README: Replication for “Disastrous Discretion” – RESTAT

Date written: February 17, 2023

This document provides instructions to replicate the results in “Disastrous Discretion: Political Bias in Relief Allocation Varies Substantially with Disaster Severity” by Stephan A. Schneider and Sven Kunze.

To replicate the results, download the full zipped replication package, unzip the folder, and execute "MASTER_rep.do" in STATA version 16 or higher.

SOFTWARE AND OPERATING SYSTEM USED BY THE AUTHORS

- Software: Stata/SE 17.0 for Windows (64-bit x86-64), Revision 10 Jan 2023
- Software: QGIS 3.22.7-Białowieża
- Operating system: Intel(R) Xeon(R) W-10855M CPU @ 2.80GHz 2.81 GHz, 32 GB RAM, Windows 10 Enterprise

REPLICATION DIRECTORY

Keep the following files in the same folder to run the replication. The required file structure is already in place in the downloaded folder. Note that you need writing permission in the directory where you run the replication.

File Structure:

- “MASTER_rep.do”
- [dofiles] >> folder contains main scripts for replication.
- [Output] >> empty folder, outputs are stored here.
- [Figure1] >> folder contains data to replicate Figure 1.
- [Processed] >> folder contains main data sets for replication of the results; if the rebuild-option is selected (see below), these data sets are created from scratch..
- [replicationdata] >> folder contains data sets to run replication.

REPLICATION CODE FILES

This replication package contains the master do-file "MASTER_rep.do" and three sub do-files “DatasetBuilder_rep_Restat.do”, “Estimations_rep_Restat.do”, and “Install_rep_RESTAT.do”, which are stored in the folder “dofiles”:

- “MASTER_rep.do”: This do-file calls all sub-do-files needed to replicate all results and data of the paper and appendix. It allows for different options. For a detailed description of the options see below.
- “DatasetBuilder_rep_RESTAT.do”: This do-file constructs the data set used from the raw data. Called if REBUILD==1 option in “MASTER_rep.do” is specified (see below).
- “Estimations_rep_RESTAT.do”: This do-file calculates all results of the paper and the appendix and stores outputs.
- “Install_rep_RESTAT.do”: This do-file installs all additional STATA packages needed to run the other do-files.

OPTIONS IN "MASTER_rep.do"

In "MASTER_rep.do," you may set the following options:

- REBUILD (0/1): The replication package allows to construct the datasets used for estimation from raw data. To do this, set REBUILD==1 on line 36 (0 is the default).
- RItest (0/1): The estimation includes a permutation exercise that takes approx. 30-90 minutes to run. To replicate this simulation, set RItest==1 on line 37. RItest==0 uses a pre-simulated data set for the test (0 is the default).
- APPENDIX (0/1): To replicate only the outputs presented in the paper, set APPENDIX==0 on line 38. To replicate also the appendix results, set APPENIX==1 (0 is the default).
- INSTALL (0/1): To install all additional STATA commands that are required for replication, set INSTALL==1 on line 39. INSTALL==0 skips installation of additional commands (1 is the default).

VARIABLES

The following table lists variables in the dataset together with their respective label in the text and a short description.

Variable Name in STATA Dataset	**Variable Name in Text**	**Variable Description**
`anyelect`	*Any Election Year*	Indicator variable taking the value 1 if at least one major election (presidential, congressional, gubernatorial) takes place, and 0 otherwise. See Online Appendix for further information and sources.
`atlantic_gulf`	-	Indicator for counties in states with Atlantic and/or Gulf of Mexico coastline.
`buffer`*X*	-	Indicator for county-year observations within max. distance of *X* km to the main track of a hurricane. X={50, 100, 200}.
`countyfips`	-	County FIPS code.
`countyname`	-	County name.
`decade_`*X*	-	Indicator for decades (X-X+9); X={1960, 1970, 1980, 1990, 2000, 2010}.
`declaration`	*Declaration*	Indicator that takes the value 1 if a county is assigned at least one federal Emergency Declaration or Major Disaster Declaration in connection to a tropical cyclone in a respective year, and 0 otherwise. See Online Appendix for further information and sources.
`declaration_in_state_year`	-	Indicator taking the value 1 if at least one county in a state-year received an Emergency Declaration or Major Disaster Declaration in connection to a tropical cyclone.
`declarations`	-	Number of Emergency Declarations and Major Disaster Declarations in connection to a tropical cyclone in a respective county-year.
`dempres`	-	Indicator for the president being affiliated with the Democratic Party.
`emdeclaration`	-	Indicator that takes the value 1 if a county is assigned at least one federal Major Disaster

		Declaration in connection to a tropical cyclone in a respective year, and 0 otherwise. See Online Appendix for further information and sources.
findex_Vhalf203	-	Hurricane damage index proposed by Emanuel (2011). For each wind speed, the index assumes a certain fraction of property to be destroyed. See Emanuel, Kerry (2011). Global Warming Effects on U.S. Hurricane Damage. In: *Weather, Climate, and Society* 3.4, pp. 261–268." for details.
govparty_b		Party of the Governor (1=Dem, 0=Rep, 0.5=other). The variable captures alignment status as of November, before gubernatorial/presidential elections. See Online Appendix for further details and sources.
incprescorestate1	-	Indicator taking the value 1 if the incumbent president obtained more than 60% of the statewide vote share in the most recent presidential election, and 0 otherwise. See Online Appendix for sources.
incpresforsakenstate1	*Low-Support State President*	Indicator taking the value 1 if the incumbent president obtained less than 40% of the statewide vote share in the most recent presidential election, and 0 otherwise. See Online Appendix for sources.
incprestwosenators	*Aligned Senators*	Indicator variable that takes the value 1 if a state is represented by two politicians from the incumbent president's party in the Senate, and 0 otherwise. See Online Appendix for further information and sources.
lag*X*_*Y*	-	The X-th lag of variable Y.
latitude	-	Latitude.
log_black	*Black Population (log)*	Natural logarithm of black population per county and year. See Online Appendix for sources.
log_pop	*Population (log)*	Natural logarithm of population per county and year. See Online Appendix for sources.
longitude	-	Longitude
madeclaration	-	Indicator that takes the value 1 if a county is assigned at least one federal Emergency Declaration in connection to a tropical cyclone in a respective year, and 0 otherwise. See Online Appendix for further information and sources.
mindeclaredwindspeed	*Lowest Wind Speed in Declaration*	*Wind Speed* from the county with the lowest wind speed in a state-year, which was included in a declaration.
nonhurricanedeclarations	-	Sum of all Emergency Declarations and Major Disaster Declarations in county-year that are not attributed to tropical cyclone.
pafedobligatedamount	-	Total obligated federal share in county-year under FEMA's PA program.
preselect	*Presidential Election*	Indicator variable taking the value 1 in a

	Year	presidential election year and 0 otherwise.
presfirstterm	*Presidents' First Term*	Indicator for presidents' being in their first electoral term.
presparty	-	President party ("Dem" or "Rep").
prespartyhouseseat1W	*Aligned Representative*	Indicator that takes the value 1 if the majority of a county is affiliated with a district that is represented by a politician from the incumbent president's party in the House of Representatives, and 0 otherwise. See Online Appendix for further information and sources.
presswingstate3	*Swing State President*	Indicator for a state in which a majority voted for a different party in one of the last three presidential elections.
rainfall_mm	*Rainfall*	Maximum tropical cyclone related rainfall in mm per county and year. See Online Appendix for further information and sources.
real_log_income	*Real Income (log)*	Natural logarithm of income in current 1,000 USD per county and year. See Online Appendix for sources.
real_log_pcincome	*Per Capita Real Income (log)*	Natural logarithm of per capita income in current USD per county and year. See Online Appendix for sources.
repgov	-	Indicator for a governor being affiliated with the Republican Party.
runningflipGP	-	Minimum of margin of victory of the most recent gubernatorial election or margin of victory of the state that would have tipped the respective presidential election.
sameparty	*Aligned Governor*	Indicator that takes the value 1 if governor and president are fellow party members and 0 otherwise. Independent governors are coded as unaligned. The variable captures alignment status as of November, before gubernatorial/presidential elections. See Online Appendix for further information and sources.
sameparty_cd10g	-	Indicator: Margin of victory in previous gubernatorial election greater than 10 percentage points.
sameparty_cd10k	-	Indicator: Margin of victory in previous gubernatorial election lower than 10 percentage points.
samepartysampleshare	-	Share of years in the sample in which a county has a governor who is in the same party as the president.
sample	-	Indicator for sample definition: Positive *Wind Speed*, *Rainfall* or *Storm Surge*; *Year*>=1965; all counties in contiguous United States.
sample_atlantic_gulf	-	Indicator for sample definition: Positive *Wind Speed*, *Rainfall* or *Storm Surge*; *Year*>=1965; all counties in states with Atlantic and/or Gulf of Mexico coastline.

sample_wind	-	Indicator for sample definition: county-years with positive *Wind Speed* only; *Year*>=1965.
ScountyID	-	Unique county identifier.
serial_storm	-	IBTrACS identifier.
stafford	*Post-Stafford Act*	Indicator for years after the passage of the Robert T. Stafford Disaster Relief and Emergency Assistance Act in 1988.
start_month	*Hurricane Month*	The number of months a hurricane occurred before November. It takes the value -1 if the strongest county-year *Wind Speed* occurred in October, -2 for September, -3 for August, etc.
stateabbrv	-	Two-letter state abbreviation.
statecompet1	*State Competitiveness President*	Vote share of the second-strongest candidate in a state in the last presidential election. 0 = least competitive (one candidate receiving all the votes); 50 = maximum competitive (the two strongest candidates receiving the same number of votes).
stateelectoralvotes	-	Number of votes in electoral college in recent presidential election.
statefips	-	State FIPS code.
statename	-	State name.
stdev_rainfall_mm	*Rainfall (St. Dev.)*	*Rainfall* standardized.
stdev_water_max	*Storm Surge (St. Dev.)*	*Storm Surge* standardized.
stdev_windspeed	*Wind Speed (St. Dev.)*	*Wind Speed* standardized.
timeshitrain	-	Number of tropical storms that affect a county-year in terms of positive *Rainfall*. See Online Appendix for further information and sources.
timeshitwind	-	Number of tropical storms that affect a county-year in terms of positive *Wind Speed*. See Online Appendix for further information and sources.
totalapprovedihp_rent	-	Total amount approved in county-year under FEMA's IHP program (renters).
totalapprovedihpamount	-	Total amount approved in county-year under FEMA's IHP program (house owners).
trend	-	Linear time trend.
water_max	*Storm Surge*	Maximum storm surge water level in meters per county and year. See Online Appendix for further information and sources.
windclass0 windclass1 … Windclass9	*Wind Class 0* *Wind Class 1* … *Wind Class 9*	Indicators for ten categories of *Wind Speed*. Each bin consists of a 25 km/h interval between 0 and 225 km/h and one additional category representing all wind observations above 225~km/h.
windspeed	*Wind Speed*	Maximum wind speed per county and year in km/h. See Online Appendix for further information and sources.
windspeed2	-	$Wind\ Speed^2$.
windspeed3	-	$Wind\ Speed^3$.
windspeed4	-	$Wind\ Speed^4$.
year	-	Year.