Replication files and descriptions for "The Creation and Extent of America's First Environmental Agencies" by Dean Lueck and Dominic P. Parker.

The following describes the code and data used to generate figures and tables. All Stata code and files utilize Stata/SE version 16.1 Unless otherwise noted, run times for "do" files are less than one minute. To execute all do files, the working directory should be adjusted appropriately.

Figure 1

UW_Deer_Population.dta is Stata data file showing a time series assessment of deer population in the continental U.S. from 1450 to 2021. The data come from https://www.deerfriendly.com/decline-of-deer-populations (last visited October 25, 2024). Figure 1.do is a Stata do file that creates a graph of the deer population time series.

Figure 2

Agency_Form_Years.xlxs is an excel workbook with three datasheets showing the timing of agency creation and defining the variables. The MS Word document "Agency Creation Research Methodolgy.docx" explains the process used to codify agency creation dates.

Formation_Years.dta is a Stata data file showing the panel data sheet for agency creation with state-year indicators to denote whether an agency existed for a given state during a particular year. Figure 2.do is a Stata do file that creates a graph of the cumulative number of agencies in existence across states from 1860 through 2010.

Figure A1

FigureA1.do generates Figure A1 from FigureA1.dta. This file contains a subset of variables found in panel1860_1920.dta described below.

Figure A3

FigureA3.do generates Figure A2 from FigureA2.dta. The data on wildlife and fish expenditures come from the U.S. Census, Annual Survey of State Government Finances, 1952-2007 described in more detail below and contained in the zipped folder "State_Govt_Fin.zip". The data on revenue from hunting and fishing licenses, and federal tax payments to state fish and wildlife agencies come from the US Fish and Wildlife Service as data shared with us in hard copy files for UFWS personnel.

Figure A4

FigureA4.do generates Figure A3 from Figure A3.dta. The data come from decadal state level data on acres in farms and average farm size from U.S. Agricultural Census Reports. The data were downloaded from https://www.icpsr.umich.edu/web/ICPSR/studies/35206 and are available in the folder "Haines Ag Data".

Citation: Haines, Michael, Fishback, Price, and Rhode, Paul. United States Agriculture Data, 1840 - 2012. Inter-university Consortium for Political and Social Research [distributor], 2018-08-20. https://doi.org/10.3886/ICPSR35206.v4

Tables 1, 2 and A2-A7 and Figure A2

The tables and the figure are created by Hazard_Agencies.do. This file combines three data files, and, from there, it runs code that creates each table.

1. organization1860_1920.dta
2. panel1860_1920.dta
3. Agency_Form_Years.dta

The organization1860_1920.dta file comes from data in Agency_Form_Years.xlxs. The panel1860_1920.dta file combines data from merging three data files using code in the file Panel1860_1920.do. The three merged files are:

i. Ag 1860_1920.dta
ii. PopData1860_1920.dta
iii. Urban1860_1920.dta

Ag 1860_1920.dta is created from Haines Ag Data_1860_1920.do. It processes data from U.S. Agricultural Census Files for 1860, 1870, 1880, 1890, 1900, 1910 and 1920. These data are found in the folder named Haines Ag Data and were downloaded from https://www.icpsr.umich.edu/web/ICPSR/studies/35206. The do file creates state-level panel variables for:

- acres in farms
- improved farm acres
- number of farms over 1000 acres
- number of farms over 500 acres
- average farm size

Citation: Haines, Michael, Fishback, Price, and Rhode, Paul. United States Agriculture Data, 1840 - 2012. Inter-university Consortium for Political and Social Research [distributor], 2018-08-20. https://doi.org/10.3886/ICPSR35206.v4

The PopData1860_1920.dta file is created from Haines Census Data.do. It processes data from U.S. Population Census Files for 1860, 1870, 1880, 1890, 1900, 1910 and 1920. These data are found in the folder "Haines Census Data" and were downloaded from https://www.icpsr.umich.edu/web/ICPSR/studies/2896. The code assembles state-level variables for:

- total population
- native born population
- total land area in acres

Citation: Haines, Michael R., and Inter-university Consortium for Political and Social Research. Historical, Demographic, Economic, and Social Data: The United States, 1790-2012. Inter-university Consortium for Political and Social Research [distributor], 2010-05-21. https://doi.org/10.3886/ICPSR02896.v3

The Urban1860_1920.dta file gives state-level urban population in decadal periods from 1860 through 1920 both in total and as a percentage of total population. The data source is Geddes and Lueck (2002).

Citation: Geddes, Rick and Dean Lueck. 2002. The Gains from Self-Ownership and the Expansion of Women's Rights. *American Economic Review* 92(4): 1079-1092.

Table A1

Table A1 is constructed from Trespass Laws.xlxs. The MS Word document "Trespass Research Methodolgy.docx" explains the process used to codify trespass laws.

Tables 3,4 and A8-A12

These tables are created by Agency_Budgets.do (run time of about 2 minutes). This file utilizes Agency_Budgets.dta to create tables. Agency_Budgets.dta is a state-level panel spanning 1942 to 2010 although the budget (expenditures) regressions focus on 5-year intervals spanning 1952 to 2007 due to limited data availability. Agency.Budgets.dta combines data from the merging of five data files using code in Panel1952_2007.do. The files are:

i. Expenditures.dta
ii. Ag_Data1945_2007.dta
iii. Pop_PCI.dta
iv. Precip_Elevation.dta
v. FedLand.dta

Expenditures.dta contains state level data for 1942 to 2007 on public expenditures in the following categories.

- fish and wildlife
- health and hospitals
- parks
- agriculture
- forestry
- total revenue

The data come from the U.S. Census, Annual Survey of State Government Finances. Data were shared with us by an employee at the Census Bureau as a MS Access Database contained in the State_Govt_Fin.zip folder. We queried the MS Access DB to pull out variables listed above.

The Ag_Data1945_2007.dta file is created from Haines Ag Data_1945_2007.do. It processes data from U.S. Agricultural Census Files for 1945, 1950, 1954, 1959, 1965, 1969, 1974, 1978, 1982, 1987, 1992, 1997, 2002, 2007. These data are contained in the Haines Ag Data folder and were downloaded from https://www.icpsr.umich.edu/web/ICPSR/studies/35206. The data were used to assemble state-level panel variables for:

- acres in farms
- number of farms over 1000 acres
- number of farms over 500 acres
- average farm size

The Pop_PCI.dta file come from the U.S. Bureau of Economic Analysis file "State annual personal income summary: personal income, population, per capita personal income" (first accessed in 2019). The version we use is no longer available on the website but it corresponds well with data embedding minor updates, accessed October 15, 2024).

The Precip_Elevation.dta includes state cross-sectional data on average rainfall over 1971-2000, average state elevation, and total acres of each state.

Sources:

Precip: NOAA National Climatic Data Center: www.ncdc.noaa.gov/oa/ncdc.html

Elevation:https://en.wikipedia.org/wiki/List_of_U.S._states_and_territories_by_elevation

Total acres: https://publiclandjurisdiction.com/wp-content/uploads/2020/01/1962-Jurisdictional-Status-by-state-total-acreage.pdf

The FedLand.dta file contains state-level data on acres in federal landholdings. These were hand-entered from Public Lands Statistics and Census reports for select years: 1945, 1955, 1970, 1975, 1980, 1985, 1990, 1995, 2000, and 2008. To construct an annual panel, the data are linearly interpolated for each state between available years.

Note that data on state agency expenditures on non-game species are entered via code within the Agency_Budget.do file. The non-game expenditure data were available to us only in hard copy. The data sources for 1986, 1992, and 1998 are as follows.

Cerulean, S. and W. Fosburgh. 1986. "State Nongame Programs." In Audubon Wildlife Report (ed. R. L. Di Silvestro). National Audubon Society, New York.

Edelson, Naomi. 1994. State Wildlife Diversity Program Funding: A 1992 Survey. Washington D.C.: International Association of Wildlife Agencies.

Richie, Deborah and Jennifer Holmes. 2000. State Wildlife Diversity Programs Funding: A 1998 Survey. Washington D.C.: International Association of Wildlife Agencies.