

# The Social Impact of COVID19 in the United States, Wave 2 Report

Center for Applied Social and Economic Research  
NYU Shanghai  
May 2021

The survey is jointly sponsored by the Center for Applied Social and Economic Research (CASER) at NYU Shanghai (PI, Xiaogang Wu) and the Center for Advanced Social Science Research at NYU Washington Square (PI, Mike Hout) with additional funding support from NYU Faculty of Arts and Science and NYU Shanghai Provost Office in New York.



Center for  
**Applied Social and Economic Research**  
应用社会经济研究中心



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## Executive Summary

This report systematically investigates the continuum and change in the pandemic's impact on U.S. society since October 2020. Based on two waves of the panel data from "Life Experience and Community during the COVID-19 in the United States," (LECC-US), it focuses on how lives and attitudes have been affected by the pandemic, and documents trends and patterns in the behavior and subjective evaluation of different social groups in the context of the COVID-19 pandemic.

## Summary

- The pandemic in the United States has exacerbated substantially since October 2020. By early April 2021, approximately 9% of U.S. adults are infected with the virus. Infection rates among family members have also increased rapidly, with the mortality rate among non-cohabiting extended families doubling from 4.14% to 8.35%. Despite the deteriorating pandemic situation, behavioral patterns of mask-wearing and perceptions of the necessity of stay-at-home orders among U.S. adults have changed little. Still about 12% wear a mask less than half the time when they are outside, and less than half of respondents consider the order to stay home to be "absolutely necessary" or "very necessary." In addition, although about 43% of respondents have received a COVID-19 vaccine, only 19.49% say they would definitely get the vaccine if offered, and 29.42% say they would definitely not.
- Patterns of infection have changed remarkably since October 2020. Infection rates are growing pretty fast among Whites, the elderly population, the highly-educated, and Republicans. In particular, those with higher education, who used to have the lowest infection rate, are now almost the most affected group. Republicans, who had a lower infection rate than Democrats last October, are becoming more infected than Democrats. On the other hand, patterns of adopting antiviral means have changed little. Women, Blacks and Hispanics, older cohorts, the highly-educated, and Democrats are still more likely to wear masks in public and to support state-level stay-at-home orders. They are also generally more likely to have received the vaccine and to administer it when offered.
- The pandemic continues to impact personal and family lives in various aspects, but in some ways, things are getting better. Compared to last October, lower percentages of respondents indicate concerns about losing their jobs, homeschooling their children, lowering their dietary standards, and having actual or anticipated household economic hardship. In particular, smaller proportions of Blacks and the least educated group report actual household financial hardship, and the proportion of those who have lowered their dietary standards due to financial hardship decline substantially among the least

educated group. In addition, in terms of mental health, on average, Americans occasionally feel nervous or shaky, but do not feel isolated or lonely during the pandemic. The average levels of stress and sense of isolation are smaller in the second wave, suggesting that Americans tend to feel less stressed or isolated since last October.

- In many other ways, how the pandemic affects personal and family lives has been largely unchanged. Roughly the same proportion of the working population lost their jobs, and about the same percentage of people who are currently working say their workplaces closed due to the pandemic and that they work from home. Women, Blacks and Hispanics, those with less education, and Democrats remain more likely to report actual or expected job losses, lower their dietary standards, have family-level economic hardship, and have higher levels of stress, isolation, and loneliness. Blacks and Hispanics, younger age groups, those with higher education, and Democrats are still more likely to work from home or have family members work from home. Women, Whites, middle-aged, highly educated, and Democrats continue to have higher rates of homeschooling their children.
- Community effectiveness, an important concept in understanding urban life, has decreased by approximately 9% over the past six months. As with the first-wave survey results, women, Blacks and Hispanics, younger groups, those with less education, and Democrats tend to report lower levels of community efficacy. Results from fixed-effect ordered logit models additionally show that community efficacy has a significant negative effect on the risk of infection for individuals and family members living together, and a significant positive effect on individuals' mask-wearing behavior and trust in neighbors. Further mechanism-oriented analysis shows that people's willing to engage in informal community control has increased their mask-wearing behavior and reduced the hazard of intra-household infection.
- The widespread pandemic since last October, intertwined with the transition of power from Trump to Biden, has largely influenced patterns of social and political trust. On average, Americans tend to trust their neighbors and distrust strangers. Women, Blacks and Hispanics, those with less education, and Democrats tend to trust neighbors and strangers less. In addition, American's trust in the federal government continues to be lower than in local governments. Compared to last October when Democrats and the more educated tended to blame the federal government (Trump administration at that time) and support local governments, Democrats and the more educated now tend to have higher trust in both the federal and local governments. In particular, Democrats now have positive trust in both federal and local governments, while Republicans have negative trust in both.

- Social and political changes in the pandemic context have also altered patterns of national pride and policy preference. One notable pattern is that even as the pandemic is worsening in the United States, people's average pride in being an American has not declined, but rather has increased. Compared to last October, average pride in being an American has declined slightly among less educated groups and Republicans, but has increased by more than 40% among those with at least a college degree and by 54.7% among Democrats. Moreover, the primary source of American pride is how American democracy works. However, facing the current pandemic situation, more people (56%) are willing to sacrifice personal privacy and freedom in exchange for pandemic prevention and control. Democrats are more likely to prioritize support for pandemic prevention and control policies, while Republicans are more likely to prioritize support for personal privacy and freedom.
- Patterns of political attitudes toward China have not changed much since last October. Men, Blacks and Hispanics, younger cohorts, the less educated, and Democrats continue to view China more positively, yet the more educated tend to reinforce their negative view of China. On average, Americans do not have strong opinions about stopping the trade war with China, but they strongly believe that the United States should continue to impose sanctions on Chinese technology companies. Blacks, younger people, the less educated group, and Democrats are still more likely to hold more favorable policy attitudes toward China. The survey's experimental design further shows that providing information about how China responds to COVID19 has only insignificant effects on perceptions of and attitudes toward China, but that messages about China's tightening control over Hong Kong's autonomy has significant negative effects on views of China and policy attitude toward continued sanctions against China.
- Patterns of regional differences are generally the same as last October. Compared to those from solidly Republican states, residents of solidly Democratic states are more likely to wear masks, experience unemployment, support stay-at-home orders, feel stressed and isolated, and have higher trust in both the federal and local governments. Overall, they also tend to have less American pride and are more likely to have a positive view of China. Geographically, people in the Midwest now have the highest infection rate. Westerners have the highest average trust in the federal government and Midwesterners have the highest average trust in local government. As with the Wave 1 findings, Southerners have the highest pride in being American, but Westerners tend to have the most favorable view of China.

## **Important Findings**

- Over the past six months, both continuity and change have been observed in the impact of the pandemic. In some aspects, such as job security, emotional stress and family finances, things are getting better. The most affected social groups continue to be women, Blacks and Hispanics, younger groups, less educated individuals and Democrats.
- Community efficacy has significantly increased individual mask-wearing behavior and reduced the risk of infection. The mechanism for this is through people's willingness to engage in informal community control.
- American perceptions and attitudes toward China are generally not influenced by China's response to COVID19, but are negatively correlated with China's tightening control over Hong Kong's autonomy.
- The strong association between political preference and the impact of the pandemic remains evident, suggesting that deep sociopolitical divisions still exist in the United States.

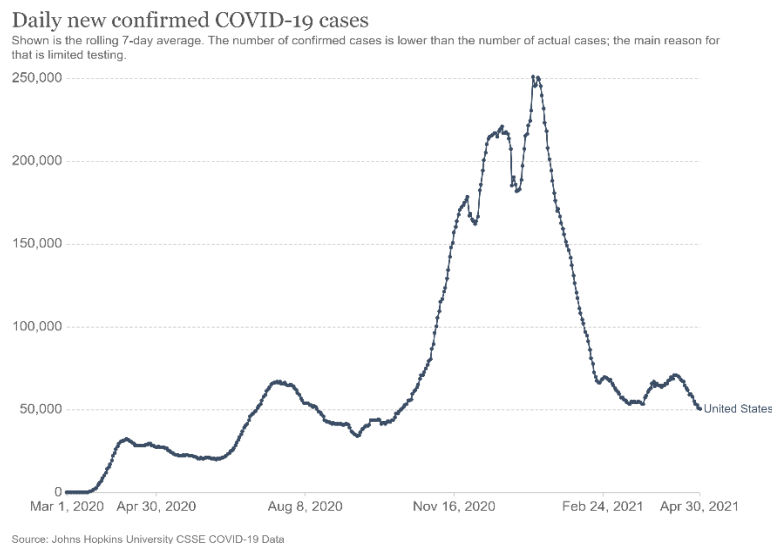


## The Social Impact of COVID19 in the United States, Wave 2 Report

### 1. Introduction

Since last October when the first wave of the survey on “Life Experience and Community during COVID-19 in the United States” (LECC-US hereafter) was conducted, the pandemic situation in the United States has exacerbated considerably. The number of newly reported coronavirus cases per day climbed very rapidly last November and December and peaked at over 300,000 on January 8, 2021 (CDC, 04/30/2021). Thereafter, as shown in Figure 1.1, the number of new cases per day began to decline until mid-March, when the average was about 55,000, comparable to the summer of 2020. From late March 2021 onwards, the number of newly confirmed cases per day began to pick up and remained high at over 70,000 by mid-April 2021 (New York Times, 04/30/2021). This raises questions about whether the U.S. is entering the fourth wave of COVID-19 (The Times, 03/31/2021). In addition, experts suggested that the more infectious and potentially more lethal variant of coronavirus, known as variant B-117, had recently become the dominant strain in the United States (ABC News, 04/07/2021). According to the Coronavirus Resource Center at Johns Hopkins University, the United States has by far the most confirmed cases, with more than 32 million by the end of April, accounting for nearly one-third of all cases worldwide. The U.S. also has the highest number of deaths in the world.

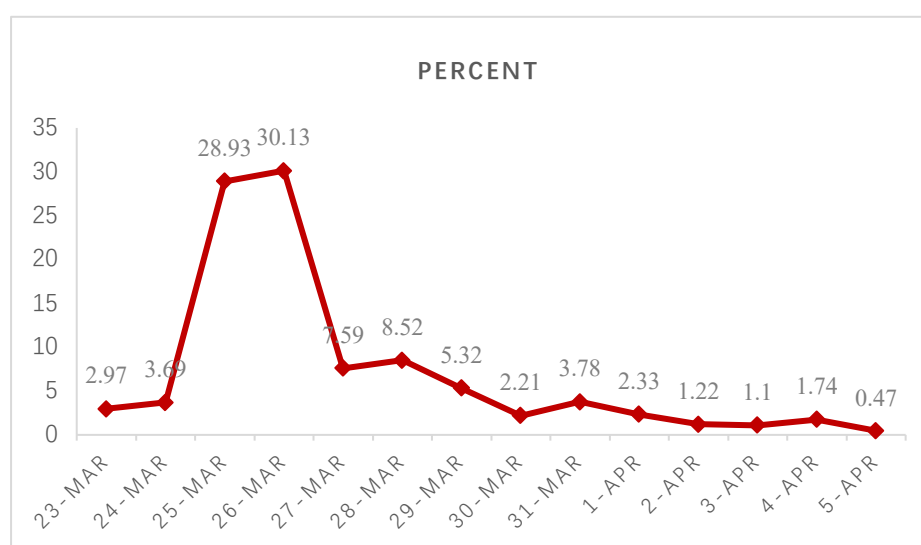
Figure 1.1. Newly Confirmed COVID-19 Cases per Day in the U.S.



The widespread pandemic since last October has continued to have a huge impact on many aspects of American social and political life (e.g., Ali et al. 2021; Harrison et al. 2021; Hassan & Mahmoud 2021; Groshen 2020; Johnston & Chen 2020; Wodon 2020). Intertwined with the deterioration of the pandemic situation in the United States, the country has also witnessed a most divisive transition of power from Donald Trump to Joe Biden. To document the lasting impact of social and political change in the context

of the COVID-19 pandemic, a second wave of the LECC-US survey was conducted from March 23 to April 5, 2021, following a panel data design.<sup>1</sup> Out of the 4,407 cases in the first round of the survey, 3,439 respondents were successfully followed, resulting in a 78.03% retention rate. Similar to the first wave, the second wave survey collected extensive information about the impact of the pandemic on individuals' work, attitudes, family, and community life. To the best of our knowledge, the survey provides the first and most update panel data at individual level with a national probability sample. Figure 1.2 shows the percentage of respondents completing the survey across date. It shows that about 65% of respondents completed the survey four days after it was launched.

Figure 1.2. Percentage of Respondents Completing the Survey by Date



This report documents the continuity and change in demographic patterns of social life and attitudes in the United States during the COVID-19 since last October. Based on two waves of the most update micro-level panel data, it empirically analyzes the pandemic's impact on the lives of individuals, families, and communities in the United States by social group, such as gender, race, birth cohort, education, and political preference. It also analyzes how the pandemic has affected individuals' political perceptions, attitudes, and policy preferences.

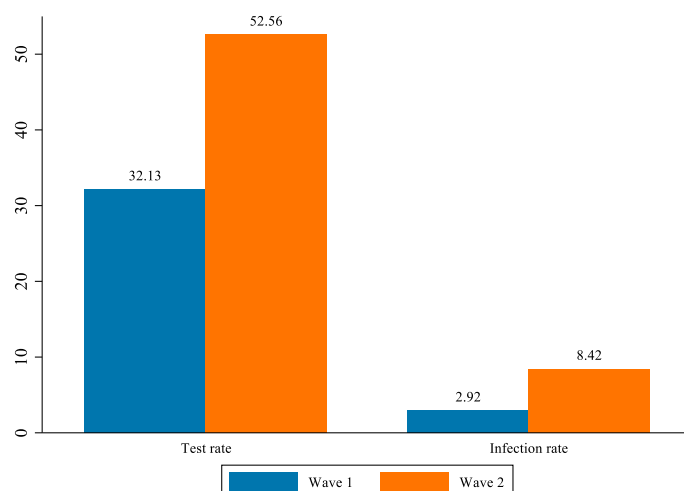
## 2. Changes in the U.S. COVID-19 Pandemic

### 2.1 Test, Infection, Hospitalization, and Death

<sup>1</sup> The second wave of the survey is jointly sponsored by the Center for Applied Social and Economic Research (CASER) at NYU Shanghai (PI, Xiaogang Wu) and the Center for Advanced Social Science Research at NYU Washington Square (PI, Mike Hout) with additional funding support from NYU Faculty of Arts and Science and NYU Shanghai Provost Office in New York. To ensure national representation, the study used the AmeriSpeak® Panel of the NORC at the University of Chicago as the sample source. For more information about the AmeriSpeak Panel, see <https://amerispeak.norc.org/>.

Data show that as of early April 2021, more than half (52.56%) of U.S. adults have been tested for the novel coronavirus, with 16.03% of them testing positive.

Figure 2.1. Rates of Test and Infection in the United States by Wave, LECC-US



Overall, the unweighted and weighted rates of infection among respondents are 9.43% and 8.42%, respectively. This indicates that approximately 9% of U.S. adults are infected with the virus by early April 2021, which is close to the official figure.<sup>2</sup> Figure 2.1 shows changes in the rates of test and infection between the two waves. It indicates that a substantial proportion of people have taken the test since last October, and that the infection rate has almost tripled.

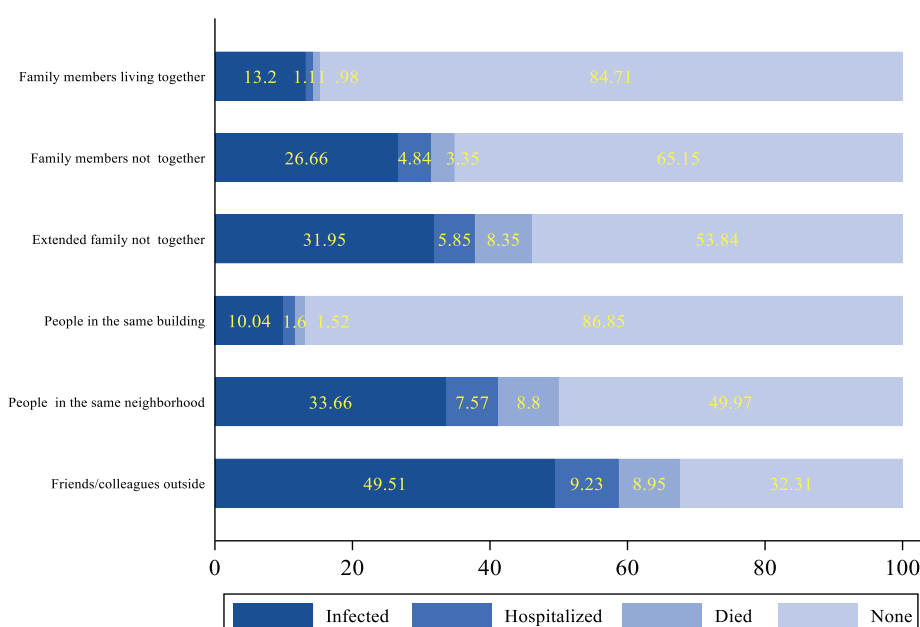
Infection rates are also rising rapidly in family, neighborhood, and social networks. As shown in Figure 2.2, 13.2% of respondents reported that they had family members living together infected. In the first wave, the rate was 5.27%. Over a quarter of respondents (26.66%) reported that their immediate family members who did not live with them had positive test results. Nearly one third of respondents (31.95%) reported that their extended family members who did not live with them had positive test results. In the community, 10.04% of respondents said that residents living in the same building were infected with the virus, and 33.66% lived near neighbors with the virus. Beyond communities, the virus was also widespread. Nearly half of the sample (49.51%) reported that they had friends, colleagues, or acquaintances who were tested positive for the virus but lived outside the immediate community.

Figure 2.2 shows the percentage of known individuals that respondents reported as hospitalized or dead. While the rates of hospitalization and death were still relatively low for family members living together, they were much higher among immediate

<sup>2</sup> On April 5 the cumulative number of confirmed cases in the United States was 30.8 million, which corresponds to an infection rate of 9.31% for the entire U.S. population (which currently stands at 331 million according to the 2020 U.S. Census). However, on April 29, the CDC estimated that as of March 2021, approximately 35% of the US population was infected with the virus, about four times higher than the officially reported figure (CNN, 04/30/2021). Our data does not lend any support to this estimation.

family members not living together and even higher among extended family members such as siblings, nephews, and in-laws. Compared to the first wave, the rate of hospitalization within the family increased modestly, but the mortality rate among family members has doubled, from 1.72% to 3.35% for non-cohabitating family members and from 4.14% to 8.35% for non-cohabitating extended family members. Hospitalization and mortality rates were about 1.5% among those living in the same buildings, but about 8% to 9% among those living in the same community and about 9% among friends and co-workers outside the neighborhood. The mortality rate has more than doubled in the neighborhood, from 3.77% to 8.8% since last October. Outside the neighborhood, it has increased from 6.05% to 8.95%.

Figure 2.2. Percentage of Known Individuals Infected, Hospitalized or Dead, LECC-US Wave 2

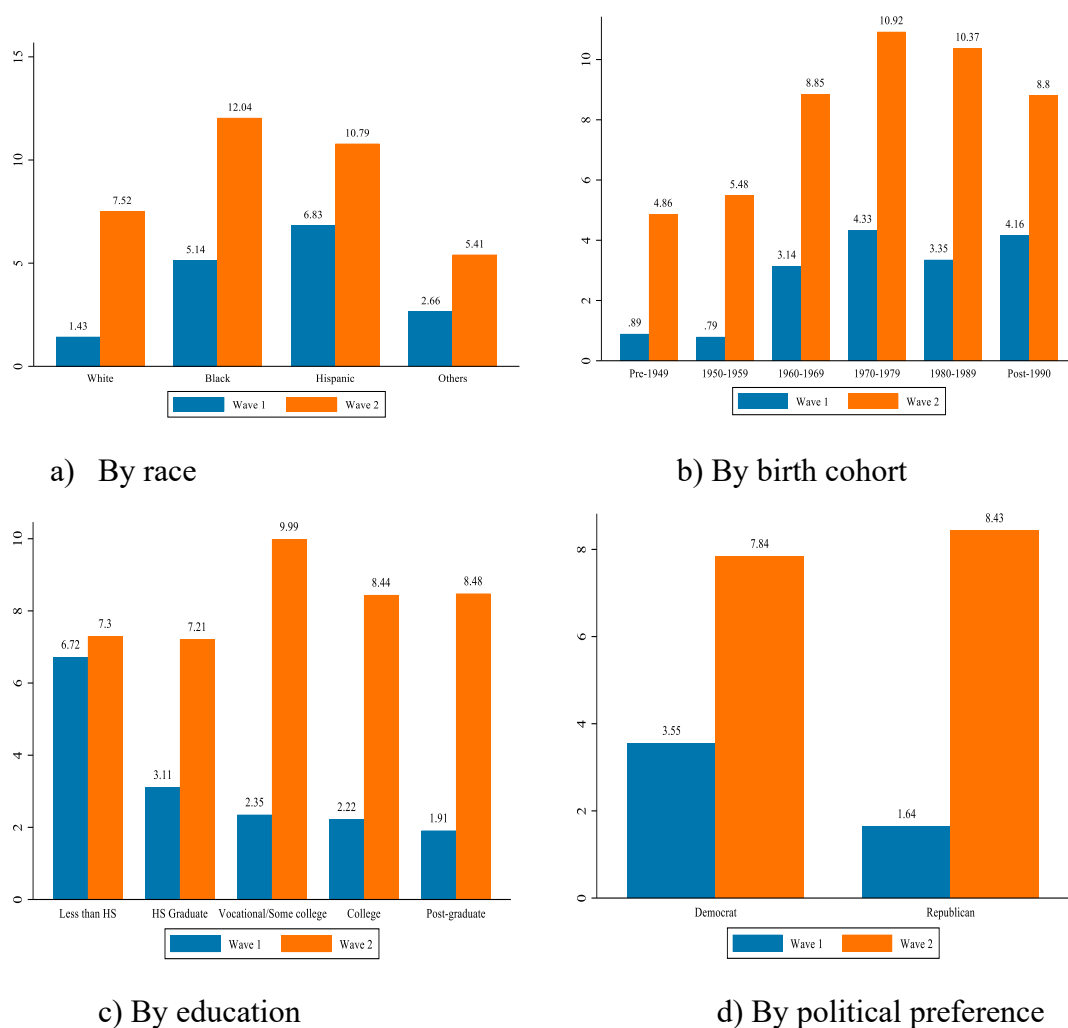


## 2.2 Test and Infection by Social Group

Again, rates of test and infection vary considerably by different social groups (Kim & Crimmins 2020). Although men and women were tested at similar rates (51.00% vs. 54.02%), women had higher rates of infection than men (9.25% vs. 7.24%). In addition, while 48.58% of Whites tested for COVID-19, the rates were higher for Blacks and Hispanics at 59.15% and 60.04%, respectively. However, among those tested, the rate of reporting positive results increased fast for Whites from 5.13% in the first wave to 15.48% in the second wave. In the adult population as a whole, Whites had an infection rate of 7.52%, but Blacks and Hispanics had higher infection rates of 12.04% and 10.79%, respectively. Compared to the first wave, as Figure 2.3a shows, the infection rate has increased the fastest among Whites, and Blacks are now the most infected group.

The percentages of test participation and infections also vary by birth cohort. Compared with older cohorts, the middle-aged and younger cohorts had a higher rate of COVID-19 testing and a higher probability of infection, conditional on the testing. The infection rate was about 5% among those born before 1960, 8.8% among younger cohorts (18-30 years), but more than 10% among the middle-aged (31-50 years). Thus, similar to the first wave, it is not the older population that is more likely to

Figure 2.3. Infection Rate by Race, Birth Cohort, Education and Political Preference in the Two Waves, LECC-US



infection, but rather the middle-aged populations. However, as Figure 2.3b shows, the increase in the infection rate was fastest among the older cohorts, particularly those aged above 60.

The test rate is still the highest among those with a college degree or higher, over 60%, compared to 52.25% among those with less high school education and 44.56% among those with a high school diploma. However, in contrast to the trend last October, Figure 2.3c shows that the rates of infection now tended to be higher among individuals with higher education. For example, about 8.4% of those with a bachelor's degree or higher

was infected in the second wave, compared to about 7.3% of those with a high school education or less. Clearly, the rate of infection increases most among the highly-educated.

Figures 2.3d further shows the differences in infection rate by political preference. For consistency across waves, the 7-category political preference measure (see the Wave 1 report) in the first wave is recoded into only two categories, Democrats and Republicans. In the second wave, political preference is captured by the voting behavior in the 2020 election<sup>3</sup>, with Biden voters indicating Democrats and Trump voters indicating Republicans, respectively. The results from the second wave show that Democrats continue to be tested at a higher rate than Republicans. By early April 2021, Biden voters were tested at a rate of 59.80%, while Trump voters were tested at only 43.32%. However, infection rates for Republicans are now becoming higher. As Figure 2.3d shows, 7.84% of Biden voters and 8.43% of Trump voters were infected in the second wave. In contrast, in Wave 1, a higher percentage of Democrats (3.55%) were infected than Republicans (1.64%). Therefore, it seems that over the past six months, the Republicans are now more likely to have been infected by the coronavirus.

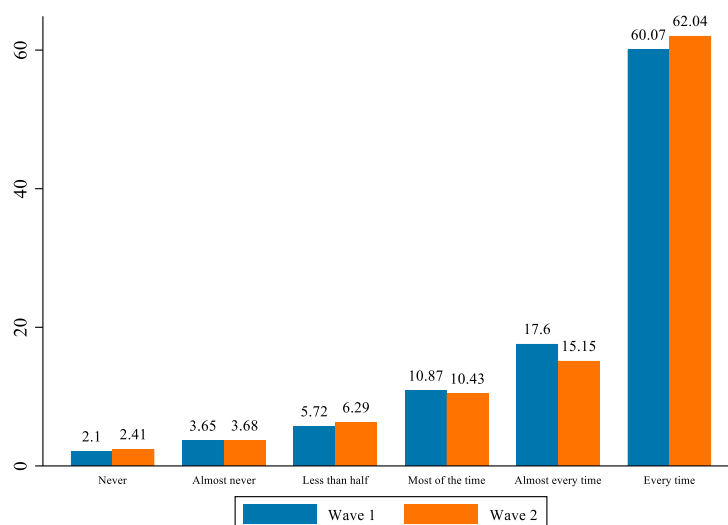
### 2.3 Mask-wearing

To prevent themselves from being infected by the virus, people are advised to take various preventive measures. These measures include wearing a mask in public and getting vaccinated. Figure 2.4 depicts the pattern of mask-wearing among American adults in the two waves of LECC-US. The figure shows that the distribution of mask-wearing is similar across waves. In both waves, over 60% of respondents wore masks every time they went outside. Even with the current pandemic, about 6% of adults reported never or almost never wore a mask when going out in public. An additional 6% of respondents wore a mask less than half the time when out in public, which indicates that still a large number of adults in the general population behave in similar fashion.

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<sup>3</sup> In the second wave, the survey asked respondents to indicate their voting preferences in 2016 and 2020. First, it asked respondents whether they have voted in the elections. Then, among those who have voted, the survey asked whether they voted for Biden, Trump, or other candidates in 2020, and whether they voted for Clinton, Trump, or other candidates in 2016. To capture the most recent party identification, the report uses the 2020 voting preference to measure individual political leanings. Comparison across waves shows that 97.35% of Democrats identified in Wave 1 voted for Biden, and 91.51% of Republicans voted for Trump.

Figure 2.4. The Distribution of Mask-wearing in Public by Wave, LECC-US

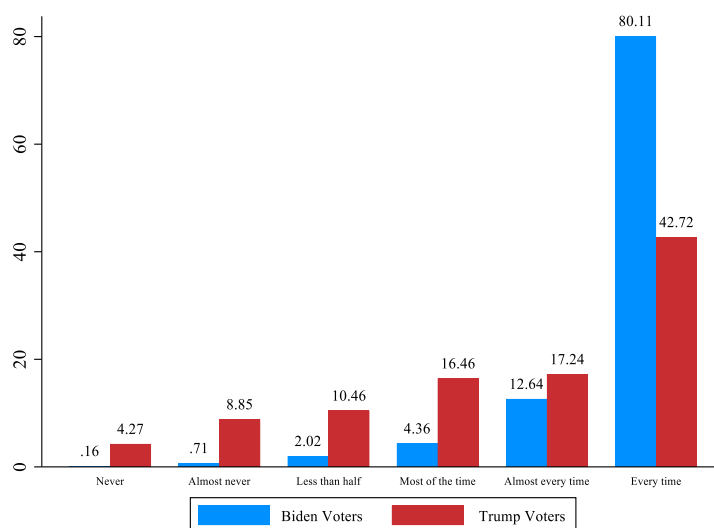


Results further show that women were more likely than men to wear masks in public every time (67.60% vs. 56.16%). They were also less likely to answer “never wear a mask in public.” Among individuals who never or almost never wore a mask in public, 4.63% were women and 7.64% were men.

Mask-wearing patterns also varies by race, birth cohort, education level, and partisanship. As with the first wave, Blacks and Hispanics were more likely to wear masks in public places compared to Whites. A majority of Blacks (81.02%) wore a mask every time they went out, compared to 58.01% of Whites and 66.28% of Hispanics. The percentage of Whites who never or almost never wear a mask in public (7.28%) was much higher than both Blacks (2.72%) and Hispanics (4.32%). Across waves, the percentage of always wearing a mask in public increases by 3.22% among Whites and by 4.26% among Blacks, but the change is negligible among Hispanics.

In addition, younger cohorts reported wearing masks in public at lower rates than older cohorts. Individuals born after 1990 were the least likely to wear a mask every time in public and had the highest rate of never or almost never wearing a mask in public. Older people seem to be more cautious than younger people. 74.15% of them wore a mask every time they were in public, and only 3% never wore a mask. The pattern is similar to that in Wave 1.

Figure 2.5. The Percentage of Mask-wearing by Political Preference, LECC-US Wave 2



There are further differences in mask-wearing behavior by level of education. Individuals with higher education tended to wear masks in public more often than those with less education. A higher percentage of the highly educated wore masks every time in public: 54.71% for those with less than a high school education and 61.23% for high school graduates, compared to 64.40% for college graduates and 71.11% for those with graduate degrees. In contrast, a higher percentage of the less educated never or almost never wore masks in public: 8% for those with less than a high school education and 7.02% for high school graduates, compared to 4.65% for college graduates and 2.46% for those with graduate degrees. Across waves, those always wearing a mask in public increases by 2.93% among those with a college degree and by 4.82% among those with a post-graduate degree, but decreases by 7.11% among those least educated.

Finally, Figure 2.5 shows that as with the results of Wave 1, Democrats were much more likely than Republicans to wear masks in public. 80.11% of Biden voters wore a mask every time they went out in public and 0.16% of them never or almost never wore a mask, compared to only 42.72% of Trump voters who wore a mask every time they went out in public and 4.27% who never or almost never wore a mask. Generally, mask-wearing behavior has not changed much over the past six months, even the pandemic has become much worse in the period

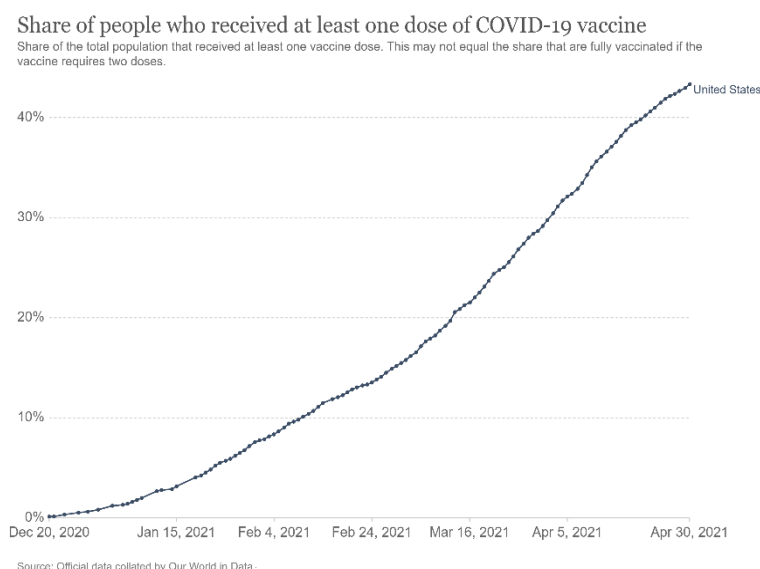
## 2.4 Vaccine-receiving

In addition to mask-wearing, respondents also take vaccines to prevent infecting the virus. In fact, taking vaccines is strongly encouraged by the Biden administration. After taking office in January 2021, Biden signed an executive order to increase production and distribution of vaccines (BBC, 01/23/2021). Since then, the number of COVID-19



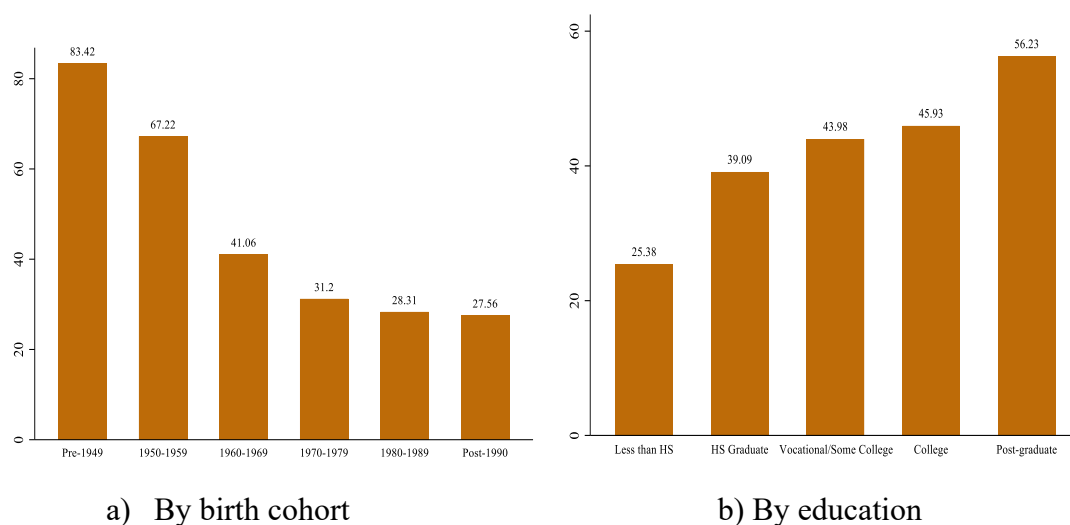
vaccine doses administered has increased significantly. As Figure 2.6 suggests, by April 30, 43.3% of the total population has received at least one dose of COVID-19 vaccine.

Figure 2.6. Share of the Population Has Received at Least One Dose of the COVID-19 Vaccine in the U.S.



In the second wave data, close to the official figure, 42.92% of respondents reported having received a COVID-19 vaccine, and additionally 11.37% have registered for it. However, most of them only received their first dose of vaccine in February (32.55%) and March (46.59%) 2021. Overall, 52.24% of respondents suggest that at least one member of their family has received a vaccine. Yet, not everyone will take a vaccine after offering one. The data show that only 19.49% said they would definitely get the vaccine if offered, and 29.42% said they would definitely not.

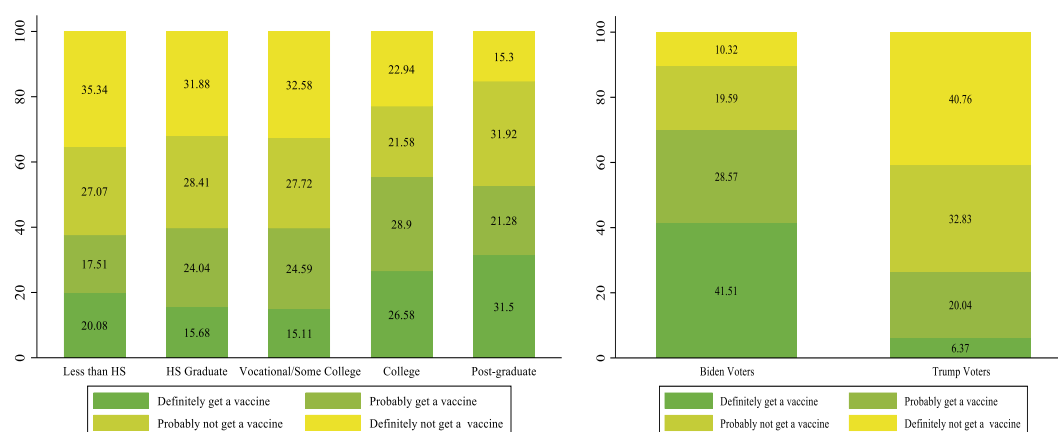
Figure 2.7. Percentages of Having Received a Vaccine by Birth Cohort and Education, LECC-US Wave 2



Again, patterns of vaccine receiving vary by social group. Males and females have about the same percentage of having received a vaccine (42.47% vs. 43.34%). Blacks had a higher rate of vaccine receiving (45.31%) than Whites (44%) and Hispanics (40%). The older cohorts had higher rates of vaccine receiving than the younger cohorts: as shown in Figure 2.7a those born before 1950 had the highest rate of vaccine receiving (83.42%), while those born after 1980 had the lowest rate of about 28%. In addition, Figure 2.7b shows that the rate of vaccine-receiving increases with educational level. 25.38% of high school graduates and 56.23% of post-graduates have received a vaccine. In general, Democrats had higher rates of vaccine-receiving: 56.4% of Biden voters have received a vaccine, compared to only 36.26% of Trump voters. In addition, 15.53% of Biden voters have registered for the vaccine, while only 5.39% of Trump voters have done so.

In terms of the probability of taking the vaccine if offered one, Whites have less confidence than Blacks and Hispanics: 17.04% of Whites believed that they would definitely get a vaccine and 32.02% believed they definitely would not. In contrast, 17.39% of Blacks and 22.87% of Hispanics would definitely take a vaccine if given the dose, but still 21.02% of Blacks and 29.93% of Hispanics would definitely not take a vaccine. Younger cohorts are generally more likely to take the vaccine than older cohorts if offered one: 9.79% of those born before 1950 would definitely be vaccinated, compared to 26.6% of those born after 1990. Figure 2.8a further shows that people with higher education tend to be more likely to take the vaccine: 31.5% of post-graduates think they would definitely take a vaccine, compared to 20.08% of those without a high school diploma. In addition, confidence in vaccine varies greatly by political preference: Democrats seem to be much more confident in the vaccine after it is offered. As Figure 2.8b shows, 41.51% of Biden voters believe that they would definitely vaccinate, compared to 6.37% of Trump voters; conversely, 10.32% of Biden voters believe that they would definitely not take a vaccine, compared to 40.76% of Trump voters.

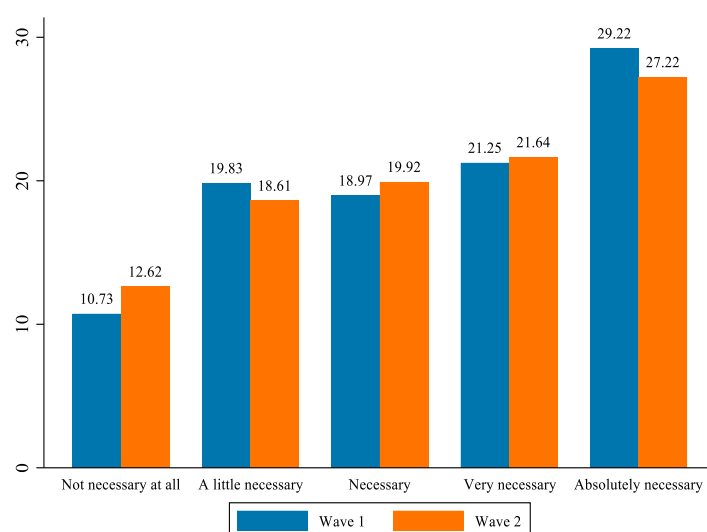
Figure 2.8. Precepted Probability of Getting a Vaccine by Education and Political Preference, LECC-US Wave 2



## 2.5 Necessity of Stay-at-Home Orders

As the pandemic situation has worsened since last October, how do Americans now rate the need for a stay-home order in the fight against COVID-19? Results show that perceptions of this question have not changed much: by early April 29.32% of respondents still considered the stay-at-home order only “a little necessary” or “not necessary at all.” The percentage who thought the policy was “absolutely necessary” or “very necessary” was 48.88%, slightly lower than the percentage in the first wave.

Figure 2.9. The Percentages of Thinking Stay-at-home Order Necessary by Wave, LECC-US

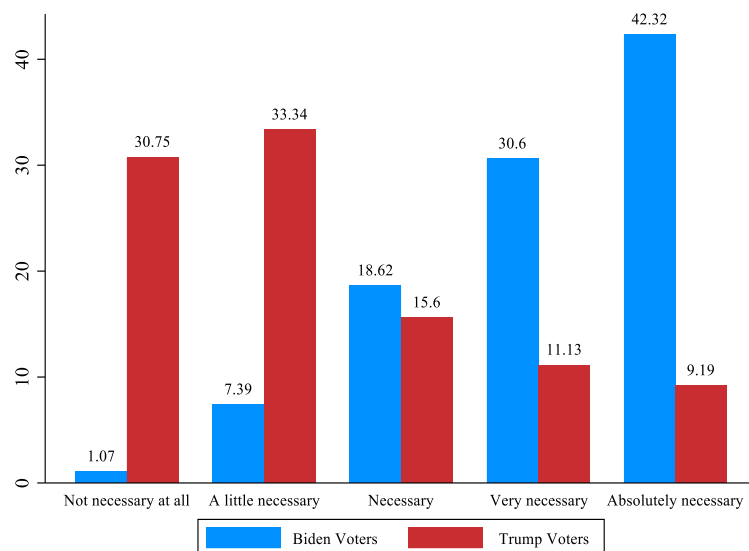


The attitude toward the necessity of state-level stay-at-home orders differed across social groups. Males were less likely than females to believe that a state-level stay-at-home order was absolutely or very necessary (42.96% vs. 54.4%). In addition, 66.04% of Blacks and 55.77% of Hispanics believed that state-level enforcement of stay-at-home orders was either very necessary or absolutely necessary, but only 43.05% of Whites felt the same way. Similar to the first wave, younger cohorts were less likely to support the policy than older cohorts. Also, the higher the level of education, the higher the level of support for the policy. The percentage of those who thought the policy was absolutely necessary or very necessary was 52.93% in the post-graduate group, but only 38.21% in the least educated group. Compared to the first wave, however, the percentage of viewing the policy absolutely necessary is declining among the highly educated (63.64% among post-graduates in Wave 1).

Figure 2.10 further demonstrates that the policy attitude differed primarily by voting preference. Similar to the findings in Wave 1, in general, Democrats strongly approved of the policy, while Republicans strongly disapproved. Nearly 72.92% of Biden voters (73.03% of Democrats in Wave 1) thought the policy was absolutely or very necessary, but more than 64.09 % of Trump voters (63.64% of Republicans in Wave 1) thought the policy was only a little necessary or not necessary at all. Compared to the first wave,

these numbers remain almost unchanged.

Figure 2.10. Percentages of Thinking Stay-at-home Order Necessary by Voting Preference, LECC-US Wave 2



## 2.6 Summary

By early April 2021, more than half (52.56%) of U.S. adults had been tested for the novel coronavirus, and 16.03% of them tested positive. Overall, approximately 9% of U.S. adults are infected with the virus. More people were tested than in last October, and the rate of infection nearly tripled. Infection rates among family members also increased rapidly, from 5.27% to 13.2%. Hospitalization rates among family members increased modestly compared to the first wave of data, but mortality rates doubled, from 4.14% to 8.35% among extended non-cohabiting families.

Whites still had the lowest test rate, but their infection rate increased fast from 1.43% to 7.52%. Hispanics were the group with the highest rate of infection last October, but Blacks are now the most infected group with an infection rate of 12.04%. Infection rates are growing fast among the older population, especially those over 60 years of age. They also increased fast among those with higher education: last October the highly-educated had the lowest infection rate, now they tend to have the highest. Democrats continue to be tested at higher rates than Republicans. However, unlike last October, Republicans are now becoming more infected than Democrats.

Despite the worsening pandemic situation, patterns of mask-wearing behavior among U.S. adults have barely changed. About 6% of respondents still report never or almost never wearing a mask when they go outside, and another 6% wear a mask less than half the time. Overall, mask-wearing behavior across social groups has also not changed much in the past six months. As in October of last year, women, Blacks and Hispanics,

older cohorts, the highly-educated, and Democrats are more likely to wear masks in public.

On the other hand, 42.92% of respondents have received the COVID-19 vaccine and 11.37% have registered for it. However, not everyone would take the vaccine if offered. Only 19.49% said they would definitely take the vaccine if offered, and 29.42% said they would definitely not. Blacks, older age groups, those with higher education and Democrats are more likely to have received the vaccine. In terms of the probability of vaccination, Blacks and Hispanics, younger cohorts, the highly educated and Democrats seem to be more confident about the vaccine.

Finally, the pattern of perceptions of the necessity of stay-at-home orders has also remained virtually unchanged since last October. Still less than half of respondents (48.88%) consider the stay-at-home order to be “absolutely necessary” or “very necessary.” Women, Blacks and Hispanics, older age groups, the highly educated and Democrats remain more likely to favor the policy. However, compared to the first round of data, the percentage who think the policy is absolutely necessary has declined among the highly educated.

### **3 The Changing Impact of the Pandemic on Personal Life**

#### **3.1 Employment and Job loss**

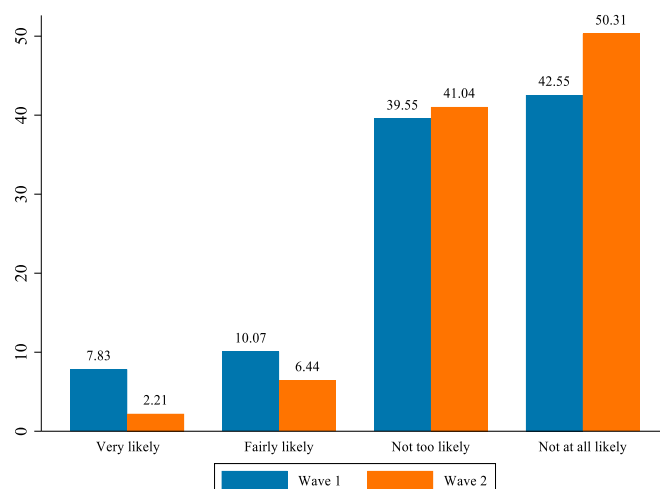
As a result of current pandemic and economic insecurity, 14.52% of American workers have lost their jobs (14.35% in Wave 1).<sup>4</sup> 6.47% of the working population has been out of work for up to a year. In addition, as shown in Figure 3.1, 8.65% of those currently employed believe they are likely to lose their jobs in the coming 12 months. Compare to 17.9% in the first wave, the number is smaller, indicating that a smaller percentage of current employees are worried about losing their jobs compared to last October.

Again, women were more likely to lose their jobs than men (e.g., CNS 2020). Among survey respondents in the working population, 15.43% of women and 13.68% of men have lost their jobs. Of those still employed, 8.92% of women and 8.42% of men expected to at least fairly likely to lose their jobs or be laid off within a year.

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<sup>4</sup> As in the first wave, the working population is defined as individuals in the labor force based on employment status and includes both employed and temporarily unemployed job seekers.

Figure 3.1. Percentage of Expected Job Loss among Current Employees by Wave, LECC-US



The distribution of actual and expected unemployment among respondents varied by race, birth cohort, education, and political preference. While 17.52% of Whites have lost their jobs or expect to, comparable percentages are 25.87% for Blacks and 23.64% for Hispanics. Again, education helped secure jobs during the pandemic: 17.09 % of the less educated and 10.52% of those with a graduate degree suffered unemployment. These numbers are similar to those in Wave 1. In addition, as with the results of the first wave, Democrats were generally more likely to be unemployed than Republicans: about 22.88% of Biden voters and 15.90% of Trump voters were actually or expected to be unemployed.

### 3.2. Work Income

The pandemic has also affected individuals' wages. Results show that among the working population, 11.71% of respondents did not earn any income from a job in 2019, and 15.20% did not earn any income from a job in 2020. In total, 8.06% of the working population did not earn any income in these two years.

Among the working population, the percentage without earned income in 2019 and 2020 is higher among women than men (17.83% vs. 12.82% in 2020). Hispanics were more likely than Whites and Blacks to have been without earned income in the past two years. 19.76% of Hispanics had no work income in 2020, compared to 15.10% of Whites and 10% of Blacks. The younger cohort was more likely to have no work income than the middle-aged group: 16.20% of the 18-30 age group reported no work income, compared to 11.42% of the 31-40 age group. In addition, the higher the level of education, the less likely the respondent had no work income in the last two years. Only 5.47% of those with a graduate degree had no income from job in 2020, while 31.84% of those with a less than high school education had no work income. Finally, Democrats were slightly more likely than Republicans to have no work income in last two years (12.86% vs. 12% in 2020).

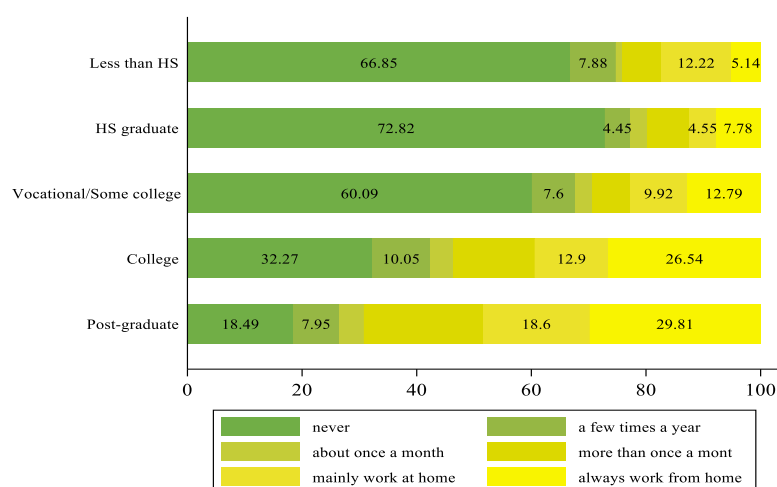
### 3.3 Work Patterns

The pandemic has also altered work patterns. Of those currently working, 10.23% reported that their workplaces have closed due to the pandemic, and 32.72% said that they worked from home.

Among those currently employed, women now become slightly less likely than men to have their workplaces close (9.90% vs. 10.51%), and they were also slightly less likely to work from home (30.84 % vs. 34.39%). Hispanics (16.76%) were more likely to have their workplaces close than Whites (8.53%) and Blacks (5.89%). 38.09% of Blacks reported having to work from home for a regular wage, compared to 31.97% of Hispanics and 31.10% of Whites. Younger age groups were more likely to work from home than older age groups. The highest percentage of individuals working from home was in the 18-30 age group (about 40%), compared to about 25% in the 51-70 age group. Similar to the first wave, work patterns vary significantly by level of education. 16.14% of those with a high school education or less reported working from home, while 55.83% of those with a graduate education worked from home for regular wages. On average, Democrats were more likely to work from home than Republicans (41.28% vs. 24.03%), but they are now equally likely to have experienced workplace closure (about 10%). Generally, the work pattern has not changed much since last October.

In addition, the second-wave survey asked respondents about their frequency of working from home since March of last year. Among the working population, about half (49.77%) never worked from home, and 28.25% mainly or always worked from home. Again, as Figure 3.2 shows, a higher level of education predicts a higher frequency of working from home. For instance, 48.41% of post-graduates mainly or always worked from home, compared to 12.33% of those with high school education and 17.36% of those with less than a high school education.

Figure 3.2. Frequency of Working at Home by Education, LECC-US Wave 2

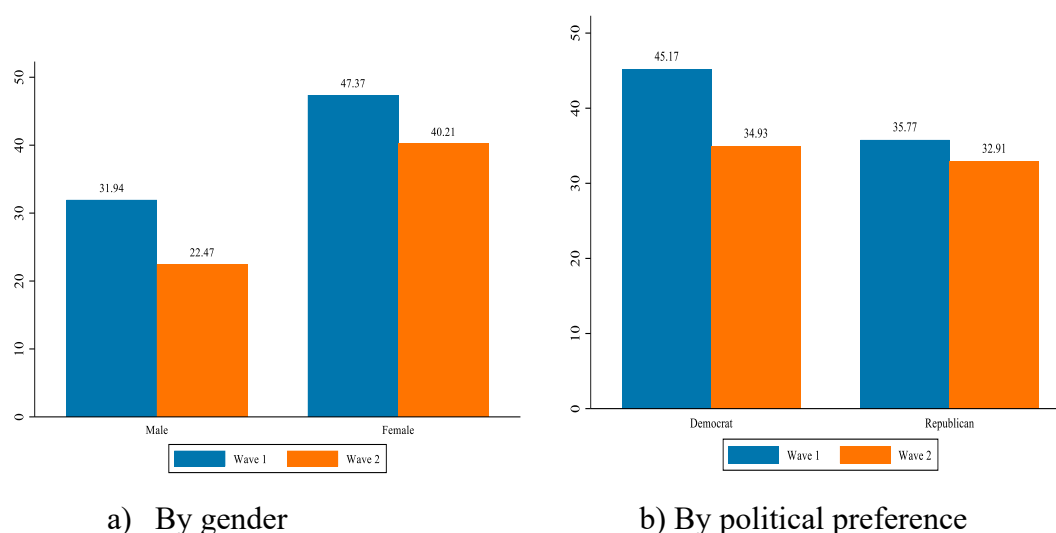


### 3.4 Parenting Patterns

The second-wave data also surveyed how the pandemic has affected the way children are educated. Of those with at least one child under the age of 18, 32.11% said they had to teach their school-age children at home due to school closures. Compared to 40.22% in Wave 1, this figure is smaller now. Again, this burden falls disproportionately on the mother (see also Zamarro & Prados 2020): in the second wave, 40.21% of women and 22.47% of men took on the responsibility of homeschooling their children under the age of 18. As shown in Figure 3.3a, across waves, there is a larger decline in the percentage among males.

The pattern of children's education during the pandemic also varies by race, parental education, and political party affiliation: 34.69% of Blacks and 24.12% of Hispanics reported teaching their children at home, compared to 39.40% of Whites. Also, assuming the role of teacher were 51.07% and 31.50% of respondents ages 31-40 and 41-50, respectively, compared to only 18.19% of the post-1990 cohort. 22.63% of those with less than a high school degree homeschooled their own children, as did 30.33% of those with a college degree and 46.81% of those with a graduate degree. Finally, overall, Democrats homeschooled their children at a slightly higher rate than Republicans. The percentage was 34.93% for Biden voters and 32.91% for Trump voters. Figure 3.3b further shows that the decline in the percentage is larger among Democrats than among Republicans across two waves of the survey.

Figure 3.3. Percentages of Having Received a Vaccine by Gender and Political Preference in the Two Waves, LECC-US

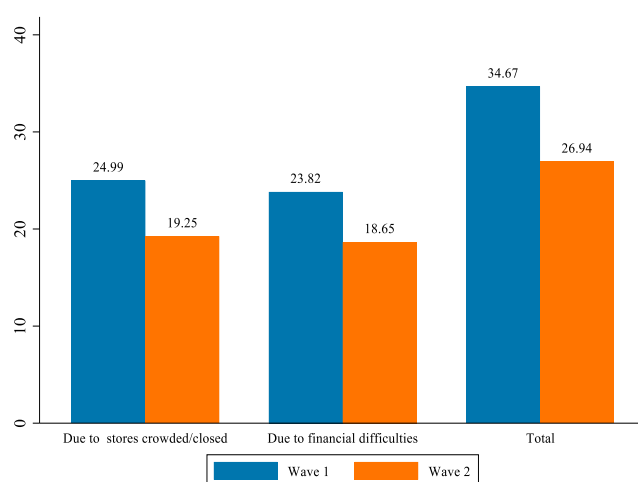




### 3.5 Physical Health

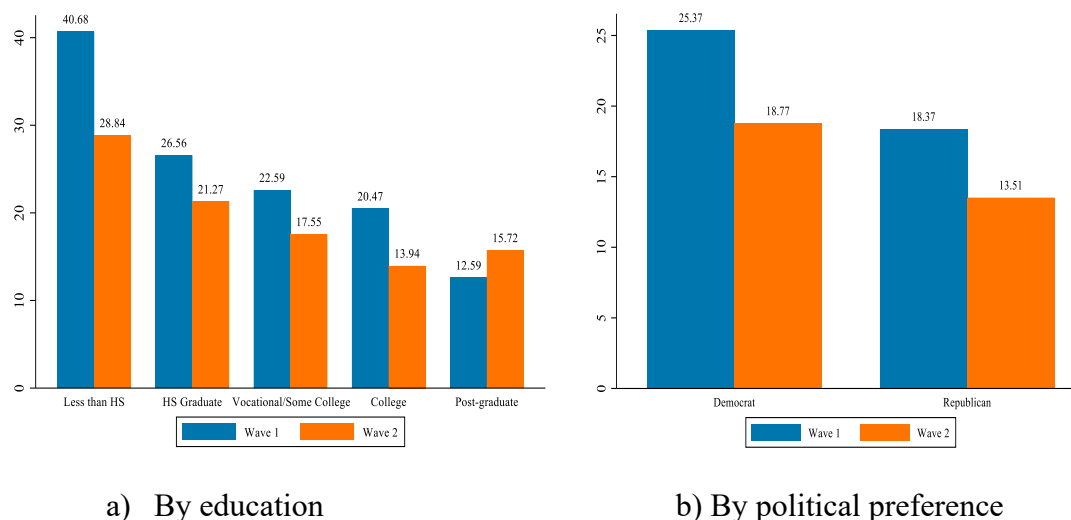
The pandemic has severely affected the quantity and quality of food some Americans are consuming. The second wave data show that 19.25% of respondents have reduced their dietary standards because grocery stores were too crowded or closed, and 18.65% have lowered the amount or the quality of food due to financial difficulties. In total, still 26.94% have reduced their food standards by early April 2021. As Figure 3.4 shows, these numbers again are smaller than last October.

Figure 3.4. Reasons of Reduced Dietary Standards by Wave, LECC-US



Results also show that 22.41% of women have reduced food quantity or quality due to economic hardship, but this figure is about 15% for men. Close to 30% (29.24%) of Hispanics and 23.99% of Blacks have lowered their dietary standards due to financial reasons, while about 15% of Whites have done the same. Younger age groups were more likely to be affected by the pandemic in food consumption: over 20% of those under 50 reported lowering their food standards due to economic hardship, compared to only about 5% of respondents older than 70. On average, the higher the level of education, the less likely a respondent was to lower food standards due to economic hardship: as Figure 3.5a shows, 28.84% of respondents with less than a high school education reported lowering food quantity or quality for economic reasons, but only about 13.94% of college graduates and 15.72% of post-graduates reported this. Compared to the first wave, the least educated group have largely lowered the percentage of having reduced food standards because of financial difficulties, whereas individuals with graduate education slightly increased the percentage. According to Figure 3.5b, Democrats are more likely than Republicans to reduce their food standards due to financial difficulties (18.77% vs. 13.51%), but the percentages are both lower than in the first wave.

Figure 3.5. Dietary Standards Reduced due to Financial Difficulties by Education and Political Preference in Two Waves, LECC-US

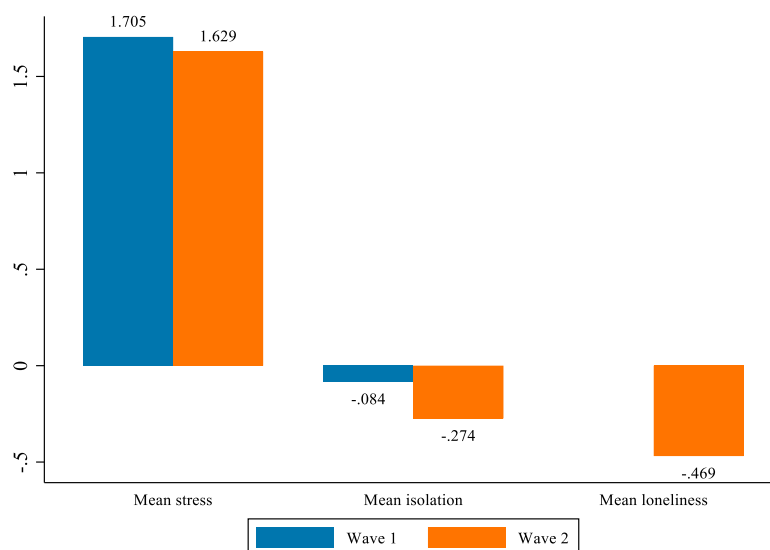


### 3.6 Mental Health

The pandemic has caused mental stress, sense of isolation, and loneliness to Americans (Daly et al. 2021; McGinty et al. 2020; Salari et al. 2020). Like the first wave, the second wave used the Hopkins Symptom Checklist (HSCL-5) to measure mental stress (Schmalbach et al., 2019), which consists of five questions about the frequency of several emotions in the past week: nervousness or shakiness inside, feeling fearful, feeling blue, worrying too much about things, and feeling hopeless about the future. The survey also asks respondents whether they feel very isolated or wish to talk to people more often to measure their feelings of isolation. To measure loneliness, the survey used the UCLA-loneliness scale (Russell et al. 1978; Russell, 1996) and asked respondents four questions about the frequency of several emotions in the past week: feeling in tune with people around, feeling able to find companionship, feeling like people don't know me well, and feeling like people are not with me.

The data show that 11.75% of respondents reported feeling nervous or shaky inside more than 3 days in the past week, 10.7% often or always felt fearful, 17.6% often or always felt blue, 26.18% often or always worried too much about things, and 14.78% often or always felt hopeless about the future. About a quarter of respondents (25.74%) agreed that they felt very isolated and more than one-third (34.07%) wished they could talk to people more often. In addition, about 5% of respondents felt never being in tune with people around or finding companions when want it, and about 13% felt not known well by others and not essentially with others.

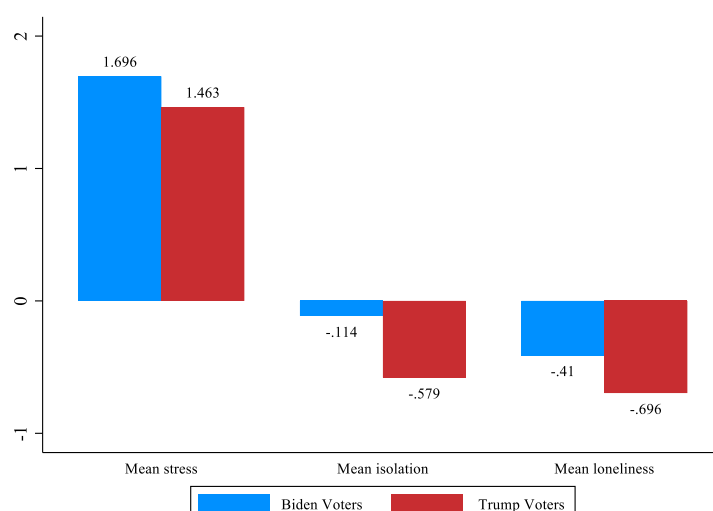
Figure 3.6. The Mean Levels of Mental Stress, Sense of Isolation, and Loneliness by Wave, LECC-US



We then average the five HSCL-5 measures on a scale of 1 to 4 (rarely=1, always/usually=4), the two measures of isolation on a scale of -2 to 2 (strongly disagree=-2, neutral=0, strongly agree=2), and the four measures of loneliness on a scale of -2 to 2 (never=-2, often=2). The mean level of mental stress is 1.63, suggesting that the average American occasionally feels tense or shaky. The mean level of sense of isolation and loneliness is  $-.27$  and  $-.47$ , respectively, indicating that Americans on average do not feel isolated or lonely. Figure 3.6 shows that compared to Wave 1, the average levels of stress and sense of isolation are smaller in Wave 2, indicating that Americans have tended to feel less stressed or isolated since last October.

Comparisons between groups show that women tended to have higher levels of stress than men (1.72 vs. 1.52). They also had higher feelings of isolation ( $-.23$  vs.  $-.31$ ) and loneliness than men ( $-.45$  vs.  $-.49$ ). Hispanics tended to have higher levels of stress, isolation, and loneliness than Whites and Blacks. For example, their average level of isolation was  $-.17$  ( $0.10$  in Wave 1), compared to  $-.34$  for Whites and  $-.40$  for Blacks. Younger cohorts were more likely to experience stress, isolation, and loneliness compared to older groups. Those born after 1990 had the highest mean levels of stress (1.85), isolation ( $.16$ ), and loneliness ( $-.21$ ). Further, less educated groups were generally more likely to experience stress, isolation, and loneliness than more educated groups. Those with less than a high school education had higher mean levels of stress (1.76), isolation ( $-.03$ ), and loneliness ( $-.23$ ) than any other educational group. Finally, Figure 3.7 shows that Biden voters tend to have higher levels of stress, isolation, and loneliness compared to Trump voters.

Figure 3.7. Mean Levels of Mental Stress, Sense of Isolation, and Loneliness by Political Preference, LECC-US Wave 2



### 3.7 Summary

Among the working population, roughly the same percentage (14.52%) lost their jobs compared to last October, but a lower percentage of current employees are concerned about losing their jobs compared to last October (8.65% vs. 17.9% in Wave 1). Overall, 8.06% of the working population did not have any work income in the past two years. Women, Blacks and Hispanics, younger groups, those with less education and Democrats are still more likely to report losing or expecting to lose their jobs in the next 12 months. In general, they also tend to have no income from work in 2020.

Regarding work patterns, there has been little change since last October. Of the working population, about half (49.77%) never worked at home, and 28.25% mainly or always worked at home. Of those currently working, 10.23% said their workplace was closed due to the pandemic and 32.72% said they worked from home, both about the same level as last October. Blacks and Hispanics, younger cohorts, the highly educated, Democrats remain to be more likely to work from home for regular pay.

Among those with at least one child under the age of 18, a smaller percentage than last October (32.11%) reported educating school-age children because of school closures. The burden is still more likely to fall on mothers, with the proportion of men educating their children at home even declining significantly. Despite the decline in the percentage of children educated at home, Whites, middle-aged groups and those with higher education, as well as Democrats, continue to have a higher percentage of homeschooling their children.

Compared to last October, the percentage of respondents who have lowered their dietary standards because grocery stores are too crowded or closed (19.25%) or because

of financial hardship (18.65%) has also decreased. Women, Blacks and Hispanics, younger age groups, those with less education and Democrats remain more likely to have lowered their dietary standards. In particular, compared to the Wave 1 data, the proportion of those who lowered their dietary standards due to financial hardship declined substantially among the least educated group, but increased slightly among those with graduate education.

In terms of mental health, on average, Americans occasionally feel nervous or shaky, but do not feel isolated or lonely. The average levels of stress and sense of isolation are smaller in the second wave, suggesting that Americans tend to be less stressed or isolated since last October. Similar to the first-wave data, women, Hispanics, Younger cohorts, those with less than a high school education, and Democrats tend to have higher levels of stress, isolation and loneliness.

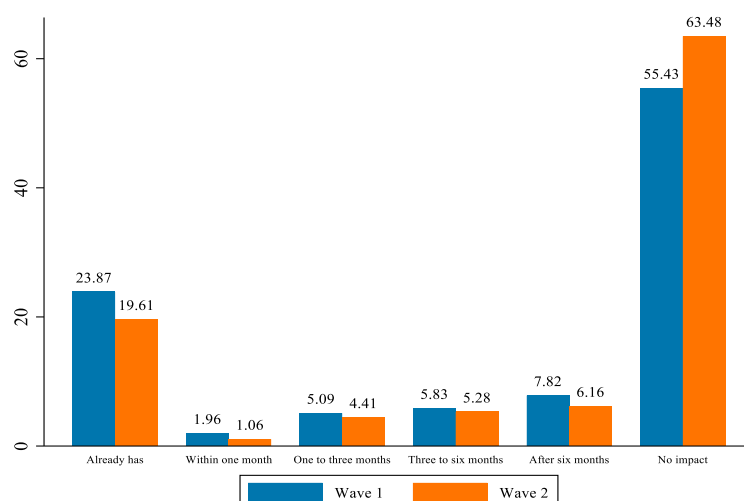
## **4 The Changing Impact of the Pandemic on Family Life**

### **4.1 Family Financial Difficulties**

The pandemic, coupled with the recession, has created many financial difficulties within households. The second wave of the survey asked respondents about whether their household had money left over, broke even, or was in debt, taking all wealth into account. The results showed that 20.16% of respondents were in debt by early April 2021, another 20.19% broke even, leaving about 60% of respondents with some money left over.

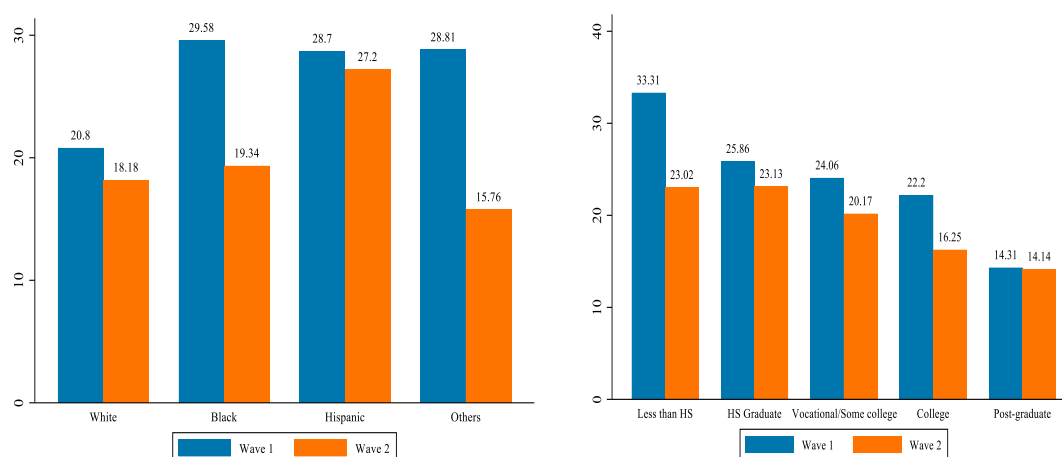
In addition, among respondents, 19.61% reported that their families were experiencing financial difficulties due to the pandemic, 10.75% expected to experience economic hardship in the next coming months, and another 6.16% expected to experience financial difficulties six months from now. Compared to the results from Wave 1, as shown in Figure 4.1, a smaller percentage of families have actual or expected financial difficulties.

Figure 4.1. Actual or Expected Family Financial Difficulties by Wave, LECC-US



Women were more likely than men to report that their household had experienced economic hardship (22.84% vs. 16.18%). Blacks and Hispanics (19.34% and 27.20%, respectively) were more likely than Whites (18.18%) to have experienced economic hardship at the household level. They were also more likely (14.92% and 14.27%, respectively) than Whites (8.40%) to expect family economic hardship in the near future. Compared to the first wave, Figure 4.2a shows that a smaller percentage of Black families have experienced economic hardship. Families in the middle-aged groups were more likely to be affected by the pandemic than older age groups. Approximately 30.53% of those ages 40-50 actually experienced household financial hardship, and only slightly more than half (54.81%) were unaffected by the current pandemic.

Figure 4.2. Percentage of Families Already Experiencing Financial Difficulties by Race and Education in the Two Waves, LECC-US



a) By race

b) By education

Similar to the results of Wave 1, those with higher levels of education were less likely to be affected by the pandemic in terms of household finances, as 72.49% of those with a graduate degree and 68.86% of those with a college degree reported no current

financial difficulties compared to 55.88% of those with less than a high school degree. Compared to Wave 1, Figure 4.2b shows that a smaller percentage of the least educated group reported actual financial hardship within their households. In addition, as in Wave 1, Democrats were more likely than Republicans to experience financial hardship within their households. 20.24% of Biden voters experienced financial hardship within their households due to the pandemic, compared to 15.89% of Trump voters.

#### 4.2 Job Loss of Family Members

The data show that 5.69% of respondents had a spouse or partner who lost a job during the pandemic. In addition, 17.79% of respondents indicated that at least one family member was unemployed.

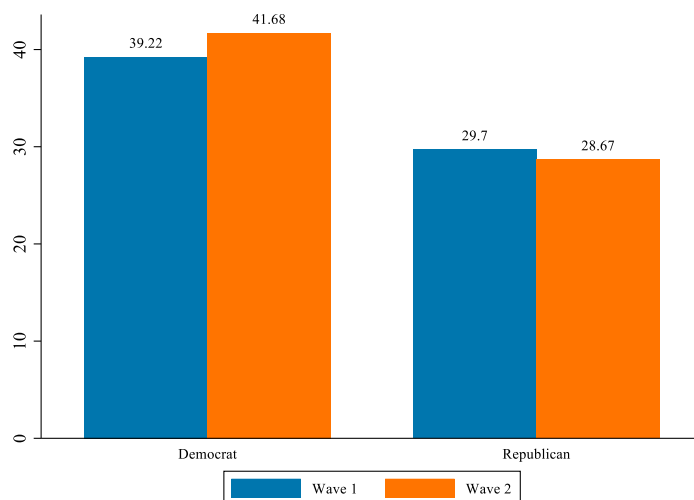
Job loss in households also varies by social group. Women were slightly more likely than men to report job loss among family members (22.21% vs. 19.74%). A third of Hispanics (34.05%) and 21.51% of Blacks reported losing a job at the family level, while only 16.89% of Whites did so. Younger cohorts were more likely than older cohorts to have a family member experiencing job loss: 30.70% for the post-1990 cohort and less than 20% for the pre-1960 cohort. The less educated group tended to have higher job loss rates at the household level: 27.85% for those with less than a high school degree in contrast to 15.21% for those with a graduate degree. Finally, same as in Wave 1, Democrats tended to have a higher rate of family-level job loss than Republicans. The rate was 23.11% for Biden voters, but was 14.36% for Trump voters. These patterns are about the same across waves.

#### 4.3 Work Patterns of Family Members

The work patterns of family members change little during the pandemic. 17.79% of respondents reported that the workplace of at least one member of the household was closed, a bit lower than the first wave (21.97%). 35.83% reported that at least one member of the household worked from home, slightly higher than the first wave (33.76%).

About the same percentage (18%) of males and females reported that at least one family member experienced a workplace closure, but a higher percentage of males than females reported that at least one family member worked from home (39.50% vs. 32.38%). Hispanics (29.65%) were more likely than Whites and Blacks (13.87% and 16.82%, respectively) to have a family member with a closed workplace. They were also more likely than Whites and Blacks (32.34% and 40.98%, respectively) to have a family member working from home (40.34%). In addition, younger cohorts were more likely than older cohorts to have a family member whose workplace was closed and to have a family member who worked from home. More than half (51.22%) of respondents ages 18-30 and 46.91% of those ages 31-40 had at least one family member working from home, compared to less than 20% of those ages 60 and older.

Figure 4.3. Percentage of At Least One Families Member Working at Home by Political Preference in the Two Waves, LECC-US

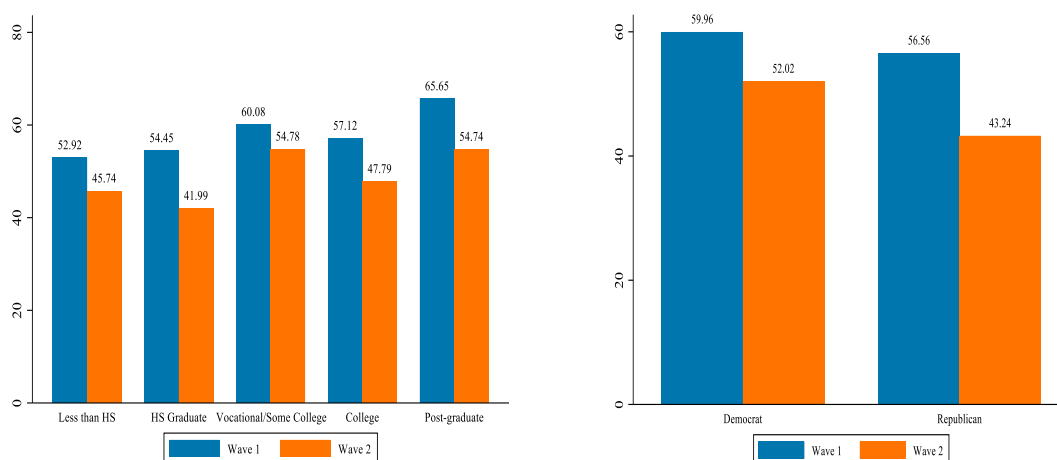


Among educational groups, those with less than a high school degree had the highest percentage of family members with a closed workplace (24.37%), but those with a graduate degree had the highest percentage of family members who worked from home (62.89%). Across waves, these numbers are smaller. In general, Biden voters were more likely than Trump voters to have a family member whose workplace was closed (19.17% vs. 13.79%) or who worked from home (41.68% vs. 28.67%). Compared to the first wave results, as illustrated in Figure 4.3, the patterns are quite similar.

#### 4.4 Parenting Patterns of Family Members

Of the respondents with at least one child under the age of 18, 48.26% (55.07% of females and 40.15% of males) reported that at least one family member homeschooled their child or children, and 18.58% identified a spouse or partner as the

Figure 4.4. Percentage of At Least One Families Member Working at Home by Education and Political Preference in the Two Waves, LECC-US



a) By education

b) By political preference



one assuming teaching responsibilities. The percentage is higher for Whites (51.23%) and lower for Blacks (49.98%) and Hispanics (46.94%). A higher percentage of the 31-40 age group (61.45%) had at least one family member educating their children at home than other age groups. In addition, 47.79% of college graduates and 54.74% of post-graduates reported having a family member homeschooling their children in the second wave, compared to 45.74% of those with less than a high school education. Figure 4.4b further shows that about 52.02% of Democrats reported having a family member teach their school-age children at home, but the number for Republicans was lower at 43.24%. Compared to the first wave, as shown in Figure 4.4, these numbers are smaller.

#### 4.5 Summary

Compared to the Wave 1 data, a smaller proportion of households had actual or anticipated economic hardship, but about 20% still reported experiencing economic hardship due to the pandemic, and 10.75% expected to experience economic hardship in the next 6 months. Women, Blacks and Hispanics, the middle-aged group, the least educated group, and Democrats remain more likely to report household-level economic hardship, but a smaller percentage of Blacks and the least educated group report actual economic hardship within their households.

Compared to last October, a smaller percentage of respondents (17.79%) said that at least one member of their household experienced unemployment. Unemployment rates at the household level are higher for women, Hispanics, younger age groups, less educated groups and Democrats. Among labor market respondents, the work patterns of household members are nearly identical to last October. Hispanics, younger cohorts, less educated, and Democrats are more likely to have a family member whose workplace was closed, as well as a family member who worked from home.

Of those respondents with at least one child under the age of 18, a smaller percentage (48.26%) than in last October reported having a family member who homeschooled the child or children. Whites, the middle-aged group, the highly educated, and Democrats are still more likely to report that at least one family member homeschooled their child or children, but the percentages become smaller than in the first-wave data.

## 5 The Changing Impact of the Pandemic on Community Life

### 5.1 Community Efficacy

Community efficacy (Sampson et al., 1997; Sampson, 2006) is important to understand urban life. To measure community efficacy, the survey adopted four items from the Sampson scale and asked respondents to indicate their agreement or disagreement (strongly disagree = -2, neutral=0, strongly agree = 2) on the following statements: “People around here are willing to help their neighbors” and “People in this neighborhood can be trusted.” In addition, the survey asked respondents how likely

(very unlikely = -2, neutral=0, very likely = 2) they would do something about it if they saw “children spray-painting graffiti on a local building” or try to break it up if they saw “a fight in front of their house and someone was being beaten or threatened.” The first two questions measure social cohesion and trust, and the latter two questions measure informal social control of the community.

Figure 5.1. Mean Levels of Community Efficacy by Wave, LECC-US

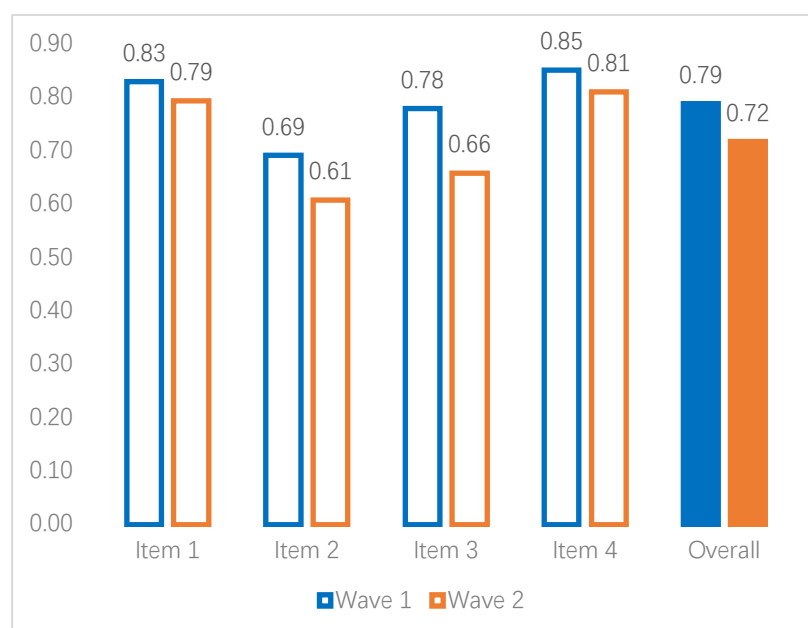


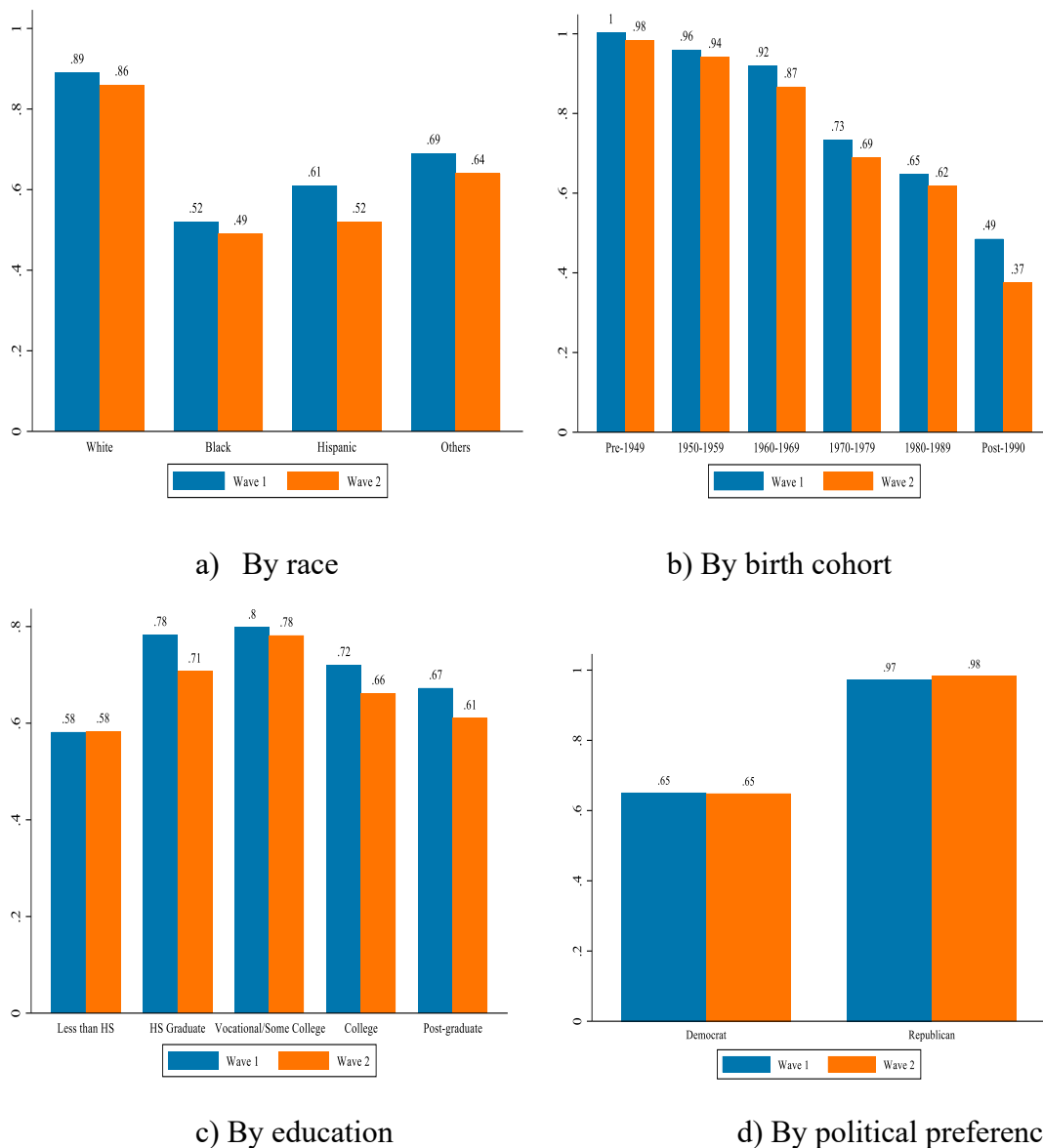
Figure 5.1 shows the distribution of the mean scores of the four items on a -2 to 2 scale, and the average of the four items in the two waves. It shows that across waves, the average level of community efficacy has declined from 0.79 to 0.72 ( $p = 0.032$ ), indicating a decrease of about 9% in community efficacy over the past six months.

On average, men had a higher mean level of community efficacy than women (0.80 vs. 0.64). Whites had a much higher mean level of community efficacy (0.86) than Blacks (0.49) and Hispanics (0.52). Across waves, as Figure 5.2a shows, Hispanics had the greatest decline in community efficacy. Figure 5.2b shows that the older cohorts tend to have a higher level of community efficacy than the younger ones: those born before 1949 have a mean level of community efficacy at 0.98 in the second wave, compared to 0.37 for those born after 1990. In addition, compared to the first wave, the decline is more among the youngest cohort. Figure 5.2c shows that community efficacy was highest among those with some college education (0.78 in wave 2), but lowest among those with less than high school education (0.58 in both waves). Figure 5.2d shows that the average level of community efficacy among Democrats is lower than that of Republicans in both waves by roughly the same magnitude. On average, the mean community efficacy among Democrats is 0.65, about two-thirds that of Republicans.

## 5.2 Neighborhood Belongingness

In addition to community efficacy, the second-wave survey also asked respondent to indicate their sense of belonging to their community. Results show that 60% of respondents agree or strongly agree that they have a sense of belonging to their neighborhood, and 14.93% have no sense of belonging to their neighborhood.

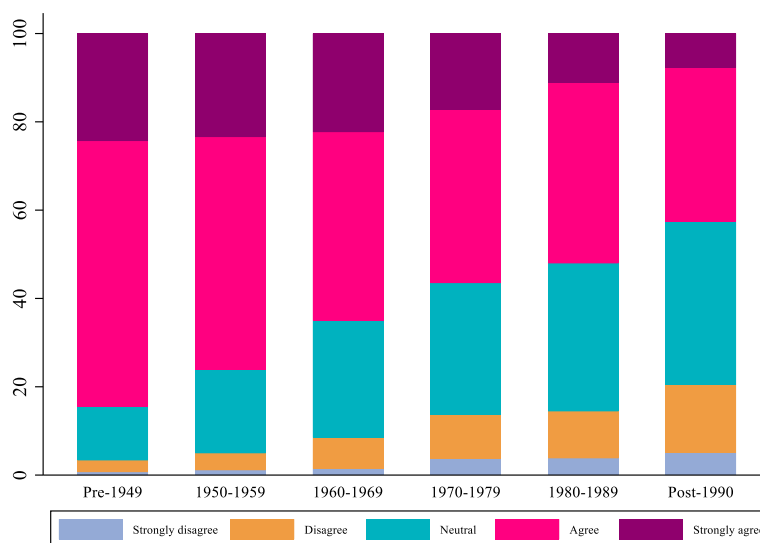
Figure 5.2. Mean Levels of Community Efficacy by Race, Birth Cohort, Education and Political Preference in the Two Waves, LECC-US



Males do not significantly differ from females in sense of neighborhood belonging. Whites (64.54%) are more likely to feel a sense of belonging to their neighborhood than Blacks (54.38%) and Hispanics (51.76%). The older cohorts tend to feel a higher level of sense of neighborhood belonging, as Figure 5.3 shows. 84.46% of those born before 1950 agree or strongly agree that they feel a sense of belonging to their neighborhood,

while only 42.64% of those born after 1990 report so. In addition, the highly educated have a higher level of sense of belonging than the less educated: 60.66% among post-graduates, compared to 52.33% among those with less than high school education. Finally, Democrats are less likely to have a sense of belonging to their neighborhood: 59.99% of Biden voters agree or strongly agree that they have a sense of belonging, compared 70.78% of Trump voters.

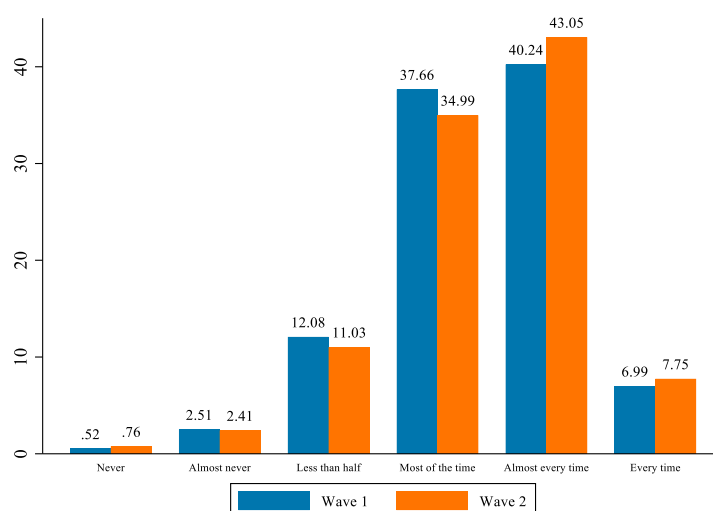
Figure 5.3. Percentage of Sense of Belonging to Neighborhood by Cohort, LECC-US Wave 2



### 5.3 Mask Wearing in the Community

The pandemic has also affected people's community life. According to survey data, 72.63% of respondents said that their cities or towns had non-essential stores closed due to the pandemic, compared to 87.43% in Wave 1. Regarding wearing masks in their community, respondents indicated that a slightly higher percentage of people in their neighborhood wore masks almost every time or every time they were in public than in Wave 1 (50.8% vs. 47.23%). 3.27% of respondents indicated that less than 10% of people in their community wore masks. Another 11.03% of respondents said that less than half of the people in their community wear masks when they go outside. While approximately 78% of community residents reported wearing masks in public, only 7.75% of respondents reported that all residents in their community wore masks when they went outside in Wave 2.

Figure 5.4. Percentage of Mask-wearing in the Neighborhood by Wave, LECC-US



Patterns of mask wearing in the community vary by social group in the second wave. Women were more likely than men to report that 100% of the individuals in their communities wore masks (9.3% vs. 6.1%). About 13% of Blacks and Hispanics indicated that everyone in their community wore masks when went outside, while only 4.31% of Whites said this. A greater proportion of the youngest cohort than the oldest cohort reported that residents in their communities less than half of the time wore masks when they were out in public (15.33% vs. 8.95%). Compared to the highly educated, a larger percentage of those with less than a high school education reported that everyone or less than 10% of individuals in their communities wore a mask in public (4.98% vs. 1.5%). In addition, a larger percentage of Trump voters believed that residents of their communities less than half the time wore masks in public: 10.93% of Biden voters said this, compared to 22.77% of Trump voters. Trump voters also report that a lower percentage of people almost every time or every time wear a mask in public (42.38% vs. 58.07%).

#### 5.4 Trust in Neighbors

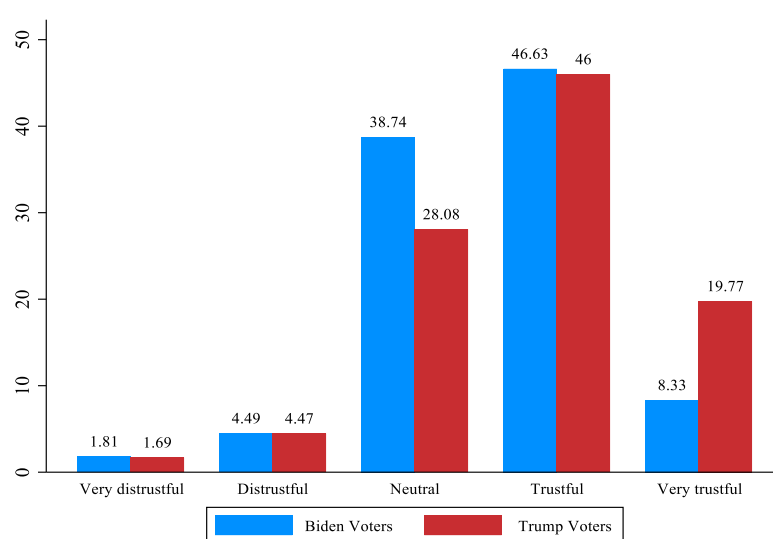
How has trust in neighbors changed over the course of the pandemic? The results show that by early April 2021, 55.74% of respondents suggested their neighbors trustful or very trustful, and only 7.65% found their neighbors distrustful or very distrustful.<sup>5</sup> On a scale of -2 to 2 (very distrustful=-2, neutral=0, trustful=2), trust in neighbors averages 0.576, meaning that Americans generally tend to have trust in their neighbors.

A slightly higher percentage of men than women report their neighbors are trustful or very trustful (57.08% vs. 54.48%). Whites (63.32%) are much more likely to find their neighbors trustful than Blacks (37.82%) and Hispanics (40.93%). The mean level of

<sup>5</sup> The measurement of trust in different in the two waves. The first wave focuses on whether social and political trust has increased, decreased or remained unchanged. The second wave, respondents are asked to indicate their level of social and political trust on a 5-point scale from “very distrustful” to “very trustful.”

trust in neighbors is .703 for Whites, compared to .284 for Blacks and .363 for Hispanics. Across birth cohorts, the older cohorts find their neighbors more trustful than the younger cohorts: 76.16% of those born before 1949 think their neighbors trustful or very trustful, compared to 46.78% of those born after 1990. Trust in neighbors is also the highest among those with higher education and lowest among those with less than a high school education. The average level of trust in neighbors is .647 among those with a graduate degree, compared to .426 among the least educated. In the second wave, as Figure 5.3 shows, a much higher percentage of Trump than Biden voters found their neighbors very trustful (19.77% vs. 8.33%).

Figure 5.3. Percentage of Trust in Neighbors by Political Preference, LECC-US Wave 2



## 5.5 Trust in Strangers

How do American people trust in strangers during the course of the pandemic? Results show that only 4.62% of the respondents find strangers trustful or very trustful, and 45.98% do not trust in strangers. On a scale of -2 to 2 (very distrustful=-2, neutral=0, very trustful=2), the average trust in strangers was -.590, implying that on average, people tend not to trust in strangers.

A higher proportion of males than females feel strangers trustful or very trustful (6.16% vs. 3.19%). Across birth cohorts, those in their 40s had the lowest mean trust in strangers (-.638), and the youngest group have the highest trust in strangers (-.542). Generally, the higher the level of education, the higher the average trust in strangers. Trust in strangers is the lowest among those with less than a high school education (-.672), and the highest among those with a college education (-.472). Finally, during the pandemic period, Biden voters' average trust in strangers is slightly less than Trump voters (-.570 vs. -.597).

## 5.6 Understanding the Community-level Effects

To further understand the community-level effects, we use fixed-effect ordered logit models (Baetschmann et al. 2015; Baetschmann et al. 2020) to see how community efficacy is associated with a set of ordinal outcome variables. They including individual test and infection (1=no test, 2=test with negative result, 3=test with positive result), infection among family members living together (1=no effect, 2=infection, 3=hospitalization, 4=death), individual mask-wearing behavior in public (scaled 1-6: 1=never, 6=always), mask-wearing behavior in public among people in the community (scaled 1-6: 1=never, 6=always), and individual trust in neighbors (scaled 1-5: very distrustful=1, neutral=0, trustful =5). Due to the panel data design, individual-level time-invariant variables in the two waves are not included in the model estimation.

Panel A results in Table 1 show that when we treat community efficacy as a single index (average of the four items described in Section 5.1), it has a significant negative effect on the infection among individuals and family members living together, a significant positive effect on individual mask-wearing behavior and trust in neighbors, and an insignificant effect on community-level mask-wearing behavior. Therefore, a higher level of community efficacy predicts a lower probability of individuals being tested or infected, a lower probability of individuals wearing a mask in public, and a higher probability of individuals trusting their neighbors.

Table 1. Fixed-Effect Ordered Logit Model Estimates on Selected Outcome Variables, LECC-US

Variables	Individual Test and Infection	Family member Infection	Individual Mask- wearing	Community Mask- wearing	Individual Trust in Neighbors
<b>Panel A: Efficacy as a Whole</b>					
Community Efficacy	-0.252* (0.114)	-0.395* (0.165)	0.268* (0.106)	0.100 (0.088)	0.337*** (0.082)
Pseudo R2	0.004	0.012	0.005	0.001	0.007
Log likelihood	-797.8	-400.5	-1309.6	-1503.1	-1762.7
N	1,964	934	2,568	3,486	4,186
<b>Panel B: Dimensions of Efficacy</b>					
Social cohesion and trust	0.032 (0.088)	-0.099 (0.127)	-0.055 (0.087)	0.078 (0.074)	0.310*** (0.067)
Informal social control	-0.247** (0.082)	-0.259* (0.120)	0.289*** (0.080)	0.024 (0.065)	0.054 (0.059)
Pseudo R2	0.004	0.012	0.011	0.001	0.009
Log likelihood	-793.5	-397.8	-1298.9	-1500.8	-1756.4
N	1,960	930	2,560	3,482	4,182

Note: Robust standard errors are in parentheses. \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$  (two-tailed)

To further detect the mechanisms of community efficacy, Panel B re-estimates the fixed-effect ordered logit models using the two dimensions of community efficacy (see details about the measures in Section 5.1). It shows that social cohesion and trust only significantly affects individual trust in neighbors. In contrast, informal social control has a significant negative effect on infection among individuals and family members

living together, and a significant positive effect on individual mask-wearing behavior. Therefore, if individuals are more likely to participate in informal social control of the community, they are less likely to be tested or infected, and more likely to wear a mask in public. In other words, people's willing to participate in community control or the responsibility to keep their community in order has increased their mask-wearing behavior and decreased the hazard of being infected within the family. Again, the two dimensions of community efficacy have insignificant effects on whether people in the neighborhood in general wear a mask in public.

## 5.7 Summary

On average, community effectiveness has decreased by approximately 9% over the past six months. In addition, 60% of respondents agree or strongly agree that they feel a sense of belonging to their community, while another 14.93% do not. As with the first round of survey results, women, Blacks and Hispanics, younger groups, those with less education, and Democrats tend to report lower levels of community efficacy. They also have a lower sense of belonging to their communities.

Regarding the wearing of masks in the community, the pattern is similar to the results from Wave 1, with only a slight increase in the proportion of respondents reporting that people in their community wear masks almost every time or every time they are in public. Women, Blacks and Hispanics, and older populations are more likely to report that nearly all or all residents of their community wear masks. In contrast, larger proportions of Whites, younger cohorts, and Republicans find that their neighbors rarely wear masks in public.

Generally, Americans tend to trust their neighbors, but tend not to trust strangers. On average, women, Blacks and Hispanics, those with less education, and Democrats tend to trust their neighbors and strangers less.

Results from fixed-effect ordered logit models additionally show that community efficacy has a significant negative effect on the risk of infection among individuals and family members living together and a significant positive effect on individual mask-wearing behavior and trust in neighbors. Further mechanism-oriented analysis shows that people's willing to participate in community control has increased their mask-wearing behavior and decreased the hazard of being infected within the family.

# 6 The Changing Impact of the Pandemic on Political Trust and Attitudes

## 6.1 Trust in Federal and State Governments

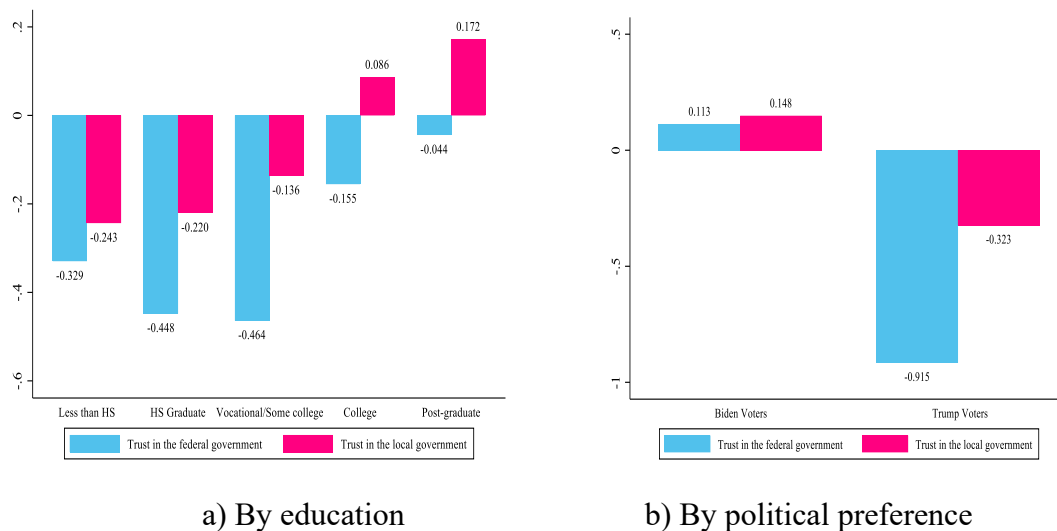
Overall, political trust in the federal government is lower than in local governments. 23.26% of respondents trust in the federal government, and 41.34% find the federal government distrustful or very distrustful. In contrast, 25.91% find their local



government trustful or very trustful, and 30.03% distrust the local government. On a scale of -2 to 2 (very distrustful=-2, neutral=0, trustful =2), average trust in the federal government was -.323, and the average trust in state government was -.080.

The average trust in the federal government was -.350 for men and -.297 for women, indicating that men's trust in the federal government is slightly less than that of women. Conversely, women's average trust in state government was -.106 compared to men's -.052, implying that trust in local government is lower for women than for men.

Figure 6.1. Trust in Federal and Local Governments by Education and Political Preference, LECC-US Wave 2



In addition, Blacks' average trust in the federal governments is higher than that of Whites and Hispanics. Their average trust in the federal government was -.031, compared to -.446 for Whites and -.185 for Hispanics. Their trust in local government, however, is about the same level of Whites and Hispanics. Across age groups, those in their 50s have the lowest level of trust in both the federal and local government (-.430 and -.218, respectively), while the oldest cohort have the highest level of trust (-.097 and .235, respectively). In general, the higher the level of education, the greater the trust in both the federal and local governments. As Figure 6.1a shows, the average trust in the federal government is the lowest among those with vocational/some college education (-.464), but highest among those with a graduate degree (-.044). The average trust in the local government is 0.086 for those with a college degree and 0.172 for those with a graduate degree, both positive, but the figure was -.243 for those with less than a high school education.

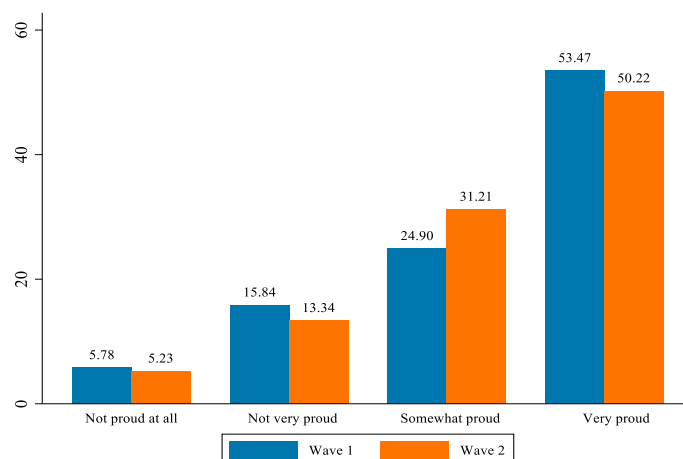
Figure 6.1b shows that on average, Democrats have a positive trust both in the federal and local governments now, while Republicans reported the opposite. Descriptive statistics show that 36.1% of Biden voters trust or very trust the federal government after the election, and 37.12% find the state government trustful or very trustful. The figures for Trump voters were 8.01% and 22.71%, respectively. In addition, 67.43% of

Trump voters distrust the federal government. This pattern suggests that Republicans tend to blame the Biden administration as well as the state government, while the opposite is true for Democrats.

## 6.2 American Nationalism

To compare changes in the American pride, the second wave survey asked respondents how proud they feel of their country. Results show that 81.43% of Americans had strong nationalist sentiment: 50.22% of respondents said that they were very proud of being an American, and an additional 31.21% were somewhat proud of their American identity. Compared to the first wave, as Figure 6.2 shows, although the pandemic situation is worsening in the U.S., people's proud in the nation does not decline. Instead, the percentage of those who feel somewhat proud or very proud in the nation is even about 3% higher than in the last six months.

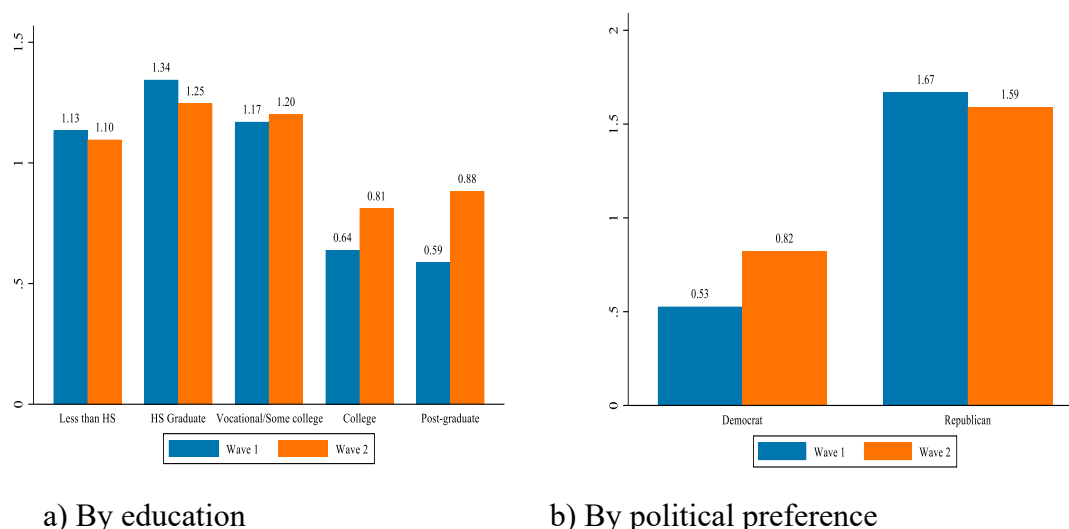
Figure 6.2. Percentages of Proud to be an American by Wave, LECC-US



Similar to the first wave, gender difference is insignificant on this item. Across racial groups, the distribution of nationalist sentiment is also about same. Compared to the first wave, the percentage of feeling somewhat or very proud of America among Whites increases slightly from 79.97% in the first wave to 81.70% in the second wave, and the figure for Blacks also increases from 75.95% to 83.63%. Same as in the first wave, younger cohorts showed lower nationalist sentiment: 35.56% of those in the 18-30 age group were not very or not at all proud of being an American, compared to less than 10% of those over 50. In addition, about 22% of those with a college degree or higher were not proud to be American, compared to 16.38% of high school graduates and 20.03% of those with less than a high school degree. Figure 6.3a shows compared to the first wave, on a scale of -2 to 2 (not proud at all=-2, very proud=2), the mean level of being proud of American is slightly declining among the less educated groups, but increases by over 40% among the more educated groups, particularly among those with at least a college degree. This issue is again divided by partisan leanings. Most Republicans were very proud to be an American, but Democrats favored the American identity much less. 24.60% of Biden voters were not proud to be American, but only 6.14% of Trump voters

felt this way. In contrast, 93.86% of Trump voters are proud of being an American, compared to 75.40% of Biden voters. Across waves, Figure 6.3b further shows that the mean level of being proud of America is increasing from 0.53 to 0.82 (by 54.7%) among Democrats and declining from 1.67 to 1.59 (by 4.7%) among Republicans, although Republicans still have a much higher level of national sentiments than Democrats.

Figure 6.3. Percentages of Proud to be an American by Education and Political Preference, LECC-US Wave 2



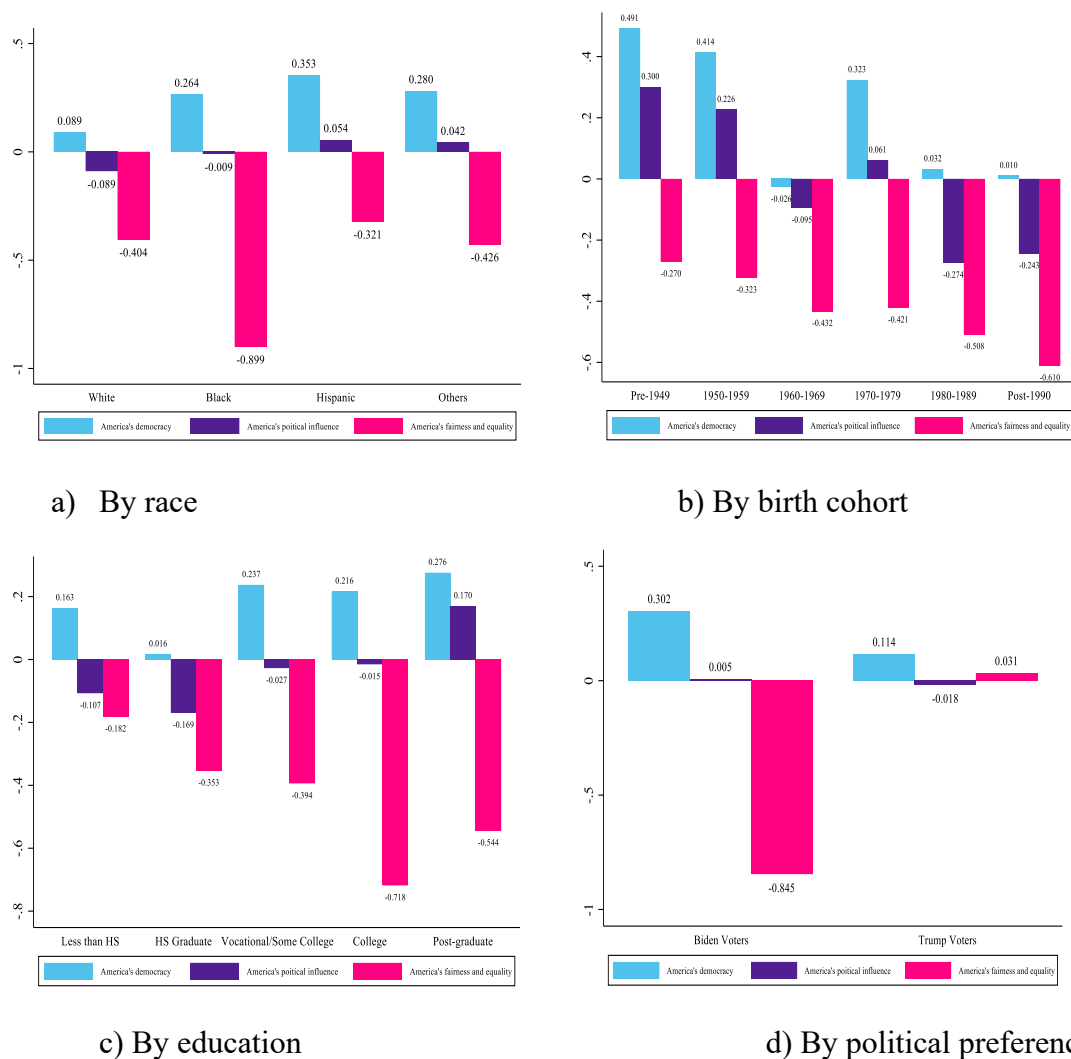
### 6.3 Reasons for American Nationalism

To further investigate the reasons of American nationalism, the survey further asked how proud of the respondents feel in three aspects about the U.S.: the way America democracy works, America's political influence in the world, and America's fair and equal treatment of all groups in society. Data show that 55.75% of respondents are somewhat or very proud of America's democracy, 48.22% are proud of America's political influence, and only 34.41% are proud of America's fairness and equality in society. On a scale of -2 to 2 (not proud at all=-2, very proud=2), the mean level of feeling proud of the three aspects averages at .170, -.044, and -.451, suggesting that on average, how American democracy works is the main source of American pride among the three aspects.

The percentage of feeling proud in these aspects are all higher among men than women. For instance, 60.36% of males feel proud of America's democracy system, compared to 51.04% of females. On average, As shown in Figure 6.4a, Hispanics have higher levels of pride in all the three aspects than Whites and Blacks. Whites are least proud of America's democracy and political influence (-0.089), but Blacks are least proud of America's fairness and equality in society (-0.899). Figure 6.4b shows that in general, the older cohorts tend to have higher levels of American pride in all the aspects than the younger cohorts. In particular, people older than 60 strongly feel proud of America's democracy system and political influence, while those aged below 40 hold strong

negative attitudes about America's fairness and equality. Figure 6.4c shows that in general, the higher the level of education, the higher the level of feeling proud of America's democracy and political influence, and the lower the level of feeling proud of America's fairness and equality. Figure 6.4d further shows that the sources of American pride differs by political preference. While Biden voters are much prouder of how democracy works in America than Trump voters (0.302 vs. 0.114), they are much less proud of America's fair and equal treatment of all groups in society (-0.845 vs. 0.031). In terms of America's political influence in the world, Biden voters are slightly more positive than Trump voters (0.005 vs. -0.018).

Figure 6.4. Mean Levels of American Pride by Race, Birth Cohort, Education and Political Preference in the Two Waves, LECC-US

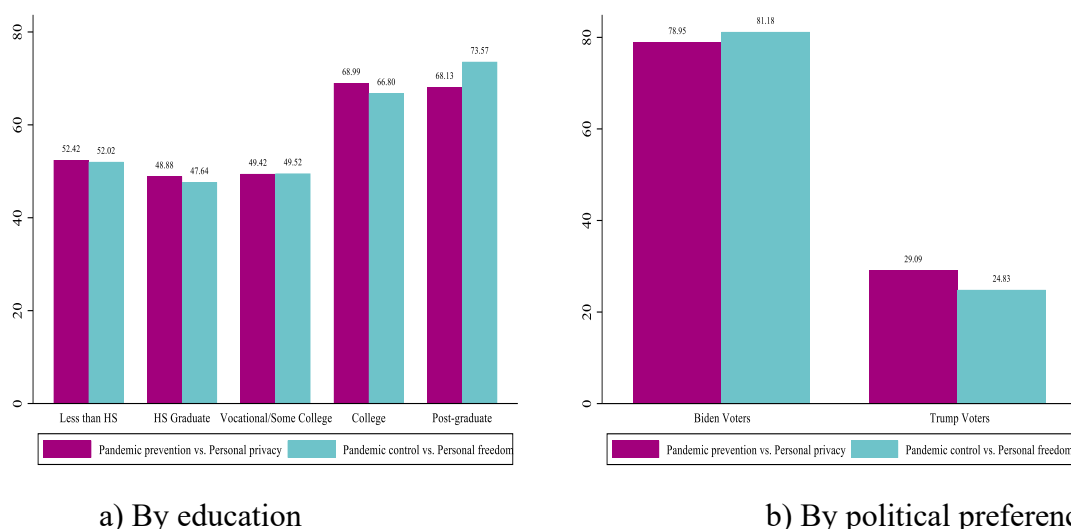


## 6.4 Attitudes toward Pandemic Control Policies

Under the current pandemic situation, how do Americans view the balance between pandemic prevention and control policies versus personal privacy and freedom? The survey asked respondents to choose between pandemic prevention vis-à-vis personal

privacy as well as personal freedom.<sup>6</sup> Results show that both about 56% of respondents choose personal privacy and freedom as the priority, whereas both about 44% think pandemic prevention and control is more important than personal privacy or freedom. It seems that facing the worsening pandemic situation in the U.S., more people are now willing to sacrifice personal privacy and freedom for pandemic prevention and control.

Figure 6.5. Percentages of Attitudes toward Pandemic Prevention and Control Policies by Education and Political Preference, LECC-US Wave 2



About the same percentage of males and females (56%) choose pandemic prevention and control policies over personal privacy and freedom. Blacks have a higher percentage (about 71%) than Whites (about 50%) and Hispanics (about 61%) to think pandemic prevention is more important than personal privacy or freedom. In general, the oldest cohorts have a slightly higher percentage of choosing pandemic prevention over privacy or freedom than the youngest cohorts (60% vs. 57%). Figure 6.5a shows that compared to those with a lower than college education, those with college or above education strongly favor pandemic prevention and control policies over personal privacy or freedom. Figure 6.6b further shows that Democrats strongly favor pandemic prevention and control policies, while Republicans strongly favor personal privacy and freedom: about 80% of Biden voters think pandemic prevention and control policies are more important than personal privacy or freedom, while only less than 30% of Trump voters think so.

## 6.5 Summary

Overall, there is lower political trust in the federal government than in local governments. Blacks on average trust the federal government more than Whites and

<sup>6</sup> The two questions are: “Both pandemic prevention and personal privacy are important, but if you had to choose, which one do you think is more important?” and “Both pandemic prevention and safeguarding personal freedom are important, but if you had to choose, which would you consider more important?”

Hispanics. However, their trust in local government is at about the same level as Whites and Hispanics. In general, the higher the level of education, the higher the level of trust in federal and local government. Democrats have positive trust in both federal and local government, while Republicans have negative trust in both.

Compared to the first wave of data, while the pandemic in the United States is worsening, people's pride in being an American has not declined. On the contrary, the percentage of people who are somewhat or very proud of their American identity is even about 3% higher than it was last October. In particular, while the average level of pride in America declined slightly among the less educated group, pride increased by more than 40 percent among those with at least a college degree. Consistent with the results of the first wave of data, younger cohorts and Democrats have lower levels of nationalistic sentiment. However, across waves, average pride in being an American increased by 54.7% among Democrats and decreased by 4.7% among Republicans, although Republicans still have much higher levels of American pride than Democrats.

On average, how American democracy works is a major source of American pride. Whites are the least proud of America's democracy and political influence, but Blacks are the least proud of America's fairness and equality in society. In general, the higher the level of education, the higher the level of pride in America's democratic and political influence and the lower the level of pride in America's fairness and equality. While Democrats are much prouder than Republicans of how democracy works in America, they are much less proud of the way the United States treats all groups in society fairly and equally.

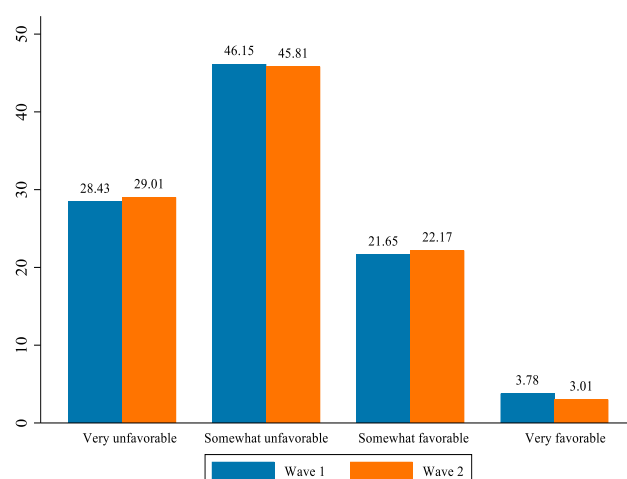
In the face of the current pandemic situation in the United States, more people (about 56%) are considering sacrificing personal privacy and freedom in exchange for pandemic prevention and control. Compared to those with less than a college degree, those with a college degree or higher strongly support pandemic prevention and control policies over personal privacy or freedom. Democrats are more likely to prioritize support for pandemic prevention and control policies, while Republicans are more likely to prioritize support for personal privacy and freedom.

## **7 The Changing Impact of the Pandemic on Attitudes toward China**

### **7.1 View of China**

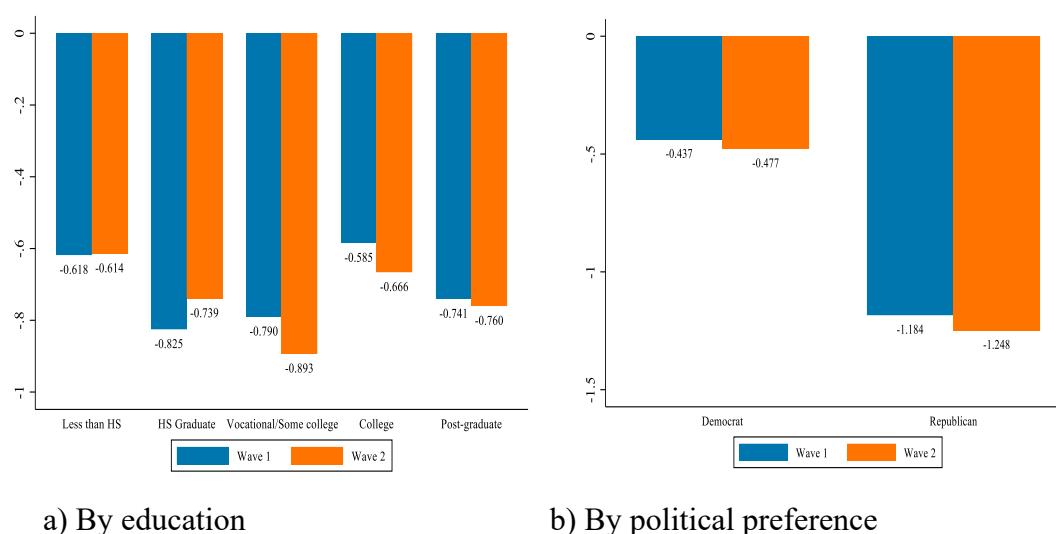
The results show that attitudes to China does not change much in the two waves. As Figure 7.1 shows, about a quarter of Americans (25.28%) had a positive view towards China: only 3.01% of respondents favored China very much, while 22.17% had a somewhat favorable view of China.

Figure 7.1. Percentage of Favoring China among Americans by Wave, LECC-US



Men were less likely than women to favor China (19.60% vs. 30.46%). Blacks favored China more (40.49%) than Whites (19.02%) and Hispanics (33.62%). Younger age groups were more likely to favor China than older age groups: 34.41% of the 18-30 age group thought that China is very or somewhat favorable, compared to 13.65% of those over 70 years old. About a quarter of those with a college degree or higher thought favorably of China, but those with less than a high school diploma had the strongest positive view toward China: 31.70% of them favored China. Across waves, Figure 7.2a shows that while on average all the educational groups hold a negative view towards China on a scale of -2 to 2 (very unfavorable=-2, very favorable=2), the less educated groups tend to alleviate their negative view towards China and the highly educated groups tend to enhance their negative view towards China. Particularly, those with a high school diploma, which held the strongest negative view towards China in the first wave, have decreased their negative attitude from -.825 to -.739 (by 10.4%), while those with vocational/some college education now hold the strongest negative view towards China (-.893). In addition, same as Wave 1, Republicans are more likely than Democrats to hold a negative attitude toward China. 32.37% of Democrats think favorably of China, while only 13% of Republicans think so; moreover, 66.63% of Democrats think negatively of China, while the percentage for Republicans is 88%. There is a much higher percentage of Republicans than Democrats to think China is very unfavorable (50.29% vs. 16.51%). Across waves, Figure 7.2b further shows that compared to the first wave, their negative attitude toward China has been increased for both Democrats and Republicans.

Figure 7.2. Mean Level of Attitude Towards China by Education and Political Preference in the Two Waves, LECC-US



## 7.2 Attitudes toward Policies on China

To further understand Americans' attitudes towards China, the survey asked respondents whether they agree that the U.S. government should stop the trade war with China or should continue to impose sanctions against Chinese technology firms.

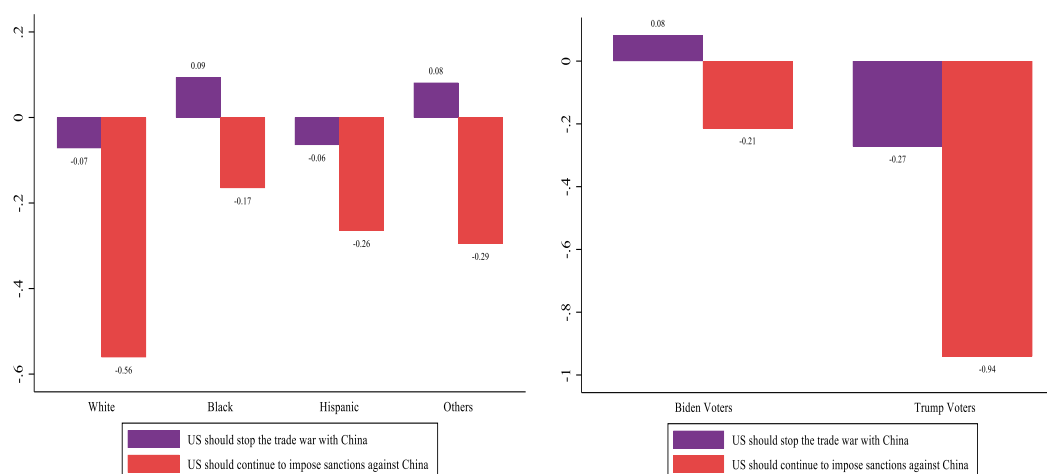
Results show that 25.58% of Americans agree to stop the trade war with China, but another 27.26% disagree. On a scale of -2 to 2 (strongly disagree=-2, strongly agree=2), the mean level of this policy attitude is -.038, suggesting that on average, Americans do not have a strong opinion on the trade war with China. With regard to the second policy, only 14.12% think that the U.S. government should not continue to impose sanctions against China, but 45.72% think the U.S. government should. On a scale of -2 to 2 (strongly agree=-2, strongly disagree=2), the mean level of this policy attitude is -.441, suggesting that on average, Americans strongly think that the U.S. should continue to impose sanctions against Chinese technology firms.

Results further show that females are more favorable of China in the two policies than males. 33.19% of males disagree with stopping the trade war with China and 51.74% agree with continuing to sanction against China, compared to 31.66% and 39.19% of females, respectively. On average, as shown in Figure 7.3a, Blacks tend to have a more favorable policy attitude toward China, but Whites tend to have a strong negative view. Older individuals were more likely than younger individuals to have a negative policy attitude toward China. Data show that the mean for the first policy attitude of those ages 70 or older is -.161, compared to .026 for those ages 18-30. The mean for the second policy attitude of those ages 70 or older is -.832, compared to -.136 for those ages 18-30. Compared to the highly educated, those with a less than high school education tend to favor China more in the two policy attitudes. The mean of the first attitude is .135 for those with less than a high school education and -.029 for those with a graduate degree, while the mean of the second attitude is -.258 for those with less than a high



school education and  $-.478$  for those with a graduate degree. Figure 7.3b shows that the Democrats are more favoring China in terms of stopping the trade war and continuing to sanction against China than Republicans. On average, Republicans hold a strong negative view regarding policies toward China: 41.52% of Trump voters disagree to stop the trade war with China, and 68.33% agree to continue to sanction against China's technology firms. This party difference on policy attitude toward China is similar to that in the first wave.

Figure 7.3. Mean Level of Policy Attitude Towards China by Education and Political Preference, LECC-US Wave 2



a) By race

b) By political preference

### 7.3 Changes in the Attitudes: An Experimental Design

To further identify how American people's attitudes toward China are associated with the pandemic situation in China and the geopolitics in Hong Kong, the second wave survey has incorporated an experimental design. Respondents are randomly assigned to three groups in the preloads before they enter the survey. The first group does not receive any treatment. The second group only sees the first treatment prompt, which compares the pandemic situation in China and the United States. The third group only sees the second treatment prompt, which introduces the background and consequence of Hong Kong's National Security Law.<sup>7</sup> Presumably, the first treatment has conveyed

<sup>7</sup> The first prompt writes, "The first case of COVID-19 was identified in Wuhan, China, in December 2019. While the local governments of Wuhan city in Hubei Province were widely criticized for their delayed responses to the virus and their censorship of the related information during the initial outbreak, the central government of China subsequently imposed drastic measures and quickly brought the pandemic under control. As of March 19, China had 90,026 infections (68,151 in Hubei Province) and 4,636 deaths. Nevertheless, COVID-19 has spread to many countries, causing more than 29.7 million infections and over 539,000 deaths in the United States." The second prompt writes, "The United Kingdom (England) controlled Hong Kong from 1898 until 1997. Then Hong Kong was handed back to China under a unique agreement- a so-called "one country, two systems" arrangement. In 2019, many people in Hong Kong marched in protests demanding more democracy in the Special Administrative Region. The Central Government of China subsequently passed the National Security Law, effective on

mixed messages about China- the outbreak of the pandemic in Wuhan as well as China's success in the pandemic control. The second treatment, however, has highlighted China's tightening control over Hong Kong after the social unrest in 2019.

Figure 7.4. Mean Levels of Opinions and Attitudes toward China by Treatment and Control Groups, LECC-US Wave 2

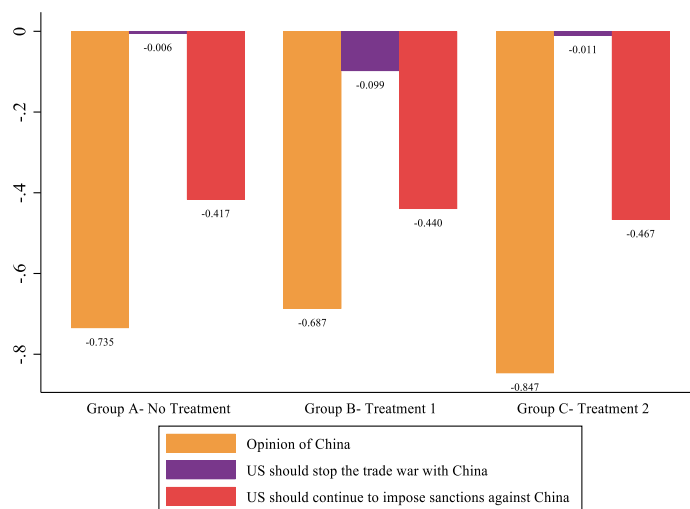


Figure 7.4 plots the mean levels of general views and policy attitudes toward China in the second wave. The coding methods is consistent- the larger the number, the more favorable opinions about China. Generally, the figure shows that Treatment 1 has slightly reduced the negative view toward China, but slightly increased the negative policy attitudes towards China. In addition, Treatment 2 has increased the negative opinions about China in all the three aspects. Moreover, T-test results show that the mean level of favoring China between Group A and Group C is significant ( $p=0.004$ ). Clearly, the second treatment has intensified American people's negative attitudes toward China.

To see whether the effects of the treatments are statistically significant, Table 2 estimates the determinants of views and attitudes towards China. The dependent variables are opinion of China and two policy attitudes on a scale of -2 to 2. The independent variables include male, race, education, political preference, and the experimental groups. Models 1a, 1b, 2a, and 2b are all ordered logit model estimates based on Wave 2. Model 1c is the fixed-effect ordered logit model estimates based on both waves. Models 1a and 1b show that the effect of the first treatment is insignificant after controlling for other variables, but the second treatment has a significant negative effect on views of China. Model 1c further confirms the finding based on ordered logit models. It shows that after controlling for fixed effects across waves, the effect of the

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July 1, 2020, and the National People's Congress (China Legislature) changed the election system for Hong Kong on March 11, 2021. Many people in Hong Kong and around the world fear that the law will reduce freedom of expression in Hong Kong and exclude pro-democracy candidates from running in Hong Kong's elections."

second treatment is still negative and significant. Model 2a and 2b shows that the second treatment only has a significant negative on people's attitude toward whether the U.S. government should continue to impose sanctions against Chinese technology firms. Again, the effect of the first treatment is insignificant on the attitudes toward two policies on China.

Table 2. Determinants of Opinion and Policy Attitudes towards China, LECC-US

	Opinion of China			Policy A	Policy B
	Model 1a (Wave 2)	Model 1b (Wave 2)	Model 1c (Fixed-effect)	Model 2a (Wave 2)	Model 2b (Wave 2)
Male	-0.438*** (0.104)	-0.431*** (0.104)		-0.140 (0.097)	-0.360*** (0.103)
Cohort	-0.018*** (0.003)	-0.018*** (0.003)		-0.002 (0.003)	-0.023*** (0.003)
Race <sup>a</sup>					
Black	0.606*** (0.156)	0.612*** (0.157)		-0.037 (0.128)	0.173 (0.142)
Hispanic	0.332* (0.153)	0.348* (0.152)		-0.152 (0.141)	0.084 (0.156)
Others	-0.122 (0.258)	-0.089 (0.257)		0.014 (0.200)	-0.274 (0.230)
Education <sup>b</sup>					
Some college	-0.158 (0.110)	-0.165 (0.111)		-0.122 (0.106)	-0.101 (0.104)
College and above	-0.240 (0.145)	-0.252 (0.144)		-0.160 (0.132)	-0.184 (0.140)
Trump Voters	-0.673*** (0.060)	-0.688*** (0.060)		-0.343*** (0.056)	-0.694*** (0.061)
Experimental groups <sup>c</sup>					
Treatment 1		-0.013 (0.120)	-0.056 (0.099)	-0.156 (0.115)	-0.157 (0.119)
Treatment 2		-0.440*** (0.125)	-0.536*** (0.104)	-0.023 (0.117)	-0.298* (0.124)
Cutoffs					
/cut1	-3.302*** (0.234)	-3.480*** (0.242)		-3.098*** (0.246)	-4.473*** (0.259)
/cut2	-0.991*** (0.225)	-1.149*** (0.231)		-1.850*** (0.239)	-2.800*** (0.241)
/cut3	1.462*** (0.260)	1.315*** (0.265)		-0.004 (0.229)	-0.686** (0.228)
/cut4				1.861*** (0.246)	0.748** (0.250)
Pseudo R <sup>2</sup>	0.090	0.096	0.017	0.020	0.079
Log-likelihood	-2872.5	-2857.4	-1061.3	-3809.7	-3519.2
N	2,714	2,714	2,708	2,714	2,716

Note: Robust standard errors are in parentheses. Data are weighted. <sup>a</sup> Refer to "Whites." <sup>b</sup> Refer to "High school or below." <sup>c</sup> Refer to "Group A- no treatment." \*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$  (two-tailed)

## 7.4 Summary

Attitudes toward China have not changed much between the two waves of survey: still about a quarter of Americans have a positive view of China. Men, Blacks and Hispanics, and younger cohorts continue to view China more positively. While on average all the educational groups hold a negative view of China, the less educated group tends to decline their negative view of China and the highly educated group tends to enhance

their negative view of China. Particularly, those with high school diplomas, who held the strongest negative view of China in the first wave, saw their negative attitudes decline by 10.4%. Republicans remain more likely than Democrats to have a negative view of China. Compared to last October, both Democrats and Republicans have increased their negative attitudes toward China.

On average, Americans do not have strong opinions about stopping the trade war with China, but they strongly believe that the United States should continue to impose sanctions on Chinese technology companies. Blacks tend to have a more favorable policy attitude toward China, but Whites tend to hold a strong negative view. Older people are more likely than younger people to have a negative policy attitude toward China. People with less than a high school education favor China on both policy attitudes compared to those with higher education. Democrats are more likely to favor China than Republicans. Overall, Republicans hold strongly negative views on China policies.

Finally, the experimental design shows how American attitudes toward China are correlated with the pandemic situation in China and the geopolitics of Hong Kong. The results show that the first experimental instrument regarding China's initial rise and successful control of the pandemic situation has only insignificant effects on perceptions and attitudes toward China. The results further indicate that the second experimental instrument about China's tightening control over Hong Kong's autonomy has significant negative effects on views of China and policy attitude toward continuing sanctions against Chinese technology firms. It does not, however, significantly affect the policy attitude toward stopping the war with China.

## **8 Changes in Regional Differences**

### **8.1 Differences by Party Preferences in the 2020 Election**

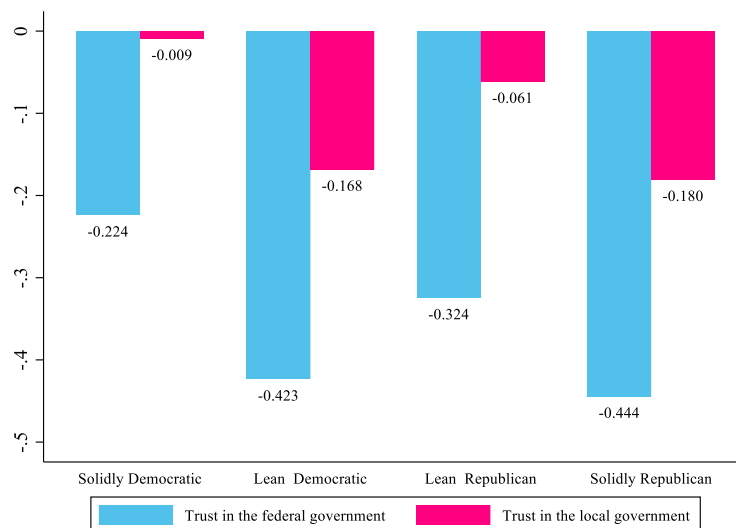
How does the impact of the pandemic on American society vary by states in the second wave? Following the same procedure in the first wave, we first recode American states according to their political party preference during the 2020 presidential election into four categories: solidly Democratic, lean Democratic, lean Republican, and solidly Republican.

In general, patterns of regional difference are almost the same as Wave 1. Results show that respondents from solidly Democratic states were more likely to wear masks in public than respondents from solidly Republican states (65.86% vs. 55.07%). They are also more likely to receive a vaccine (45.92% vs. 36.02%). In addition, they were more likely to experience job loss during the pandemic (15.77% vs. 11%). Compared to residents of Republican states, they tended to feel that stay-at-home orders were very or absolutely necessary (54.43% vs. 42.91%). On average, they were slightly more likely to feel stressed (1.68 vs. 1.58), but now become less likely to feel isolated (-.159

vs. -.312) and lonely (-.421 vs. -.518). 61.87% of those from solidly Democratic states reported that community members wore masks almost all the time or every time in public, compared to 37.36% of those from solid Republican states.

As with the first wave, during the 2020 election, political trust and attitudes will vary depending on party preferences at the state level. On average, citizens from solidly Democratic states have higher trust in both the federal and local governments than those from Republican states. The pattern is consistent with that previously illustrated in Figure 6.1b. Moreover, those from solidly Democratic states are less likely than those from solidly Republican states to feel very proud of being an American (45.21% vs. 55.07%), and they are slightly more likely to favor China (27.02% vs. 24.72%). On policies toward China, the differences between those from solidly Republican states and those from solidly Democratic states are pretty small.

Figure 8.1. Trust in Federal and State Government by States in the 2020 Election, LECC-US Wave 2



## 8.2 Differences by Geographic Location

Another way to look at regional differences is to recode the states by geographic location (1=Northeast, 2=West, 3=Midwest, 4=South). Our data show that individuals in the Midwest had the highest Covid-19 infection rate (10.99%) compared to 8.64% in the South, 6.84 % in the Northeast and 6.97% in the West. Individual-level patterns of mask-wearing and vaccine-taking varied little by geographic region. About 22% of individuals in the South and 25% in the West reported being unemployed or expecting to have job loss in the next 12 months, but the figure for their peers is about 15% in the Northeast and about 18% in the Midwest.

In terms of political trust and attitudes, those in the Midwest had the lowest average trust in the federal government (-.364), and Westerners had the highest (-.286). The

average trust in the local government (-.562) in highest among those in the Midwest but the lowest among those in the South (-.129). On average, residents in the South have the highest level of American pride (1.211), whereas those in the West had the lowest (.957). Finally, similar to the first wave, residents in the West tended to have the most favorable views of China compared to residents of other regions (-.651), but residents in the Northeast generally held the most negative views (-.795).

### 8.3 Summary

In general, patterns of regional difference are much the same as in the first-wave survey. Compared to those from solidly Republican states, individuals from solidly Democratic states are more likely to wear masks in public, receive a vaccine, experience job loss, support stay-at-home orders, feel stressed and isolated, and have more neighbors wear masks when going out. They are also more likely to have higher trust in both the federal and local governments than those from solidly Republican states. Overall, they tend to have less American pride and are more likely to have a positive view of China.

Geographically, people in the Midwest now have the highest rate of Covid-19 infection (10.99%), while those in the Northwest have the lowest rate (6.84%). In terms of political trust and attitudes, Westerners have the highest average trust in the federal government and Midwesterners have the highest average trust in local government. As with the Wave 1 findings, Southerners have the highest pride in being American, but Westerners tend to have the most favorable view of China.

## 9 Summary and Conclusion

This report systematically investigates the continuum and change in the pandemic's impact on U.S. society since last October. Based on two waves of the most update micro-level panel data from "Life Experience and Community during COVID-19 in the United States," it focuses on how lives and attitudes have been affected by the pandemic, and quantitatively documents trends and patterns in the behavior and thinking of different social groups in the context of the COVID-19 pandemic.

Results show that while the pandemic in the United States has worsened considerably since last October, behavioral patterns of mask-wearing and perceptions of the necessity of stay-at-home orders among U.S. adults have changed little. On the one hand, patterns of infection have changed remarkably since last October, with infection rates growing pretty fast among Whites, the elderly population, the highly-educated, and Republicans. On the other hand, patterns of adopting antiviral means have barely changed. Women, Blacks and Hispanics, older cohorts, the highly-educated, and Democrats are still more likely to wear masks in public and to support state-level stay-at-home orders.

Results also show that while in some ways such as job security, home education, food standards, family finance, and mental health, things are generally getting better, in many

other ways, how the impacts vary by social group has been largely unchanged. Women, Blacks and Hispanics, those with less education, and Democrats remain more likely to report actual or expected job losses, lower their dietary standards, have family-level economic hardship, and have higher levels of stress, isolation, and loneliness. Blacks and Hispanics, younger age groups, those with higher education, and Democrats are still more likely to work from home or have family members work from home. Women, Whites, middle-aged, highly educated, and Democrats continue to have higher rates of homeschooling their children.

In addition to these consistent patterns regarding personal and family lives, we also find the continuity of the impacts of the pandemic on community life. As with the first-wave survey results, women, Blacks and Hispanics, younger groups, those with less education, and Democrats tend to report lower levels of community efficacy. Results from fixed-effect ordered logit models additionally show that community efficacy has significantly increased individual mask-wearing behavior and reduced the risk of infection. The mechanism for this is through people's willingness to engage in informal community control.

Moreover, we find that intertwined with the transition of power from Trump to Biden, the pandemic since last October has largely influenced patterns of social and political trust. Compared to last October when Democrats and the more educated tended to blame the federal government (Trump administration at that time) and support local governments, Democrats and the more educated now tend to have higher trust in both the federal and local governments. Particularly, Democrats now have positive trust in both federal and local governments, while Republicans have negative trust in both.

We also find that patterns of national pride and policy preference has changed under current social and political contexts. One notable pattern is that even as the pandemic is worsening in the United States, people's average pride in being an American has not declined, but rather has increased. However, facing the current pandemic situation, more people (56%) are considering sacrificing personal privacy and freedom in exchange for pandemic prevention and control. Democrats are more likely to prioritize support for pandemic prevention and control policies, while Republicans are more likely to prioritize support for personal privacy and freedom.

Finally, patterns of political attitudes toward China have not changed much since last October. Men, Blacks and Hispanics, younger cohorts, the less educated, and Democrats continue to view China more positively. On average, Americans do not have strong opinions about stopping the trade war with China, but they strongly believe that the United States should continue to impose sanctions on Chinese technology companies. The survey's experimental design further shows that providing information about how China responds to COVID19 has only insignificant effects on perceptions of and attitudes toward China, but that messages about China's tightening control over Hong Kong's autonomy has significant negative effects on views of China and policy

attitude toward continued sanctions against China.

These findings suggest that while both continuity and change have been observed in the impact of the pandemic over the past six months, the most affected social groups continue to be women, Blacks and Hispanics, younger groups, less educated individuals and Democrats. As with findings from the first-wave survey, these patterns are largely consistent across various dimensions of personal and social life in the United States.

These findings also suggest that the strong association between political preference and the impact of the pandemic remains evident. Indeed, in both waves, we see that the impact of the pandemic has differed by political preference in various aspects. In this sense, through systematic empirical evidence, this report strongly confirms that deep sociopolitical divisions still exist in the United States, and that the pandemic has strengthened the divide.



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