REPLICATION DATA FOR *BUREAUCRATIC AUTONOMY AND THE POLICYMAKING CAPACITY OF UNITED STATES AGENCIES*

CODEBOOK

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The following codebook provides information on the data needed to replicate the main results from *Bureaucratic Autonomy and the Policymaking Capacity of United States Agencies*, *1998-2021*.

I. Set Up

The replication requires three data files:

1. "analysis_data.csv";
2. "rulemaking_data.csv"; and
3. "model_parameters.csv"

The R script is titled "Bureaucratic Autonomy and Policymaking Capacity_Main Analysis.R." Before running the script, you should change the working directory. Place all three data files in the working directory. You should create two empty folders in the working directory:

1. "_FIGURES"; and
2. "TABLES"

The script will create figures and store them in a file called "_FIGURES" within the working directory. The script will create LaTeX tables and store them in a file called "_TABLES" within the working directory. The script will also produce a log file called "analysis_log.txt."

The R script requires the following packages to run:

1. "tidyverse"
2. "plm"
3. "stargazer"
4. "lmtest"
5. "ggrepel"
6. "ggpubr"
7. "sjPlot"
8. "grid"
9. "gridExtra"
10. "sandwich"; and
11. "survival"

Please install these packages prior to running the script. The remainder of this codebook documents the variables for two primary data sets.

II. Variables — Analysis Data

Unique ID <UNIQUE_ID>

The unique ID for the agency-year. The ID comprises (1) the agency's OPM identifier and (2) the year.

Abbreviation <ABBR>

The abbreviation for the agency/bureau.

Agency <AGENCY>

The parent agency. For example, the parent agency of the Food and Drug Administration is the "Department of Health and Human Services." A parent agency may have multiple bureaus (*see* Bureau).

Bureau <BUREAU>

The bureau within the parent agency. For example, the Department of Agriculture (i.e., the Agency) has scores for the "Forest Service" and the "Rural Housing Service" (i.e., the Bureaus). If the score estimates the human capital of all bureaus within the Agency, then Bureau takes a value of "NA." (*see* Usage Note: Level of Aggregation.)

If Bureau is not "NA," then all following variables for the "agency" are measured at the bureau level. Otherwise, they correspond to the Agency.

OPM Identifier <FEDSCOPE_ID>

The unique identifier used by the Office of Personnel Management to identify the agency.

Capacity Score <CAPACITY_SCORE>

The estimated policymaking-capacity score for the agency-year.

Capacity Score Standard Deviation <CAPACITY_SD>

The standard deviation of the estimated capacity score for the agency-year.

Capacity Score Lower Bound <CAPACITY_LOWERBOUND>

The lower bound of the estimated capacity score for the agency-year.

Capacity Score Upper Bound <CAPACITY_UPPERBOUND>

The upper bound of the estimate capacity score for the agency-year.

Presidential Administration <ADMIN>

The presidential administration in the corresponding year:

- CLINTON
- BUSH II
- OBAMA
- TRUMP
- BIDEN

Alternative Capacity Score – Model 2 <SCORE_M002>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 3 <SCORE_M003>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 4 <SCORE_M004>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 5 <SCORE_M005>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 6 <SCORE_M006>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 7 <SCORE_M007>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 8 <SCORE_M008>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 9 <SCORE_M009>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 10 <SCORE_M010>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 11 <SCORE_M011>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 12 <SCORE_M012>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 13 <SCORE_M013>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 14 <SCORE_M014>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 15 <SCORE_M015>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 16 <SCORE_M016>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Alternative Capacity Score – Model 17 <SCORE_M017>

The estimated policymaking capacity score for the agency-year using the alternative specification specified by Model 2 in the Online Appendix.

Number of Supervisors <SUPERVISORS>

The number of supervisors working within the agency

Number of FTE White Collar Employees <EMPLOYEES_RAW>

The total number of FTE white-collar employees within the agency-year.

Number of FTE White Collar Employees (Logged) <EMPLOYEES_LOG>

The total number of FTE white-collar employees within the agency-year.

Number of FTE Policymaking Employees <POLICYMAKERS_RAW>

The total number of FTE employees classified as policymakers within the agency-year.

Number of FTE Policymaking Employees (Logged) <POLICYMAKERS_LOG>

The total number of FTE employees classified as policymakers within the agency-year.

Proportion of Workforce in Policymaking and Research Positions <POLICYMAKERS_PROP>

The proportion of the total number of white-collar FTE employees classified as policymaking and research employees working in the agency.

Mean Length of Service of Policymaking and Research Employees <POLICYMAKERS_LOS>

The mean number of years that policymaking and research employees have worked in government service. Office of Personnel Management defines "length of service" as "the number of years of Federal civilian employment, creditable military service, and other service made creditable by specific legislation."

Mean Salary of Policymaking and Research Employees <POLICYMAKERS_ SALARY >

The mean salary of policymaking and research employees working in the agency. Many personnel records report the individual's actual salary. Some personnel records, however, only report the individual's grade on the GS-scale. If the salary information is missing for an employee, I use the middle value for their rank on the GS-scale.

Proportion of Policymaking and Research Employees with a College Degree <POLICYMAKERS_COLLEGE>

The proportion of policymaking and research employees with a college degree or higher.

Proportion of Policymaking and Research Employees with a Graduate Degree <POLICYMAKERS_POSTCOLLEGE>

The proportion of policymaking and research employees with a graduate degree or higher.

Politicization <POLITICIZATION>

The level of politicization within the agency. Politicization is measures as the ratio of appointees to supervisors. This follows the approach of Lewis (2008).

Decision-Maker Independence <DecisionMaker_Est>

Selin's (2015) measure of the degree of independence enjoyed by agency leadership from presidential control. Negative values correspond to less independence. Positive values correspond to greater independence.

Political-Review Independence <PoliticialReview_Est>

Selin's (2015) measure of the degree of independence the agency enjoys from review of its decisions. Negative values correspond to less independence. Positive values correspond to greater independence.

Agency Ideology <ideo_rating>

Richardson, Clinton, and Lewis's (2018) measure of agency ideology. Negative values correspond to more liberal agencies. Positive values correspond to more conservative agencies.

Ideological Distance <ideo_distance>

A transformation of Agency Ideology to reflect the ideological distance between the agency and the current administration. A value close to zero reflects greater ideological congruence between the agency and the current president.

Opposed Agency <OPPOSED_AGY>

Whether the agency and the current presidential administration have ideologically divergent preferences. A liberal (conservative) agency is coded as "opposed" during Republican (Democratic) presidencies.

Year Agency Was Created <YR_CREATED>

The year the agency was created. This data comes from Selin and Lewis's *Sourcebook of United States Executive Agencies* (Second Edition). In that rare event that the *Sourcebook* omitted the agency, agency websites, the U.S. Code, and other sources were used to identify the date the agency was established.

Years Since Agency Was Created <YRS_SINCE_CREATION>

The number of years since the agency was created.

Agency Policy Jurisdiction <CAP_MAIN>

The primary policy jurisdiction of the agency, coded using topic codes from the *Comparative Agendas Project*. Documentation from the U.S. Policy Agendas Project provided codes for many agencies. Other agencies were coded by referring to the mission statement on the agency's website.

Agency Average Response to FEVS Question about Sufficiency of Workforce's Knowledge <SUFFICIENT_KNOWLEDGE>

The proportion of respondents within the agency that "strongly agree" or "agree" that "The workforce has the job-relevant knowledge and skills necessary to accomplish organizational goals." This data comes from the Office of Personnel Management's Federal Employee Viewpoint Survey.

Agency Average Response to FEVS Question about Workforce's Willingness to Share Knowledge <SHARE_KNOWLEDGE>

The proportion of respondents within the agency that "strongly agree" or "agree" that "Employees in my work unit share job knowledge with each other." This data comes from the Office of Personnel Management's Federal Employee Viewpoint Survey.

Agency Average Response to FEVS Question about Whether Managers Promote Collaboration <MANAGER_PROMOTE_COLLAB>

The proportion of respondents within the agency that "strongly agree" or "agree" that "Managers support collaboration across work units to accomplish work objectives." This data comes from the Office of Personnel Management's Federal Employee Viewpoint Survey.

Agency Average Response to FEVS Question about Whether Coworkers Cooperate <COOPERATE>

The proportion of respondents within the agency that "strongly agree" or "agree" that "The people I work with cooperate to get the job done." This data comes from the Office of Personnel Management's Federal Employee Viewpoint Survey.

Agency Average Response to FEVS Question about Agency's Ability to Recruit <RECRUIT>

The proportion of respondents within the agency that "strongly agree" or "agree" that "My work unit is able to recruit people with the right skills." This data comes from the Office of Personnel Management's Federal Employee Viewpoint Survey.

Agency Average Response to FEVS Question about Quality of Work Unit's Performance <QUALITY_WORKUNIT>

The proportion of respondents within the agency that "strongly agree" or "agree" that "Employees in my work unit produce high-quality work." This data comes from the Office of Personnel Management's Federal Employee Viewpoint Survey.

III. Variables — Rulemaking Data

Regulatory Identification Number <RIN>

The unique Regulatory Identification Number for the rulemaking.

Agency RIN Code <RIN_CODE>

The four-digit agency code assigned to the agency by the Office of Management and Budget. This code precedes RIN.

Agency <PARENT_AGENCY>

The parent agency. For example, the parent agency of the Food and Drug Administration is the "Department of Health and Human Services." A parent agency may have multiple bureaus (*see* Bureau).

Bureau <AGENCY>

The bureau within the parent agency. For example, the Department of Agriculture (i.e., the Agency) has scores for the "Forest Service" and the "Rural Housing Service" (i.e., the Bureaus). If the score estimates the human capital of all bureaus within the Agency, then Bureau takes a value of "NA." (*see* Usage Note: Level of Aggregation.)

Presidential Administration <ADMIN>

The presidential administration in the corresponding year:

- CLINTON
- BUSH II
- OBAMA

- TRUMP
- BIDEN

Economically Significant Rule <ECON_SIGN>

Whether the rulemaking was recorded as economically significant on the *Unified Agenda*.

Significant Rule <ALL_SIG>

Whether the rulemaking was recorded as economically significant or "other significant" on the *Unified Agenda*.

Event Indicator <EVENT>

Whether the agency published the final rule for the rulemaking.

Duration of Rulemaking <DURATION>

The number of days between the notice of proposed rulemaking and the final submission to the Office of Information and Regulatory Affairs. If the rule was exempt from OIRA review, then the end date corresponds to the date the agency published the final rule in the federal register.

Event Indicator (First Term) <EVENT_FT>

Whether the agency published the final rule for the rulemaking during the first term of the presidential administration.

Duration of Rulemaking (First Term) <DURATION_FT_NPRM>

The number of days between the notice of proposed rulemaking and the final submission to the Office of Information and Regulatory Affairs. If the rule was exempt from OIRA review, then the end date corresponds to the date the agency published the final rule in the federal register. If the agency did not complete the rulemaking before the end of the term, then the duration is the length of the first term of the administration.

Capacity Score <CAPACITY_SCORE>

The estimated policymaking-capacity score for the agency. Measured in the year prior to the inauguration.

Number of FTE Policymaking Employees (Logged) <POLICYMAKERS_LOG>

The total number of FTE employees classified as policymakers within the agency. Measured in the year prior to the inauguration.

Number of FTE Contract Managers <TOT_CONTRACTOR>

The total number of FTE employees classified as contract managers within the agency. Measured in the year prior to the inauguration.

Agency Ideology <ideo_rating>

Richardson, Clinton, and Lewis's (2018) measure of agency ideology. Negative values correspond to more liberal agencies. Positive values correspond to more conservative agencies.

Ideological Distance <ideo_distance>

A transformation of Agency Ideology to reflect the ideological distance between the agency and the current administration. A value close to zero reflects greater ideological congruence between the agency and the current president.

Decision-Maker Independence <DecisionMaker_Est>

Selin's (2015) measure of the degree of independence enjoyed by agency leadership from presidential control. Negative values correspond to less independence. Positive values correspond to greater independence.

Political-Review Independence <PoliticialReview_Est>

Selin's (2015) measure of the degree of independence the agency enjoys from review of its decisions. Negative values correspond to less independence. Positive values correspond to greater independence.

Rulemaking Workload <WORKLOAD>

The agency's number of entries in the *Unified Agenda* in the fall prior to the start of the new presidential administration. Measured in the year prior to the inauguration.