, the author provides a data set that is an ideal environment for an exploration of bivariate quantitative data. (ERIC)

Classification: K43

Keywords: data analysis; probability; statistics

<http://www.nctm.org/Publications/Mathematics-Teaching-in-Middle-School/2016/Vol21/Issue6/A-Vehicle-for-Bivariate-Data-Analysis/>