Appendix

A Relevant Literature

Kong and Prinz (2020)	Google search data for employment	"We find that between March 14 and 28, restaurant and bar limitations and nonessential business closures could explain 4.4% and 8.5% of UI claims respectively, while the other NPIs did not increase UI claims"	Restaurant/bar limitations and non-essential business closures explain 4.4% and 8.5% of UI claims respectively; no impact of SAH orders, large-gatherings bans, school closures, and emergency declarations
Gupta et al. (2020)	Google mobility, SafeGraph, Google search data of employment, UI claims, CPS	"...employment rate fell by about 1.7 pp for every extra 10 days that a state experienced a stay-at-home mandate during the period March 12-April 12, 2020; select business closure laws were associated with similar employment effects. Our estimates imply that about 40% of the 12 pp decline in employment rates between January and April 2020 was due to a nationwide shock while about 60% was driven by state social distancing policies."	1.7 pp fall in employment for every additional 10 days of SAH and certain business closures.
Lozano Rojas et al. (2020)	CPS Monthly data, UI claims	"most of the economic disruption was driven by the health shock itself. Put differently, it appears that the labor market slowdown was due primarily to a nationwide response to evolving epidemiological conditions and that individual state policies and own epidemiologic situations have had a comparatively modest effect."	No effect of social-distancing policies.

Consumer Spending				
Alexander and Karger (2020)	consumer spending at small and large businesses from Womply (county day level) and Second Measure (state day level), both by industry	"stay-at-home orders caused large reductions in spending in sectors associated with mobility: small businesses and large retail stores. However, consumers sharply increased spending on food delivery services after orders went into effect." ".. responses to stay-at-home orders were fairly uniform across the country, and do not vary by income, political leanings, or urban/rural status."	Year-over-year 35% reduction in consumer spending at small businesses; 10% lower in-store large firms, 71% increase online transactions at large firms as of April 15th.
Baker et al. (2020)	Fintech ("Fintech encourages households to increase savings through targeted information and rewards")	"As the number of cases grew, households began to radically alter their typical spending across a number of major categories" (and some analysis that looks at whether declines were larger in states that adopted policies earlier)	General spending declined by approximately 50%; shelter-in-place states decreased restaurant spending by about 31.8%, while users in other states decreased restaurant spending by 12.3%
Chetty et al. (2020)	"daily statistics on consumer spending, business revenues, employment rates, and other key indicators disaggregated by county, industry, and income group"	"We first show that high-income individuals reduced spending sharply in mid-March 2020, particularly in areas with high rates of COVID-19 infection and in sectors that require physical interaction. This reduction in spending greatly reduced the revenues of businesses that cater to high-income households in person, notably small businesses in affluent ZIP codes."	Spending in top-income-quartile households down by 36% relative to pre-COVID levels, as compared with 28% for bottom-income-quartile households. Hours of work, employment and job postings fell by 80%+, 36% and 30% in affluent areas as compared with 30%,11% and 15% in least affluent areas.
Coibion et al. (2020b)	customized survey with more than 10,000 respondents	"The imposition of lockdowns can account for much of the decline in employment in recent months as well as declines in consumer spending"	Aggregate consumer spending dropped by 31 log pp; unemployment rate over next year 13 pp higher in counties with earlier lockdown

Spread of infections (Cases, Deaths)				
Chernozhukov et al. (2020)	Google mobility	"both policies and information on transmission risks are important determinants of Covid-19 cases and deaths and shows that a change in policies explains a large fraction of observed changes in social distancing behavior."	Mandating face masks for employees on April 1st could have reduced growth rate of cases/ deaths by 10+ pp in late April, and 17- 55% less deaths nationally by end of May. Removing non-essential business closures (while maintaining school closures, restrictions on movie theaters and restaurants) could lead to 20-60% more cases and deaths by end of May; without stay-at-home orders, cases would have been larger by 25 -170%
Courtemanche et al. (2020)	daily growth rate in confirmed COVID-19 cases at the county level	"Adoption of government-imposed social distancing measures reduced the daily growth rate of confirmed COVID-19 cases by 5.4 percentage points after one to five days, 6.8 percentage points after six to ten days, 8.2 percentage points after eleven to fifteen days, and 9.1 percentage points after sixteen to twenty days."	5.4%-9.1% decline in daily growth rate of cases due to social distancing mandates
Dave et al. (2020)	daily state-level coronavirus case data	"approximately three weeks following the adoption of a SIPO, cumulative COVID-19 cases fell by 44 percent"	44% decline in cumulative C-19 cases following SIPO

Table A1: Contd.

Devaraj and Patel (2020)	County coronavirus deaths data	"Our estimation approach relies on county-pairs across state-borders where one state has SIPO whereas the other state does not, controls for matched county-pair fixed effects and day of observation fixed-effects." .."daily COVID-19 incidence case growth rate is 1.994 percentage points lower for counties in SIPO states relative to those bordering in non-SIPO states"	C-19 case growth rate is 1.994 pp lower in counties with SIPO
Friedson et al. (2020)	daily state-level coronavirus data	"California's statewide SIPO reduced COVID-19 cases by 125.5 to 219.7 per 100,000 population by April 20, one month following the order. We further find that California's SIPO led to as many as 1,661 fewer COVID-19 deaths during this period."	36% reduction in C-19 cases in CA 1 month after SIPO
Jinjarak et al. (2020)	"Oxford COVID-19 Government Response Tracker, and daily C19 mortality by country"	"Our results suggest that policy interventions are effective at slowing the geometric pattern of mortality growth, reducing the peak mortality, and shortening the duration to the first peak."	Mortality growth rates in countries with stringent policies on average 22, 17, and 13 pp lower 2, 3, and 4 weeks after. Estimates of policy stringency statistically insignificant when interacted with exogenous country characteristics - implies stringent policies likely to be endogenous
Lyu and Wehby (2020)	Hospitalization data for 25 states from COVID Tracking Project. Hosp and deaths data by state by day	"SIPOs reduced the daily mortality growth rate after nearly three weeks from enactment, and the daily growth rate of hospitalizations two weeks after enactment"	Daily mortality growth rate for states with SIPOs declined by an average of 6.1 pp after 42 days from SIPO enactment
Wang et al. (2020)	SafeGraph, The New York Times' COVID-19 tracking project	"we find that SIP policies increased the median percent of time spent at home by only 2.5%. In contrast, non-policy factors led to an increase of 5.14%."	SIPO increased median percent of time spent at home by 2.5%
Yehya et al. (2020)	Covid-19 cases and deaths from Johns Hopkins Center for Systems Science and Engineering Coronavirus Resource Center	"Later statewide emergency declarations and school closure were associated with higher Covid-19 mortality. Each day of delay increased mortality risk 5 to 6%."	delayed emergency declarations and school closure increased mortality risk 5-6%

Self reported social distancing, opinions, internet searching			
Barrios and Hochberg (2020)	Google mobility, baseline voter participation in elections	"Using mobile phone and survey data, we show that during the early phases of COVID-19, voluntary social distancing was higher when individuals exhibit a higher sense of civic duty"	
Coibion et al. (2020b)	customized survey with more than 10,000 respondents	"households living in counties that went into lockdown earlier expect the unemployment rate over the next twelve months to be 13 percentage points higher and continue to expect higher unemployment at horizons of three to five years. They also expect lower future inflation, report higher uncertainty, expect lower mortgage rates for up to 10 years, and have moved out of foreign stocks into liquid forms of savings."	Unemployment rate over next year 13 pp higher in counties with earlier lockdown

Note: Studies covered here are limited to ones that (at a minimum) estimate effects of state policies on the outcomes listed, of which we are aware. We limit the data column to the outcome measures of the paper. We limit the effect size discussion to the state policy coefficient. The default is state policy, we note when coefficients relate to county policy. For brevity of table, we select only the quotes that appear the most relevant to this review paper.

Table A2: Other Literature on COVID-19 and Labor Markets, Consumer Spending, Disease Transmission, Social distancing and Mobility.

Study	Data	Finding
Human mobility		
Allcott et al. (2020)	SafeGraph	"..areas with more Republicans engage in less social distancing, controlling for other factors including public policies, population density, and local COVID cases and deaths."
Huang et al. (2020)	Unacast	"..the average black individual in the US social distanced significantly more than the average white individual, and the average 2016 Clinton voter social distanced significantly more than the average 2016 Trump voter."
Mongey and Weinberg (2020)	Safegraph	"..we show that MSAs with less pre-virus employment in work-from-home jobs experienced smaller declines in the incidence of 'staying-at-home', as measured using SafeGraph cell phone data."
Employment Effects		
Andersen et al. (2020)	Safegraph	" ..(*the temporary federal paid sick leave mandate*) decreased our full-time work proxy and increased our at home proxy. In particular, we find an initial decrease in working full-time of 17.7% and increase in staying home of 7.5%, with effects dissipating within three weeks."
Aaronson et al. (2020)	Google search data, unemployment rates	"Applying our elasticity estimate (*of unemployment insurance filings with respect to search intensity*) to the state-level Google Trends indexes for the topic "unemployment," we show that out-of-sample forecasts made ahead of the official data releases .. predicted to a large degree the extent of the COVID-19 related surge in the demand for unemployment insurance"
Balla-Elliott et al. (2020)	Nationwide survey of small businesses	"..post-lockdown delays in reopening can be explained by low levels of expected demand."
Brynjolfsson et al. (2020)	nationally-representative sample	"Of those employed pre-COVID-19, we find that about half are now working from home, including 35.2% who report they were commuting and recently switched to working from home."
Bui et al. (2020)	CPS Monthly data	"..while previous recessions, in some ways, did not affect employment outcomes for older workers as much, this recession disproportionately affected older workers of ages 65 and older."
Cajner et al. (2020)	ADP (payroll processing data)	"After aggregate employment fell by 21 percent through late-April, we highlight a modest employment rebound through late-May."
Campello et al. (2020)	LinkUp (job postings data)	"Firms have cut back on postings for high-skill jobs more than for low-skill jobs, with small firms nearly halting their new hiring altogether. New-hiring cuts and downskilling are most pronounced in local labor markets lacking depth (where employment is concentrated within a few firms), in low-income areas, and in areas with greater income inequality. Cuts are deeper in industries where workers are more unionized and in the non-tradable sector."
Coibion et al. (2020b)	PanelViews Survey	"..job loss has been significantly larger than implied by new unemployment claims."
Fairlie (2020)	CPS Monthly data	"African-Americans experienced an increase in unemployment to 16.6 percent, less than anticipated based on previous recessions. In contrast, Latinx, with an unemployment rate of 18.2 percent, were disproportionately hard hit by COVID-19." "For African-Americans "slightly favorable industry distribution partly protected them from being hit harder by COVID-19.".. "unfavorable occupational distribution and lower skills contributed to why Latinx experienced much higher unemployment rates than whites."
Fairlie (2020)	CPS Monthly data	"African-American business owners continue to be the hardest hit by COVID-19 experiencing a drop of 26 percent in business activity from pre-COVID-19 levels. Latinx business owners fell by 19 percent, and Asian business owners dropped by 21 percent."
Granja et al. (2020)	Small Business Administration, Womply, and Homebase	"..we do not find evidence that funds flowed to areas more adversely affected by the economic effects of the pandemic,.."
Mongey and Weinberg (2020)	CPS Monthly data	"..we show that both occupations and types of workers predicted to be employed in low work-from-home jobs experienced greater declines in employment according to the March 2020 CPS."
Montenovo et al. (2020)	CPS Monthly data	"...greater declines in employment in April 2020 (relative to February) for Hispanics, workers aged 20 to 24, and those with high school degrees and some college." "...job loss was larger in occupations that require more interpersonal contact and that cannot be performed remotely. Pre-epidemic sorting into occupations with more potential for remote work and industries that are currently essential explain a large share of gaps in recent unemployment for key racial, ethnic, age, and education sub-populations. However, there is a larger unexplained component to the gender employment gaps."

Table A2: Contd.

	Spread of infections (Cases, Deaths)	
Bielecki et al. (2020)	Sample of 508 recruited soldiers stationed at a Swiss Army Base in Airolo between 25 March and 14 April 2020.	Social distancing not only can slow the spread of SARS-CoV-2 in a cohort of young, healthy adults but it can also prevent the outbreak of COVID-19 while still inducing an immune response and colonizing nasal passages. Viral inoculum during infection or mode of transmission may be a key factor determining the clinical course of COVID-19.
Chaudhry et al. (2020)	John Hopkins University Center for Science and Engineering (JHU-CSSE), WHO, CDC, Worldometer Coronavirus Statistics website, WHO Situation Reports	"Rapid border closures, full lockdowns, and wide-spread testing were not associated with COVID-19 mortality per million people. However, full lockdowns and reduced country vulnerability to biological threats (i.e. high scores on the global health security scale for risk environment) were significantly associated with increased patient recovery rates."
Chen et al. (2020a)	Veraset	"Linking social distancing behavior with an epidemic model, we estimate that reductions in movement have causally reduced SARS-CoV-2 transmission rates by 49%."
Padalabalanarayanan et al. (2020)	State-level data on COVID-19 cases, tests, and fatalities from the COVID Tracking Project	"...cumulative case rates would have been more than 200% higher and fatality rates approximately 22% higher if there were no SAHOs, as compared with SAHOs fully in place. A higher proportion of African American population was associated with higher case rates (b = 0.045; 95% CI, 0.014 to 0.077; P = .001) and fatality rates (b = 0.068; 95% CI, 0.044 to 0.091; P < .001).
White and Hébert-Dufresne (2020)	Covid-19 cases and deaths from Johns Hopkins Center for Systems Science and Engineering Coronavirus Resource Center	"We find that epidemic dynamics were most strongly associated with non-pharmaceutical government actions during the early phase of the epidemic. In particular, early social distancing restrictions, particularly on restaurant operations, was correlated with increased doubling time.
Wang et al. (2020)	Electronic medical records of healthcare workers of Mass General Brigham tested for SARS-CoV-2 between March 1 and April 30, 2020. Mass General Brigham is the largest health care system in Massachusetts, with 12 hospitals and more than 75 000 employees. Job description for each worker obtained by linking their record to the healthcare system's human resources databases.	Universal masking at MGB was associated with a significantly lower rate of SARS-CoV-2 positivity among healthcare workers.
Wing et al. (2020)	NHL hockey games, National Basketball Association (NBA) games, NCAA men's college basketball games, Major League Baseball (MLB) teams and National Football League (NFL), COVID-19 cases and deaths from The New York Times (2020) database.	"one additional NHL/NBA game leads to an additional 783 COVID-19 cases during March-mid May and an additional 52 deaths." "... an additional NCAA Division 1 men's basketball games results in an additional 31 cases and an additional 2.4 deaths."
	Self reported social distancing, opinions, internet searching	
Aksoy et al. (2020)	daily Google searches in a country	".. countries with high levels of public attention are more likely to implement non-pharmaceutical interventions, even after controlling for the number of cases and deaths." "..positive effect of public attention on policy implementation is driven entirely by countries with good institutions."
Allcott et al. (2020)	Original survey	"..significant gaps at the individual level between Republicans and Democrats in self-reported social distancing, beliefs about personal COVID risk, and beliefs about the future severity of the pandemic."
Barrios and Hochberg (2020)	Unacast, Google search trends	"..during the early phases of COVID-19, voluntary social distancing was higher when individuals exhibit a higher sense of civic duty. as measured by smartphone location patterns"
Bento et al. (2020)	Google search trends	"..we show that (*first COVID-19 case public announcement in a state*) increases collective attention to the crisis right away. as measured by smartphone location patterns"
Fetzer et al. (2020)	Google search trends	"..we document a substantial increase in economic anxiety during and after the arrival of the coronavirus."
Simonov et al. (2020)	SafeGraph, HomeBase (firm closure data and employee counts), Facteus (provider of financial data for business analytics)	"..a 10% increase in Fox News cable viewership (approximately 0.13 higher viewer rating points) leads to a 1.3 percentage point reduction in the propensity to stay at home."

Note: These studies represent ones that do not meet the Table A2 criteria for inclusion, but provide background on the topics. We limit the data column to the outcome measures of the paper. For brevity of table, we select only the quotes that appear the most relevant to this review paper.