DESCRIPTION OF DOCUMENTATION FOR:
ZIGOURAS (2017)
"THE EXOGENOUS EFFECT OF CORN PRICES ON HOG PRICES IN THE U.S. USING ETHANOL PRODUCTION AND CORN SEED R&D AS INSTRUMENTAL VARIABLE"

The data management and analysis for the paper were conducted using R version 3.3.1 "Bug in Your Hair" using RStudio version 1.0.136. It has been written to run on a Windows or Mac operating system. In addition to the base R package, several packages are used. These can be seen at the top of the Rmd document loaded in the first code chunk.

The paper was knitted to pdf using the **elsevier_article** format contained in the **rticles** package. Knitting to pdf requires LATEX installation on your computer, though you will not need to write any code directly.

The documentation is organized into three main directories (listed in order of importance for reproduction of results):

- **Source code:** Here you will find the Rmd file that reproduces the entire paper, along with all auxiliary files created in process of knitting the pdf. Also, final datasets produced by the Data Cleaning final and used in production of tables and graphs of the final paper are located here.
- **Processing and analysis:** Contains all data called by the Rmd file. The **Supplementary code** folder contains script that is called by the Rmd code and do not need to be run directly by the user. This code does the data cleaning necessary to put the data into analysis form. It is excluded from the Rmd file only to keep the document cleaner. The **Importable data** folder contains the original data files modified to the minimal extent necessary to import them into R. All further processing is done in the code.
- **Original Data and Metadata:** Contains the data I collected in the most original form possible. For the corn price data, gmo corn seed field trial application data, natural disaster data, ethanol production data, hog price data and ppi data, these files are exactly as downloaded from the websites. The population data was copied directly from the FEMA website as made available. Nothing in this file is necessary to reproduce the results in the paper, but these files serve as a record for the data used in the analysis.

To reproduce all results reported in the paper:

Copy the Documentation folder to your computer. Make sure to leave the folder structurally intact. The code has relative paths to the data and supplementary code that assume the data is in this folder structure. The Documentation folder can be moved or renamed as necessary, but everything else must remain unchanged.

Open the Rmd in the **Source Code** folder using R Studio. Make sure all required packages are installed.

Run all code in the file. If the output format is changed to an R notebooks format, the chunks can be run one at a time to see individual results.

Knit the file to **elsevier_article** . (Knitting to other pdf formats should change only the formatting. You must have LATEX installation on your computer to do this.