Cars 1990 Dataset Assessment

James CarMichael

**Assumptions taken for the consumer profile:**

1. Average net compensation for a single person in 1990 was approximately $20,172.11 (pre-tax) according to the Social Security Administration, which we’ll assume remains the same over the course of the loan, ignoring taxes.
   1. The buyer would be abiding by the following assumptions when it came to purchasing the vehicle:
      1. Our consumer would not want to spend more than 15% of his/her gross income on the car loan over the 4 year period.
      2. The term for the loan would be 48 months.
      3. The buyer would be putting 0% down on the car.
   2. For simplicity sake, there will be a 4% interest rate.
   3. With these parameters, a loan amount of $12,103.27 would be an example of a categorically “green” purchase.
      1. Total cost of the car loan with interest would be $13,117.
      2. Maximum monthly payments would be $273.
2. He would be the average height adult male measuring at 5’ 9’’.
3. He doesn’t have any children, so space in the back is not as needed.
4. He lives or often commutes in a city, so size and maneuverability are more valued than power.
   1. An average width of North American parking spaces is 102.36 in, while a compact space within city limits is 90.55 in. This is width that our buyer would ideally like to be able to comfortably park within. This is not a helpful metric since all the cars’ widths are below 78 inches.

**Classification parameters**

1. I broke doe the categorization process into three elements: affordability, performance, and size.
   1. *2*
      1. Purchase amount at 15% or less of gross income over 4 year term
      2. Normalized performance data less than the 25th percentile
      3. Normalized size data less than the 25th percentile
   2. *1*
      1. Purchase amount between 15% and 20% of gross income over 4 year term
      2. Normalized performance data between the 25th – 50th percentile
      3. Normalized size data between the 25th – 50th percentile
   3. *0*
      1. Purchase amount above 20% of gross income over 4 year term
      2. Normalized performance data greater than 50th percentile
      3. Normalized size data greater than 50th percentile

**What obstacles did I have to overcome?**

**What other information would you like to have had to aid your analysis?**