**COVID-19 and the US Economy Dataset**

This dataset merges several sources on state government public health policies, economic outcomes, health outcomes, and state characteristics. Each observation is a day within a state since January 2020.

Note that some of the variables are time-invariant state characteristics, while variables that change over time within a state do so with different frequencies. There is also some missing data. Missing dates indicate that the policy was never enacted in that state. Womply data begins January 10. Affinity data begins January 13. GPS data begins February 24. There are 448 missing values of spend\_all\_inclow after the Affinity data begins.

**Labeling**

* state: name of the state.
* state\_abbrev: 2-letter state abbreviation.
* date: daily date

**Non-pharmaceutical interventions**

Source: [COVID-19 US state policy database (CUSP)](https://preview.tinyurl.com/statepolicies)

* close\_nonessential\_bus: date mandatory closures of non-essential business was first enacted
* begin\_reopen: date business began to reopen statewide
* mandate\_mask: date mandatory face mask use by all individuals in public spaces was first enacted
* begin\_shelter\_in\_place: date state issued guidance or encouragement to stay at home

**Economic and COVID-related outcomes**

Meta-source: [Opportunity Insights Economic Tracker](https://github.com/OpportunityInsights/EconomicTracker) (interactive data at <https://tracktherecovery.org/>). There are many other data series on the website.

**Population**

Source: Census Bureau

state\_pop2019: The population of the state in 2019, from Census Bureau estimates.

**GPS mobility data (indexed to Jan 3-Feb 6 2020)**

Source: [Google COVID-19 Community Mobility Reports](https://www.google.com/covid19/mobility/)

* gps\_away\_from\_home: Time spent outside of residential locations.
* gps\_retail\_and\_recreation: Time spent at retail and recreation locations.
* gps\_grocery\_and\_pharmacy: Time spent at grocery and pharmacy locations.
* gps\_transit\_stations: Time at inside transit stations.
* gps\_workplaces: Time spent at work places.
* gps\_residential: Time spent at residential locations.

**Small business openings data**

Source:  [Womply](https://www.womply.com/)

* merchants\_all: Percent change in number of small businesses open calculated as a seven-day moving average seasonally adjusted and indexed to January 4-31 2020.
* merchants\_inchigh: Percent change in number of small businesses open calculated as a seven-day moving average seasonally adjusted and indexed to January 4-31 2020 in high income (quartile 4 of median income) ZIP codes.
* merchants\_incmiddle: Percent change in number of small businesses open calculated as a seven-day moving average seasonally adjusted and indexed to January 4-31 2020 in middle income (quartiles 2 & 3 of median income) ZIP codes.
* merchants\_inclow: Percent change in number of small businesses open calculated as a seven-day moving average seasonally adjusted and indexed to January 4-31 2020 in low income (quartile 1 of median income) ZIP codes.
* merchants\_ss40: Percent change in number of small businesses open calculated as a seven-day moving average seasonally adjusted and indexed to January 4-31 2020 in transportation (NAICS supersector 40).
* merchants\_ss65: Percent change in number of small businesses open calculated as a seven-day moving average seasonally adjusted and indexed to January 4-31 2020 in education and health services (NAICS supersector 65).
* merchants\_ss70: Percent change in number of small businesses open calculated as a seven-day moving average seasonally adjusted and indexed to January 4-31 2020 in leisure and hospitality (NAICS supersector 70).

**Consumer Spending**

Source: [Affinity Solutions](https://www.affinity.solutions/)

* spend\_all: Seasonally adjusted credit/debit card spending relative to January 4-31 2020 in all merchant category codes (MCC), 7 day moving average.
* spend\_acf: Seasonally adjusted credit/debit card spending relative to January 4-31 2020 in accomodation and food service (ACF) MCCs, 7 day moving average, 7 day moving average.
* spend\_aer: Seasonally adjusted credit/debit card spending relative to January 4-31 2020 in arts, entertainment, and recreation (AER) MCCs, 7 day moving average.
* spend\_apg: Seasonally adjusted credit/debit card spending relative to January 4-31 2020 in general merchandise stores (GEN) and apparel and accessories (AAP) MCCs, 7 day moving average.
* spend\_grf: Seasonally adjusted credit/debit card spending relative to January 4-31 2020 in grocery and food store (GRF) MCCs, 7 day moving average.
* spend\_hcs: Seasonally adjusted credit/debit card spending relative to January 4-31 2020 in health care and social assistance (HCS) MCCs, 7 day moving average.
* spend\_tws: Seasonally adjusted credit/debit card spending relative to January 4-31 2020 in transportation and warehousing (TWS) MCCs, 7 day moving average.
* spend\_all\_inchigh: Seasonally adjusted credit/debit card spending by consumers living in ZIP codes with high (top quartile) median income, relative to January 4-31 2020 in all merchant category codes (MCC), 7 day moving average.
* spend\_all\_incmiddle: Seasonally adjusted credit/debit card spending by consumers living in ZIP codes with middle (middle two quartiles) median income, relative to January 4-31 2020 in all merchant category codes (MCC), 7 day moving average.
* spend\_all\_inclow: Seasonally adjusted credit/debit card spending by consumers living in ZIP codes with low (bottom quartiles) median income, relative to January 4-31 2020 in all merchant category codes (MCC), 7 day moving average.

**COVID-19 Death**

Source: [New York Times COVID-19 repository](https://github.com/nytimes/covid-19-data)

* new\_death\_rate: New confirmed COVID-19 deaths per 100,000 people, seven day moving average.

**State governor information**

Source: [Ballotpedia](https://ballotpedia.org/Partisan_composition_of_governors)

* governor\_party: political affiliation of state’s governor
* gov\_inaug\_date: inauguration date of state’s governor