Codebook to "The Pandemic Policy U-Turn: The role of partisanship, public health, and race in decisions to ease COVID-19 social distancing policies in the U.S."

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This codebook documents the key variables in `AnalysisData.Rdata`, the file containing the analysis dataset for Christopher Adolph, Kenya Amano, Bree Bang-Jensen, Nancy Fullman, Beatrice Magistro, Grace Reinke, Rachel Castellano, Megan Erickson and John Wilkerson, "The Pandemic Policy U-Turn: The role of partisanship, public health, and race in decisions to ease COVID-19 social distancing policies in the U.S.", forthcoming in *Perspectives on Politics*.

File structure

The file is structured such that there is one row of data for each combination of a state, day, policy type, and epidemiological data source. To select a set of rows for analysis, the user should make use of the following variables:

`StateName`: Name of the state.

`PolicyType`: The type of policy recorded. Possible values are:

- `GathRestrictRecomAny`, which indicates a statewide restriction of gatherings, including formal mandates or executive orders that use language such as "prohibits all mass gatherings" or "constituents must avoid large gatherings", as well as recommendations to limit mass gatherings or events.
- `AnyBusinessClose`, which indicates a statewide mandate to fully close all non-essential businesses, or to restrict the onsite operations of any category of business other than restaurant and bars.
- `RestaurantRestrict`,indicating the statewide restriction of restaurants and other venues where food is purchased and consumed on-premises.
- `BarRestrict`, indicating the statewide restriction of bars, breweries, wineries, tasting rooms, or other venues whose primary function is the sale of alcoholic beverages for consumption on-site.
- `StayAtHome`, indicating a statewide mandate for individuals to "stay at home" or "shelter in place" except to participate in essential activities (which may vary by state).

`COVIDSource`: The source of epidemiological data – specifically, confirmed case and death counts – used for this row. The source used in the main analyses is `"JHU"`, indicating epidemiological data is drawn from the Johns Hopkins data (Center for Systems Science and Engineering, Johns Hopkins University, 2020). Alternatives explored in robustness checks include `"NYT"`, indicating data from the New York Times (The New York Times, 2020), and `"CTP"`, indicating data is drawn from the COVID Tracking Project (The COVID Tracking Project, 2020). Note that regardless of the data source chosen, test positivity data are taken from the COVID Tracking Project due to data availability issues.

`DaysSinceFCT`: Count of days since 26 February 2020, the date of the (then) first confirmed case of community transmission of SARS-CoV-2. Although this date does not play a role in the analysis itself, it is a convenient reference date.

Alternatively, users can select dates using either the variable `date`, which contains the date in YYYY-MM-DD format.

In the baseline model, rows are selected to include all 50 states; the policy types `"GathRestrictRecomAny"`, `"AnyBusinessClose"`, `"RestaurantRestrict"`, `"BarRestrict"`, and `"StayAtHome"`; and all days between 16 April 2020 and 6 July 2020 (corresponding to `DaysSinceFCT` values between 50 and 131, inclusive).

Outcome variable in the baseline model

`PolicySubNonReligIndoorEaseDV`: The main outcome variable. A binary indicator taking the value `NA` if the policy has not yet been adopted, 0 when the selected policy type has been adopted but not yet been eased indoor by the state, 1 on the day the state first eases the policy in question to resume or increase indoor service, and `NA` on each subsequent day (as the state is then out of the risk set). For gathering restrictions, this marks the date of the first increase in the indoor non-religious gathering limit (which in some cases entails the removal of this limit altogether).

Covariates in baseline model

`DemGovernor`: Whether the Governor of a state is a Democrat (1) or a Republican (0) (The National Conference of State Legislators, 2020).

`logNewDeathsPerM7DaysMAVG`: The seven-day moving average of reported COVID-19 deaths per million residents, logged. Before logging, cases where the seven day moving average is exactly 0 are set to 1. The source of data for this variable is determined by `COVIDSource`.

`NoDeaths7DaysMAVG`: Indicator variable taking value 1 if the seven-day moving average of reported COVID-19 deaths per million residents is exactly 0, and 0 otherwise. The source of data for this variable is determined by `COVIDSource`.

`TrumpVote2016`: Trump's vote share in the state in the 2016 presidential election (New York Times Staff, 2017).

`PctBlack`: The percentage of state residents identifying as Black according to the US Census (US Census, 2019)

`TestPositivityRateLagSlopeLM`: : The linear trend in positivity rate. To construct this variable, we first create a retrospective two-week window of the seven-day moving

average of positivity rate. (Seven-day averages are needed to smooth out idiosyncrasies in reporting over different days of the week.) We then estimate the linear trend on this window, and use this slope estimate as our trend variable. The source of the underlying daily positivity data for this variable is determined by `COVIDSource`.

`NewConfirmedCasesPerMLagSlopeLM`: The linear trend in confirmed cases per million residents. To construct this variable, we first create a retrospective two-week window of the seven-day moving average of daily confirmed cases per million population. (Seven-day averages are needed to smooth out idiosyncrasies in reporting over different days of the week.) We then estimate the linear trend on this window, and use this slope estimate as our trend variable. The source of the underlying daily confirmed cases data for this variable is determined by `COVIDSource`.

`PopDensity`: The population density measured as persons per square mile (US Census, 2017).

Additional covariates

`IdeoFordCiti`: Ideological orientation of each state's citizenry (Fording, 2018). Higher values indicate greater liberalism.

`AtLeastCollege`: The percentage of state residents who hold a college degree (Institute for Health Metrics and Evaluation, 2017).

`PctElderly`: The percentage of state residents above the age of 70 (Institute for Health Metrics and Evaluation, 2017).

`GSPPerCapita`: The gross state product per capita (US Bureau of Economic Analysis, 2020).

`PctNeighSubNonReligIndoorEasing`: Percentage of neighboring states that have eased one of the policies under analysis (computed from authors' data).

`PctAltSubNonReligIndoorEasing`: Percentage of peer states, measured by Desmarais, Harden, and Boehmke's (2015) policy diffusion network for 2015, that have eased one of the policies under analysis (computed from authors' data).

`ElectYear`: Binary variable taking 1 if the state held a gubernatorial election in 2020, and 0 if not.

PctHispanic: The percentage of state residents identifying as Hispanic according to the US Census (US Census, 2019)

UrbanPct: The percentage of population living in urban areas using data from the US Census 2018.

InsuredUnempRate4WeeksMAVG: Continuous variable representing the four week moving average of the percent of employed claiming filing unemployment benefits, not seasonally adjusted (US Department of Labor, 2020).

TourismEmpPct: Continuous variable representing a state's dependence on tourism derived from the percentage of state employment dependent on tourism (Burnett, 2017)

SalesTaxRevenueShare: Continuous variable representing a state's sales tax dependence, as measured by the percentage of state revenue generated by general sales taxes (Urban-Brookings Tax Policy Center, 2017).

PovertyPct: The percentage of population under the poverty line according to the US Census 2018.

Alternative outcome variables used in robustness checks

Sub1stEasing: An alternative outcome variable used in a robustness check, this variable records the first easing which re-opened or expanded any of takeaway, outdoor, or indoor activity, as well as counting as initial easing the raising of numerical limits on either religious or non-religious indoor or outdoor gatherings. This is a binary indicator taking the value NA if the policy has not yet been adopted, 0 when the selected policy type has been adopted but not yet been eased by the state, a 1 on the day the state first eases the policy in question, and NA on each subsequent day (as the state is then out of the risk set). For gathering restrictions, this marks date of the first increase in any gathering limit (which in some cases entails the removal of this limit altogether).

PolicySubNonReligIndoorEasingAtLeastOneBlackCtyDV: An alternative outcome variable. Like the outcome variable used in the baseline model, this variable focuses on the first easing to allow or expand indoor activity, but differs in the scope of counties considered, focusing on counties with significant Black population relative to the rest of the state. Specifically, this a binary indicator taking the value NA if the policy has not

yet been adopted, 0 when the selected policy type has not yet been eased indoors in any qualifying county, a 1 on the day the state first eases the policy in question to resume or increase indoor service in at least one qualifying county, and NA on each subsequent day (as the state is then out of the risk set). For gathering restrictions, this marks the date of the first increase in the indoor non-religious gathering limit for a qualifying county (which in some cases entails the removal of this limit altogether). A qualifying county is defined as one which has at least as large total population as the average county in the state *and* where the Black population share is above the mean for the state.

Additional variables used to define strata in Cox models

`SubstatePolicyDateSubNonReligIndoorEasing`: For each state and policy, a binary indicator of whether the first easing to allow or expand (non-religious) indoor activity took place statewide (0) or was a case of substate coordinated easing varying by county (1). This variable is time-invariant and is used (along with `PolicyType`) to stratify Cox proportional hazards models which take `PolicySubNonReligIndoorEaseDV` as the outcome variable.

`SubstatePolicyDateSub1stEasing`: For each state and policy, a binary indicator of whether the first easing which re-opened or expanded any of takeaway, outdoor, or indoor religious or non-religious activity took place statewide (0) or was a case of substate coordinated easing varying by county (1). This variable is time-invariant and is used (along with `PolicyType`) to stratify Cox proportional hazards models which take `Sub1stEasing` as the outcome variable.

`SubstatePolicyDateSubNonReligIndoorEasingAtLeastOneBlackCty`: For each state and policy, a binary indicator of whether the first easing to allow or expand (non-religious) indoor activity took place statewide (0) or was a case of substate coordinated easing varying by county (1). This variable is time-invariant and is used (along with `PolicyType`) to stratify Cox proportional hazards models which take `PolicySubNonReligIndoorEasingAtLeastOneBlackCtyDV` as the outcome variable.

References

American Communities Survey, US Census. 2018. "Population Distribution by Age." Data File. `https://www.census.gov/topics/population/age-and-sex/data/tables.html`.

Burnett, Jennifer. 2017. "Tourism Generates Billions in Tax Revenue for States." The Council for State Governments. https://knowledgecenter.csg.org/kc/content/tourism-generates-billions-tax-revenue-states.

Center for Systems Science and Engineering, Johns Hopkins University. 2020. "2019 Novel Coronavirus COVID-19 (2019-nCoV) Data Repository." Data File. https://github.com/CSSEGISandData/COVID-19.

Desmarais, Bruce, Jeffrey J. Harden, and Frederick J. Boehmke. 2015. "Persistent Policy Pathways: Inferring Diffusion Networks in the American States." *American Political Science Review* 109(2): 392–406.

Fording, Richard C. 2018. "Updated Measures of Citizen and Government Ideology." Data File. https://rcfording.com/state-ideology-data/.

Institute for Health Metrics and Evaluation. 2017. "Global Burden of Disease Study 2017 Population Estimates 1950–2017." Data File. http://ghdx.healthdata.org/record/ihme-data/gbd-2017-population-estimates-1950-2017.

New York Times Staff. 2017. "Presidential Election Results: Donald J. Trump Wins." *New York Times* (9 August). https://www.nytimes.com/elections/2016/results/president.

The COVID Tracking Project. 2020. "States Current and Historical Data." Data File. https://covidtracking.com/data/api.

The National Conference of State Legislators. 2020. "State Partisan Composition." Data File. https://www.ncsl.org/research/about-state-legislatures/partisan-composition.aspx.

The New York Times. 2020. "Coronavirus (Covid-19) Data in the United States.". https://github.com/nytimes/covid-19-data.

Urban-Brookings Tax Policy Center. 2017. "State and Local General Revenue, Percentage Distribution, FY 2017." Data File. https://www.taxpolicycenter.org/statistics/state-and-local-general-revenue-percentage-distribution.

US Bureau of Economic Analysis. 2020. "Gross State Product." Data File. https://www.bea.gov/data/gdp/gdp-state.

US Census. 2017. "Population Density." Data File.

US Census. 2019. "Current Population Survey, 2018." Data File. https://census.gov/cps/data/cpstablecreator.html.

US Department of Labor. 2020. "Unemployment Insurance Weekly Claims Data." Data File. https://oui.doleta.gov/unemploy/claims.asp.