This directory contains data and code that replicates the tables and figures for the following paper:

Title: My Paper

Author: Julian Reif

Directory Structure

The original, raw data are stored in CSV format in the folder: **data**

All results (LaTeX tables and PDF figures) are outputted into the folder: **results**

All code is stored in the folder: **scripts**

Data Availability Statement

The automobile data used to support the findings of this study have been deposited in a Github[1] repository (https://github.com/reifjulian/my-project/tree/master/analysis).

Datafile: **data/auto.csv**

Dataset List

Data file	Source	Notes	Provided
data/auto.csv	Stata		Yes
processed/auto.dta	Stata	Cleaned version of auto.csv, serves as input for the main analysis	Yes

Software Requirements

Stata version 15 or higher

- Add-on packages are included in **scripts/libraries/stata** and do not need to be installed by user

R version 3.6.0 or higher (available for free from: https://cloud.r-project.org)

- Two add-on packages are required: **tidyverse**, **estimatr**
- These packages can be installed three different ways:[2]
    - Manually by typing, e.g., **install.packages("tidyverse")** at the R prompt
    - Automatically by opening R and running **scripts/programs/_install_R_packages.R**
    - Automatically by uncommenting line 52 of **run.do**
- Note: **scripts/programs/_confirm_version.R** checks that these add-ons have been installed and are up to date
- Note: if you don't wish to install R, the R portion of the analysis can be disabled (see **Instructions** below)

[1] Github is not a proper data archive. For AEA publications, you can deposit your materials at the AEA Data and Code Archive.
[2] For those interested, the script **_install_R_packages.R** includes commented out code showing how to install R packages locally into **scripts/libraries/R**, so that users do not need to install the packages themselves. Doing this may use up a lot of disk space, however.

Descriptions of Scripts

run.do is a master script that sets up the environment, creates output folders, and then calls other scripts.

_install_stata_packages is provided for pedagogical purposes only. It shows how to automate the installation of Stata add-on packages into a local library. It should *not* in general be included as part of a replication package. It is unnecessary because the required packages are already available in **/scripts/libraries/stata**.

1_process_raw_data.do imports the raw automobile data and saves it in Stata format.

2_clean_data.do processes the automobile data and prepares it for analysis.

3_regressions.do estimates regression models in Stata, and calls an R script that estimates additional regression models in R. The raw regression results are saved in **results/intermediate**.

4_make_tables_figures.do creates figures and tables, saving them to **results/figures** and **results/tables**.

Memory and Runtime Requirements

This analysis requires minimal memory and processing resources. The analysis was last run on a Windows 10 Desktop with 32 gigabytes of RAM and an i7-8700 CPU 3.20 GHz processor. The runtime was less than one minute.

Instructions

Executing the Stata script **run.do** will run the analysis and generate all tables and figures. Before running this script, you must make two edits to lines 20 and 21 of **run.do**:

1. Line 20: Define a global macro, **MyProject**, that points to the directory containing this README file
2. Line 21: Define a global macro, **RSCRIPT_PATH**, that points to your R executable

For example, those two lines should look something like the following:

```
global MyProject "C:/Users/jdoe/my-project/analysis"
global RSCRIPT_PATH "C:/Program Files/R/R-3.6.0/bin/x64/Rscript.exe"
```

The R portion of the analysis requires the add-on packages listed in the **Software Requirements** section above. Follow the instructions outlined in that section to install those packages.

If R is not available on your system, you can disable the R portion of the analysis by setting the global macro **DisableR** equal to 1 in line 24 of **run.do**:

```
global DisableR = 1
```

Lists of Tables and Figures

Figure/Table #	Source script	Line Number	Output File	Notes
Figure 1	4_make_tables_figures.do	21	price_histogram.pdf	
Table 1	4_make_tables_figures.do	64	my_summary_stats.tex	
Table 2	4_make_tables_figures.do	109	my_regressions.tex	
Table 3	4_make_tables_figures.do	167	my_regressions_with_r.tex	

Help

Contact email: jreif@illinois.edu

Web guide: https://reifjulian.github.io/guide/