Files to Reproduce Results
"Urban Accounting and Welfare"
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All Stata and Data files are in folder AERDataFiles and all Matlab programs are in folder MatlabPro.

1. Tables

Table 1: Run Table1.do (Dataset: DataMSA.dta)
Table B1: Run TableB1.do (Dataset: Amenities.dta)
Table B2: Run TableB2.do (Dataset: DataMSA.dta)
Table B3: Run TableB3.do (Dataset: FrictionMeasures.dta)

2. Benchmark numerical exercises United States

*   <u>Step 1</u>: Run InputsNumericalUS.do (Dataset: DataMSA.dta). Generates file with MSA name, log of efficiency wedge, log of excessive frictions, and population (by year)
*   <u>Step 2</u>: Take average of log of efficiency wedge, log of excessive frictions and population to generate tab delimited text file USBenchmark.txt
*   <u>Step 3</u>: The text file USBenchmark.txt is then called by Matlab file UAWMain.m (with variable China = 0 since this is the exercise for the US) to run the counterfactual exercises
    *   UAWMain.m is included in Folder MatlabPro. The folder also includes the functions Nsys*.m called by UAWMain.m.
    *   UAWMain.m delivers as output Figures 2 and 3 and files PercChangeUS.txt and ShocksModelUS.txt. The first file includes the percentage changes in city population implied by each counterfactual exercise (plotted in Figures A1, A2, A3 and A7 in the Online Appendix). The second one is identical to USBenchmark.txt but now includes the implied log of amenities for each MSA in column 3.
*   <u>Step 4</u>: Run UAWMain.m with different parameter values to generate the output of all other exercises in the paper (e.g. Figures 1, 4, 5, 6, 7, A4, A5, A6 and A8).

3. Numerical exercises China

*   <u>Step 1</u>: Run InputsNumericalChina.do (Dataset: DataChina.dta). Generates file with province name, log of efficiency wedge, log of excessive frictions, and population
*   <u>Step 2</u>: Copy log of efficiency wedge, log of excessive frictions and population to generate tab delimited text file ChinaBenchmark.txt
*   <u>Step 3</u>: The text file ChinaBenchmark.txt is then called by Matlab file UAWMain.m (with variable China = 1 since this is the exercise for China) to run the counterfactual exercises
    *   UAWMain.m delivers as output Figures 8 and files PercChangeChina.txt and ShocksModelChina.txt. The first file

includes the percentage changes in city population implied by each counterfactual exercise (plotted in Figures A1, A2, A3 and A7 in the Online Appendix). The second one is identical to ChinaBenchmark.txt but now includes the implied log of amenities for each city in column 3.

- Step 4: Run UAWMain.m with different parameter values to generate the output of all other exercises in the paper (e.g. Figure 9).

4. Robustness checks United States

- Robustness 1: Elasticity of commuting costs relative to population of 0.25
  - o Estimation of the elasticity: between 0.25 (for MSAs) and 0.5 (for incorporated places). Run program ElasticityCommuting.do (Datasets: ElasticityMSA.dta and ElasticityCities.dta).
  - o Step 1: Run Robustness1(Elasticity).do (Dataset: DataMSA.dta). Generates file with MSA name, log of efficiency wedge, log of excessive frictions, and population (by year)
  - o Step 2 and Step 3: by analogy with benchmark numerical exercise in 2.

- Robustness 2: Labor wedge net of local taxes
  - o Step 1: Run Robustness2(NoTaxes).do (Dataset: DataMSA.dta). Generates file with MSA name, log of efficiency wedge, log of excessive frictions, and population (by year)
  - o Step 2 and Step 3: by analogy with benchmark numerical exercise in 2.

- Robustness 3: Different kappa
  - o Run UAWMain.m as in benchmark numerical exercise in 2. using different values of kappa.

- Robustness 4: Hours worked based on 65 years and younger
  - o Step 1: Run Robustness4(NoTaxes).do (Dataset: DataMSA.dta). Generates file with MSA name, log of efficiency wedge, log of excessive frictions, and population (by year)
  - o Step 2 and Step 3: by analogy with benchmark numerical exercise in 2.