

# **COVID-19 AND CLIMATE RESILIENCY IN NORTH FAIR OAKS AND REDWOOD CITY**

**Community-Engaged Research Report for  
Climate Ready North Fair Oaks and the  
Stanford Future Bay Initiative**

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# 1. INTRODUCTION

*This report will cover the work of our student team in conjunction with the community-engaged partners in our efforts to better serve North Fair Oaks and surrounding communities during the COVID-19 pandemic and recent climate hazards. Through the community-engaged learning component of the Sustainable Cities course, this student group aimed to serve both the Stanford Future Bay Initiative as well as Climate Ready North Fair Oaks in their sustainable community research and development efforts. Through qualitative analysis of interview studies, this project aims to better understand the disproportionate impacts of both COVID-19 and climate hazards on low-income and BIPOC communities, particularly the North Fair Oaks and Redwood City greater area. This report will outline our goals, our research, our findings, and our recommendations for county-level action and future research.*

## 1.1. Study outline and goals

In March of 2020, Stanford Future Bay Initiative (SFBI) and Climate Ready North Fair Oaks (CRNFO) developed an interview protocol in response to the immediate COVID-19 health crisis and ongoing climate hazards. Over the course of the summer, SFBI conducted 40 interviews in both English and Spanish across the Bay Area; including San Mateo County, Santa Clara County, and a few East Bay communities. The goal of these interviews was to better understand the particular feelings and

challenges that community members are facing amidst COVID-19 while also experiencing compounding environmental stressors.

Through partnership with SFBI and CRNFO, our team has qualitatively analyzed 13 interviews from residents of North Fair Oaks (NFO) and Redwood City (RWC). Without complete information on every participant's location (inability to attribute zip code to NFO or RWC), we analyzed interviews from both cities to capture as many perspectives as possible. Our goal was to better understand the pandemic and climate-related challenges that residents of NFO and RWC are experiencing, how they are dealing with such challenges, and what additional resources they need to overcome them. From this analysis, we offer information and suggestions that we hope are beneficial to the efforts of SFBI and CRNFO in increasing climate resilience.

## **1.2. INTERVIEW OVERVIEW**

Below is an overview of the topics asked about during the interview process conducted by SFBI. The full interview protocol has been provided to provide a resource and lens for viewing the responses outlined in the report (see appendix 1).

- 1. Residents location and information*
- 2. Life During COVID-19*
- 3. Information Sources*
- 4. Resources Available to Resident*
- 5. Environmental and Climate Factors*
- 6. Community Resiliency*

## **1.3. STUDY DEMOGRAPHICS**

While the overall SFBI study included 40 interviews from residents across the Bay Area, the work summarized in this report focuses on the 13 interviews conducted with residents of NFO and RWC. Of the 13 interviews used in our data analysis (see appendix 2-5):

- *RACE/ETHNICITY: 26.7% of respondents identified as white, while 73.3% of the respondents identified as Latinx.*
- *LANGUAGE: 53.3% of the interviews were conducted in English, while 46.2% were conducted in Spanish (Interviewees were given the choice of which language they chose to take the interview in).*
- *GENDER: 78.6% of the respondents were female, while only 21.4% of the respondents were male.*
- *AGE: 14.3% of respondents were under the age of 35, 28.6% were between the ages of 35-45, 28.6% were between the ages of 45-60, and 28.6% were 60 years or older. The average age of interviewees was about 49 years old.*
- *HOUSING STATUS: 46.2% were homeowners, 38.5% were renters, and 15.4% were other*
- *JOB STATUS: 35.7% were full-time workers, 14.3% were part-time workers, and 14.3% were unemployed, with 35.7% being retired.*
- *WORK SECTOR: 45.5% of respondents were essential workers, 27.3% of respondents were contractors, 18.2% worked remotely, and 9.1% worked in education.*
- *PRE-EXISTING HEALTH CONDITIONS: 38.5% of respondents had pre-existing health conditions that puts them at risk for serious infection from COVID-19.*
- *HOUSEHOLD NUMBER: 35.7% of households had children under 5 in the household, 21.4% had children under 18 in household, and 14.3% had adults over 65.*

The collection of all 40 interviews included people ages 18-65+ and people who identified as white, black, Latinx, Pacific Islander, and Asian.

## **1.4. SUMMARY OF PROJECT ACTIVITIES**

Our team of six students spent the duration of our 10-week quarter working with these interview transcripts with the purpose of identifying emergent themes mentioned by community members in their handling of pandemic and climate challenges. Our goal was to provide information and suggestions for SFBI and CRNFO that would be helpful in their efforts to build climate resilience in NFO and surrounding communities.

Our first task as a team was transcribing about 11 interviews from the entire pool of interviews conducted by SFBI. This helped to familiarize ourselves with the interview protocol, and get a sense of the range of experiences that participants across the Bay Area shared in the interviews. For the remainder of the course, we focused our efforts on the interviews specifically from NFO and RWC. For these 13 interviews, we began a coding process, in which we used NVivo software to group together quotes from community members that fell into certain themed categories (see section 2). From this information, we were able to analyze the prevalent struggles in the communities, common resources that were being turned to, and resources or information that community members felt were missing.

Following this initial analysis, we had a focus group discussion with three entities within CRNFO: the North Fair Oaks Community Council, El Concilio of San Mateo, and Acterra. In this meeting, we shared our initial observations with our partners and were able to learn about some of the community perspectives and experiences in NFO during recent months. With their feedback, we were able to refine our analysis, and suggest potential uses of our findings that consider the unique nature of the community interests and values (see section 4).



## 2. Emergent Themes

*In this section, we provide an overview of themes that emerged in our interview analysis from NFO and RWC. We focus our attention on themes that arose in reference to the COVID-19 pandemic, as well as those referencing the recent and ongoing climate hazards.*

### 2.1. COVID-19

#### 2.1.1. FINANCIAL, JOB, AND HOUSING SECURITY

The onset of the COVID-19 pandemic lockdowns has caused financial strife in the lives of many in NFO and RWC. Some interviewed residents experienced job loss or pay cuts, while others were already dealing with financial insecurity before the pandemic. Without a reliable source of sufficient income, these residents stressed about how they would pay for rent. There have been a number of examples in the interviews where people were unable to get financial help to pay rent for a variety of reasons.

The following female renter living in a household of three discusses her struggles during the pandemic:

**“It demands that there is help available, financially even to pay the rent. I know that there are organizations, but they wouldn't give it to me because I do have a little money in the bank, which is what I'm living with. So, I know that as long as I have that money in the bank, I don't qualify for help.”**

Here, there is an awareness of the organizations that provide community members with the financial resources to make ends meet. Yet qualifying for the aid is difficult. She is unable to get the money necessary to pay her rent in a critical time where money is also needed to access essential food and medical services, the latter being a factor that this respondent noted to be very important in her life.

A more severe case arose with a woman who has been in and out of part-time work. Since she is struggling financially, she relies on her friend to provide her with housing.

**"I told my friend, well, the truth was that I couldn't pay rent now, because they had canceled, well, all the work had stopped. And since she's my friend, she told me not to worry."**

However, as the months of the pandemic continued and she remained out of work, she experienced added pressure to pay her friend back for rent. Here, the same woman talks about the lack of help from the Union of Rental Assistance, who she reported never answered her calls:

**"I couldn't get the help ... there was a very long waiting list. Then, I would call later, or they would put me on hold and never call me back. And I called another one, other places that give help for rent and well. . . they answered the machine and told me to call later, that the line was very busy, so I called later. I called many times and already ... Well no, no, I never got the help for rent. . . I could never get the income support."**

For both respondents, the lack of available resources to help answer calls and provide monetary aid is clearly an added stressor when these renters must spend time searching for help while also looking for a job. When residents face the additional pressure to find work during the pandemic and protect themselves from COVID-19, their mental health can take a toll. The second woman quoted above mentioned that she started to suffer from depression when she was out of work and had no money to pay for food, rent or any other essential services.

There were many cases of similar financial related stressors throughout the interview analysis process, revealing that many residents saw their savings drying up and felt like no one was there to help them.

### 2.1.2. CHILDCARE AND FAMILY

Since the beginning of shelter-in-place, many families have experienced stressors from remote schooling and work. Interviews expressed feeling trapped in their homes with their families, sometimes without the resources they need to be able to ensure the success of their family members. Many respondents reported that the biggest stressor was the kids and their learning, with parents suddenly being responsible for bringing money into the house and ensuring that their children are keeping up with their academic and social development.

Some interviewees reported teaming up with other families to assist each other with childcare and errands without exposing themselves to unknown COVID-19 risks. A Latinx mother from North Fair Oaks shared that her family was struggling with childcare due to the limited family interactions with members that normally cared for the kids while she was at work. This resident said that “affordable childcare options” are their main concern right now, noting the complications of finances and childcare while trying to work from home.

Another mother in North Fair Oaks said:

**“I was stressed, I was concerned, I was scared. I felt lost. I didn't know how to do my job from home. I was scared for my kids. I was stressed that I had to teach them and that's not my job.”**

This quote shows the panicked state that families have been going through to try to handle the shifting family dynamics that are forcefully occurring because of the pandemic.

The following quote highlights the unique situation of a teacher and two of her autistic sons who usually have access to an Individualized Education Program (IEP). However, due to COVID-19 complications, they have been unable to access these learning services, increasing the stress of working from home for the parents, grandparents and children themselves.

**“In person learning, they get they're entitled to extra resources and extra services to accommodate them. And with the distance learning, they haven't even figured out how to uniformly educate children distantly, much less these kids that need these adjustments, modification or enhancement. So that's really hard to do - that they're not giving the services that they need at a time when they probably need it the most because they're feeling the stress, too.”**

Overall, the families interviewed are more limited in childcare options, isolating from family members which can be stressful and difficult, and working from home while being responsible for their child's learning.

### **2.1.3. INFORMATION**

Many people from the NFO and RWC sample emphasized the need for finding reliable information sources, especially when it comes to trusting advice on protecting yourself from COVID-19.

An essential worker who also suffers from asthma spoke about the kinds of information that would be most useful to them during these times:

**“More information about the virus or maybe more tips on how to best take care of yourself and your loved ones in this situation...especially with keeping up to date on like any new changes or any new measures that need to be taken.”**

As someone who must consciously take care of their health, it is important that information surrounding protective measures is better distributed to those in need. In addition to personal health conditions, many respondents also mentioned the need to protect their vulnerable family members from the virus. Where there is a lack of accurate, trustworthy and accessible information, the community is likely to be impacted harder by the threats coronavirus imposes.

Many interviewees have reported finding most of their information through social media and government websites, with most saying the information coming from the CDC has been the most trustworthy. News

on COVID-19 and environmental hazards from California officials has been received well by these communities, however, federal news has been confusing and many residents do not know if they can trust the information that the federal government is putting out.

Since NFO is primarily a Latinx community, the lack of information in Spanish and in multiple different kind of media has been challenging for equitable access to information. When asked whether information is available in Spanish, a Latinx woman from Redwood City noted that she found only one or two Spanish information sources compared to the many English sources. Furthermore, many interviewees feel that they have to actively search for breaking news events, instead of being automatically alerted when something occurs.

#### **2.1.4. RESOURCES FOR COVID-19**

Resources was one of the overarching themes of our study and one of the main talking points during the interviews that were conducted. We mostly learned of the resources that were beneficial or lacking for these members of the community since the pandemic hit, in addition to the risks presented by natural hazards, such as the recent California fires, that will be discussed later. Resources are intrinsically linked to mental health, financial security, childcare, family connections and information supply. When resources were lacking in one of the above domains, it usually added external stress to the resident in other aspects of their life.

There were five key themes that emerged from the interviews surrounding what resources people have been looking to during the pandemic. In general, these included:

- 1. financial services,*
- 2. food aid,*
- 3. childcare,*
- 4. church and religion,*
- 5. and mental wellbeing.*

The desperate need for multiple resources highlighted gaps in community services, but also proved the complexity of the situation that is heightened by coronavirus and environmental factors.

For example, a previously mentioned mother from North Fair Oaks who talks about the stress of homeschooling her children while working from home reveals how a lack of adequate homeschooling resources challenged her ability to work. Similarly, another Latinx woman from North Fair Oaks – who is out of work and experiencing financial pressures to pay for food and rent – has to rely on her friends to provide her with shelter:

**“A resource that would help me a lot. . . is monetary aid. . . rental aid.”**

Our analysis also showed two differing experiences surrounding food security in the Redwood City community. A Latinx mother mentioned that after her daughter lost her job when the pandemic hit, she still didn’t qualify for food aid.

**“My daughter tried to apply for food stamps, to get help. I found out that she was out of work and so she didn't qualify. . .she wasn't working, she didn't have money, nothing. And she didn't qualify.”**

However, many other members of the community have identified helpful food aid resources from a number of locations across North Fair Oaks and Redwood City:

- *A Church in Middlefield gives out a plate of food 6 days a week, with one resident saying: “And also they give you a gallon of orange juice or a gallon of milk and then they give you cereal and then that helps me to survive, you know, because I have no money to buy groceries”.*
- *Ecumenical Hunger in East Palo Alto gives out boxes of food.*
- *St. Anthony’s church & Samaritan in St. Matthew’s in RWC provide meals.*
- *The YMCA is “handing out free lunches for people who can't afford lunch”.*

- *A couple of interviewees mentioned going to schools in Redwood City to receive food aid.*

These contrasting experiences with food aid reveal disparities in access to and knowledge of food aid resources. It is important that the availability of meals is broadcast to all members of the community, such as the mother and daughter who were unable to qualify for food stamps. Although churches were mentioned as helpful resources for some interviewees, not everyone may be aware that the churches are offering food aid and pandemic-related resources. Spreading the word on these helpful resources in culturally appropriate ways is important for community members to get the help they need.

Nevertheless, we also saw examples of the interviewees staying resilient when facing a lack of resources during COVID-19. An interviewee mentioned mutual aid from a couple in Redwood City. In addition to food and canned goods, the couple gives out free masks, hand sanitizer, and toilet paper at a park in Redwood City on a weekly basis.

Community resiliency is also exemplified when individuals help family and friends out with grocery shopping. Furthermore, elderly we interviewed have been using food delivery services for “imperfect foods” or appropriate products to avoid the risks involved with visiting a grocery store themselves.

**“One of the things I started to do was just ask my neighbors if they needed any groceries, the ones at risk group just checking in with them, checking in. . . as well as with our parents, checking in with our parents. What could you bring to them instead of having them in stores, or teaching them how to use the Target app so they can place an order.”**

Overall, while some residents have found helpful resources for things like food and housing, many residents feel they are not getting adequate support during the pandemic. This may be due to a lack of awareness, inaccessibility, and limited capacity of such necessary resources. Still, residents continue to demonstrate community resilience through mutual aid.

### **2.1.5. MENTAL AND EMOTIONAL HEALTH**

The COVID-19 pandemic has greatly affected the mental health of the people interviewed in NFO and RWC. The main mental and emotional health issues that arose from interview analysis were the presence of depression, anxiety, loneliness/isolation, frustration, anger, and stress.

Many interviewees have found it difficult to cope with life under the pandemic, with some saying they have developed depression and anxiety in response to job losses, lockdowns, and the lack of human connection caused by COVID-19 restrictions. Concerned about their mental health developments, some residents considered seeing doctors while others turned to religious faith and the church to guide them through this time.

When discussing the stress from financial hardships, one Redwood City resident revealed the importance of their relationship with God throughout the pandemic in their interview:

**“It helped me a lot, the Church. . . to have faith in God, to believe in God.”**

The evidence of mental health stressors and the resiliency shown in these interviews points to a heavy importance of God and faith for this community during the pandemic and times of distress.

While many residents noted struggling with mental health during the pandemic, others noted that they are feeling hopeful, with one resident saying:

**“I'm hopeful, that's all I can be. Any other direction besides hopeful will stress me out. I have confidence that we're going to overcome this just as we've overcome this in the past with other types of illnesses. . . I think we are going to get out of this, I'm confident in that.”**



These residents, whether struggling with mental health or not, mostly cited hope as the leading emotion that was helping them through this hard time. Hope and resiliency are very present within this community and have shown themselves to be a true foundation for NFO and RWC during the pandemic.

## **2.2. ENVIRONMENT AND CLIMATE**

### **2.2.1. HEATWAVES AND FIRES**

When asked about recent environmental or climate hazards, interviewees often responded with accounts of their experiences with the 2020 heatwaves and wildfires that engulfed the state of California. These residents of NFO and RWC oftentimes did not live in places with air conditioning, making the heatwaves and smoke unbearable. They would have to rely on shutting windows and doors to prevent smoke inhalation while also lacking air circulation during a heatwave. This made for a compounding and miserable effect for many interviewees.

Other environmental factors that people spoke about were flood threats, as well as earthquakes. Some residents expressed a sense of hopelessness in the wake of safety from natural disasters, saying, “we can't really prevent natural disasters. They can happen at any time,” showing a community need for engagement around what they can do about climate change effects on their communities.

### **2.2.2. Resources for Climate Hazards**

Similar to experiences with Covid-19 resources, some interviewees expressed that they do not feel that there are adequate resources to support them when confronted with climate hazards. Interviewees seemed afraid of the threats posed by a combination of climate hazards and financial security amidst coronavirus. A lack of awareness of available resources heightened this worry.

For example, a young Latinx woman renting in a community of mobile homes and trailers was worried by the lack of resources and information provided to her neighborhood, if they were to be affected by a natural disaster such as fires.

**“A fire here would be fatal for Redwood City...so we need information on where to go.”**

Living in an area at high risk from fire, residents might benefit from the use of maps to provide escape routes to safer locations nearby.

However, some residents are even more terrified by the consequences a natural disaster would bring to their living situation, especially when experiencing added pressure to access financial support services:

**“I would not have the resources for that disaster. I would not have the resources because, well, with this pandemic. . . I do not have a job. . . I could not get what I needed for the disaster.”**

We observed that some respondents gathered a lot of their information about the heatwaves, air quality, and precautions they could take during these climate events from government websites and text alerts, and social media such as Twitter. However, we observed a need for more information to direct people to nearby shelters or other necessary resources during a climate hazard or disaster when it is necessary to evacuate. There is a lack of awareness surrounding where to go, or who to call to help. It is important that climate-focused disaster preparedness plans and resources are well-known throughout the community, especially for these environmentally vulnerable communities during a pandemic, and for those who may lack access to technology.

### **2.2.3. Relationship to the COVID-19 Pandemic**

Due to the nature of lockdown orders and closure of several stores, the fires and heatwaves were especially hard to manage. Most buildings of refuge during hot California days were closed, poor air quality made it difficult to function with masks on, and people generally felt stuck.

One interviewee, when reflecting on her state of helplessness during these events, said:

**"It's going to be hot in Redwood City . . . we can't go to the beach. We can't go to the city. Everything's closed. . . So we're just stuck here, miserable."**

The compounding stressors of staying inside and wearing masks to prevent both smoke inhalation and to protect oneself from the virus has also taken its toll on the mental health of community members.

An elderly woman speaks about her experience during the heatwaves and fires:

**"Well, for myself, I was really anxious, and I had a really hard time at the very beginning. I couldn't sleep. I just had major anxiety. I don't tend to have anxiety that often, but it just seemed like ... I don't know. It was very difficult at the beginning."**

Many other respondents expressed similar feelings of anxiety and concern surrounding what the right thing to do is in a situation where you must protect yourself but also protect those around you from the virus.

The heatwaves and fires relationship to COVID exacerbated a lot of the compounding stressors interviewees were already feeling. For example, those that are immunosuppressant or considered 'high risk' could no longer see anybody outside of their households. Before the environmental factors, they were able to socially distance outside, but because of the heat and dangerous AQI, people had to stay inside.

A woman who lives in a household with three others and knows someone affected by the virus expressed how she was cautious to visit her friends:

**"If we want to escape the heat, where are we going to go? We can't hang out with anybody... We can't go around normal public places because it's unsafe."**

**"A friend invited us for a backyard thing... I'm just not comfortable. The air quality is really bad. And on top of that... we're supposed to be wearing masks and all that. It's just not a good idea."**

Some interviewees expressed similar sentiments of having anxiety about going outside and feeling trapped inside. For interviewed parents dealing with the difficulties of childcare, this meant their kids were not just stuck at home but also stuck inside. Some of the interviews conveyed that this was extremely difficult for the mental health of everyone in the household and harmful to productivity in school and at work.

## 3. Community Perspectives: Focus Group Review

*In this section, we present the information provided in the focus group discussion with Climate Ready North Fair Oaks, as well as the considerations of the specifics of community dynamics that were offered to our team as we continued our analysis. We also outline questions that were raised during the focus group that pertain to things left unresolved after the completion of the interviews and interview analysis.*

### 3.1. CONSIDERATIONS FOR REDWOOD CITY AND NORTH FAIR OAKS COMMUNITIES

One of the first main milestones of this project was to conduct a focus group discussion with CRNFO and SFBI. This was our opportunity to take in the considerations from community perspectives, understand current initiatives being conducted for the community, and get feedback on the work we had done so far. The focus group provided great comments and recommendations for our work. They also raised questions and complications that we had not considered, and our team has been able to address and adjust for these factors in this report. It was also a great opportunity for us to continue to engage with the community and make sure the work we are doing for the course and for CRNFO will support ongoing efforts for the NFO community.

The inside perspective of the focus group helped us to better contextualize our interview analysis and helped shape the recommendations provided in this report. One of the biggest challenges highlighted in the interviews was the lack of known resources and

difficulty in finding information. Low-income members and people of color within NFO may have trouble accessing news and trusted information due to language barriers and a lack of technological access. The community partners illuminated that information is not always circulated well in this particular community, especially because some informative resources have not been curated for the particular communities of NFO.

The common theme of lack of information is seen in many different facets, one of them being the language barrier; information is not always circulated in multiple languages, especially Spanish. This made resources difficult for some interviewees to use; while they may have physical access to these resources, they may not have cultural or linguistic access. Many members of the community speak languages other than English – predominately Spanish – and don't always have access to information in their native language.

An example of cultural barriers to understanding information is presented in the concept of a 'household'. In a community widely composed of Latinx families, their concept of a household goes beyond the members who live together in a single space. Family connections that include the extended family are important to Latinx culture. Further to this, the existence of multi-generational households means that there may be more people living in one space than on average. When the term 'household' is used frequently in reference to COVID-19 and social distancing, the terms of county policy and their precautionary recommendations are interpreted in different ways depending on your culture or first language. Consequently, information spread around what qualifies as interacting with your household may get confusing and may not fully be understood. Learning, adjusting, and delivering information in culturally appropriate ways will be a large component in serving this community better.

Another important component we learned from our partners were some ways existing infrastructure can help propagate information and resources in North Fair Oaks. The focus group shared that churches play a large role in information circulation. They are trusted by the neighborhood and are extremely important places in the community.

This was really helpful for our team to learn. Before the focus group, we were focused on social media and county outreach as potential solutions to the distribution of information. Now, we understand that we cannot solely rely on those entities and must also focus on organizations that are important to this community in particular. This is noteworthy and powerful because many community members do not always have stable internet connection or have access to technology. These members would benefit most from changes of information flow. Understanding the role of churches and incorporating them in our recommendations is a valuable perspective we learned from our focus group participants.

Lastly, another challenge brought forward by our community partners was the consideration of COVID-19 impacts on this particular neighborhood. Outside of direct impacts of the virus on physical health, there have been many other changes to life in this community. Many people in the area rely on shelters and community help for everyday life. Those organizations have been shut down because of COVID-19, and those that rely on them have not known where to go for help. Understanding where else people can get those necessary services is an important goal to consider for our project.

## 4. Community and County Efforts

*In this section, we provide an overview of community and county efforts to solving the issues of risks associated with climate change as well as the ongoing COVID-19 pandemic. We provide suggestions for how our research can be used to help further these efforts, as well as steps to be considered by the county in their development of programs to assist these communities.*

### 4.1. UNIQUE SITUATIONS THESE INTERVIEWS HIGHLIGHT

The perspectives shared from North Fair Oaks and the larger group of interviews from around the Bay Area are extremely valuable because they illuminate situations that are common both statewide and nationwide. While our research goals aspire to serve North Fair Oaks better, the work we do here can hopefully be learned from and applied to similar communities.

Low-income communities, especially those made up of Latinx members, have been disproportionately affected by the COVID-19 pandemic. These same communities are also at higher risks for adverse impacts of natural hazards, like the recent wildfires in California (Wu et al., 2020). These specific communities, especially lower income neighborhoods, are indeed facing an excessive burden of the current pandemic and environmental challenges. The interviews have highlighted many of these situations and themes in their stories. We saw that many of the interviewees hold essential jobs and are therefore at a greater risk for the virus, as well as putting those around them at higher risk. We observed that these residents are not getting the information they need directly and in an accessible way. We also heard stories of many challenges with remote school and work; large families and multi-



generational households in small homes face challenges surrounding productivity and adequate space for learning environments. Many households do not have enough devices or connectivity to properly do remote learning and work.

Many of these interviews conveyed feelings of sadness and stress. There are many compounding challenges of the pandemic, and many of the households interviewed are facing disproportionate burdens.

## **4.2. WAYS TO EDUCATE AND DELIVER INFORMATION**

From our research and work this quarter, one way we suggest helping these families and communities at large is finding best practices for education and information distribution. Educating people to maximize their use of technology could enable improved information distribution. However, messengers must work to create information that is accessible to all communities within NFO and RWC. Improving community understanding of the threats and impacts of natural hazards, coupled with the resources available to them, is only possible through effective communication and could aid in the development of climate resiliency.

From our interview, one common suggestion from participants was to centralize data and distribution. Information has been very difficult to find for these participants. In the short term, we recommend providing transparent information updates on COVID-19 and climate hazards as well as pathways to resources in both English and Spanish. This will hopefully be easier for people to understand and interact with. One method could be using the churches in the community. This could look like offering educational services, weekly newsletters, and/or handing out pamphlets to community members. Creating infographics as posters that can be distributed within churches and around other community service buildings could also combat the complications faced when circulating pamphlets during the pandemic.

Long term, we would recommend creating an education plan to help keep the community informed of impending public health hazards and climate-related crises, and how they can access the necessary information and resources with ease in the future. This could be in the form of technology exposure classes at the churches and local libraries, where people can bring in or borrow devices and follow guidelines for finding trusted sources online. Our main goal is to help educate community members and create a sustainable method for community education.

## **4.3. THE SIGNIFICANCE AND USE OF FINDINGS**

Our research has posed very significant findings that will be useful in the future development of county and community policies and resources. The interviews allowed us to understand the oral accounts and histories of those that are vulnerable, and those findings can help the county in their large-scale and long-term response towards helping these communities in the future. We hope the community can use this information to do the following:

- *Further develop a centralized platform for communication to citizens about county orders, evacuation information, and COVID-19 news, in both English and Spanish.*
- *Publicize information about resources available to the community and how to access these resources. Resources that community members noted needing access to relate to financial assistance, climate disaster preparedness, and childcare.*
- *Educate the community on steps they can take to protect themselves from COVID-19, wildfires, floods, earthquakes, and any other potential environmental and health risks to the community. Education should be accessible to people of all language and cultural backgrounds and should be provided in multiple formats to assist people with different technological*

*literacy backgrounds, disabilities, and other factors that may inhibit access to important knowledge.*

- *Create a clear, neighborhood specific evacuation plan in the event of floods, fires, earthquakes, and other events. This plan should also include recommendations on preparedness information and emergency kits for residents in the event of an evacuation.*

Future prioritization of these previously disenfranchised groups will be important in overcoming the barriers to equitable access to information and resource access in these communities. The NFO and RWC interviewees have provided specific areas of improvement that they would like to see in their communities, which we believe will be useful for the county in the future development of resources and policies for these communities.

## **4.4. INFORMATION STILL NEEDED**

While our research has informed us of the stressors impacting particular communities at the individual scale, more research can be done across the county to better inform policymakers. Different communities will have varying needs, and it will be important to understand all of those needs before advocating for policy. For example, certain communities are at a greater risk to wildfires than others, some neighborhoods speak languages other than English and Spanish, and some communities may have different community hubs than the ones North Fair Oaks has. It's important to take what we've learned during our work on this project and compare it to other communities. While there are surely common needs that can be addressed in one uniform policy, there are others that will need to be more specifically curated for each community within the county.

In addition to this, our data from NFO and RWC was limited in that we had a relatively small number of interviews. This made it more difficult to do a full analysis of the overall needs and feelings of the community. While our findings were very telling, much more can be said for the needs that will emerge from a greater sample size. As SFBI completes

the analysis of the entire pool of interviews, we suggest closely observing the resources and information that interviewee's wish they had. We also suggest closely analyzing any disparities in experiences with such resources and information.

One of the questions posed at the beginning of the quarter was a possible revision of the interview protocol. Our team believes the interviews were well conducted and painted holistic stories of the individuals' lives. One thing we suggest including in the study or future studies is a survey. As the project progresses and enough individual stories have been collected, distribution of a survey could be a useful method to further locate gaps in community services and take suggestions for what would be most helpful to people.

## 5. Conclusion

While much more work needs to be done in gathering more perspective from community members and developing disaster response programs, this research conducted by SFBI and our project team provides a pathway into discovering what might be missing in these communities and some potential ways that resource and information gaps can be filled.

The iterative process of transcript analysis and research conducted by our team allowed for the discovery of common themes being brought up by community members with considerations from different perspectives and a more complete understanding of the community dynamics in RWC and NFO.

We suggest that further research should be done to capture more voices in these communities to ensure that some important themes were not missed, but the data that has been collected thus far provides powerful stories of resilience, emergent themes needing to be addressed in the future, and what kinds of things would be the most helpful to address.

# Appendix

## 1. INTERVIEW PROTOCOL

The content below was created by the Stanford Future Bay Initiative, 2020.

<b>Introduction/Consent (~2min)</b>	<i>Purpose of this section is to act as an <u>oral IRB consent form</u> and begin to establish some <u>rapport</u> with the interview participant.</i>
<p>Thank you very much for taking time to speak with me! Before we get started, I'd like to give you more context about this study.</p> <p><i>Muchas gracias por tomarse el tiempo para hablar conmigo. Antes de empezar, me gustaría darle un poco de contexto sobre este estudio/experimento.</i></p> <p>I am a [student] that would like to understand how life has changed for you and your community since the coronavirus outbreak. Some topics my team and I are curious about are any challenges you have been facing, what has been helpful to address these challenges, and what your thoughts may be about the future. The interview is one hour long, so I look forward to getting at least a glimpse of how you have been doing these past months. At the end of the interview, I have a gift for you to thank you for your time. While we can't promise this, we hope that by learning from experiences like yours our study's results can help improve helpful resources in the community.</p> <p><i>Soy un [estudiante] y me gustaría entender cómo ha cambiado la vida para usted y su comunidad desde que inició el brote de coronavirus. Algunos temas que son de interés para nuestro equipo son los desafíos que usted ha enfrentado, qué ha sido útil para abordar estos desafíos, y cuáles son sus pensamientos sobre el futuro. La entrevista dura una hora, así que espero tener al menos una idea de cómo ha estado estos últimos meses. Al final de la entrevista se le otorgará un regalo para agradecerle por su tiempo. También, aunque no lo podemos prometer, esperamos que al aprender sobre experiencias como las suyas, los resultados de nuestro estudio puedan ayudar a mejorar recursos útiles en la comunidad.</i></p> <p>That said I understand that the past months have been extremely difficult for many people, so if any question I ask in this interview makes you uncomfortable, please know that you <i>do not</i> have to answer. We can also stop the interview at any point in time.</p> <p><i>Habiendo dicho esto, entiendo que los últimos meses han sido muy difíciles para muchas personas, por lo que si alguna pregunta que hago en</i></p>	

<p><i>esta entrevista le hace sentir incomód@, sepa que no tiene que responder. También podemos detener la entrevista en cualquier momento.</i></p> <p>Finally, everything you say in this interview will be confidential and kept anonymous. No one outside of my team will be able to link your name to what you share with me today. If it is okay, I would like to record the interview, but this is only for the purposes of transcription. The audio and video recording will be deleted.</p> <p><i>Finalmente, todo lo que diga en esta entrevista será confidencial y se mantendrá en el anonimato. Nadie fuera de mi equipo podrá vincular su nombre a lo que comparta conmigo hoy. Si está bien, me gustaría grabar la entrevista, pero esto es solo para ayudar con la transcripción. La grabación de audio y video se eliminará posteriormente.</i></p> <p>Before we go ahead with the interview, do you consent to being recorded, and to being a part of this study?</p> <p><i>Antes de continuar con la entrevista, ¿usted consiente a que se le grabe y a ser parte de este estudio?</i></p> <p>If yes: <b>--START RECORDING (to cloud)--</b></p>	
<p><b>Life Before COVID-19 (~5-9 min)</b></p>	<p><i>Purpose is to gauge kinds of questions to focus on for the rest of the interview, as well as <u>continue to establish rapport</u>.</i></p>
<p>Great. Before talking about coronavirus, I'd like to learn about what your life was like for you before the pandemic. To start:</p> <p><i>Excelente. Antes de hablar sobre el coronavirus, me gustaría aprender un poco sobre cómo era su vida antes de que iniciara la pandemia.</i></p> <ol style="list-style-type: none"> <li>1. <b>[If you don't know]:</b> What city do you live in? <i>¿En qué ciudad vive usted?</i></li> <li>2. Tell me how living in <b>[city of residence]</b> was like before the coronavirus? <i>Dígame cómo era vivir en [ciudad de residencia] antes del coronavirus.</i></li> <li>3. How long have you lived in <b>[city of residence]</b>? <i>¿Cuánto tiempo lleva viviendo aquí en [ciudad de residencia]?</i></li> </ol>	<p><i>Notice what themes come up often for the interviewee. Based upon what they mention, later on in the interview we can ask specific follow-up questions for "Business/Economic", "Parents with Children", and/or "Elderly" . We'll focus on 1-2 of these themes at most.</i></p>

<p>4. Have you always lived in [city of residence]?  <i>¿Siempre ha vivido aquí en [ciudad de residencia]?</i>  <i>If not:</i>  a. Where did you live before moving to [city of residence], and why did you decide to move?  <i>¿Dónde vivía antes de mudarse aquí y porque se mudó?</i></p> <p>5. What are some reasons that you have stayed in [city of residence] ever since?  <i>¿Cuáles son algunas de las razones por las que se quedó en [ciudad de residencia]?</i></p> <p>6. *Tell me what a typical week would look like for you before shelter-in-place.  *<i>Dígame cómo era una semana típica antes de que tuviera que quedarse en casa.</i></p> <p><i>Probes:</i>  <b>Business/Economic:</b>  Have you worked in [city of residence] within the past year?  <i>¿En el último año, ha trabajado en [ciudad de residencia]?</i>    <i>If yes/not explicitly mentioned:</i>  What was a typical work day like for you, before shelter-in-place? For example, how long did you work each day, and what were your responsibilities?  <i>¿Cómo era un día de trabajo típico antes de quedarse en casa? Por ejemplo, ¿por cuánto tiempo trabajaba al día y cuáles eran sus responsabilidades?</i></p> <p><b>Elderly/Parents with children:</b>  Do you have family in the area?  <i>¿Ud. tiene familia en esta área?</i>  Do you live with anyone?  <i>¿Vive con alguien?</i>    <i>If yes/not explicitly mentioned:</i>  Who do you live with?  <i>¿Con quién vive?</i>  Do you have any children? If so, how old are they?  <i>¿Tiene hijos? Si es así, ¿cuántos años tienen?</i></p>	<p>Ask these probes if someone <u>didn't explicitly answer them</u> in the questions above.</p> <p>Use <b>Parents with children</b> if children/grandchildren are under 18 and live with participant</p>
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## COVID-19 (~25-30 min)

Thank you for sharing that.  
*Gracias por compartir eso.*

1. \*Thinking back to when shelter-in-place first began to now, how has your daily routine changed?

\**Si comparáramos cuando comenzó a quedarse en casa con hoy en día, ¿cómo ha cambiado su rutina diaria?*

*Probes:*

**Business/Economic:**

*Are you currently working?/Do you have a job?*  
*¿Está trabajando ahora/Tiene trabajo?*

*How has your business/job changed since shelter-in-place?*

*¿Cómo ha cambiado su negocio/trabajo desde que empezó quedarse en casa?*

*Has the pandemic affected your financial situation at all?*

*¿Ha afectado la pandemia a su situación económica?*

**Elderly/Children:**

*How has your family been doing?*  
*¿Cómo está su familia?*

*Have they been experiencing any changes as well?*

*¿Ellos también han experimentado algunos cambios en la vida?*

- a. \*What has been some of the most challenging changes for you since shelter-in-place?

\**¿Cuáles han sido algunos de los cambios más desafiantes para usted desde el quedarse en casa?*

### Information

\*Thank you for letting me know about this, these must be challenging to deal with. We can talk about this more a little later in the interview, if you're comfortable.

**Second Grand Tour.** The interviewee is likely to say lots of different things. The purpose is to help warm up their thinking, and for us to get a sense of what is top-of-mind. We'll ask specific questions later in the protocol.

Final chance to solidify themes to focus on!

\**Gracias por hablar conmigo sobre esto, me imagino que los cambios pueden ser difíciles. Podríamos regresar a estos temas más tarde en la entrevista si se siente cómodo@.*

\*Next I'd like to ask about the information you've heard about or looked for recently about the coronavirus.

\**A continuación, me gustaría preguntar sobre información que usted haya escuchado o buscado recientemente sobre el coronavirus.*

1. \*What sources of information have you trusted the most, and why?

\**¿En qué fuentes de información ha confiado más y por qué?*

2. Do you find this information useful to you? Why or why not?

*¿Le parece útil esta información? ¿Por qué sí o por qué no?*

3. How often do you typically search for new information on coronavirus, and why?

*¿Con qué frecuencia suele buscar nueva información sobre el coronavirus y por qué?*

*If applicable:* \*Are you able to find information in Spanish?

\**¿Puede encontrar información en español?*

4. \*Have you come across any conflicting or confusing information about how to protect yourself from coronavirus? If so, what?

\**¿Se ha encontrado con alguna información contradictoria o confusa sobre cómo protegerse del coronavirus? Si es así, ¿cuál?*

### **Resources**

Thanks for letting me know this. Next I'd like to learn about the resources available to you in your community. In particular:

*Gracias por hacerme saber esto. A continuación me gustaría aprender acerca de los recursos disponibles para usted en su comunidad. En particular:*

1. \***Business/Economic:** Can you tell me about any grants, loans, or other business and employment support that's available to you?

\**¿Puede contarme sobre algún subsidio, préstamo u otro tipo de ayuda empresarial y laboral que tenga a su disposición?*

\***Children:** Can you tell me about any resources or programs in the community dedicated to helping youth --either during the school year or during the summer?

*Write down the ones they list to refer back to them later*

*Ask ONE or TWO of these tailored questions.*

*Write down the resources that they*

\*¿Puede contarme sobre algún recurso o programa en la comunidad dedicado a ayudar a los jóvenes, ya sea durante el año escolar o durante el verano?

mention.

\***Elderly:** Can you tell me about any resources or programs in the community dedicated to helping seniors?

\*¿Puede contarme sobre algún recurso o programa en la comunidad dedicado a ayudar a personas de la tercera edad?

If no to everything, skip to next question

If mentioned any resources:

\*So overall you have mentioned *[read back list of resources]*. Have you ever used or applied for any of these resources?

\**Resumiendo, usted ha mencionado [recursos]. alguna vez ha utilizado o solicitado estos recursos?*

If yes:

What was the process like to apply for and receive these resources? How easy was it?

*¿Cómo fue el proceso para solicitar y recibir estos recursos? ¿Qué tan fácil fue?*

\*Were these resources helpful? Why, or why not?

*¿Fueron útiles estos recursos? ¿Por qué sí o por qué no?*

Do you anticipate using them again in the future?

Why, or why not?

*¿Anticipa usarlos otra vez en el futuro? ¿Por qué sí o por qué no?*

If no (if never used resources, or the ones they didn't apply for):

What are some reasons why you haven't applied for these resources?

*¿Cuáles son algunas razones por las que no ha solicitado estos recursos?*

\*And can you tell me if there are any barriers for you to apply for these resources? For example, does the application process seem hard to navigate, or do you have any eligibility concerns?

*¿Y me puede decir si hay barreras para usted para solicitar estos recursos? Por ejemplo, ¿parece difícil*

*navegar el proceso de solicitud o tiene alguna preocupación sobre la elegibilidad?*

2. **\*In general, over the past few months, has there been any information or resources that would have been helpful to you? If so, what?**

*\*¿En general, en los últimos meses, ¿hay alguna información o recursos que le hubieran sido útiles? Si es así, ¿cuál?*

3. **Is there any information or resources that would be helpful to you right now? If so, what would this be and how would you use it?**

*¿Hay alguna información o recursos que le sean útiles en este momento? Si es así, ¿qué sería esto y cómo lo usaría?*

**\*\*Social circle and support**

**\*Now I'd like to learn more about your community and people you have been talking to recently.**

*\*Ahora me gustaría saber más sobre su comunidad y las personas con las que ha estado hablando recientemente.*

1. **During the past month, who have you been talking to the most, whether it's in person or on the phone?**

*¿Durante el mes pasado, quienes son las personas con las que más ha hablado, ya sea en persona o por teléfono?*

2. **What do you usually talk about with each other?**

*¿De qué suelen hablar entre ustedes?*

3. *(skip to prompts if they already mentioned COVID-19)* **Do you talk about coronavirus or shelter-in-place at all?**

*¿Hablan del coronavirus o de quedarse en casa?*

*If yes:*

**What information have you shared with each other about coronavirus or shelter-in-place?**

*¿Qué información han compartido entre sí sobre el coronavirus o quedarse en casa?*

4. **\*How have your friends and family been feeling about the pandemic?**

*\*¿Cómo se han sentido sus amigos y su familia sobre la pandemia? ¿Qué han pensado sus amigos y su familia de la pandemia?*

**Children:**

How have you been talking to your child/children about coronavirus?

*¿Cómo ha estado hablando con su(s) hijo(s) sobre el coronavirus?*

5. \*Tell me about any differences in views or opinions about the coronavirus you have had with people you know.

*\*Cuénteme sobre cualquier diferencia en los puntos de vista u opiniones sobre el coronavirus que ha tenido con personas que conoce.*

*If they describe differences:*

How did it make you feel?

*¿Cómo le hizo sentir?*

Did you ever overcome this difference? How did you/are you dealing with it?

*¿Superó esta diferencia? ¿Cómo lidió/está lidiando con eso?*

6. \*During shelter-in-place have you ever received help from someone? If so, how did they help you?

*\*¿Durante el periodo de quedarse en casa, alguna vez ha recibido ayuda de alguien? Si es así, ¿cómo le ayudó?*

7. \*And have you ever helped anyone else out, during shelter-in-place? If so, how did you help someone?

*\*¿Y alguna vez usted ha ayudado a alguien durante el periodo de quedarse en casa? ¿Si es así, cómo ayudó?*

**Perceptions of protective actions**

Thanks for that. Next I'd like to learn about any ways you may have been protecting yourself and family from the coronavirus. For example, some steps that some people are doing are wearing masks, washing hands, and social distancing.

*Gracias por eso. A continuación me gustaría saber todas las maneras en las que ha estado protegiéndose a sí mismo y a su familia del coronavirus. Por ejemplo, unas medidas que algunas personas están haciendo son llevar mascarillas, lavarse las manos, y mantener la distancia social.*

1. \*What are ways you have been protecting yourself and your family from the coronavirus?

*\*¿Cuáles son las maneras en que ha estado protegiéndose a sí mismo y a su familia del coronavirus?*

*If they list any protective actions:*

How/Why did you decide to do these things?

*¿Cómo/Por qué decidió hacer estas cosas?*

*If they list zero protective actions:*

Can you tell me a bit more about this?

*¿Me puede hablar más de eso?*

**\*Business/Economic:** Has your work made any changes to protect customers and employees? If so, what are these changes?

*\*¿Su trabajo ha hecho algún cambio para proteger a los clientes y empleados? Si es así, ¿cuáles fueron estos cambios?*

**\*Children:** Has your child's/children's school made any changes in light of coronavirus? If so, what are these changes?

*\*¿La escuela de su(s) hijo(s) ha implementado algún cambio debido al coronavirus? Si es así, ¿cuáles son estos cambios?*

2. *If they listed protective actions:*

So you have mentioned [x, x, x,] actions -How have these actions impacted your every-day life?

*Entonces ha mencionado [estas] acciones. ¿Cómo han afectado su vida diaria estas acciones?*

**\*How safe do you feel when you take these actions?**

*\*¿Qué tan segur@ se siente cuando hace estas acciones?*

*If not mentioned any actions:*

**\*How safe do you feel whenever you leave your home, say to get groceries or other errands?**

*\*¿Qué tan segur@ se siente cuando sale de su casa, por ejemplo para comprar provisiones o hacer mandados?*

3. **\*Do you see people in your community taking protective actions, like wearing masks or social distancing?**

*\*¿Ve que las personas en su comunidad están tomando medidas protectivas, como llevar mascarillas o practicando el distanciamiento social?*

*If yes:*

What was your initial reaction when you saw others doing these sorts of things? Has your thoughts changed at all throughout shelter-in-place?

*¿Cuál fue su reacción inicial cuando vio a otras personas haciendo este tipo de cosas? ¿Han cambiado sus pensamientos a lo largo del periodo de quedarse en casa?*

*If no:*

Why do you think people aren't wearing masks or social distancing?

*Write down the ones they list to refer back to them later*

*¿Por qué cree que las personas no están usando mascarillas o practicando el distanciamiento social?*

Do you think more people should take these actions? Why or why not?

*¿Piensa que más personas deberían realizar estas acciones?*

*¿Por qué sí o por qué no?*

### **Perceptions of shelter-in-place**

Now I would like to hear your thoughts on shelter-in-place, specifically.

*Ahora me gustaría oír sus pensamientos sobre quedarse en casa, específicamente.*

1. How did you feel when shelter-in-place first happened in March?

*¿Cómo se sintió cuando tuvo que quedarse en casa por primera vez en marzo?*

2. **\*\*** And as you may have heard, there have been some re-openings slowly happening throughout California since March. How do you feel about the re-openings?

**\*\*** *Y como puede que haya oído, lentamente lugares están volviendo a abrir en California desde marzo. ¿Cómo se siente sobre las reaperturas?*

### **\*\* Mental and Physical Health**

Thanks for that. I would also like to ask about how you have been doing as a person, during these past few months. As a reminder, you are able to skip any questions that make you feel uncomfortable.

*Gracias por eso. También me gustaría preguntarle por cómo le ha ido durante los meses pasados. Le recuerdo que puede omitir cualquier pregunta que le haga sentir incómod@.*

1. **\*\*** In general, can you tell me about any changes in health you've experienced since March of this year?

**\*\*** *En general, ¿Puede contarme sobre cualquier cambio en la salud que haya experimentado desde marzo de este año?*

2. Have you ever suspected that you may have the virus?

*¿Alguna vez ha pensado que puede tener el virus?*

*If no: skip to next question.*

*If yes:*

Were you able to get a coronavirus test?

*¿Pudo hacerse una prueba de coronavirus?*

*If yes:* What was the testing process like? How easy was it to find information about testing?

*¿Cómo fue? ¿Qué tan fácil fue encontrar información sobre la prueba?*

*If no:* Did you ever want to, but couldn't? I would love to hear more about this.

*¿Alguna vez quiso conseguir uno, pero no pudo?*

*Agradecería escuchar más.*

What was this experience like for you?

*¿Cómo fue esta experiencia para usted?*

3. **\*\*Has anyone you know experienced any changes in health since March? If so, can you tell me a bit more about this?**

**\*\****¿Conoce a alguien que haya experimentado algún cambio en la salud desde marzo? Si es así, ¿podría contarme un poco más sobre eso?*

4. Has someone you know ever suspected that they had the virus?

*¿Conoce a alguien que pensó que podría tener el virus?*

*If no, skip to next question.*

*If yes:*

Were they able to get a coronavirus test?

*¿Pudo hacerse una prueba de coronavirus?*

*If yes:* What was the testing process like for them?

*¿Cómo fue el proceso?*

*If no:* Did they want to take the test, but couldn't?

*¿Quería hacerse la prueba de coronavirus, pero no pudo?*

5. **Thinking back to March, how did you feel, emotionally, when you first heard that coronavirus reached California? Have your feelings changed at all?**

*¿Cómo se sintió emocionalmente en marzo cuando oyó por primera vez que el coronavirus llegó a California? ¿Han cambiado sus emociones?*

6. **\*\*What are some ways you and your family have been coping with these emotions throughout shelter-in-place?**

**\*\****¿Cuáles son algunas de las formas en que usted y su familia han estado lidiando con estas emociones durante quedarse en casa?*



**\*\*Climate-Related Impacts / Compounding Hazards (~12 min)**

**\*\*** Thank you so much for giving me a glimpse of what life has been like for you since coronavirus and shelter-in-place. Now I'd like to switch gears and talk about your views and prior experiences with environment-related topics -like natural hazards or disasters. Examples of natural hazards can be heat waves, wildfire smoke, earthquakes, or nuisance flooding.

**\*\*** *Muchas gracias por permitirme vislumbrar cómo ha sido la vida para usted desde el coronavirus y quedarse en casa. Ahora me gustaría cambiar de tema y hablar de sus perspectivas y experiencias anteriores con los temas ambientales -como desastres naturales. Ejemplos de desastres naturales pueden ser ondas de calor, humo de incendios forestales, terremotos, o inundaciones.*

**Prior Experience**

1. To your knowledge, what sorts of natural hazards has [city of residence] typically faced over the last five years?  
*Hasta donde usted sabe, ¿qué tipo de peligros naturales ha enfrentado [la ciudad de residencia] típicamente en los últimos cinco años?*
2. **\*\*** Prior to this summer, have you ever experienced a natural hazard or disaster while living in [city of residence]? If so, can you tell me about one memorable experience?

**\*\*** *Antes de este verano ¿usted ha experimentado alguna vez un desastre natural mientras vivía en [ciudad de residencia]? Si es así, ¿puede contarme sobre una experiencia memorable?*

*If no/can't think of any:*

**\*** At any point of your life, have you ever experienced any natural hazards or disasters? If so, can you tell me about your most recent experience?

**\*\*** *¿Alguna vez en su vida ha experimentado algún peligro natural o desastre? Si es así, ¿puede contarme sobre su experiencia más reciente?*

3. Were you able to prepare in any way for [climate threat]? Did anyone you know prepare for it?

*¿Pudo prepararse de alguna manera para [amenaza de clima]?*

If these are hard questions, ask about **heat waves**

*¿Alguien que conozca se preparó para el evento?*

4. **\*\*** And how were you able to cope throughout that time?

**\*\*** *¿Y cómo fue capaz de sobrellevarlo durante todo ese tiempo?*

### **COVID-19 and Climate-Impacts**

**\*\*** Thank you for sharing this experience with me. And as we think about the present, this summer alone, we have experienced a few natural hazards in California: including heat waves and wildfire smoke. So for my next question I would like to ask:

**\*\*** *Gracias por compartir esta experiencia conmigo. Y mientras pensamos en el presente, solo este verano, hemos experimentado algunos peligros naturales en California: incluyendo olas de calor y humo de incendios forestales. Así que para mi siguiente pregunta me gustaría preguntar:*

1. **\*\*** If [climate threat] were to happen again now, or if you are currently affected by the wildfire smoke, how does the coronavirus outbreak affect your ability to respond to this natural hazard?

**\*\*** *Si [amenaza climática] volviera a ocurrir ahora, o si actualmente se ve afectado por los incendios forestales, ¿cómo afecta el brote de coronavirus a su capacidad de responder a este peligro natural?*

2. **\*\*** For you, what are the most important things to consider while responding to wildfires during the pandemic, and why? Is the coronavirus a consideration at all?

**\*\*** *Para usted, ¿cuáles son las cosas más importantes para considerar al responder a un incendio forestal durante la pandemia y por qué? ¿El coronavirus es una consideración?*

3. **\*\*** What would be helpful information or resources to help you make these decisions?

**\*\*** *¿Qué información o recursos serían útiles para ayudarle a tomar estas decisiones?*

### **Future plans**

1. In general, how are you feeling about the future?

*¿Por lo general, cómo se siente sobre el futuro/qué piensa del futuro?*

<p>2. <b>**</b> If there's anything you wish you knew before shelter-in-place happened, what would it be?  <b>**</b> <i>¿Si hay algo que desearía haber sabido antes del comienzo de quedarse en casa, que sería?</i></p> <p>3. <b>**</b> And on the other hand, what are things you are glad that you did over the past months?  <b>**</b> <i>Por otro lado, ¿cuáles son las cosas que se alegra de haber hecho en los últimos meses?</i></p>	
<p><b>Closing/Demographics (~10 min)</b></p>	
<p><b><u>Reflection</u></b>  Thanks again for your time. Before we end this call, I wanted to acknowledge that these topics are very personal and have been devastating to many, and I wanted to set aside some time to reflect.  <i>Gracias otra vez por su tiempo. Antes de finalizar esta llamada, quería reconocer que estos temas son muy personales y han sido devastadores para muchos, y quería reservar algo de tiempo para reflexionar.</i></p> <p>1. <b>*</b> How have you been feeling during this interview?  <b>*</b> <i>¿Cómo se ha estado sintiendo durante esta entrevista?</i></p> <p>2. Were there things I didn't ask that you wanted to talk about?  <i>¿Hay algo que no le pregunté pero de lo que usted querría hablar?</i></p> <p><b>**** <u>Demographics</u></b>  Thank you. The last few questions are about demographics. We will use this information to make your interview anonymous, and as a reminder, everything is confidential.  <i>Gracias. Las últimas preguntas tratan sobre información demográfica. Usaremos esta información para desidentificar su entrevista, y como recordatorio, todo es confidencial.</i></p> <p>1. What year were you born?  <i>¿En qué año nació?</i></p> <p>2. What is your gender?  <i>¿Cuál es su género?</i></p> <p>3. What is your ethnicity?  <i>¿Cuál es su etnicidad/etnia/nacionalidad? [Si es necesario:] Como Latin@, blanc@....</i></p>	<p><b><u>RECORD ON CODED DEMOGRAPHICS SPREADSHEET</u></b></p>

4. Which best describes your housing status: homeowner, renter, or something else?

*¿Qué término describe mejor su estado de vivienda: Es dueño, renta, u otro?*

5. How many people do you live with?

*¿Con cuántas personas vive?*

6. How many are under the age of 18?

*¿Cuántas tienen menos de 18 años?*

7. How many are under the age of 5?

*¿Cuántas tienen menos de 5 años?*

8. How many are over the age of 65?

*¿Cuántas tienen más de 65 años?*

9. What is your employment status?

*¿Cuál es su estado de empleo?*

10. What is (What was) your occupation?

*¿Cuál es/era su ocupación?*

11. Do you have any medically diagnosed health issues?

*¿Ha sido diagnosticad@ con algún problema de salud/condición médica?*

12. Specifically, do you have any respiratory illnesses?

*Específicamente, ¿tiene alguna enfermedad respiratoria?*

13. Have you ever been diagnosed with COVID-19?

*¿Una vez le han diagnosticado con COVID-19?*

14. Do you know anyone who was or is diagnosed with COVID-19?

*¿Conoce a alguien que esté o haya estado diagnosticado con COVID-19?*

For these COVID-19 questions, if they already mentioned this at length, it is okay to just confirm (rather than ask them again)

**--- [STOP RECORDING] ---**

**\*\*\*\*Closing/Thank you**

And that's it. Thanks so much for speaking with me today. I would like to give you a gift! You can have a \$50 Amazon gift card emailed to you, or a \$50 VISA gift card mailed to your home address that you can use however you like.

*Eso es todo. Muchas gracias por hablar conmigo hoy. ¡Me gustaría darle un obsequio! Puede recibir una tarjeta regalo de Amazon de \$50 por correo electrónico, o una tarjeta regalo de VISA de \$50 que se envíe por correo a la dirección de su casa que puede usar como quiera.*

Would you like an Amazon gift card, or a VISA gift card?

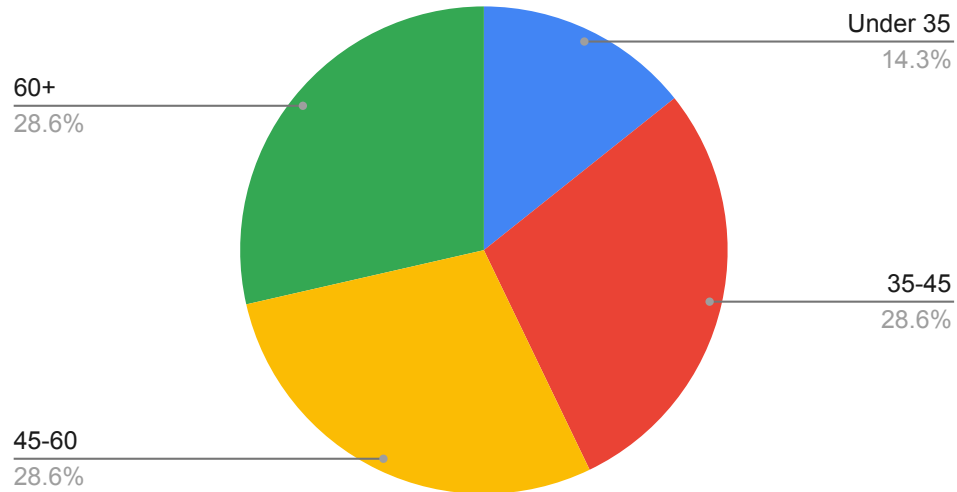
*¿Desea la tarjeta regalo de Amazon, o la tarjeta regalo de VISA?*

Take time to make sure you have their email/home address correct!

<p><i>If <b>AMAZON</b> gift card</i>, May I have your preferred email address to send the gift to you?  <i>¿Me puede dar su correo electrónico preferido para enviarle el regalo?</i></p> <p><i>If <b>VISA</b> gift card</i>, May I have your preferred address to mail the gift to you?  <i>¿Me puede dar su domicilio preferido para enviarle el regalo?</i></p> <p>Okay, you should receive this between 3-5 business days. Please let Stephanie know when you receive it. (She is the person you scheduled this call with)  <i>Bueno, usted debe recibirlo dentro de tres a cinco días hábiles. Por favor, informe a Stephanie cuando lo reciba. (Stephanie es la persona con la que programó esta llamada)</i></p> <p>Great! If you know anyone else who would be interested, we would love to talk to them as well. I really appreciated learning a bit of your story, and I hope you have a great rest of your day!  <i>¡Excelente! Si conoce a alguien más que esté interesado nos encantaría hablar con esa persona también. De veras agradecí la oportunidad de aprender un poco sobre su historia, ¡y espero que el resto de su día vaya bien!</i></p>	<p>Don't forget about Apartment numbers! :)</p> <p><u>RECORD ON PARTICIPANT CONTACT INFO SPREADSHEET</u></p>
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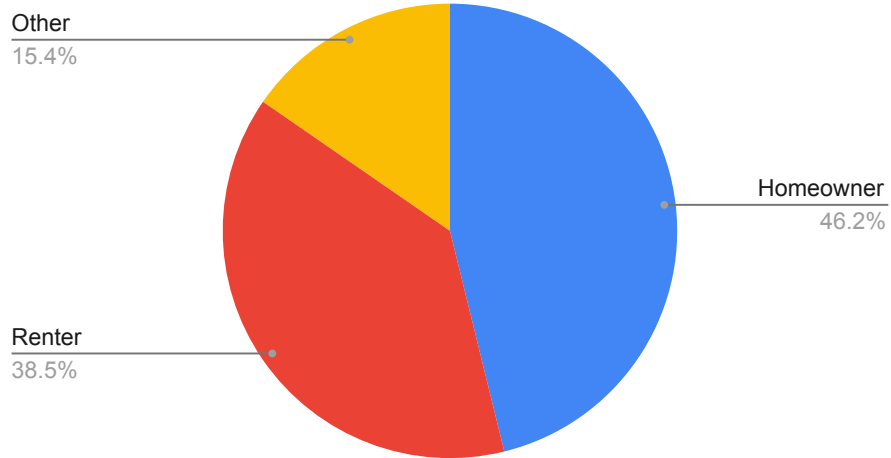
## 2. CHART OF AGE BREAKDOWN OF STUDY

Age



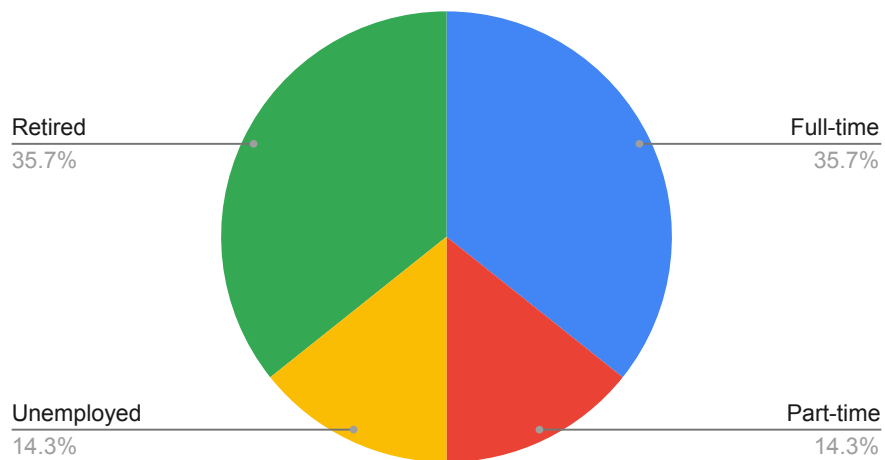
### 3. CHART OF HOUSING-STATUS BREAKDOWN OF STUDY

Housing Status



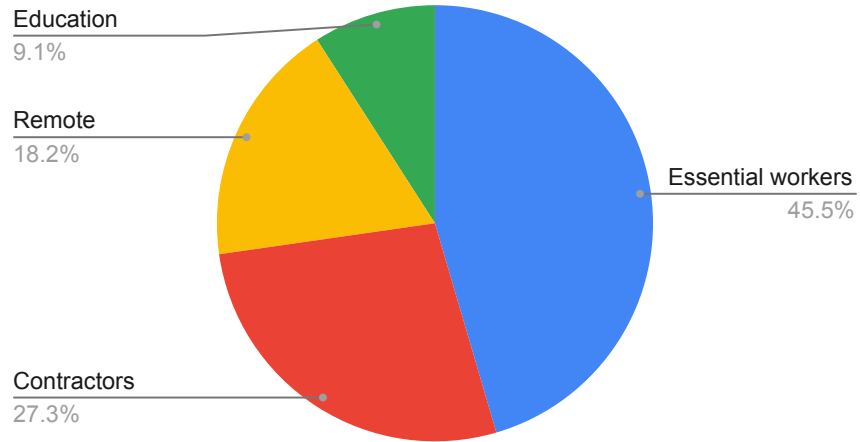
### 4. CHART OF JOB-STATUS BREAKDOWN OF STUDY

Employment Status



## 5. CHART OF WORK SECTOR OF STUDY

Work Sector





# Works Cited

Wu, X., Nethery, R. C., Sabath, M. B., Braun, D. and Dominici, F., 2020. Air pollution and COVID-19 mortality in the United States: Strengths and limitations of an ecological regression analysis. *Science advances*, 6(45), p.eabd4049.