

Overview

One master file in this replication package ("master_main.do") runs all of the code to generate 3 of the 4 figures and the 5 tables in the paper. Another master file in this replication package ("master_appendix.do") runs all of the code to generate 2 of the 4 figures and the 10 tables in the appendix. We provide additional instructions on how to construct the remaining figures. The replicator should expect the code to run for about 200 hours for the former and 400 hours for the latter.

Data availability and provenance statements

Our data are drawn from three main sources: (1) annual, county-level infant deaths and live births have been extracted from the *Vital Statistics of the United States*; (2) annual, indicators of county-level prohibition status have been constructed from contemporary sources; and (3) other county-level covariates are available from the US Census. These are combined by first assigning FIP codes to counties and then merging in Stata. The compiled dataset is included in this replication package in data/full19331939.dta

(1) Annual counts of infant deaths and live births from 1933 to 1939 for the 3,000+ counties of the continental United States are taken from Bailey et al. (2016), "U.S. County-Level Natality and Mortality Data, 1915-2007" and available here:

<https://www.openicpsr.org/openicpsr/project/100229/version/V4/view>

(2) For county-level prohibition status, our starting point is in reconstructing the prohibition status of counties in 1935 and 1940, depicted in the maps of Strumpf and Oberholzer-Gee (2002). We then supplement these with new sources to determine the prohibition status of counties in 1934, 1936, 1937, 1938, and 1939 (The Distilled Spirits Council, 1935; Harrison, 1938; Culver and Thomas, 1940; Thomas and Culver, 1940; The Distilled Spirits Council, 1941). For a small number of counties, it was required to use LexisNexis to establish the year in which there was a change in their prohibition status.

(3) Finally, there is a large historical literature delineating variables that shaped support for prohibition and which we use as further controls in explaining variation in infant mortality rates. This literature points to strong preferences for dry status before and during the period of repeal among Baptists and Methodists, the native-born, rural inhabitants, and women (Okrent, 2010). To this list, we also include information at the county level on the proportion of blacks, the number of hospital beds and medical institutions per 1000 childbearing age women, per capita New Deal spending, per capita retail sales as a proxy for income, and the unemployed-to-working age population ratio as previous research has indicated that these variables influenced infant mortality in this period (Fishback, Haines, and Kantor, 2001; 2007). The table below provides the definition and sources of our control variables.

Variable definitions and data sources

Variable name	Definition	Source
<i>Retail sales</i>	Retail sales per capita, linearly interpolated between 1933, 1935, and 1939 (<i>time varying</i>)	Fishback <i>et al.</i> (2011)
<i>% Baptist/Methodist</i>	Number of Baptists and Methodists in 1926 divided by total population in 1930	1926 Census of Religious Bodies
<i>% black</i>	Number of black people divided by total population in 1930	1930 Census - State and County I
<i>% female</i>	Number of females divided by total population in 1930	1930 Census - State and County I
<i>% immigrant</i>	Number of foreign born divided by total population in 1930	1930 Census - State and County I
<i>% urban</i>	Number of urban residents divided by total population in 1930	1930 Census - State and County I
<i>Unemployment</i>	Number of unemployed divided by population aged 15-64 in 1930	1930 Census - State and County I
<i>New Deal spending</i>	Cumulative New Deal spending from March 1933 through June 1939 divided by population in 1930	Fishback <i>et al.</i> (2011)
<i>Hospital beds</i>	Hospital beds per 1000 women aged 15-44 (<i>time varying</i>)	Fishback <i>et al.</i> (2011)
<i>Institutions</i>	Medical institutions per 1000 women aged 15-44 (<i>time varying</i>)	Fishback <i>et al.</i> (2011)

Sources: Fishback, P.V., W. Troesken, T. Kollmann, M. Haines, P. Rhode, and M. Thomasson (2011), "Information and the impact of climate and weather on mortality rates during the Great Depression", in (G. Libecap and R. Steckel, eds.), *The Economics of Climate Change*, pp. 131-168, Chicago: University of Chicago Press; Gardner, J. and W. Cohen (1992). "Demographic characteristics of the population of the United States, 1930-1950: county-level", Ann Arbor: ICPSR; US Department of Commerce, Bureau of the Census (1980). *Censuses of Religious Bodies, 1906-1936*. Ann Arbor: ICPSR.

Finally, for our baseline analysis, we first identify the 715 ever-dryish counties that became dryish sometime from 1934 to 1939. We retain only the 698 ever-dryish counties that progressed 'monotonically' from bone dry to dryish or from bone dry to dryish to wet from 1933 to 1939. This excludes counties that alternate between bone dry and dryish status, for example. These ever-dryish counties form the center of each triad. For each of these 698 ever-dryish counties, we consider the year in which that county became dryish and find the wet county whose county seat is nearest to that of the ever-dryish county. This county is the wet partner in the triad. For the dry partner in the triad, we again consider the year in which the ever-dryish county became dryish and find the bone dry county whose county seat is nearest to that of the ever-dryish county. Of the 698 triads so constructed, we retain the 683 triads where both the dry partner and the wet partner progress 'monotonically'. That is, the

wet partner stays wet and the dry partner stays bone dry or goes from bone dry to dryish, from bone dry to dryish to wet, or from bone dry to wet during 1933 to 1939. This excludes triads with counties that alternate between bone dry and wet status, for example.

To summarize, each triad is comprised of three nearby counties: one county that is treated with dryish status in the center of the triad (ever-dryish); one nearby county that is treated with wet status (wet partner); and one nearby bone dry county that acts as the control county (dry partner). Our data set is constructed by observing the three members of each triad from 1933 to 1939, resulting in 14,343 observations. These triads have time-invariant members, but their members may be overlapping. The compiled dataset is included in this replication package in data/full19301942.dta

Statement about rights

We certify that the author(s) of the manuscript have legitimate access to and permission to use the data used in this manuscript.

Summary of availability

All data are publicly available.

Computational requirements

No packages or libraries need to be installed.

Software requirements

Code was last run with Stata MP version 14.

Memory and runtime requirements

The code was last run on a 2017 Mac Pro with 12 processors and 32 GB of RAM.

The replicator should expect the code to run for about 200 hours for the analysis in the main text and 400 hours for the analysis in the appendix.

Description of files in replication package

The following programs should be a part of the replication package:

(1) master_appendix.do

This file runs all of the code to generate 2 of the 4 figures and the 10 tables in the appendix.

(2) master_main.do

This file runs all of the code to generate 3 of the 4 figures and the 5 tables in the paper.

The following folders should be a part of the replication package:

(1) data

This folder contains all of the data used in this paper.

(2) figures

Figures generated by the programs are stored in this folder.

(3) log

log files generated by the programs are stored in this folder.

(4) ster

ster files generated by the programs are stored in this folder.

(5) sub_code

The do files to produce figures and tables in the main text are stored in this folder.

(6) sub_code_appendix

The do files to produce figures and tables in the appendix are stored in this folder.

(7) tables

Tables generated by the programs are stored in this folder.

(8) US county shapefiles

The files in this folder are the shapefiles used to construct the maps in Figure 3 using ArcGIS. The underlying data for the prohibition status of counties can also be found in the file "Prohibition status of counties, 1933-1940.dta".

Instructions to replicators

- (1) All of the programs and folders above should be placed in your designated folder.
- (2) Open "master_main.do" and "master_appendix.do" and modify the path accordingly.
- (3) Run "master_main.do" and "master_appendix.do" for results in the main text and appendix, respectively.

Further details regarding figures and tables in the main text

Figure 1 is replicated by using "sub_code/Figure 1.do".

Figure 2 is replicated by using "sub_code/Figure 2.do".

Figure 3 was generated by an independent contractor using ArcGIS. The underlying data for the prohibition status of counties can be found in "US county shapefiles/Prohibition status of counties, 1933-1940.dta". The shapefiles used by the contractor are the remaining files in "US county shapefiles". The final files for the maps are in "US county shapefiles/Maps/".

Figure 4a is replicated by using "sub_code/Figure 4a.do".

Figure 4b is replicated by using "sub_code/Figure 4b.do".

Table 1 requires no replication.

Table 2 is replicated by using the files, "sub_code/Table2_columns1-4.do" and "sub_code/Table2_columns5-8.do". The relevant output is in the files "tables/Table2_columns1-4.csv" and "tables/Table2_columns5-8.csv".

Table 3 can be replicated using all .do files from "subcode/Table3_column1_bc.do" to "subcode/Table3_column6.do". Of special note here is that since the results are bias corrected, they require a two-step procedure. For instance, to replicate the results in column 1 of Table 3, first run "master_main.do" which will run "subcode/Table3_column1.do". The initial estimates there will then be bias corrected by "subcode/Table3_column1_bc.do". These final results must then be copied-and-pasted from the log file "Table3_column1.log" into Table 3. Note that the first column at the bottom of the log file reports the corrected estimates while the second column at the bottom of the log file reports the uncorrected estimates. The same process allows one to replicate all columns of Table 3.

Table 4 can be replicated using all .do files from "subcode/Table4_column1_bc.do" to "subcode/Table4_column3.do". Of special note here is that since the results are bias corrected, they require a two-step procedure. For instance, to replicate the results in column

1 of Table 4, first run "master_main.do" which will run "subcode/Table4_column1.do". The initial estimates there will then be bias corrected by "subcode/Table4_column1_bc.do". These final results must then be copied-and-pasted from the log file "Table4_column1.log" into Table 4. The same process allows one to replicate all columns of Table 4.

Table 5 can be replicated using all .do files from "subcode/Table5_column2_bc.do" to "subcode/Table4_column8.do". The first column of Table 5 comes from the sixth column of Table 3. Of special note here is that since the results are bias corrected, they require a two-step procedure. For instance, to replicate the results in column 2 of Table 5, first run "master_main.do" which will run "subcode/Table5_column2.do". The initial estimates there will then be bias corrected by "subcode/Table5_column2_bc.do". These final results must then be copied-and-pasted from the log file "Table5_column2.log" into Table 5. The same process allows one to replicate all columns of Table 5.

Further details regarding figures and tables in the appendix

Figure A1 is replicated by using "sub_code_appendix/Figure A1.do".

Figure A2 is replicated by using "sub_code_appendix/Figure A2.do".

Figure C1 is purely illustrative and has no underlying data associated with it. It was constructed in Inkscape for Mac. In order to replicate the figure, first generate a bell curve, then add two vertical lines to the left of the center of the distribution. The vertical line on the left should be shaded lighter than the vertical line on the right. Add an arrowed line (pointed left) in between the two vertical lines. Shade in the area in between the two vertical lines and below the bell curve. Next, label the bell curve as "WTP". Finally, label the darker vertical line as "Dry price" and the lighter vertical line as "Wet price". The final file for the figure can be found at "figures/Figure C1.png".

Figure C2 is purely illustrative and has no underlying data associated with it. It was constructed in Inkscape for Mac. In order to replicate the figure, first generate a bell curve, then add two vertical lines to the right of the center of the distribution. The vertical line on the left should be shaded lighter than the vertical line on the right. Add a third, dotted vertical line in between the first two vertical lines. Add an arrowed line (pointed left) in between the darker vertical line and the dotted vertical line. Shade in the area in between the darker vertical line and the dotted vertical line and below the bell curve. Next, label the bell curve as "WTP". Finally, label the darker vertical line as "Dry price", the lighter vertical line as "Wet price", and the dotted vertical line as "Dryish price". The final file for the figure can be found at "figures/Figure C2.png".

Table A1 can be replicated using all .do files from "subcode/TableA1_column1_bc.do" to "subcode/TableA1_column3.do". Of special note here is that since the results are bias corrected, they require a two-step procedure. For instance, to replicate the results in column

1 of Table A1, first run "master_appendix.do" which will run "subcode/TableA1_column1.do". The initial estimates there will then be bias corrected by "subcode/TableA1_column1_bc.do". These final results must then be copied-and-pasted from the log file "TableA1_column1.log" into Table A1. The same process allows one to replicate all columns of Table A1.

Table A2 can be replicated using all .do files from "subcode/TableA2_column1_bc.do" to "subcode/TableA2_column3.do". Of special note here is that since the results are bias corrected, they require a two-step procedure. For instance, to replicate the results in column 1 of Table A2, first run "master_appendix.do" which will run "subcode/TableA2_column1.do". The initial estimates there will then be bias corrected by "subcode/TableA2_column1_bc.do". These final results must then be copied-and-pasted from the log file "TableA2_column1.log" into Table A2. The same process allows one to replicate all columns of Table A2.

Table A3 can be replicated using all .do files from "subcode/TableA3_column1_bc.do" to "subcode/TableA3_column3.do". Of special note here is that since the results are bias corrected, they require a two-step procedure. For instance, to replicate the results in column 1 of Table A3, first run "master_appendix.do" which will run "subcode/TableA3_column1.do". The initial estimates there will then be bias corrected by "subcode/TableA3_column1_bc.do". These final results must then be copied-and-pasted from the log file "TableA3_column1.log" into Table A3. The same process allows one to replicate all columns of Table A3.

Table A4 can be replicated using all .do files from "subcode/TableA4_column1_bc.do" to "subcode/TableA4_column6.do". Of special note here is that since the results are bias corrected, they require a two-step procedure. For instance, to replicate the results in column 1 of Table A4, first run "master_appendix.do" which will run "subcode/TableA4_column1.do". The initial estimates there will then be bias corrected by "subcode/TableA4_column1_bc.do". These final results must then be copied-and-pasted from the log file "TableA4_column1.log" into Table A4. The same process allows one to replicate all columns of Table A4.

Table B1 can be replicated using all .do files from "subcode/TableB1_column2-5.do" to "subcode/TableB1_column8.do". The first column of Table B1 comes from the sixth column of Table 3. Of special note here is that since the results are bias corrected, they require a two-step procedure. For instance, to replicate the results in column 8 of Table B1, first run "master_appendix.do" which will run "subcode/TableB1_column8.do". The initial estimates there will then be bias corrected by "subcode/TableB1_column8_bc.do". These final results must then be copied-and-pasted from the log file "TableB1_column8.log" into Table B1. The same process allows one to replicate all columns of Table B1 except for column 6 and column 7. "subcode/TableB1_column6.do" gives p-values instead of standard errors comparable to two-sided tests, estimated via Randomization Inference (RI). These final results must then be copied-and-pasted from the file "TableB1_column6.log" into Table B1. "subcode/TableB1_column7.do" produces the results for column 7 of Table B1, and the results are stored in the folder "tables" as "TableB1_column7.csv".

Table D1 is replicated by using "sub_code_appendix/TableD1.do".

Table D2 is replicated by using "sub_code_appendix/TableD2.do".

Table D3 can be replicated using all .do files from "subcode/TableD3_column1.do" to "subcode/TableD3_column3.do". Of special note here is that since the results are bias corrected, they require a two-step procedure. For instance, to replicate the results in column 1 of Table D3, first run "master_appendix.do" which will run "subcode/TableD3_column1.do". The initial estimates there will then be bias corrected by "subcode/TableD3_column1_bc.do". These final results must then be copied-and-pasted from the log file "TableD3_column1.log" into Table D3. The same process allows one to replicate all columns of Table D3.

Table D4 is replicated by using "sub_code_appendix/TableD4&D5.do".

Table D5 is replicated by using "sub_code_appendix/Table D4&D5.do".

References

- Bailey, M., K. Clay, P. Fishback, M.R. Haines, S. Kantor, E. Severnini, and A. Wentz (2016). 'U.S. County-Level Natality and Mortality Data, 1915-2007', Inter-university Consortium for Political and Social Research. <https://doi.org/10.3886/ICPSR36603.v2>
- Culver, D.C. and Thomas, J.E. (1940). *State Liquor Control Administration*, Bureau of Public Administration, University of California-Berkeley.
- Distilled Spirits Institute (1935). *Summary of State Liquor Control Laws and Regulations Relating to Distilled Spirits*, Washington, D.C.: Distilled Spirits Institute.
- Distilled Spirits Institute (1941). *Summary of State Liquor Control Laws and Regulations Relating to Distilled Spirits*, Washington, D.C.: Distilled Spirits Institute.
- Fishback, P.V., Haines, M. and Kantor, S. (2001). 'The impact of the New Deal on black and white infant mortality in the South', *Explorations in Economic History*, vol. 38(1), pp. 93-122.
- Fishback, P.V., Haines, M. and Kantor, S. (2007). 'Births, deaths, and New Deal relief during the Great Depression', *Review of Economics and Statistics*, vol. 89(1), pp. 1-14.
- Fishback, P.V., W. Troesken, T. Kollmann, M. Haines, P. Rhode, and M. Thomasson (2011), 'Information and the impact of climate and weather on mortality rates during the Great Depression', in (G. Libecap and R. Steckel, eds.), *The Economics of Climate Change*, pp. 131-168, Chicago: University of Chicago Press;
- Gardner, J. and W. Cohen (1992). 'Demographic characteristics of the population of the United States, 1930-1950: county-level', Inter-university Consortium for Political and Social Research. <https://doi.org/10.3886/ICPSR00020.v1>
- Harrison, L.V. (1938). *The Local Option Fallacy*, Washington, D.C.: Distilled Spirits Institute.
- Okrent, D. (2010). *Last Call: The Rise and Fall of Prohibition*, New York: Scribner.
- Strumpf, K.S. and Oberholzer-Gee, F. (2002). 'Endogenous policy decentralization: testing the central tenet of economic federalism', *Journal of Political Economy*, vol. 110(1), pp. 1-36.

Thomas, J.E. and Culver, D.C. (1940). 'Protection of dry areas', *Law and Contemporary Problems*, vol. 7(4), pp. 696-708.

US Department of Commerce, Bureau of the Census (1980). *Censuses of Religious Bodies, 1906-1936*, Inter-university Consortium for Political and Social Research.
<https://doi.org/10.3886/ICPSR00008.v1>