README file for replication of Figure IV

Overview

This series of code reproduces Figure IV in the manuscript "Learning from Shared News: When Abundant Information Leads to Belief Polarization." The figure is a replication of the graph titled "View That Effects of Global Warming Have Already Begun" from the Gallup article "Global Warming Attitudes Frozen Since 2016," published in April 5, 2021, using Stata and R. A link to the article is provided here (https://news.gallup.com/poll/343025/global-warming-attitudes-frozen-2016.aspx).

Two main files run all of the code needed to replicate both data cleaning and graph generation, "`Code/1. gallup_rep_code_1997convert.R`" and "`Code/2. gallup_rep_code_master.do`."

Data Availability and Provenance Statements

- ☐ This paper does not involve analysis of external data (i.e., no data are used or the only data are generated by the authors via simulation in their code).

Two main datasets are used for this replication. The first is restricted access Gallup poll data from November 6-9, 1997 downloaded from the Roper Center's iPoll Database. The second is proprietary Gallup poll data from 2000-2021. More detail about the dates of data collection and data collection procedures can be found in a pdf included at bottom of the webpage of the original article and at the Gallup website.

Statement about Rights

- ☑ I certify that the author(s) of the manuscript have legitimate access to and permission to use the data used in this manuscript.
- ☑ I certify that the author(s) of the manuscript have documented permission to redistribute/publish the data contained within this replication package. Appropriate permission are documented in the LICENSE.txt file.

Summary of Availability

- ☐ All data **are** publicly available.
- ☐ Some data **cannot be made** publicly available.
- ☑ **No data can be made** publicly available.

Details on each Data Source

1997 Gallup Poll Data

The paper uses Gallup Poll data downloaded from the Roper Center iPoll database. The data were collected from November 6-9, 1997, and can be found under the title "Gallup News Service Poll: Ethical Standards/Abortion/Environment" (Gallup Organization [1997]). The data and questions can be downloaded from the following link: https://ropercenter.cornell.edu/ipoll/study/31088755/. Institutional access to the dataset is made available to select universities and organizations. Dataset access is also available through membership registration with the Roper Center.

2000-2021 Gallup Poll Data

The data from Gallup to replicate the 2000-2021 part of the time series are confidential, but may be obtained through requests with the Gallup Organization directly (Gallup Organization [2000-2021]).

Dataset list

Data file	Source	Notes	Provided
`9711028.por`	Gallup	As per terms of use	No
`GPSS Environment Final GA Aggregate.dta`	Gallup	Confidential	No

Computational requirements

Software Requirements

- R 4.1.1
  - `haven` (2.5.1)
  - the file "`Code/1. gallup_rep_code_1997convert.R`" will install all R dependencies, and should be run once prior to running other programs.
- Stata 17
  - all Stata programs can be run in Stata versions 14-17.
  - the program "`Code/2. gallup_rep_code_master.do`" will install all Stata dependencies locally, and should be run once.

Summary Approximate time needed to reproduce the analyses on a standard 2022 desktop machine:

☑ <10 minutes
☐ 10-60 minutes

☐ 1-2 hours
☐ 2-8 hours
☐ 8-24 hours
☐ 1-3 days
☐ 3-14 days
☐ > 14 days
☐ Not feasible to run on a desktop machine, as described below.

Details The code was last run on a **4-core Intel-based laptop with Windows 11 Home version 10.0.22621**.

Description of programs/code

- Programs in "`Code/1. gallup_rep_code_1997convert.R`" will convert the 1997 Gallup data from portable SPSS (`.por`) to Stata 14 format (`.dta`).
- Programs in "`Code/2. gallup_rep_code_master.do`" runs the two program files below.
- Programs in "`Code/3. gallup_rep_code_1997cleaning.do`" cleans the 1997 Gallup data.
- Programs in "`Code/4. gallup_rep_code_19972021.do`" cleans the 2000-2021 data, brings in the 1997 data, and generates the Gallup graph. The output file is called `High-res simulations graphs/global_warming_gallup.png` and should be easy to correlate with the manuscript.

Instructions to Replicators

- Obtain the relevant data from both the Roper Center (in portable SPSS format) and Gallup (in Stata format). Download to the prepared `Data/` subdirectory.
- Edit "`Code/1. gallup_rep_code_1997convert.R`" to adjust the default root directory, user name, and path (if needed).
- Run "`Code/1. gallup_rep_code_1997convert.R`" to convert the 1997 Gallup data from portable SPSS (`.por`) to Stata 14 format (`.dta`).
- Edit "`Code/2. gallup_rep_code_master.do`" to adjust the default root directory, user name, and path (if needed).
- Run "`Code/2. gallup_rep_code_master.do`" to clean the 1997 data, clean the 2000-2021 data, append the 1997 data, and then generate the Gallup graph.

List of tables and programs

The provided code reproduces:

☐ All numbers provided in text in the paper
☐ All tables and figures in the paper

☑ Selected tables and figures in the paper, as explained and justified below.

Figure	Program	Output file	Note
Figure IV	`Code/2. gallup_rep_code_master.do`	`High-res simulations graphs/ global_warming_gallup.png`	Requires confidential data

References

Gallup Organization, Gallup News Service Poll: Ethical Standards/Abortion/Environment, Gallup Organization, (Cornell University, Ithaca, NY: Roper Center for Public Opinion Research, 1997), Dataset, DOI: 10.25940/ROPER-31088755.

Gallup Organization, Gallup Poll Social Series, Gallup Organization, (2000-2021), Dataset.