

# Project 1: Analysis of fuel data

## Due: February 12, 2016 5pm

The goal of this project is to understand how fuel consumption varies over the 50 United States and the District of Columbia, and, in particular, to understand the effect on fuel consumption of state gasoline tax. Below is given a short description of the variables to be used in this dataset; the data is called fuel2001. To get the data you have to install the package "alr3". The data were collected by the US Federal Highway Administration. Both Drivers and FuelC are state totals, so these will be larger in states with more people and smaller in less populous states. To make all these comparable you have to attempt to eliminate the effect of size of the state(How?). Income is computed per person. Additionally, you want to replace Miles by its logarithm before doing any further analysis.

Description of the variables:

Drivers:	State Number of licensed drivers in the state
FuelC:	Gasoline sold for road use, thousands of gallons
Income:	Per person personal income for the year 2000, in thousands of dollars
Miles:	Miles of Federal laid highway miles in the state
Pop:	2001 population age 16 and over
Tax:	Gasoline state tax rate, cents per gallon
MPC:	Estimated miles driven per capita
State name	