Readme: Transportation Networks and the Geographic Concentration of Employment

Currently Runs on Stata version 18.0 & R version 4.2.2. Runtimes reported for extended runtime processes.

Stata requires the following ado packages

Confirmdir	(Version 1.1)
Reghdfe	(Version 6.12.4)
Shp2dta	(Version 1.0.9)
Spmap	(Version 1.3.2)
Ftools	(Version 2.49.1)
Ivreg2	(Version 4.1.11)
Ivreghdfe	(Version 1.1.3)
Balancetable	(Version 5.0)
Unique	(Version 1.2.4)
Estout	(Version 3.31)
Xtile	(Version 3.1.9)
Mmerge	(Version 2.5.0)

R requires the following packages

Tidyverse	(Version 1.3.2)
Igraph	(Version 1.5.1)
Knitr	(Version 1.42)

Data Files:

See appendix for more information on dataset construction
Main Analysis Dataset: TransNetworksGeogConcEmp_replication_MainData.dta
Historic Falsification Dataset: TransNetworksGeogConcEmp_replication_HistData.dta
Betweenness Figures Datasets

1. BetweenessSmlData.csv
2. BetweenessSmlData_Nodes.csv

Mapping Datasets – Loaded in GISLayers subfolder, requires creating dta subfolder

1. 1950CountyBorderMasterMap
2. IHS_withYearBuiltPerSegment
3. P47_JoinedBetweenness
4. Persh12_JoinedBetweenness
5. RandMcNally1947_CompletelyCleaned_crs2163
6. USNationalBoundary_Lower48_crs2163

Directory Structure:

1. Inputting files requires following the existing folder structure from the replication package with the data folder and two layered subfolders.
2. Outputting files require two output folders, one for tables and one for figures.
3. Scripts folder contains all necessary .do and .R scripts

Main Paper Exhibits:

Frye_Replication_Fig1.do

Stata do file plots the four subfigures that make Figure 1.
Uses Main Analysis Dataset

Frye_Replication_Fig3.R

R script that plots both subfigures illustrating betweenness for a subset of cities in Figure 3.
Uses two Betweenness Figure Datasets

Frye_Replication_Table1.do

Stata do file loads data and constructs the two panels that make Table 1.
Uses Main Analysis Dataset
Runtime: approx. 3.5 hrs

Frye_Replication_Table2.do

Stata do file loads data and constructs the two panels that make Table 2.
Uses Main Analysis Dataset
Runtime: approx. 8 hrs

Appendix B Exhibits

Frye_Replication_AppendixMaps.do

Stata do file creates appendix maps presented in three appendix exhibits. The first three maps are included in Appendix Figure B.1.1. The second pair of maps are included in Appendix Figure B.1.2. The third pair of maps make up Appendix Figure B.2.1.
Uses Separate Map Files and Main Analysis Dataset

Frye_Replication_AppendixFigure_B.1.2.do

Stata do file creates top two subfigures.
Uses Main Analysis Dataset

Frye_Replication_AppendixTable_B.3.1.do

Stata do file creates four separate panels that analyze growth prior to interstate construction.
Uses Historic Falsification Dataset

Frye_Replication_AppendixFigures_B.3.1_B.3.2.do

Stata do file creates eight event study figures evaluating pre-trends in the OLS and reduced form. The file additionally creates four plots that show the density of data along each year.
Uses Main Analysis Dataset
Runtime: approx. 15 minutes

Appendix C Exhibits

Frye_Replication_AppendixSummaryStats.do

Stata do file creates multiple balance tables for outcomes and treatments (Table C.1.1), covariates (C.1.2), and shares within firm size bins (Table C.1.4).
Uses Main Analysis Dataset

Frye_Replication_AppendixTable_C.1.3

Stata do file creates two separate panels with regressions that explore changes in the size of firms over time.
Uses Main Analysis Dataset
Runtime: approx. 1 hour 45 minutes

Frye_Replication_AppendixTable_C.1.5

Stata do file creates two separate panels with regressions that introduce interstate density as the explanatory variable of interest.
Uses Main Analysis Dataset
Runtime: approx. 45 minutes