Is the Pandemic Personal or Political? The Influence of Demographics and Risk Proximity on Attitudes toward COVID-19 Policy in Washington State

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Abstract
Many social factors affect the extent to which people may support governmental policies aimed at mitigating risk. The authors ask how demographic variables, preexisting vulnerability, and proximity to health, economic, and care work impacts may shape attitudes about governmental policies aimed at risk reduction during the coronavirus disease 2019 (COVID-19) pandemic. Grounding their analysis in literature on risk perception and attitudes about health policy, the authors report results from survey research on COVID-19 among more than 2,000 Washington State residents from summer 2020. Multivariate analyses show that proximity to the economic impacts of COVID-19 had little effect on policy support or trust, whereas proximity to health risk and care work impacts had moderate effect. Political orientation emerged as the strongest predictor of policy support, with conservatives showing less support than liberals for state health policies aimed at mitigating health risks associated with COVID-19.

Keywords
COVID-19, risk proximity, trust in government, health policy

Perceived Risk
In the United States, public health threats are generally framed as both health and economic risks. Perceived risk can affect the extent to which people may support governmental policies aimed at mitigating that risk (Qin et al. 2021). People calculate risk, or the expectation that something may be dangerous in the future, using their understanding of present circumstances, including level of danger and likelihood of occurrence (Cordner forthcoming). People’s understanding and evaluation of risk may depend on their capacity to identify whether and how much a risk is present, their level of trust in the expertise of people defining it as risky, and the amount of firsthand exposure they have had to the risk itself, among other factors (Tierney 2007). People’s assessments of risk and their actions taken on the basis of those assessments

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are also shaped by values, identity, and group memberships (Cordner forthcoming; Rogers 1997). Members of the lay public perceive risk differently from so-called experts, often developing different assessments of emerging health or environmental risks because they have different “needs, methods, and goals” in developing, evaluating, and using knowledge (Brown 1992; see also Cable, Shriver, and Mix 2008, Epstein 1995; Eyal 2013). Certain demographic groups are differentially vulnerable to the impacts of COVID-19 in the United States. Studies have shown greater susceptibility to COVID-19 diagnoses, hospitalizations, and deaths among aging populations and those with underlying health conditions (Wrigley-Field et al. 2020), men (Bwire 2020), low-income individuals (Enriquez and Goldstein 2020), and communities of color, especially Black, Latino, and Native communities (Wrigley-Field et al. 2020).

In addition to actual rates of exposure and health outcomes, demographic groups also vary in their perceptions of risk. Older individuals, employed people, and women are generally less tolerant of risk (Huang et al. 2013; Morioika 2014; Taylor et al. 2009). Umamaheswar and Tan (2020) find that men hold more dismissive attitudes about risks associated with COVID-19 than women, partly because of pressure on men to conform to masculine traits such as confidence, bravery, and strength (Courtenay 2000; Mahalik, Burns, and Syzdek 2007). Although research has shown that women are more likely to express greater perceived risk than men in general (Morioka 2014), the heightened risk perception among women during the COVID-19 pandemic may also stem from the disproportionate care work burden they bear relative to men (Umamaheswar and Tan 2020) and the ways in which their risk perception is socially located in a complex field of reproductive politics and care work expectations and practices (Armstrong, Markens, and Waggoner 2019; Waggoner 2017). In other words, the increased workload of child care, home schooling, and domestic labor for women during COVID-19 exposes them (and often their children) more directly to the pandemic’s negative impacts on daily living.

Socioeconomic status (SES) also influences risk perception. In their research on the 2016 Zika virus epidemic, Lo and Laurent-Simpson (2016) find that risk perception decreases as SES increases. Additionally, higher SES is associated with increased access to news sources, medical journals, and other online information, facilitating a process of “risk mediation” in which individuals challenge medical and public health authorities using self-curated information (Huang et al. 2013; Lo and Laurent-Simpson 2016; Taylor et al. 2009). SES also matters in relation to other factors, complicating its relationship with risk perception. For example, in communities with ongoing risk such as those geographically situated near hazardous sites, people experiencing more social or economic vulnerability are more likely to perceive the risk as problematic (Huang et al. 2013; Rogers 1997). Race, especially in terms of its intersections with economic precarity and gender, is a strong predictor of perceived risk. People of color generally report higher levels of risk perception than white people, related to their more frequent experiences of structural oppression and their increased vulnerability to hazards (Macias 2016). White men typically report the lowest levels of perceived risk, in part because of greater likelihood to hold hierarchical and individualistic worldviews alongside risk skepticism and the general benefits they derive from the status quo (Kahan et al. 2007; McCright and Dunlap 2011).

Politically based values also shape likelihood to trust expert voices, preference for individualistic or collectivistic responses to risk, and prioritization of economic interests. Conservatives are less likely to accept the expertise of scientific voices, more likely to leave decision making about risk mitigation up to individuals, and more likely to prioritize economic interests (Agiesta 2020; Benton, Cobb, and Werner 2020). Recent research has shown that liberal attitudes are associated with greater likelihood to perceive COVID-19 risks as serious (Qin et al. 2021).

Finally, risk perception is also influenced by risk proximity, in terms of physical or social proximity, and/or in terms of feeling the effects of the risk personally. We define proximity to risk as social, physical, or psychological closeness to the negative personal impacts of COVID-19. We focus on proximity to economic, health, and care work impacts as our risk proximity measures for two reasons: first, because numerous public debates framed the impacts as a weighing of risk attached to work and the economy (job loss, business closures, needing to stay home with children because of school closures) or risk attached to COVID-19 (getting sick, knowing someone who fell ill); and second, because state and county agencies included economic and health impacts of COVID-19 on their dashboards (e.g., King County’s [2021] “Economic, Social and Overall Health Impacts” COVID-19 dashboard). Attitudes about health risk are affected by proximity to the health issues themselves, though not necessarily in straightforward ways. In the case of risk events that span a significant length of time, such as a pandemic, people who experience chronic impacts are more likely to perceive risk than those with less occurrence (Rogers 1997). However, the impact of proximity on risk perception varies on the basis of how the risk is framed and how people interact with the risk. For example, if residents feel a stronger sense of place with a high-risk location (such as a nuclear power plant) or see a clear benefit derived from it, they exhibit greater risk tolerance and lesser perceived risk toward that site (Venable, Pries-Heje, and Baskerville 2012). Thus prior research suggests that proximity to the COVID-19 pandemic may directly affect individuals’ perceptions, though in variable ways according to how the issue is framed or interpreted.
Attitudes toward Health Policy

Many social factors shape trust in and support for U.S. governmental policies related to health generally and support for policies related to COVID-19 specifically. Research is still emerging on how compliance with COVID-19-related health policies in the United States, including face-covering compliance and vaccination acceptance, is influenced by factors such as demographics, risk perception, trust in authoritative voices, and proximity to risk. Pickup, Stecula, and van der Linden (2020) found that greater likelihood to perceive serious COVID-19 risks yielded greater support for public health policy aiming to reduce risk. Blendon et al. (2006) showed that personal proximity to risk increases people’s compliance with public health mandates. Previous pandemics provide useful comparisons. For example, compliance with public health mandates during the 2009 H1N1 influenza pandemic was positively associated with higher levels of concern about susceptibility, particularly among older, educated, full-time employed women (Taylor et al. 2009). Studying views of health versus economic impacts is also important. As Hilyard et al. (2010) found in their research on U.S. attitudes surrounding the 2009 H1N1 influenza epidemic, “the economic risks of compliance with government action in a pandemic may trump the health risks of noncompliance” (p. 2300), especially if people feel the economic risk personally.

Trust in Public Health Measures. To support public health policies, a certain level of trust in governmental institutions is required. U.S. residents report not only lower levels of concern during pandemics compared with other countries but also declining trust in state and federal authorities generally (Blendon et al. 2004, 2006). Rainie, Keeter, and Perrin (2019) showed that there is variation among groups in the United States in terms of likelihood to trust government, with those who are older, white, educated, or affluent showing greater levels of trust. Furthermore, people with low trust levels tend to have low confidence in groups representing collective institutions, including scientists, college professors, and the military, and are more likely to use skepticism and self-reliance as guiding forces for decision making over and above what a governmental entity may recommend.

Level of support for public health guidelines also depends on whether the guidelines are perceived to affect everyday life and individual choice. In a study of U.S. attitudes during the 2009 H1N1 influenza pandemic, Hilyard et al. (2010) found weak support for simple, individual-level, and potentially more effective policies such as staying home from work and social distancing, contrasted with strong support for more dramatic and sweeping policies like quarantining and closing borders. Even in areas of general support for public health policies in the United States, partisan differences matter. Conservatives express less support for federal-level public health spending and policy but more support for state-level policies, especially if they allow for individual choice (Blendon et al. 2010). Policies requiring revisions to day-to-day life (e.g., face coverings, business closures, social distancing, staying at home) are less likely to be supported by those who operate with self-reliance and skepticism of decision makers (Blendon et al. 2010).

Finally, self-reported health is also associated with people’s trust in health authorities and support for public health policy. Individuals with poorer self-reported health are more likely to endorse a strong government role in health care spending (LeCount and Abrahamson 2017). Health care spending and policy are similarly situated under the umbrella of governmental action related to health, and they are similarly susceptible to the influence of the aforementioned factors that shape attitudes.

COVID-19 and Policy Attitudes. Emerging research explores social factors influencing attitudes and actions surrounding COVID-19 policies among U.S. residents. Women and white people are more likely to believe that public health preventive measures surrounding COVID-19 are efficacious (Shepherd et al. 2020). Political orientation is strongly associated with trust in health authorities and belief that COVID-19 public health prevention measures are effective (Shepherd et al. 2020). In 2020, Democrats were more likely than Republicans to rate the governmental response to the coronavirus as an underreaction, to have lower confidence in the federal government’s capacity to safeguard people’s health, and to have made behavioral changes aimed at reducing risk for COVID-19 (Pickup et al. 2020). Evans and Hargittai (2020) found that Republicans and independents are less trusting than Democrats of scientists’ capacity to understand the virus and are less likely to agree that scientists share their values. These authors also found that some groups (Protestants and Catholics but not working-class men and rural individuals) see their values as aligning with those of scientists, while others (working-class men and rural individuals but not Protestants and Catholics) are skeptical of scientists’ knowledge. Relatedly, a leading predictor of behaviors that contradicts public health and COVID-19-preventive guidelines is belief in Christian nationalist ideology, a unique blend of far-right political and religious beliefs connected with higher levels of support for President Trump (Perry, Whitehead, and Grubbs 2020; Whitehead and Perry 2020).

As with attitudes about governmental health policy generally, belief about one’s own health can affect both attitudes and behaviors surrounding COVID-19. Studying COVID-19 in May and December 2020, Clarke et al. (2021) found that the more aware someone is of the potential health consequences of the coronavirus and its likelihood to make them susceptible to sickness, the more likely they will follow protocols outlined in policies. Perceived proximity to COVID-19 risk can also affect behaviors, implying a connection with support levels for policies that require or recommend those behaviors. Risk perception is positively correlated with
COVID-19-preventive measures, suggesting that health policies aimed at encouraging or mandating preventive measures may be more supported by people who perceive higher risk (Qin et al. 2021).

In sum, demographics and risk proximity influence risk perception generally, and they also affect values, attitudes, and behaviors related to government policies related to reducing transmission of the coronavirus. However, COVID-19 has created unprecedented uncertainty in political, social, and health spheres, and people’s identities and perceived proximity to health and economic risks from the coronavirus are likely to affect their level of support for public health policies, particularly when those policies target individual-level action and choice. We ask how demographics, preexisting vulnerability, and proximity to health, economic, and care work impacts may shape attitudes about governmental policies aimed at risk reduction. Our study, although situated in Washington State, adds to understanding about national trends related to the pandemic.

**The Washington State Context**

As the site of both the first confirmed case of COVID-19 in the United States and a strong and effective public health response, Washington State provides an important context for examining the impact of demographics and risk proximity on COVID-19 health policy views. The first reported U.S. case of COVID-19 was on January 19, 2020, in a man who had returned to Washington from a visit to family in Wuhan, China (Holshue et al. 2020). After February, the state saw a rapid rise of cases, especially in the urban, western part of the state. In direct response and opposition to the rhetoric and policies of the federal administration of Republican president Donald Trump, Democratic Washington governor Jay Inslee responded quickly with state-level public health measures, including closing schools to in-person learning, “stay home, stay healthy” measures for workplaces, closures of businesses that included face-to-face contact and that were not deemed “essential,” and requirements for face coverings (Washington State Department of Health 2020). The goings-on with COVID-19 policy in Washington were closely watched nationally to see how policies might reduce case, hospitalization, and death counts. Although the Seattle area was one of the major hot spots for the coronavirus early in the pandemic, and the rest of the state saw some upticks in cases throughout 2020 and into 2021, a robust and coordinated public health and policy response (including access to global health nonprofits and research networks, coordinated efforts at city and state levels, capacity to allow work from home for many employees, and possibly more public support from early exposure as a COVID-19 hotspot), has led Washington to consistently have some of the lowest rates of transmission and death in the country (Baker 2021).

**Data and Methods**

**Data Collection**

We conducted an online survey of adult Washington State residents about their experiences during the first five months (March to July 2020) of the COVID-19 pandemic; its related economic, health, and care work impacts; and their attitudes on health-related policies. The survey was open from July 21 to August 5, 2020. On July 21, 2020, there were 48,575 total confirmed cases of COVID-19 in Washington State, 1,465 total deaths, and a two-week average of 797 cases per day (The Seattle Times 2020). This was after the “first wave” of Washington State cases in the spring but well before the much larger second wave hit in November 2020 (Washington State Department of Health 2020). Our survey captures experiences of Washington residents several months into state guidelines and mandates of sheltering at home, phased reopenings, face masks, and physical distancing. Across the state, there was significant variation in per capita case counts, local access to testing resources, state-mandated reopening phases, and willingness to comply with state mandates. In addition, Washington State voting patterns from 2020 reveal that predominantly urban areas west of the Cascade Mountains (where Seattle is located) are more likely to vote Democratic, whereas counties east of the Cascades are more likely to vote Republican (Washington State Secretary of State 2021). Since August 2020, additional local and state policies have been enacted or revised. Public discourse surrounding the pandemic and its related policies and consequences was and remains heavily politicized, and ongoing political disagreements about COVID-19 have influenced people’s attitudes differently as time passes, particularly during the presidential election (Evans and Hargittai 2020; Shepherd et al. 2020).

The research was approved by the Whitman College institutional review board (IRB 20/21-01). We distributed the anonymous Qualtrics survey link through multiple networks and platforms, including county health departments, county Chambers of Commerce, a researcher-developed database of statewide organizations intended to target a wide range of demographic groups, a Facebook ad targeted to Washington State residents, and personal and professional connections of the researchers. Because of this distribution method, it is impossible to calculate a response rate for the survey. The survey recruitment was distributed in English and Spanish, and the survey was available in these two languages as well. At the end of the survey, respondents could go to a separate survey to provide their e-mail addresses to enter a raffle for four grocery store gift cards. Our full survey is available by request.

**Measures**

We ask how preexisting vulnerability, demographic variables, and proximity to health, economic, and care work impacts
might shape attitudes about governmental policies aimed at risk reduction.

**Dependent Variables.** Our dependent variables included multiple measures of people’s levels of trust of local, state, and federal officials, as well as attitudes regarding various COVID-19 policies. The survey asked Likert-type scale questions to capture four general categories of attitudes and beliefs: (1) agreement with Washington State’s COVID-19 policies; (2) support for general reopening of businesses, religious services, and their county; (3) trust in local, state, and federal officials; (4) and support for various aspects of face covering mandates.

**Preexisting Vulnerability.** To measure preexisting health vulnerability, we asked whether the respondent was particularly vulnerable to COVID-19 using a list of preexisting conditions, medical treatments, and behaviors identified by the Centers for Disease Control and Prevention (2020) that increase someone’s likelihood of experiencing severe complications from COVID-19 (CDC health risk). To measure preexisting economic vulnerability, we asked about housing status (owns with mortgage [referent], renter, owns without mortgage, lives with family, or home other) and paid employment status (employed [referent] or not employed, which includes unemployed, retired, and student) prior to March 2020. We also asked whether their paid employment put them at greater risk for getting COVID-19 (job COVID-19 risk). (We intentionally did not use the language of “essential worker,” recognizing significant limitations of that term.)

**Demographic Variables.** To assess the impact of demographics on attitudes, we measured educational level using seven categories: less than high school, high school graduate, some college, two-year college degree, four-year college degree, some graduate or professional school, and graduate or professional degree. In multivariate analysis, we compare those with at least a college education to others. We asked for respondents’ age, gender, family size, marital status, and ZIP code. The gender question included options for man, woman, nonbinary, and an optional write-in response. We reviewed the five write-in responses and recoded four because the descriptions matched gender categories (e.g., recoded “feminine” as woman) and one as nonbinary. Our analysis compares men with all others. We matched ZIP codes to counties and further identified each county as western Washington or eastern Washington (the referent) (Dr. Patrick Jones, Eastern Washington University Institute of Public Policy and Economic Analysis, personal communication, September 23, 2020). We asked about race or ethnicity using categories derived from the U.S. census with an additional write-in option. We reviewed the 26 write-in responses and recoded them when the response aligned with a racial or ethnic category (e.g., recoded “Caucasian” as white). Our multivariate analysis compares white-identifying people with all others (the referent).

To assess the impact of political and religious values on attitudes, we asked respondents to self-identify their political views on a five-point scale ranging from very conservative to very liberal. Our multivariate analysis compares people who identified as conservative/very conservative or moderate with those who identified as liberal/very liberal (the referent). To capture religiosity, we asked how much a religious community influenced respondents’ decision making on a daily basis, including an option for not being part of a religious community. We could not measure religious service attendance, as in-person religious services were generally shut down during our study period (Evans and Hargittai 2020). In multivariate analysis, we compare those who said that a religious community influenced their daily decision making not at all (religion no) or a small or moderate amount (religion less) with those who said that a religious community influenced their daily decision making a moderate amount, a lot, or a great deal (the referent). We also measured age in eight ordinal categories, family structure (single and widowed, divorced, or separated, compared with the referent married or partnered), and a linear count of total family size, capped at nine because of question wording.

**Proximity to COVID-19.** We measured proximity to COVID-19 in terms of health-related impacts, economic impacts, and increased care work impacts. To measure health-related impacts, we asked whether respondents themselves or those they knew had contracted COVID-19, been hospitalized, or died. Because testing capacity in much of Washington State was severely limited in the spring and summer of 2020, we measured respondents’ personal experience with COVID-19 by asking whether they had been tested for COVID-19 and had tested positive or negative, experienced symptoms and suspected infection but were not tested, or were not tested at all and did not suspect infection. In multivariate analysis, we combined the small number of people who had tested positive for COVID-19 (n = 15) with those who reported a suspected COVID-19 infection (n = 302) into a single category (COVID-19 yes or maybe). (We repeated our analyses to separate those who tested positive from those with suspected but unconfirmed infection, and results did not change in coefficient magnitude, direction, or statistical significance.)

We included two other measures of health-related impacts. We asked questions about delaying any medical care (delayed medical care) and impacts on mental health (negative mental health). We also asked whether respondents knew anyone personally who had COVID-19 (know someone COVID-19), who was hospitalized with COVID-19 (know someone hospitalized), or who died from COVID-19 (know someone died).

To measure economic impacts, we asked whether respondents had experienced COVID-19 occupational and financial impacts in the first five months (March to July 2020) of the
pandemic. We asked about job impacts (employment loss, which included complete and/or temporary job loss), decreased hours or pay or benefits (employment harm), and whether anyone in their household (household job) or extended family and close friends (family friend job) had lost a job because of COVID-19.

To measure care work impacts, we asked whether respondents’ responsibilities changed between March and July 2020. We included separate measures for childcare (more care child), care for an elder or family member (more care family), or care for non–family members, neighbors, or coworkers (more care other).

Data Analysis

Data were analyzed in Stata 13.1. Table 1 presents univariate statistics for demographic and preexisting vulnerability variables, and Table 2 presents univariate statistics for measures of COVID-19 proximity. Figures 1 and 2 present distributions for our dependent variables: eight measures of agreement with statements about COVID-19 policies and three measures of levels of trust in government officials.

Table 3 presents adjusted odds ratios (ORs) derived from logistic regression analysis for each of our dependent variables. For the three variables measuring trust in local, state, or federal officials, we converted Likert-type scale variables into dichotomous outcomes that compared higher support for public health policies to lower levels of support (1 = “agree” and “strongly agree,” 0 = “neutral,” “disagree,” and “strongly disagree”). To measure support for other health-protective measures, we created additive indices to measure support for Washington State policies (support for the “stay home, stay healthy” policy, and agreement that Washingtonians should follow state health guidance; Cronbach’s α reliability coefficient = .9402), support for face-covering policies (support the state mask mandate, employees required to wear masks, and all customers should wear masks; Cronbach’s α reliability coefficient = .9603), and support for slower reopening (reopening of businesses, in-person religious services, and the respondent’s county of residence; Cronbach’s α reliability coefficient = .9173). Because the distribution of each index was highly skewed, we transformed each into a dichotomous variable such that a value of 1 meant that respondents said that they “agreed” or “strongly agreed” with all components of each index.

Results

Sample Description

We received a total of 2,348 full or partial responses, with 2,035 to 2,070 responses on our dependent measures of COVID-19 policy views. Our respondents were 78 percent women (Washington State: 50 percent) (all Washington estimates are from U.S. Census Bureau 2020). Eighty-seven percent of respondents were white (Washington: 78.5 percent) and 4 percent were Latino or Hispanic (Washington: 13 percent). The median household income category was $70,000 to $99,999 (Washington: median household income $70,116), and 78 percent had at least a college degree (Washington: 35 percent). Nearly three fourths of respondents were married or partnered. Approximately one fourth (28 percent) had children in the home (Washington: 27 percent), and 46 percent of households had at least one person older than 65 (Washington: 39 percent at least one person at least age 60). Two thirds of respondents were homeowners, with (48 percent) or without (18 percent) a mortgage, and 27 percent of respondents were renters (Washington: owner-occupied housing rate 63 percent, renter-occupied housing rate 37 percent). Thus, compared with Washington State overall, our respondents were more likely to be white, women, and college educated, likely reflecting both the demographics of those more likely to respond to surveys (see, e.g., Myoungock and Meyers 2018) and our own professional networks as academics. Additionally, prior research has shown that white men are relatively risk tolerant compared with women and people of color and therefore may be less interested in an opt-in survey about COVID-19-related risk (Finucane et al. 2010).

Residents from all 39 counties in Washington State responded to our survey. King County (the state’s most populated) and Walla Walla County (home to Whitman College, our academic home) were overrepresented. A slight majority (59 percent) of our respondents were on the west side of Washington, whereas 81 percent of Washington State residents live in west-side counties (Washington Office of Financial Management 2020).

The majority of respondents (64 percent) identified as politically liberal, slightly more than the range of voters who chose the Democratic presidential candidate in both 2016 and 2020 (2016, 54.3 percent; 2020, 57.9 percent) (Washington State Secretary of State 2020). (Washington State voter registration does not include political party identification.) Nearly half of respondents (45 percent) said that they were not involved in a religious community, while 33 percent said that their religious communities influenced daily decision making at least a moderate amount. A recent Gallup poll found that 47 percent of Washingtonians identified as nonreligious (Balk 2018).

Three quarters of respondents (73 percent) were employed full- or part-time prior to March 2020 (Washington: 65 percent of individuals at least 16 years of age). Of employed respondents, 43 percent reported that their employment put them at greater risk for getting COVID-19. One fourth (26 percent) indicated that they had at least one of the preexisting conditions identified by the Centers for Disease Control and Prevention (2020) as increasing the risk for severe complications from COVID-19.
Table 1. Sample Demographics.

| Measure                                      | n  | %   |
|----------------------------------------------|----|-----|
| Gender                                       |    |     |
| Man                                          | 420| 20.7|
| Woman                                        | 1574| 77.5|
| Nonbinary                                    | 36 | 1.8 |
| Age (years)                                  |    |     |
| 18–34                                        | 502| 24.6|
| 35–54                                        | 787| 38.6|
| 55–74                                        | 636| 31.2|
| ≥75                                          | 112| 5.5 |
| Race and ethnicity                           |    |     |
| White                                        | 1,753| 86.5|
| Latinx                                       | 85  | 4.2 |
| Asian or Middle Eastern                      | 87  | 4.3 |
| Multiracial, Native American, or other       | 101 | 5.0 |
| Annual household income                      |    |     |
| <$39,999                                     | 326| 16.4|
| $40,000–$69,999                              | 361| 18.2|
| $70,000–$99,999                              | 396| 19.9|
| $100,000–$149,999                            | 454| 22.8|
| ≥$150,000                                    | 451| 22.7|
| Educational attainment                       |    |     |
| High school or less                          | 57  | 2.9 |
| Some college                                 | 259| 12.7|
| Two-year college degree                      | 125| 6.1 |
| Four-year college degree                     | 641| 31.4|
| Some graduate/professional school            | 189| 9.3 |
| Graduate/professional degree                 | 772| 37.8|
| Relationship status                          |    |     |
| Married or partnered                         | 1,487| 73.1|
| Divorced or separated                        | 124| 6.1 |
| Widowed                                      | 68  | 3.3 |
| Single                                       | 346| 17.0|
| Household size                               |    |     |
| Average household size                       | 3.5 |     |
| % families with children                     | 27.5|
| % families with adults ≥65 years of age       | 45.8|
| Region                                       |    |     |
| Eastern Washington                           | 892| 41.0|
| Western Washington                           | 1,282| 59.0|
| Housing status                               |    |     |
| Renting                                      | 583| 26.7|
| Owning with mortgage or loan                 | 1,046| 47.6|
| Owning without mortgage or loan              | 386| 17.6|
| Living with family                           | 107| 4.9 |
| No housing                                   | 8   | 0.4 |
| Something else                               | 66  | 3.0 |
| Political views                              |    |     |
| Conservative or very conservative            | 192| 9.5 |
| Moderate                                     | 543| 26.8|
| Liberal or very liberal                      | 1,290| 63.7|

Table 1. (continued)

| Measure                                      | n  | %   |
|----------------------------------------------|----|-----|
| Influence of religious community             |    |     |
| Not part of a religious community            | 918| 45.2|
| Not at all                                   | 439| 21.6|
| A little or moderate amount                  | 448| 22.0|
| A lot or great deal                          | 227| 11.2|
| Employment status before March 2020          |    |     |
| Employed full- or part-time                  | 1,524| 72.6|
| Employment increases COVID-19 risk           |    |     |
| Yes                                          | 654| 43.1|
| No                                           | 863| 56.9|
| CDC health risks                             |    |     |
| Yes, respondent                              | 560| 25.8|
| Yes, someone in respondent’s household       | 551| 25.4|

Note: CDC = Centers for Disease Control and Prevention; COVID-19 = coronavirus disease 2019.

Proximity to COVID-19

Table 2 describes respondents’ proximity to COVID-19 in terms of health-related, economic, and care work impacts. Only 15 respondents (0.7 percent) indicated that they had tested positive for COVID-19, not surprising given limited access to testing in Washington State and relatively low infection rates across the state as of August 2020. An additional 14 percent of respondents (n = 302) reported that “I think I might have had COVID-19 but I have not been tested for it.” Eighteen percent of respondents reported testing negative for COVID-19, and 67 percent did not think they ever had COVID-19 and had not been tested. (Although asymptomatic testing for occupational or travel screening purposes became common by 2021, it was still very unusual in Washington State in the spring and summer of 2020.) The majority of respondents (58 percent) had experienced some delay in medical care, and this percentage was significantly higher for individuals with preexisting medical conditions (67 percent; p ≤ .0001). The majority of respondents (62 percent) knew someone personally who had COVID-19, while only 19 percent of respondents knew someone who had been hospitalized and 13 percent knew someone who had died. Nearly one third (33 percent) of respondents had extended family members or close friends who had COVID-19, and 6 percent had an extended family member or close friend who had died (additional analysis, not shown). One in 10 respondents had a coworker who had contracted COVID-19, and 2 percent had someone in their households who had contracted COVID-19 (additional analysis, not shown).

The majority of respondents (58 percent) reported that they had experienced delayed medical care because of COVID-19. An even larger majority of respondents (87 percent) reported strong or mild negative mental health impacts.
from the COVID-19 pandemic, compared with only 8 percent who reported mild or strong positive impacts.

A sizable minority of our sample had personally experienced negative economic impacts, with roughly one in six losing a job permanently or temporarily and one in five experiencing reduced hours, wages, or benefits. Only 22 percent reported that someone in their household had lost a job, but nearly two-thirds reported that an extended family member or close friend had lost a job because of COVID-19.

Roughly one quarter of respondents reported increased child care responsibilities, one fifth of respondents reported that care for a household member had increased, and close to half (45 percent) reported that care for neighbors, coworkers, or other non–family members had increased.

Trust and Attitudes toward COVID-19 Policies

Figures 1 and 2 describe respondents’ self-reported views on various COVID-19 policy actions and trust levels in governmental officials. Figure 1 presents respondents’ agreement with three statements about whether religious gatherings, businesses, or the county should have opened earlier; three statements about when face coverings should be worn; and two statements specific to support for Washington State policies. Only a small minority of respondents expressed support for earlier reopening of religious gatherings (14 percent), businesses (14 percent), and their county (10 percent). A large majority of participants agreed or strongly agreed that businesses should require all customers (84 percent) and employees (87 percent) to wear masks, and 85 percent supported the state’s mask mandate. A similarly strong majority supported Washington’s specific stay-at-home order (88 percent) and the governor’s health guidance generally (91 percent).

Figure 2 shows that levels of trust varied between different levels of government. Although 77 percent of respondents said that they somewhat or very much trusted decisions made by local government officials, and 82 percent trusted decisions made by state officials, only 9 percent expressed comparable support for federal officials.1

1These levels of trust were associated with political orientation. In additional analyses (not shown), 29 percent of self-identified conservatives expressed high levels of trust in federal officials, compared with just 6 percent of self-identified liberals (Spearman’s rho = –0.2835, p ≤ 0.0001). In contrast, far fewer conservatives than liberals expressed high levels of trust in Washington State officials (30 percent compared with 86 percent of liberals) (Spearman’s rho = 0.3969, p ≤ 0.0001).

Table 2. COVID-19 Impacts.

| Measure                                           | n    | %    |
|---------------------------------------------------|------|------|
| COVID-19 status                                   | 2,098|      |
| Tested for COVID-19: positive test                 | 15   | 0.7  |
| Thinks they had COVID-19 but not was tested       | 302  | 14.4 |
| Tested for COVID-19: negative test                 | 372  | 17.7 |
| Does not think they ever had COVID-19              | 1,409| 67.2 |
| Mental health impacts                             | 2,100|      |
| Strong or mild negative impact                     | 1,817| 86.5 |
| No impact                                         | 74   | 3.6  |
| Strong or mild positive impact                     | 168  | 8.1  |
| Delayed medical care                              | 2,100|      |
| Yes                                               | 1,225| 58.3 |
| No impact                                         | 875  | 41.7 |
| COVID-19 proximity                                | 2,011|      |
| Knows anyone who had COVID-19                      | 1,253| 62.3 |
| Knows anyone who was hospitalized with COVID-19    | 374  | 18.6 |
| Knows anyone who died from COVID-19                | 259  | 12.9 |
| Economic impacts (multiple responses possible)     | 2,098–2,123| |
| Complete or temporary job loss                    | 346  | 16.5 |
| Reduced hours, wages, or benefits                  | 441  | 21.0 |
| Someone in household lost job                     | 464  | 21.9 |
| Extended family or close friend lost job           | 1,343| 63.5 |
| Changes in care responsibilities                   | 2,100|      |
| Child care responsibilities increased              | 536  | 25.5 |
| Household member care responsibilities increased   | 439  | 21.2 |
| Care of non–family member increased                | 469  | 44.5 |

Note: COVID-19 = coronavirus disease 2019.

1These levels of trust were associated with political orientation. In additional analyses (not shown), 29 percent of self-identified conservatives expressed high levels of trust in federal officials, compared with just 6 percent of self-identified liberals (Spearman’s rho = –0.2835, p ≤ 0.0001). In contrast, far fewer conservatives than liberals expressed high levels of trust in Washington State officials (30 percent compared with 86 percent of liberals) (Spearman’s rho = 0.3969, p ≤ 0.0001).
Table 3 presents results from multivariate analyses of the impact of demographic variables and multiple measures of COVID-19 proximity on policy views. Pseudo-\(R^2\) values varied greatly across the models, from less than .12 for trust in federal officials to more than .40 the index of support for Washington State policies.

**Demographics.** Many expected demographic variables were strong predictors of policy views. Education influenced policy views: college-educated respondents expressed more support for local (OR = 1.86, \(p < .001\)) and state (OR = 1.88, \(p < .001\)) officials and were more than twice as likely to indicate support for Washington State COVID-19 policies (OR = 2.19, \(p < .001\)). Higher income respondents also expressed higher levels of support for Washington State COVID-19 policies (OR = 1.18, \(p < .10\)) and face covering policies (OR = 1.21, \(p < .01\)), slower reopening (OR = 1.16, \(p < .10\)), and higher levels of trust in local officials (OR = 1.21, \(p < .01\)) and state officials (OR = 1.19, \(p < .05\)). Living situation and homeownership mattered inconsistently. Compared with homeowners with mortgages, renters expressed more trust in federal officials (OR = 1.59, \(p < .10\)) and more support for face-covering policies (OR = 1.65, \(p < .05\)).

Gender influenced some but not all policy views. Men in our sample expressed less trust of state officials (OR = .69, \(p < .10\)) and local officials (OR = .69, \(p < .10\)), and less
Table 3. Multivariate Odds Ratios: Impact of Demographic and COVID-19 Proximity Measures on Attitudes Regarding Public Health Policies.

| 1. Trust Local Officials | 2. Trust State Officials | 3. Trust Federal Officials | 4. Index of Support for Washington State Policies | 5. Index of Support for Face-Covering Policies | 6. Index of Support for Slower Reopening |
|--------------------------|--------------------------|---------------------------|-----------------------------------------------|-----------------------------------------------|------------------------------------------|
| Sample size              | 1,773                    | 1,757                     | 1,764                                         | 1,774                                         | 1,769                                    | 1,766                                    |
| Demographic variables    |                          |                           |                                               |                                               |                                          |                                          |
| Western Washington       | 2.20 (.27)***            | 1.47 (.24)**              | .66 (.11)**                                  | 1.5 (.3)**                                   | 1.32 (.2)*                               | 1.53 (.25)**                             |
| Employed                 | .98 (.17)                | .91 (.21)                 | .71 (.16)                                    | .84 (.23)                                    | .92 (.19)                                 | .97 (.23)                                |
| Job COVID-19 risk        | .98 (.14)                | 1.1 (.19)                 | 1.22 (.24)                                   | 1.38 (.32)                                   | 1.1 (.19)                                 | .87 (.16)                                |
| Renter                   | 1.2 (.22)                | .81 (.19)                 | 1.59 (.39)*                                  | 1.45 (.45)                                   | 1.65 (.36)**                              | 1.06 (.26)                               |
| Owns without mortgage    | 1.19 (.23)               | 1.37 (.36)                | 1.07 (.27)                                   | 1.8 (.54)                                    | 1.54 (.35)*                               | 1.5 (.38)                                |
| Lives with family        | .7 (.23)                 | .46 (.2)*                 | 2 (.84)*                                     | .64 (.36)                                    | .91 (.37)                                 | .85 (.39)                                |
| Home other               | 1.4 (.55)                | .35 (.16)*                | 1.3 (.71)                                    | .65 (.43)                                    | 2.21 (.123)                               | 1.02 (.56)                               |
| CDC health risk          | .78 (.11)*               | 1.02 (.19)                | 1.11 (.21)                                   | 1.16 (.25)                                   | 1.05 (.18)                                | 1.08 (.2)                                |
| Income                   | 1.21 (.07)***            | 1.19 (.08)**              | .92 (.07)                                    | 1.18 (.11)*                                  | 1.21 (.08)**                              | 1.16 (.09)*                              |
| College education        | 1.86 (.29)***            | 1.88 (.37)***             | .9 (.19)                                     | 2.19 (.52)***                                | 1.61 (.29)**                              | 1.67 (.33)**                             |
| White                    | 1.11 (.23)               | 1.07 (.28)                | .83 (.23)                                    | 1.35 (.42)                                   | 1.3 (.31)                                 | 1.73 (.44)**                             |
| Age                      | .99 (.06)                | 1.05 (.08)                | .96 (.07)                                    | .87 (.08)                                    | .91 (.06)                                 | .82 (.06)**                              |
| Man                      | .69 (.1)**               | .7 (.13)*                 | .87 (.18)                                    | .56 (.13)**                                  | 1.29 (.24)                                | 1.12 (.22)                               |
| Conservative             | .17 (.04)***             | .02 (.01)****             | 6.82 (.172)****                              | .01 (0)**                                    | .08 (0.2)**                               | .02 (0.1)**                              |
| Moderate                 | .4 (.07)***              | .11 (.02)****             | 2.36 (.48)****                               | .05 (0.02)**                                 | .33 (0.6)***                              | .14 (0.3)**                              |
| Religion no              | .88 (.16)                | 1.2 (.27)                 | 1.1 (.27)                                    | 1.08 (.29)                                   | 1.25 (.26)                                | 1.22 (.27)                               |
| Religion less            | .88 (.15)                | 1.05 (.23)                | 1.45 (.33)*                                  | 1.21 (.29)                                   | .96 (.18)                                 | 1.15 (.24)                               |
| Widowed, divorced, or separated | .9 (.2)             | 1.28 (.38)                | .57 (.19)*                                   | 1.24 (.43)                                   | 1.06 (.28)                                | 2.26 (.7)**                              |
| Single                   | 1.09 (.29)               | 1.12 (.41)                | 1.12 (.44)                                   | .74 (.32)                                    | 1.15 (.37)                                | .37 (.14)**                              |
| Family size              | .86 (.04)****            | .86 (.05)***              | .97 (.06)                                    | .78 (.05)**                                  | .88 (.05)**                               | .77 (.05)**                              |
| COVID-19 proximity measures |                      |                           |                                               |                                               |                                          |                                          |
| COVID-19 yes or maybe    | .75 (.12)*               | .65 (.14)**               | .88 (.21)                                    | .4 (.1)**                                    | .63 (.12)**                               | .55 (.11)**                              |
| Negative mental health   | 1.6 (.27)**              | 1.14 (.25)                | .91 (.21)                                    | 1.74 (.43)**                                 | 1.25 (.25)                                | 1.24 (.27)                               |
| Delayed medical care     | .91 (.11)                | .9 (.15)                  | .82 (.14)                                    | 1.08 (.22)                                   | 1.13 (.17)                                | 1.02 (.17)                               |
| Know someone COVID-19    | .95 (.13)                | 1.02 (.18)                | .66 (.16)                                    | 1.26 (.27)                                   | 1.11 (.18)                                | 1.06 (.19)                               |
| Know someone hospitalized | .86 (.16)               | 1.34 (.34)                | 1.25 (1.25)                                   | 1.77 (.61)*                                  | 1.46 (.35)                                | 1.75 (.47)**                             |
| Know someone died        | 1.2 (.3)                 | 1.16 (.41)                | .47 (.2)*                                    | 1.04 (.49)                                   | .58 (.17)*                                | .76 (.26)                                |
| Employment loss          | 1.21 (.27)               | 1.05 (.3)                 | 1.55 (.51)                                   | 1.11 (.4)                                    | 1.33 (.35)                                | 1.38 (.39)                               |
| Employment harm          | .94 (.18)                | .93 (.22)                 | .66 (.19)                                    | .83 (.25)                                    | .86 (.19)                                 | .65 (.15)*                               |
| Household job            | .84 (.13)                | 1.03 (.21)                | 1.2 (.25)                                    | 1.21 (.31)                                   | 1.05 (.2)                                 | 1.01 (.21)                               |
| Family job               | 1.13 (.15)               | 1.13 (.19)                | 1.06 (.19)                                   | 1.35 (.28)                                   | 1 (.16)                                  | 1.35 (.23)*                              |
| More care child          | 1.57 (.27)**             | 1.39 (.3)                 | 1.17 (.26)                                   | 1.78 (.46)**                                 | 1.08 (.21)                                | 1.31 (.28)                               |
| More care family         | 1.07 (.17)               | 1.37 (.28)                | 1.72 (.34)***                                 | 1.08 (.27)                                   | 1.07 (.2)                                 | 1.08 (.22)                               |
| More care other          | .96 (.14)                | .95 (.19)                 | .66 (.14)*                                   | 1.26 (.32)                                   | 1.19 (.22)                                | 1.4 (.29)                                |
| Constant                 | 1.3 (.75)                | 7.47 (.54)***             | .24 (.18)*                                   | 27.7 (.255.6)**                              | 3.2 (.219)**                              | 13.07 (9.81)**                           |
| R² value                 | .157                     | .335                      | .118                                         | .431                                         | .198                                      | .332                                     |

Note: Odds ratios derived from logistic regression. Values in parentheses are standard errors. CDC = Centers for Disease Control and Prevention; COVID-19 = coronavirus disease 2019. 
P ≤ .10. **P ≤ .05. ***P ≤ .01. ****P ≤ .001.
support for Washington State COVID-19 policies (OR = .56, p < .05). Family structure had no consistent impact on policy views, but larger family size was associated with decreased support for mask requirements (OR = .88, p < .05), state policies (OR = .78, p < .001), and slower reopening (OR = .77, p < .001), and less trust in local officials (OR = .86, p < .001) and state officials (OR = .86, p < .001). Region of residence was also influential on attitudes. For example, west-side respondents were more than twice as likely to support local officials (OR = 2.20, p < .001) but only 66 percent as trusting of federal officials (OR = .66, p < .05) compared with east-side respondents.

As noted in prior literature (Shepherd et al. 2020), political orientation clearly influenced policy views. Respondents who self-identified as politically moderate or conservative were far less likely than self-identified liberal respondents to support any COVID-19-related policies. The ORs were extremely small; for example, compared with liberal respondents, conservative respondents were only 1 percent as likely and politically moderate respondents only 5 percent as likely to express support for Washington State COVID-19 policies (p < .001 for both). Politically conservative respondents also expressed much more support for federal officials (OR = 6.82, p < .001) and much less support for local officials (OR = .17, p < .001) and state officials (OR = .02, p < .001).

Proximity to COVID-19. Most measures of COVID-19 proximity were not associated with policy views. The most consistent impact on policy views was among people who had tested positive for or believed that they had had COVID-19. Compared with individuals who had not had COVID-19 and did not think they had ever had COVID-19, they were only 40 percent as likely to support state policies (p < .001), only 63 percent as likely to support face-covering policies (p < .05), and 55 percent as likely to support slower reopening (p < .01). They were also less supportive of local officials (OR = .75, p < .10) and state officials (OR = .65, p < .05). People with self-identified negative mental health impacts expressed more support for Washington State’s COVID-19 policies (OR = 1.74, p < .05) and increased trust in local officials (OR = 1.60, p < .01). Self-reported delayed medical care did not impact attitudes on public health policies or levels of trust in officials.

Personally knowing someone with COVID-19 had inconsistent impacts on policy views. Some measure of COVID-19 proximity (knowing someone with COVID-19, knowing someone who was hospitalized, or knowing someone who died) was statistically significant for only 4 of 18 policy attitude measures. These relationships were scattered across the separate measures, and three were statistically significant only at the .10 level. Knowing someone who was hospitalized with COVID-19 was associated with increased support for Washington State policies (OR = 1.77, p < .10) and slower reopening of public life (OR = 1.75, p < .05), while knowing someone who had died from COVID-19 was associated with decreased support for face-covering policies (OR = .58, p < .10) and less trust in federal officials (OR = .47, p < .10).

Measures of economic proximity were not consistently associated with policy views net the impact of included controls. Increased care work responsibilities also had inconsistent direct impacts on policy views. Respondents who stated that their child care responsibilities had increased were 57 percent more likely to trust local officials (p < .01) and 78 percent more likely to support Washington State policies (p < .05) compared with people who did not report increased child care responsibilities. Those who reported higher levels of care responsibilities for family members were more likely to trust federal officials (OR = 1.72, p < .01), while those who reported more care responsibilities for neighbors, coworkers, or other non-family members reported decreased trust for federal officials (OR = .66, p < .10).

**Discussion**

We analyzed survey data from more than 2,000 Washington State residents in summer 2020 to assess whether demographics, preexisting vulnerability, and proximity to health, economic, and care work impacts from COVID-19 were associated with levels of support for Washington State policies related to public health during the pandemic. During that time, COVID-19 rates were increasing, but not at the rate of initial discovery in the state, and much less rapidly compared with the coming winter months. During midsummer, state-level mandates for face coverings and social distancing had been in place for some time. Most people who took our survey did not think they had ever had COVID-19, and fewer than 1 percent had received positive test results. Nonetheless, most respondents knew people who had had COVID-19, and many reported delayed medical care, negative impacts on mental health, negative job impacts, and increased care work. A large majority of respondents supported state policies relating to the stay-at-home order, face coverings, and slower reopening of aspects of public life. They reported substantial support for local and state officials but much less consistent support for the federal officials, consistent with findings by Qin et al. (2021).

Our multivariate analysis reveals interesting patterns regarding the relationships between demographic variables and policy views. Consistent with past research (Taylor et al. 2009), education and income were positively associated with support for the health policies, although our data shows that higher income respondents were also likely to support economic reopening. Men and people with larger families had lower levels of support and trust of state and local officials. Residents of the west side of the state were more trusting of local and state officials, and less trusting of federal officials. Political orientation was an extremely strong predictor of
policy support, with individuals holding conservative or moderate views much less likely to support state policies, less likely to trust state and local officials, and more likely to trust federal officials, consistent with other studies (Shepherd et al. 2020; Qin et al. 2021).

What are the impacts of COVID-19 proximity on policy support levels? Although our cross-sectional study measured perceptions of health policy relating to preventive actions instead of the actions themselves, our results offer some complexity to past research. In particular, approximately 15 percent of the sample had COVID-19 or thought they had had it, and these respondents were less supportive of state policies than those who had not had the illness. It may be that some individuals who thought they had COVID-19 (though did not test positive) believed that they were subsequently less at risk, and thus less in need of public health measures, or that these respondents perceived that the illness “wasn’t that bad,” and therefore health-protective measures were unnecessary or overreactions. These individuals may also be more likely to self-diagnose, which aligns with conservative values and mistrust of political and medical institutions (Blendon et al. 2010).

People reporting negative mental health impacts were more likely to trust local officials and support state policies, whereas delayed medical care had no impact on policy support. Knowing someone who had been hospitalized with COVID-19 was associated with stronger support for state policies and slower reopening, whereas knowing someone who died was associated with less trust in federal officials and, interestingly, less support for face-covering policies. It is important to note that those who have died were also likely to have been hospitalized, so the effects may be additive. In sum, there was very little effect from the quite common experience of knowing someone who had COVID-19, but there appears to be a small effect from what we conceptualize as the even closer proximity of knowing someone who was hospitalized or had died.

Proximity to the economic impacts of COVID-19 showed little connection to policy support or trust. Those whose hours or salaries were reduced (though not those who lost their jobs entirely) were less supportive of a slow reopening, but those who had family members lose jobs wanted slower reopening. Receipt of additional unemployment benefits from COVID-19 stimulus measures complicates comparisons with past health and economic crises. Likely, though, economic impacts were overshadowed by other factors such as political views in terms of impact on policy views. These defining features of the COVID-19 pandemic are deserving of future quantitative and qualitative research.

Proximity to the impacts of COVID-19 in terms of care work was inconsistently related to policy views and trust. Consistent with Umamaheswar and Tan (2020), respondents whose child care responsibilities increased were more likely to trust local officials and support the state policies. Because our survey questions about trust in officials did not differentiate between different areas of policy, we are unable to identify differences in levels of trust tied to policies specific to care work, such as school reopening or restrictions on childcare facilities. Those who had increased care work for nonchild family members were more likely to trust federal officials, whereas those whose care work increased for other people (including those outside of their household) were less likely to trust federal officials.

As with any cross-sectional survey research, our results reflect a particular moment in time that provides important context for interpretation. Qin et al. (2021) noted that risk perception during COVID-19 varied across time, with severity of outbreaks, knowledge about the disease, sources of information, views about experts and “management entities,” and preventive behaviors shifting alongside shifting risk perceptions. Additionally, measuring people’s levels of support and trust in policies is different from measuring their behaviors and compliance with those policies. Our study took place several months into COVID-19-related restrictions in Washington State but before dramatic increases in cases and positivity rates were seen later in the fall, before the 2020 presidential election, and well before any concrete plans for vaccine rollouts. Our results would have been different if the survey had been distributed in May or in late fall or winter instead of July 2020. Additionally, caution is required when generalizing beyond our sample. Our sample is not fully representative of the Washington State population in terms of gender, race, ethnicity, or education level. Furthermore, given the highly politicized nature of COVID-19 policy views and behaviors, those who voluntarily participate in an online survey such as ours may differ in meaningful ways from those who are similarly recruited to participate but decline to do so.

COVID-19 was the third leading cause of death in the United States in 2020, alongside an increase in deaths from chronic diseases, likely due in part to delays or disruptions in medical care (Ahmad and Anderson 2021). Understanding the human social experience, including group memberships and perceptions about risk, is essential in uncovering impacts of the COVID-19 pandemic and must include the complex interplay between health, economics, and care work responsibilities. Our research shows the complexity associated with measuring the impact of demographics and risk proximity during a time of rapid change in disease spread, information, understanding, and trust in governmental officials and their policies.

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