README file

This README file documents replication files for:

> Richard Blundell, Joel Horowitz and Matthias Parey (2016): "Nonparametric Estimation of a Nonseparable Demand Function under the Slutsky Inequality Restriction," forthcoming *Review of Economics and Statistics*.

Replication files: The replication files contain Matlab files (data `data_BHP2.mat` and a set of m-files), as well as Stata files (data `data_BHP2.dta` and a set of do-files). Instructions on how to run these files are found below (see Instructions).

Data dictionary and sources: The data are derived from the 2001 National Household Travel Survey (NHTS, see `http://nhts.ornl.gov/download.shtml`), and supplemented with the data on distance to the Gulf of Mexico from Blundell, Horowitz and Parey (2012).

The variables included in the data files (`data_BHP2.dta` and `data_BHP2.mat`) are the following:

Variable name	Description
`log_q`	log quantity demanded per year [gallons/year]
`log_p`	log price per gallon [dollar/gallon]
`log_y`	log income [dollar/year]
`share`	gasoline share
`log_hhsize`	log household size
`log_driver`	log number of drivers
`log_hhr_age`	log age of household respondent
`total_wrkr`	number of workers in household
`publictransit_d`	large MSA with rail
`cl5_smtown_d`	urban-rural classification: small town
`cl5_suburban_d`	urban-rural classification: suburban
`cl5_secondcity_d`	urban-rural classification: second city
`cl5_urban_d`	urban-rural classification: urban
`popdensity_d2`	population density (cat 2)
`popdensity_d3`	population density (cat 3)
`popdensity_d4`	population density (cat 4)
`popdensity_d5`	population density (cat 5)
`popdensity_d6`	population density (cat 6)
`popdensity_d7`	population density (cat 7)
`popdensity_d8`	population density (cat 8)
`state_fips`	FIPS code of state where household is located
`distance_oi1000`	distance to Gulf of Mexico [1000km]

(The two data files contain the same data, stored in different formats.)

Software: The software used is (i) Matlab (version R2015b), together with the NAG Toolbox for Matlab (mark 24.4), and (ii) Stata (version 14.1).

Instructions: Running the file `master_matlab.m` in Matlab produces Figure 1 (files `figure_1_*.pdf`), Figure 2 (files `figure_2_*.pdf`), Figure 3 (files `figure_3_*.pdf`), and Table 5 (file `table_5.txt`). Running the file `master_stata.do` in Stata produces Table 1 (`table_1.txt`) and Table 3 (`table_3.txt`).