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Climate Change Induced Migration in Southern Louisiana

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Climate Change Induced Migration in Southern Louisiana

A Thesis Presented

By

SYDNEY K. BREINER

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment of
the requirements for the degree of

MASTER OF SCIENCE

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Geography

Department of Earth,

Geographic, and Climate Sciences

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SYDNEY K. BREINER

Approved as to style and content by:

Toby M. Applegate, Chair

Svati Shah, Committee Member

Piper Gaubatz, Department Head

Department of Earth, Geographic, and Climate Sciences

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I love each and every one of you.

ABSTRACT

CLIMATE CHANGE INDUCED MIGRATION IN SOUTHERN LOUISIANA

MAY 2024

SYDNEY K. BREINER, B.A. EMORY & HENRY COLLEGE

M.S. UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Dr. Toby M. Applegate

This research project will analyze the issue of climate change-induced migration in Southern Louisiana, through the social theoretical lens of intersectionality. The particular question I am trying to answer is, “Have the effects of climate change influenced the decisions of people in Lafourche Parish to migrate to another place? What are the intersections of social, economic, cultural, and political processes that influence someone to migrate because of climate change, and how do these intersections manifest themselves in Lafourche Parish.” I use an intersectional lens to evaluate how these various societal and social processes are related to people leaving after a catastrophic natural event, such as a hurricane. I am using the aftermath of Hurricane Ida to answer this question.

Furthermore, I will be using Kimberlé Crenshaw’s definition of intersectionality throughout my research. Using an ethnographic model, I interviewed people’s lived experiences post Hurricane Ida. I have found within this research that different intersections mainly socio-

Economic status, age, geographic location and overall ineffectiveness of the surrounding infrastructures have made it difficult for citizens to leave an area that is projected to be continuously impacted by these catastrophic events. The goal of this research is to amplify the voices of those who are affected by these events yearly.

TABLE OF CONTENTS

	Page
TABLE OF CONTENTS.....	VI.
ACKNOWLEDGEMENTS.....	iii.
ABSTRACT.....	IV.
LIST OF FIGURES.....	vii.
CHAPTERS	
I. Introduction.....	8
II. Methodology.....	21
III. Statement of Privilege and Theoretical Background.....	29
IV. Findings and Discussion.....	34
V. Conclusion.....	49
BIBLIOGRAPHY.....	56

LIST OF FIGURES

Figure	Page
1. Maps of Louisiana and Louisiana Parishes	27
2. Word Cloud Generated By MAXQDA.....	28
3. Bar Destroyed by Hurricane Ida.....	54
4. Trailer Destroyed by Hurricane Ida.....	56

CHAPTER I: INTRODUCTION

Climate change-induced migration has become an important issue in recent years within academia and general discourse. This is in part because of climate change rapidly affecting the world as a whole. This issue is important for various reasons, including questions on if people will have to move, which in turn highlights the embedded societal issues within a place. I wanted to view the issue of climate change-induced migration in Louisiana, through the social theoretical lens of intersectionality. This project is important because it not only highlights the environmental issues that are connected with climate change but also the societal issues within Louisiana, specifically Lafourche Parish.

The particular question I am trying to answer is, “Have the effects of climate change influenced the decisions of people in Lafourche Parish to migrate to another place? What are the intersections of social, economic, cultural, and political processes that influence someone to migrate because of climate change, and how do these intersections manifest themselves in Lafourche Parish.” I am using an intersectional lens to evaluate how these various societal and social processes are related to people leaving after a catastrophic natural event, such as a hurricane. Furthermore, I will be using Kimberlé Crenshaw’s definition of intersectionality throughout my research.

I attempted to answer these questions by conducting ethnographic research in Lafourche Parish. In doing so, I conducted interviews in the area with citizens of Louisiana. I asked questions about Hurricane Ida, and post-hurricane Ida life with regard to potential movement or geographic relocation.

This research project will help enlighten how communities are vulnerable to climate change and it will help highlight how climate change influences these communities’ migration

patterns. This topic of research will also help add knowledge to a field that is not as commonly discussed throughout the United States. During my interviews, interviewees discussed how they are often left out of the conversation of hurricanes because of where they live and where they are from. Many of the discussions regarding climate change are who contributes change and how it affects the Global South. With this knowledge organizations, including international organizations, could help people who have to leave their homes after a climate change-induced event, or disaster. This research aims to highlight the inequalities that plague American societies. It also aims to show how these inequalities are exacerbated by climate change and disasters, which in part makes the inequalities more visible.

To understand these inequalities and my project, it is important to understand the history of the state and its vulnerability to storms. Louisiana is no stranger to climate change induced disasters. Since the 1850s, records show that 90 hurricanes made landfall on the coast of Louisiana (Yao et al. 2022,4) Hurricane Ida formed in the southwest Caribbean Sea on August 23, 2021, and then turned into a category one hurricane four days later(Yao et al. 2022, 4).

Hurricane Ida hit Southern Louisiana on August 29, 2021 (Zhu et al. 2022, E2335). Ida fell as a Category 4 storm, according to the Saffir- Simpson hurricane wind scale, hitting maximum wind speeds of ~130 kt (Zhu et al. 2022, E2335). Ida is one of the strongest hurricanes that hit Louisiana within the last two centuries (Yao et al., 2022, 1). Interestingly enough, Ida hit sixteen years directly after Hurricane Katrina to the exact day (Zhu et al. 2022, E2335).

In the first half of 2021, the United States lost more than \$1 billion dollars, because of climate change related disasters (US Government Publishing Office 2021, 2). Hurricane Ida alone was estimated to cost the government between \$53 and \$54 billion (US Government

Publishing Office 2021, 2). Governmental Organizations claim that they have sent efforts in order to help disaster relief. Mainly, through the Federal Emergency Management Agency, otherwise known as FEMA. The Biden Administration sent FEMA down to Louisiana after Hurricane Ida (US Government Publishing Office 2021, 2). Overall, Hurricane Ida was Louisiana's second strongest landfalling hurricane and the fifth strongest landfall in the continental United States (Yao et al 2022, 4).

Without understanding the magnitude of the impact of hurricane Ida, one will not be able to see how this one storm has the possibility of completely changing people's lives. The storm destroyed aspects of my respondent's lives and livelihoods. The hurricane changed the trajectories of how people viewed government and infrastructure as a whole.

To understand my project, it is important to understand what literature I am building off of. I am including literature that dives deeper into Hurricane Ida and Katrina. I also am using literature that explains cultural phenomena within the area and helps explain some of my respondents' reactions to the aftermath of hurricane Ida. The literature also provides an insight on how the infrastructure of Louisiana affected the outcome of how the aftermath of the hurricane was handled.

This project is not the first to look into climate change-induced migration in Louisiana. This section presents the previous research about this area and it explores how the literature surrounding Hurricane Katrina can be a useful tool for understanding Ida. It also analyzes research that has been previously conducted on how societal marginalization affects a person's ability to move out of an area affected by climate change. This review also introduces two indigenous communities that are currently experiencing climate change-induced migration in Southern Louisiana.

The Intergovernmental Governmental Panel on Climate Change (IPCC) discusses any change in climate over time, including human-induced changes, or natural changes (Warren 2016, 2109). Furthermore, the IPCC found that there are two types of forced migration. The first type is a response to extreme weather events that are likely to be exacerbated by climate change (Warren 2016, 2109). The second is forced migration because of longer-term climate vulnerability to climate change (Warren 2016, 2109). For example, small nation islands that will respond to climate vulnerability are most likely vulnerable to sea level rise (Warren 2016, 2109). Other scholars agree and add that anthropogenic climate change can exacerbate human migration (Jayawardhan 2017, 104). Climate change threatens many people who live near bodies of water because they are more vulnerable to groundwater intrusion by saltwater, the physical threat of rising sea levels, and natural hazards such as hurricanes (Jayawardhan 2017, 104).

Climate change-induced migration is currently happening and will continue to happen. The United Nations High Commissioners for Human Rights estimates that between fifty and two hundred million people may have to move internally or externally all over the world (Warren 2016, 2104). In 2011, the Internal Displacement Monitoring Center estimated that climate change, including rising temperatures, and storms had displaced 14.9 million people (Jayawardhan 2017, 104). Warren argues that climate change is one of the most prevalent issues and threats to the planet, and world leaders will likely have to deal with growing numbers of displaced people all over the world because of climate change (Warren 2016, 2104).

As Warren points out, it is important to note that people that are forced to move because of climate change, often referred to as climate change refugees, are not protected by

international law in the same way that conflict refugees are (Warren 2016, 2104). Specifically, since the 1951 Refugee Convention did not cover climate change as refugee status they are not protected (Jayawardhan 2017, 104) Therefore, throughout my research I chose the term, “climate change-induced migration.”

However, it is important to note that climate change-induced migration is not solely based on ecological problems but on socioeconomic issues as well (Jayawardhan 2017, 104). Louisiana is an example of how intersections of climate change and socioeconomic problems can affect migration patterns. Louisiana is no stranger to the effects of climate change. Various authors, including Holland, have argued that Louisiana has been vulnerable to climate change for generations (Holland 2015, 1). Specifically, Louisiana is vulnerable to the loss of wetlands, land subsidence, and ocean acidification (Holland 2015, 2). Over this century, sea levels along here are projected to rise between 1.5 and 4.5 feet while southern Louisiana’s coastline is expected to have a water rise between 4 and 5 feet (Gotham 2016, 788). Since the 1930s, Southern Louisiana has lost 1,880 square miles of land (Gotham 2016, 787). At the current rate, hydrologists predict that in the next fifty years, Southern Louisiana will lose another 1,750 square miles of land (Gotham 2016, 787). Louisiana’s coastal region contains over 40 percent of the United States Coastal wetlands, and the immediate coastal region is approximately 43,700 km² (Fazey et al. 2021, 48).

Holland argues that there may be no place on Earth that will be facing faster encroaching seas than Louisiana because of the sea level rise in the Gulf of Mexico (Holland 2015, 2). It has been estimated that global sea levels rose by about 19 cm about 7.5 in, in the last century (Holland 2015, 2). The rate of increase of sea level rise has also sped up (Holland 2015, 2).

Since 1993, it has increased by 1.7 mm to about 3.2 mm, which means it has nearly doubled (Holland 2015, 2). Since 1947, the sea level at Grand Isle in Louisiana has gone up almost two feet (Holland 2015, 2). Thus per year, the sea level at Grand Isle has gone up one-third of an inch (Holland 2015, 2).

Specifically, Southern Louisiana is a region that is experiencing climate change-induced events that are projected to affect worldwide coastal regions (Gotham 2016, 788). Louisiana's deterioration and wetland loss are now being supplemented and fueled by sea levels rising, which negatively impacts channelization, canal dredging, and leveeing (Gotham 2016, 793). Therefore, researchers and scientists regard Southern Louisiana as an area that has had to undergo rapid transformation with hydrology, climate, and ecology because of anthropogenic modifications (Gotham 2016, 788). Coastal erosion in Louisiana is linked to three major contributing factors, the political economy of shipping, oil and gas extraction, and the Southern Louisiana port industry (Gotham 2016, 792).

Louisiana is also experiencing increased exposure to storm surges and hurricanes (Fazey et al. 2021, 48). As of 2006, several million people live in coastal communities along the Gulf of Mexico, which has exponentially grown since the 1950s, overall there has been a 350 percent increase (Steiner et al 2006, 66). Therefore, because of the ever-increasing threat of climate change in Louisiana, in four decades 2.2 million residents in the coastal region are threatened by loss of land (Fazey et al. 2021, 48). This loss of land has caused an examination of population data in the area, "which shows a potential tipping point related to outward human migration when a neighborhood loses at least fifty percent of its land area" (Fazey et al. 2021, 48).

Companies and jobs are also starting to move to Louisiana. Oil and gas are moving more offshore and deeper into the waters (Fazey et al. 2021, 48). This in return has impacted the local

communities that depend on these services and jobs (Fazey et al. 2021, 46). Commercial fishing in Louisiana has also been negatively affected (Fazey et al. 2021, 48).

Louisiana has a large energy industry, the energy industry is one of the leading industries in the state, roughly about 1 with more than one hundred major energy facilities (Holland 2015, 2). Also, it has been projected that by 2030, the Gulf Coast Energy sector will face a loss of around eight billion dollars, from extreme weather conditions (Holland 2015, 2).

Many local businesses have had to close because of the threat of loss of land (Fazey et al. 2021, 48). Local government services, such as schools and libraries, have had to move to higher ground and local governments have decided to build schools and libraries on higher ground (Fazey et al. 2021, 48). Those who have the monetary means have also decided to move to higher ground (Fazey et al. 2021, 48).

However, while local governments and businesses have been affected negatively by the vulnerability to climate change, there will be a huge effect on the national economy and infrastructure. Louisiana is one of the cores of the gas markets (Holland 2015, 5). For example, the infrastructure on the Gulf Coast will negatively impact the whole United States economy.

Political figures in Louisiana are aware of the threats of climate to the area and have tried to create policies to try to help with Louisiana's climate crisis. In October 2018, John Bel Edwards, who is the current governor of Louisiana, mandated all cabinet-level officials from the state's twenty-nine agencies with the goal of understanding the coastal crisis (Fazey et al. 2021, 49).

In August 2020, the same governor of Louisiana announced a commitment to net zero emissions for the year 2050 and to a Climate Change Task Force (Fazey et al. 2021, 46). Not only are Louisiana officials aware of these issues, but the national government is as well. The

federal government uses funds from fossil fuel resources in the Gulf of Mexico, to the state of Louisiana for coastal restoration (Fazey et al. 2021, 49). This is ironic since many of the coastal emergency resources derive from gas and oil revenues (Fazey et al. 2021, 49). Therefore, this is not sustainable long term, and there will be a need for broader economic reform (Fazey et al. 2021, 49). The authors argue that the social impacts of climate change and the overall displacement of people who are vulnerable to floods and storms are not well understood by the government (Fazey et al. 2021, 49). Therefore, the government is limited in how they can respond to these climate change-induced events (Fazey et al. 2021, 49). Other authors have argued that there is no technological fix that governments and people might propose that can save cities (Gigengack and Foster 2006, 31). Economic geographers, such as David Harvey, have identified such fixes as rarely sustainable in any instance (Harvey 1996). While it is important to look at the events as a whole, it is also important to look into the people that are affected.

It is also important to realize how coastal communities in Southern Louisiana are represented by identity and culture. Many Southern Louisiana coastal communities are historically associated with oil, fishing, and gas industries (Fazey et al. 2021, 49). This is not just an occurrence with Southern Louisiana. Olson argued that communities across areas act in different ways and have different cultures (Olson 2005, 250). Specifically, communities that fish (Olson 2005, 250). Therefore, these industries have helped build a person's identity (Fazey et al., 2021, 49).

With these industries changing because of climate change, so are the identities of the people in Southern Louisiana (Fazey et al. 2021, 49). Climate change has threatened the identity of Louisiana citizens as a whole (Fazey et al. 2021, 49). For example, fossil fuel

companies faced with climate change grappling with an identity crisis because of environmental activism and ensuing bad publicity, millennials who are concerned about the environment and increasingly skeptical about them, and social and racial justice movements that are speaking truth to their power (Fazey et al. 2021, 49).

Louisiana is searching for what it means to be a coastal community, or in general just what it means to be a Louisiana citizen. Louisiana has been needed in a world where its geographical shape, relationship to the coast, and demography is important to an area's overall identity (Fazey et al. 2021, 49). Therefore, as these coastal areas are continuously changing because of climate change, the values and overall identities of Louisiana citizens will also need to change (Fazey et al. 2021, 48).

Jayawardhan argues that one of the effects of climate change is the displacement of human populations after catastrophic events, such as hurricanes (Jayawardhan 2017, 103). This vulnerability to climate change created the huge natural disaster that preceded Hurricane Ida, which was Hurricane Katrina (Byrnes 2013, 305). Hurricane Katrina can be a useful tool in understanding Hurricane Ida.

It is also important to the narrative to describe the aftermath resolutions that arose after these major hurricanes. On August 29, 2005 Hurricane Katrina hit the Gulf of Mexico. Upon landfall it had winds of 140 mph (Steiner et al 2006, 66). It had a storm surge of more than 30 ft and impacted a 108,000 square mile area leaving 527,000 people homeless (Steiner et al 2006, 66).

Hurricane Katrina was an example of how a climate change induced storm can destroy not only people's lives and property but also, the state's economic activity (Holland 2015, 1). Hurricane Katrina struck the Gulf Coast and affected the city of New Orleans as a whole

(Jayawardhan 2017, 104). It destroyed buildings and businesses (Jayawardhan 2017, 104). Specifically, the hurricane hit areas that were inhabited by people of color (Jayawardhan 2017, 104).

Hurricanes Katrina and Rita, in 2005 had displaced over one million people and damaged 200,000 homes (Hori et al. 2008, 46). Thus, leaving hundreds of thousands of people unable to return to their households, with estimates close to a million people (Hori et al. 2008, 46). Hurricane Katrina alone displaced over 378,000 people (Jayawardhan 2017, 103). The population of New Orleans was 72 percent of the population before the hurricane (Jayawardhan 2017, 103). The levee systems failed this area, and people suffered the consequences (Hori et al. 2008, 46). Hurricane Katrina had 1,299 casualties (Steiner et al 2006, 66). Meaning, the failure of the infrastructure resulted to people losing their lives and leaving citizens to forcibly leave their city.

It is important to review how the government decided to handle the aftermath. The federal government reinforced the storm barriers and levees post Hurricane Katrina (Holland 2015, 2). Still, do not protect against flooding comprehensively (Holland 2015, 2).

Adams argues that after Hurricane Katrina, many Louisiana people suffered from the government's decision to privatize social services and corporations in return made a profit, which put money over people (Adams 2013, 40). Giegenack and Forster also argue that the incompetence of the government in turn harmed the people who were affected by Hurricane Katrina (Giegenack and Forster 2006, 32). However, public discussions focused on the needs of compensation to those who lost their homes and livelihoods (Giegenack and Forster 2006, 32).

Furthermore, it has also been argued that after Hurricane Katrina swathes of infrastructure were destroyed and were not rebuilt (Jayawardhan 2017, 103). By late December

2005, because of hurricanes Katrina, Rita, and Wilma, the Federal Emergency Management Agency (FEMA) had taken 2,530,657 registrations from the hurricane victims (Steiner et al, 2006, 66). In my research, FEMA's handling of post hurricane Ida also is discussed.

Just like Hurricane Katrina, Hurricane Ida is also having problems with infrastructure and political issues and it also puts people in harm's way (Kozlov, 2021). Furthermore, there are various similarities between the effects of climate change and these hurricanes as it pertains to Louisiana residents. One aspect of my findings is the inclusion of the role that insurance plays in the determination of migration of people to other areas after hurricanes. Gotham argues that the loss and climate change have the potential to affect insurance costs and the overall outmigration of citizens in Louisiana (Gotham 2016, 788). Southern Louisiana will face higher insurance costs as flood risk continues to rise (Fazey et al. 2021, 49). Other authors argue that post Hurricane Katrina, the reconstruction of the flood- protection system will result in risks that will be greater than actually keeping people safe and acceptable (Gigengack and Foster 2006, 31). Therefore, it is more important not to fix and rely on just technology to keep cities like New Orleans safe post Hurricane Katrina, but rather the focus should be on social factors and these must be considered equally important. (Gigengack and Foster 2006, 31). Until doing so, New Orleans will be vulnerable to hurricanes like Katrina (Gigengack and Foster 2006, 31).

One of my goals is to explore how the theory of intersectionality can affect climate change induced migration. Therefore, it is important to analyze how different communities are affected by climate change. The IPCC argued that people who are marginalized globally, either by economic, institutional, or political marginalization, are more vulnerable to climate change than the rest of the population (Gaskin et al. 2017, 802). Jayawarden agrees, and adds that environmental extreme events become considered disasters

when they affect communities that are considered “vulnerable”, meaning those who have been socially marginalized (Jayawardhan 2017, 104). Louisiana is not an exception to this problem. Authors also argue that it is not a unique example as well, rather it is a part of a larger global issue (Fazey et al. 2021, 48).

While reviewing the aftermath of Hurricane Katrina, one can see how marginalization has affected the displacement of people based on race (Jayaharden 2017, 117). Hurricane Katrina disproportionately affected poor, ethnic and racial minorities that are vulnerable (Giegenack and Forster 2006, 32). For example, African American households were displaced at much higher rates than white households (Jayawardhan 2017, 117). Specifically, nineteen percent of white households who were affected by the hurricane live somewhere different (Jayaharden 2017, 117). However, forty- seven percent of African- American households post hurricane Katrina live somewhere different (Jayaharden 2017, 117). Hurricane Katrina is an example of Jayaharden’s argument that marginalized demographic groups, and economically groups that are considered at a disadvantage, were more likely to have to relocate (Jayaharden 2017, 117).

However, Jayawardhan argues that while an act of climate change displaces people and disproportionately affects people, the social and political marginalization is a reason that people do not return (Jayawardhan 2017, 104). Jayawardhan explains that with a lack of agency and government, people are unable to return to their homes (Jayawardhan 2017, 104). Also, Jayawardhan argues that these communities are considered less resilient than other dominant groups, furthermore these marginalized communities have a harder time adapting to post disasters (Jayawardhan 2017, 104). These marginalized communities have also been historically excluded from hazard mitigation processes (Bethel et al. 2022, 3).

For example, indigenous people in areas such as Louisiana, Alaska, and the Pacific Islands are having to either adapt or relocate to other areas and they are not equipped and lack local resources for these climate change induced events (Bethel et al. 2022, 2). The Point-auChien tribe, located in Terrebonne and Lafourche Parish, is an example of an indigenous tribe that has been forced to move from their homes because of climatic events (Bethel et al. 2022, 3).

The Point-au-Chien tribe consists of about 800 members). They continue to live in their aboriginal homeland. They continue to work and fish in these areas (Bethel et al. 2022, 3).

Climate change however, has caused their villages to become abandoned because of land loss, saltwater intrusion, and rising sea levels (Bethel et al. 2022, 3). The Point-au-Chien tribe is aware of the environmental issues caused by climate change that they are facing (Bethel et al. 2022, 13). The tribe is trying to work on solutions to these problems, including trying to plan and brace for climate change induced impacts (Bethel et al. 2022, 3). While the tribe is trying to continuously adapt, it is becoming increasingly more challenging (Bethel et al. 2022, 13).

Another instance of climate change and vulnerability based on different intersections of identity in Louisiana, is Isle de Jean Charles, which has been in existence for over two hundred and fifty years (Fazey et al. 2021, 48). The Isle de Jean Charles has been under constant threat from climatic events such as storm surges, rising sea levels and flooding. Many people who live in this area are having trouble relocating outside of this area. Specifically, residents who are from a poorer household (Fazey et al. 2021, 48).

Faze, et al. argues that there are three emergencies facing the Isle de Jean Charles. The three emergencies are visible, conceptual, and existential emergencies. Visible emergencies are things such as storm surges, rising sea levels and flood risks. Conceptual emergencies are how local authorities and governments are approaching resettled communities. Existential

communities are how the identities as islanders are being challenged after losing their land near the water (Fazey et al. 2021, 48).

A focus of my research is the idea of how income and income inequality affects people in Southern Louisiana's ability to move. As previously stated, poorer residents in the Isle de Jean Charles, have faced barriers in order to move. Insurance prices also rising has also made it harder for people who are considered poorer to move (Fazey et al. 2021, 48).

An understanding of the previous literature is important to understanding my research. Viewing the previous academic works allows for an understanding of what has previously been found on climate change- induced migration. The previous literature shows how the marginalization of people by society affects their vulnerability to climate change and movement.

CHAPTER II: METHODOLOGY

My research question is, “Have the effects of climate change influenced the decisions of people in Lafourche Parish to migrate to another place? What are the intersections of social, economic, cultural, and political processes that influence someone to migrate because of climate change, and how do these intersections manifest themselves in Lafourche Parish.” To answer this question, I used qualitative, ethnographic research. I used this type of research because I wanted to get the lived experiences of the people in Louisiana.

I chose Lafourche Parish and the regions surrounding it because it was heavily impacted by Hurricane Ida. Figure 1, shows the map of Louisiana and it shows the Southern part of the state where I was conducting my research. In preparation for my project, I discussed my plans with several people who live in Louisiana and who work in academia. I applied for various funds to help pay for my travel, and I was granted funds to complete my research. While discussing my project with people who reside and who are conducting their research in Louisiana, specifically with communities that are vulnerable after hurricanes, I was alerted that many people extract data and interviews while in Louisiana and then leave. Which in return, has the potential to hurt the people who are vulnerable in Louisiana and the aftermath of hurricanes, which is something that I strived to avoid while completing my research. Specifically, I was told not to interview the vulnerable people who are indigenous to the area and are losing their coast to climate change.

Therefore, I set up my project with that in mind. In doing so, I planned to travel to Louisiana for a month in the summer. I completed the necessary paperwork and Institutional Review Board training to interview people. This included sending a sample set of interview questions. These interviews were semi-structured, I allowed the conversation to flow naturally. Below are my interview questions.

Me: Hi, my name is Sydney Breiner and I am researching the topic of climate changeinduced migration in Louisiana. I am a geography graduate student attending UMass Amherst. My research question is “Have the effects of climate change influenced the decisions of people in Lafourche Parish to migrate to another place? What are the intersections of social, economic, cultural, and political processes that influence someone to migrate because of climate change, and how do these intersections manifest themselves in Lafourche Parish.” I am going to ask you some questions regarding your personal experiences with the aftermath of natural disasters, specifically recalling incidents after Hurricane Katrina and Hurricane Ida.

First Question: What do you recall from after Hurricane Ida? How did this differ from Hurricane Katrina?

Second Question: Did you have any thoughts about moving to a different area, could be within the state or outside of it, after either of the hurricanes? Why or why not?

Third Question: Did any of your family members move after the hurricane hit?

If they answered no to the question about moving I would then ask these set of questions:

Why did you choose to stay? Or was it not a choice but rather you were not able to move?

What obstacles did you suppose you would have to overcome if you moved?

If they answered yes to moving:

What was the deciding factor in your decision to move?

What obstacles did you overcome, if any, to move?

If there was another natural disaster, would you move? Why or why not?

After I had my interview questions approved I decided when to travel. In June 2022, I traveled to Louisiana from Virginia to stay for the entirety of the month. My contact, Cassandra*, in Louisiana I lived on the outskirts of New Orleans, so I stayed there for a couple of days in preparation for staying down by Bayou Lafourche. After I stayed in New Orleans, I headed down to Thibodeaux. On the way down, Cassandra* pointed out businesses and homes that had been destroyed by Hurricane Ida. Cassandra* gave me the information of people who lived in Lafourche Parish, and who were willing to interview.

I stayed in an apartment across from Nicholls State University, which is located in Thibodeaux, for the majority of the month. I took steps to join the community, and one of my goals was to get to know the landscape around me. From there, I was using a snowball sampling method to collect respondents to interview. I went into the community, and I asked to interview people who were willing and were an appropriate demographic for my project. I would then ask my respondents if they knew of anyone interested in being interviewed.

As previously stated in my literature review, I am using an intersectionality lens in order to answer my research question. I did not seek out people who are considered

marginalized in the context of American society. I wanted these pieces of intersectionality to reveal themselves throughout the interviews. I did not limit myself to who can participate unless they were a minor or an IRB special category, I wanted to get as many different perspectives as possible.

While I was there, I conducted ten interviews that lasted up to thirty minutes, with only a few that ran over thirty minutes. These interviews were conducted in person, in Zoom, and over the phone. I wanted my respondents to be comfortable during the COVID-19 pandemic. I had a waiver that each respondent signed and I recorded their interviews with an audio recorder. I used pseudonyms to hide my respondent's identities to ensure confidentiality.

The questions that I asked the participants were meant to not lead the participant to an answer. Rather, I wanted the participants to feel comfortable in sharing what actually happened during the hurricane and its aftermath. The goals of my interviews were to be more like a flowing conversation, instead of a dialogue where the respondent felt that there are right and wrong answers. I asked questions that could not be answered with either a yes or no rather I asked questions that revolved around their lives then their experiences with the aftermath. I purposefully kept my questions flowing and I did not have a strict set of questions that everyone was asked. I did not want this to be like a survey, but rather a conversation with different follow-up questions based on answers said by the participants.

My first two interviews were with female nursing students, who had to evacuate Nicholls State University because of Hurricane Ida. After interviewing both of these respondents, I went to my field notes and started writing the similarities and differences between the two young women. Every night from the first night on, I would write field notes to organize my thoughts with what I did that day. I stored the field notes in One Drive so no one

else could have access. I also pulled themes from my field notes that would help me quickly refer back to when needed. My interviews were not only conducted while I was in Louisiana, but as I moved back to Virginia, I still had a retired lady who really wanted to speak to me about her experience. I did this interview over the phone and added it to my other interview notes even though it was not conducted in Louisiana.

After I conducted my ten interviews, I downloaded the interviews and used the software OTTER.AI to transcribe my interviews. I originally was transcribing the interviews by hand which was tedious, and I realized that the OTTER.AI software was very effective and accurate. I checked and edited them to make sure that these transcriptions were accurate against what I heard from the audio recording.

I inputted all of my transcribed interviews into an application MAXQDA, a text analysis software package. I used this application in my Ethnographic Methods class. The software was created to help researchers who conducted qualitative research by allowing them to upload interviews and code for them. This application allowed me to code for various themes throughout the interviews, and I was able to see the number of times that specific codes and themes were collected. This also allowed me to look through my interview transcripts and collective group themes that were the most common throughout my interviews.

After reading line for line of each interview, I highlighted pieces of the interview that I deemed important for my thesis. Therefore, I coded each theme that I found. For example, if I had a respondent explaining their economic status and their age, I would code that under “Intersectionality”.

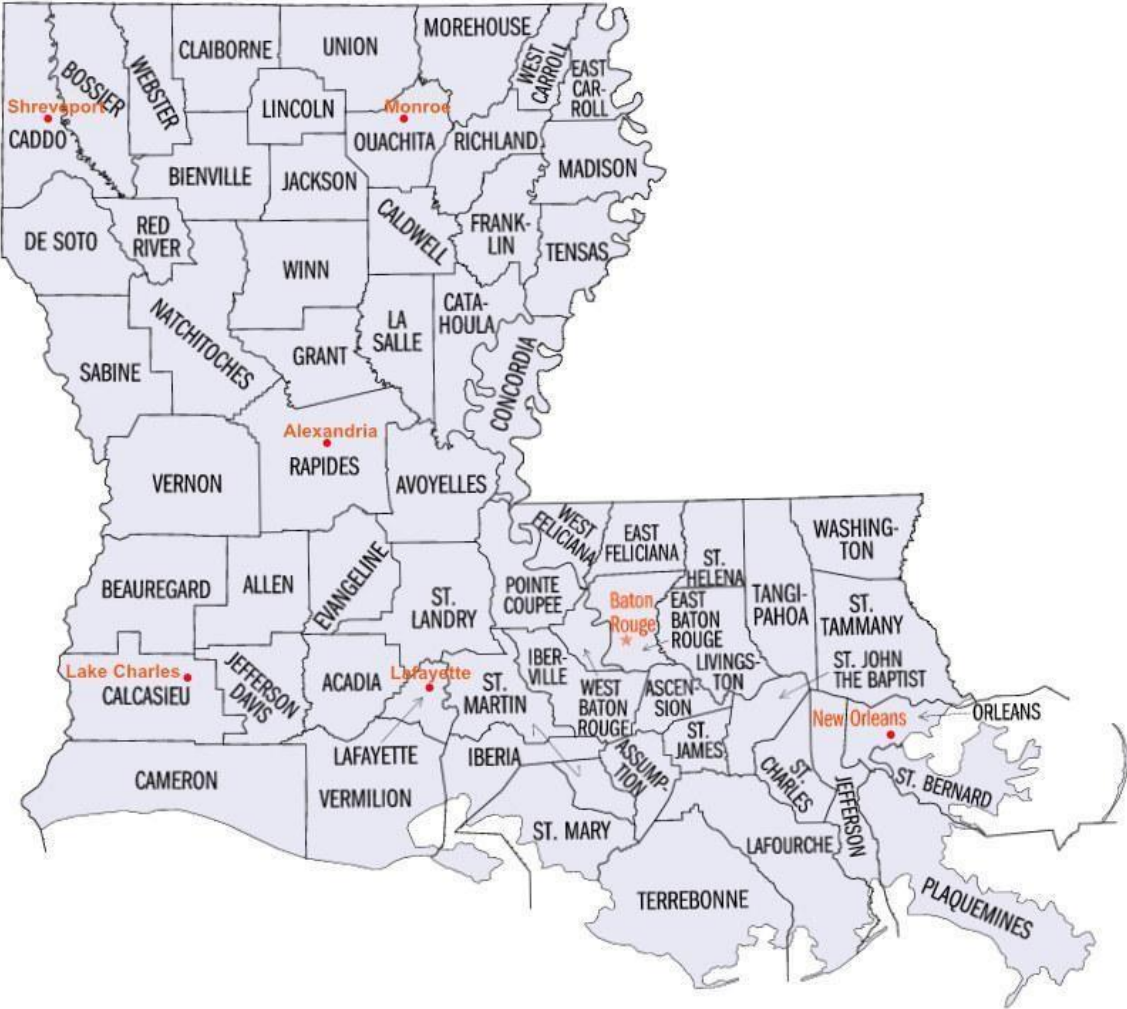
MAXQDA also compiled the most used words in each of the interviews and converted the words into a word cloud. Figure 2 is the word cloud that was generated after all of

the interviews. Please note that there was a “stop list” created so common words would not show up in the word cloud.

Since I am not local to Louisiana, there were terms that some respondents used that were unfamiliar to me. Therefore, using MAXQDA, I was able to pull out words that are phrases that are used specifically by the people from that area. Specifically, government programs native to Louisiana and places and actions that are specific to this area of the country.

During my stay in Thibodaux, I paid for utilities, which allowed me to view the bill. While viewing the bill, I was able to notice things that exemplified how climate change has impacted electricity bills. For example, on one of the bills, I noticed that there was a charge that was titled “Storm Restoration” which was explained to me after Hurricane Ida hit. This charge was added to their bill monthly. Therefore, I was able to use this information as part of my argument that economic status and poverty can interrupt and or infiltrate their chance to leave Louisiana.

Figure 1: Louisiana Destinations, *Maps of Louisiana and Louisiana Parishes*, 2024, <https://www.louisianadestinations.com/louisiana-maps.htm>



¹ Louisiana Destinations, *Maps of Louisiana and Louisiana Parishes*, 2024, <https://www.louisianadestinations.com/louisiana-maps.htm>

CHAPTER III: STATEMENT OF PRIVILEGE AND THEORETICAL BACKGROUND

The lens of my research is intersectionality, therefore it is essential that I explain my privilege while completing and analyzing my research. I acknowledge that there are inherent socio-biases that may cloud my understanding of how people are able or unable to respond to the aftermath of a climate change-induced disaster. Therefore, I am including the privileges that I have that may impact my conclusions for this project.

While in Louisiana, I spoke and interacted with people considered to have a lower socioeconomic status, while I have had an upper-middle class socioeconomic privilege. With this privilege, I have been able to access other life privileges such as higher education, and various types of insurance. A considerate portion of my research is viewing how the intersection of socioeconomic status can affect the ability or inability of a citizen in Louisiana to migrate during the impact and aftermath of Hurricane Ida. Therefore, my viewpoint is limited while analyzing the interviews and perspectives of my respondents.

I also have white racial privilege, which can limit my view of how race has impacted the migration patterns of the people I interviewed. It is difficult to understand, as a white person, the implications of race and the intersections of disaster and the ability to move. As a white woman, it is important for me to understand that I can only understand this at a surface level.

While I was in the planning stages of this project, I was made aware by a citizen from Louisiana that many people come into the state post-disaster to extract stories and possible traumatic incidents during the aftermath of hurricanes. I did not want to become one of the people who extracted these stories and used them for their own gain, however, I have to

acknowledge that I am from Virginia, and go to school at the University of Massachusetts, Amherst. Therefore, I have a different geographical insight into the state of Louisiana, since I am from a different place. In Louisiana the culture is different with regards to fishing and oil industries as they are primarily the focus on income for the state. I also do not see the everyday changes to the climate. I am not near the coast of Virginia, so it is rare that I experience hurricanes therefore, I do not have to worry about a hurricane affecting my life.

I am using Crenshaw's social gender-based theory, intersectionality. I argue that intersectionality is an important lens to look into climate-forced human migration. Academic research in Human Geography is often viewed, not always but rather historically, through a white lens, which has the potential to silence those people who have been marginalized throughout their lifetimes (Chen 2023, 132). Furthermore, it is argued that using intersectionality within a geographic context will allow these voices to be heard (Chen 2023, 132). Furthermore, it is also important to note that migration studies and intersectionality are intertwined (Chen 2023, 134). Therefore, the idea of intersectionality within climate change induced migration is not new; rather, I built on a definition of intersectionality to help highlight the social dynamics of the people in Southern Louisiana.

As a whole, Crenshaw's definition of intersectionality challenges the ideas of identity politics (Crenshaw 1991, 1242). Crenshaw shows how violence against people, specifically women, is not just based on gender, race, and class (Crenshaw 1991, 1242). In order to argue her point, Crenshaw describes violence including battery and rape (Crenshaw 1991, 1242). Her findings were that women of color, specifically black women, are less likely to be able to get the resources needed post-violence (Crenshaw 1991, 1250).

Instead, Crenshaw argues and demonstrates that while gender, race, and class can contribute to violence, identity politics ignore the differences and tensions within groups that have mobilized violence, specifically among people who identify as women (Crenshaw 1991, 1242). In order to demonstrate Crenshaw's argument, she describes the difference in violence between men and women of color (Crenshaw 1991, 1299). Crenshaw argues, "Rather, intersectionality provides a basis for conceptualizing race as a coalition between men and women of color" (Crenshaw 1991, 1299). Therefore, Crenshaw focuses on differing identifiers that intersect within a person's identity and how these intersections contribute to experiences of violence.

Intersectionality is still being used as a tool across the United States to view the oppressions that plague our society. In a business article discussing the wage gap between men and women Adia Harvey Wingfield writes, "[Kimberlé] Crenshaw introduced the theory of *intersectionality*, the idea that when it comes to thinking about how inequalities persist, categories like gender, race, and class are best understood as overlapping and mutually constitutive rather than isolated and distinct." (Wingfield 2016). While Crenshaw has introduced the concept of intersectionality, it has evolved over different sectors of social science academia.

The theory of intersectionality has been used in feminist studies, specifically black feminist thought where it was founded, to highlight the dimensions of inequalities through a person's experience (Gopaldas 2013, 90). However, intersectionality has not just been applied to women of color's experiences but also to other marginalized experiences (Gopaldas 2013, 90). Therefore, I argue that using a lens of intersectionality, can help us better understand a

person's experience of climate change induced migration. Specifically, viewing the dimensions of social inequality, we may be able to understand a person's vulnerability to climate change.

Using an intersectional lens can allow researchers to see how different types of personal identifiers, including gender, impact a person's vulnerability to climate change (Magnusdotti and Kronsell 2021, 2). Furthermore, the social power structure that influences a person's social mobility based on personal identifiers ultimately can affect an individual's experience with Climate change, including natural disasters (Magnusdotti and Kronsell 2021, 2).

It has been found that climate change and greenhouse gas emissions affect people differently based on varying intersections such as race, class, gender, and geography (Magnusdotti and Kronsell 2021, 2). Climate change exacerbates different social inequalities, therefore without knowledge of the marginalization of people then policies will never be created to protect marginalized people (Magnusdotti and Kronsell 2021, 2). Research on climate change in the Global North helps show the misunderstanding of the people who are unequally affected by climate change within the Global South (Magnusdotti and Kronsell 2021, 2). However, climate change does not only affect marginalized people in the Global South but the Global North as well.

Most of the intersectional research on countries has been located in the Global South and has focused on the correlations between gender and vulnerability to natural disasters (Magnusdotti and Kronsell 2021, 2). However, my project will be focusing on the Global North, specifically Louisiana, and intersections that are not just limited to gender. I also argue that researching the Global North, since climate change is occurring more frequently there, should

be focused on not just exclusively the Global South. I also will be looking at not just vulnerability, but rather the correlation between intersectionality and climate change-induced migration.

In conclusion, intersectionality is a useful tool to investigate research within the Global North and give voice to those that are often underrepresented. I argue that intersectionality, and the oppressive nature of differences in socioeconomic status can help tell the story of the people in Southern Louisiana. The theory of intersectionality helps the invisible social intersections that affect a person's opportunity, visible.

CHAPTER IV: FINDINGS AND DISCUSSION

In order to understand my findings as well as to relate the information given by my respondents, the census can be a useful tool in order to understand the demographics of the area. The census allows us to see different socio-economic statuses, as well as where the area is located. It also allows us to dive deeper into the dimensions of intersectionality.

Lafourche Parish, Louisiana is located in the southern part of Louisiana (Louisiana.gov 2023). Lafourche Parish includes the city of Thibodaux, where I chose to reside for my research, and it also includes the towns Lockport and Golden Meadow (Louisiana.gov 2023). (See figure 1). As of July of 2022, there is an estimated population of 95, 870 people living in Lafourche (United States Census Bureau 2023). The population of Lafourche Parish was 97,552 people during April of 2020, meaning that the population between 2020 and 2022 dropped 1.7 percent (United States Census Bureau 2023).

Lafourche Parish is predominantly white with 79.6 percent indicating such on the Census. The next racial group is black at 14.1 percent and the third largest racial group is Hispanic or Latinx at 4.7 percent. The fourth noted racial group based on population is the American Indian also known as American indigenous, at 3.1 percent (United States Census Bureau 2023). While there are other groups within Lafourche Parish, those four are the largest.

As for the economy, 15.7 percent of the population is considered to be in poverty (United States Census Bureau 2023). The Lafourche Parish poverty rate is higher than the national average of 11.6 percent (Data USA 2023). The median household income is \$58,747 in Lafourche Parish (United States Census Bureau, 2023). Majority of the population has a high school diploma, around 80.9 percent, while a minority of the population has a bachelor's degree

at 9.2 percent (United States Census Bureau, 2023). These dimensions of race, and poverty will be useful to understanding the intersectionality of Lafourche Parish.

Throughout my interactions and interviews with the people in Louisiana, it became apparent that various social intersections were prevalent in the citizens' experiences with mobility, or lack thereof, post Hurricane Ida. Specifically, the two social intersections that showed up in my interviews repeatedly were age and income. Various themes of lack of mobility and resources also showed up in the interviews. For example, the ineffectiveness of the government showed up in a couple of my interviews. Furthermore, most of my interviewees articulated how insurance companies were harming the residents affected by Hurricane Ida, instead of helping them. Finally, the discussion of culture and hurricanes in Louisiana is viable to understand why many choose to stay in the hurricane-ridden state.

As to be expected, my interviewees touched on the damage and the destruction that fell upon Southern Louisiana. However, I was able to see the destruction with my own eyes just by driving along the road. Figures 3-4, show the pictures I took while driving throughout the area.

My first two interviewees were female students at Nicholls University, and in their interviews, they both stated that they were forced to evacuate from their housing at the University. One of my respondents, Addy* explained how she would like to move eventually, she understood that climatic conditions and events were presumably going to get worse, but she also wanted to wait for her family to move. She was not going to leave without her family; however, she knew that leaving the state of Louisiana was in her best interest.

Sandy*, who was also a younger college student, had similarities in thought with Addy. She said, "With Ida, there was the thought, if this is bad we will have to leave." (Sandy, personal communication, June 15th, 2022). Sandy was very aware of the inevitable storms that

were to hit Lafourche Parish, and she wanted to leave. She said, “So there is going to be another one this year, even more in the coming years. And because of that, I do not want to stay in Louisiana. Just because of the flooding here, it’s just not a sustainable place to live. Just because of that, you know, always having to worry every summer, like where my house is going to be destroyed, things like that. It’s just not a happy place to live, I feel like.” (Sandy, personal communication, June 15th, 2022). She also said that her father wanted to leave because of the storms.

My other younger respondent, Cassandra*, explained that her family would only temporarily evacuate for category four or five hurricanes. I noticed that while she was discussing evacuating she kept saying, “We” which implied she and her family. Both Cassandra and Addy alluded that they needed their family to leave before they decided to. However, all of my younger respondents, younger than twenty-five years of age, indicated that they were aware of the impending dangers of staying because of hurricanes becoming more aggressive and more frequent.

This theme was significant since it contradicted an older male, Jack*, who indicated that he was moving because of employment rather than anticipation that these climatic events were going to continue in Louisiana. In this interview, he made it clear that he believed that climate change is happening everywhere, not just in Louisiana, so it did not matter where he went he would still have issues with natural disasters. Unlike the three younger girls, who were explaining that they knew that they should move because these disasters will be more common.

One interview that surprised me was with Megan*. Megan went into detail about how she knows that things are becoming worse because of coastal erosion. In her lifetime, she

has seen the effects of climate change with her own eyes. She told me a story about how thirty years ago she used to tie her boat up to the piling which was about thirty feet off of the shore. Now, she says that the same piling is now a mile off of the shore. She then explains that as the coast erodes, it pushes people closer to the Gulf. Therefore, she states that it makes citizens more vulnerable to hurricanes and flooding.

I asked Megan if she wanted to leave because of the climate change, and if she could, she would. She also said that her friends are also wanting to leave because of climate change. When I asked her about leaving because of climate change, she said “Well, thought about it? Absolutely. You know, can I leave my family? My grandchildren? You know, they'd have to all want to come with me. And (what are you) gonna do? Right. That's the dilemma you face? Would I be able to sell what I have? Probably cannot afford to start over from scratch? Absolutely not. Would I be okay with leaving my children behind? And my grandchildren? Absolutely. No. So would I like to know, the galaxies align? Yes, I would. I would not leave the stake. But 40 or 50 miles north of here (Megan Personal Communication August 2022).” Like other respondents, it is hard for her to leave because of outside forces like leaving her family, and affordability.

Not only did age show up in those who viewed Louisiana as a danger zone per se or rather a hotbed of climatic disasters, but age also could limit people’s mobility to leave Louisiana. Megan explained that she wanted to leave but could not for several reasons. She knows that being retired limits her to move. Like Addy, she also does not want to leave her family, even though she knows that it’s in their best interest to leave the state.

The other social intersection that limits people to move is economic status. In

Megan's interview, she is discussing how she can't afford to move. Megan explained that she couldn't afford to sell her house, even though she does want to move. This theme of economic status showed up in almost all of my interviews. Anastasia, a middle-aged nurse who lives outside of New Orleans, explained that even though she can move and wants to move, she understands that there are people who cannot afford to leave even though they want to. In her interview she stated, "Not only is you know, with evacuations, there's a lot that goes with that, as far as you know, not only, you know, packing your clothes and taking your pets and, you know, food expenses and stuff, but, and having your medicines and things like that. But coming back to the city is equally as expensive. Because if you're there with no power, if you're fortunate enough to have a generator that requires gas. And if you have no infrastructure, no electricity, you're stuck in an area that can't get gas. So you might have cars you can drive. But there's you know, everything has to come in from an outside source. And that can be very expensive for someone who may have the opportunity to just evacuate from the storm, but may not be able to get back to their homes" (Megan Personal Communication August 2022).

Anastasia also alluded to the lifestyles of people in Louisiana that Anastasia knew and was related to in some cases, specifically fishermen that would not be able to afford to move. Anastasia said in her interview, Yeah, so you have the people who, or fishermen, strip those types of jobs where their life is their boat, and they're, you know, dead set on riding that storm out. And then, you just have some people who live check to check and make it mean, you know, just get to make their ends meet. And, you know, evacuating involves motels and gas and vehicles that some people don't have. And food to live off of." (Anastasia Personal

Communication June 2022). Therefore Anastasia is saying that with jobs in Louisiana that are related to seafood, it is harder for people to be able to afford to leave. This is significant because one out of every seventy jobs is related to the seafood industry (Louisiana Seafood 2023).

Kim, who works for the Louisiana Sea Grant also commented on how fishermen are affected post-hurricane. For example, she explained what happened to their boats after the hurricane. “So a lot of sugar men have boats from like the 80s. Okay. It's cheaper to take a boat from that period and rig it to fit. Your needs tend to go out buy a newer one because it's already been grandfathered in a new boat with all the specifications to meet the new regulations. What cost millions of dollars and they just don't have it. And most of them do not have insurance on their boats, because it costs too much. So, if they lose a boat, they tend to leave it. That becomes an issue too, because they just sit derelict. There's no regulation to make it. Law. So you should eat your waterways and you know, other shippers get aggravated.”(Kim personal Communication June 2022). Kim continued later in the interview about the lifestyle and culture about the fishermen. She said, “Also people like when another reason not to move is your livelihood. If you're a shrimper, and that's all you've done all your life. You can't move somewhere where you can't travel.” (Kim personal Communication June 2022).

Oil is also a significant portion of the economy in Louisiana. Oil and gas employ 13.1 percent of the total employment of Louisiana (American Petroleum Institute, 2023). Jason* who works in the oil industry explained that he cannot move because of his job. He said, “I'm kind of forced to live where I'm at from my job. I mean, I know my wife wants to get away, she doesn't want to live down here, and she started dealing with the hurricanes. Because it's, it's so much trouble to get your money from the insurance companies. And then it's, you know all your stuff gets destroyed, and you gotta rebuild. And just, like right now, me and her are not even

living in the same place. Because my house is not livable. The whole family. Okay, most of my house was gutted. And I'm going through litigations with the insurance company because they didn't want to pay.” (Jason Personal Communication June 2022). Jason’s wife wants to leave Louisiana because of the hurricanes, but they are unable to move because of his job. If a large number of the population is in the oil industry, one can hypothesize that many people cannot leave because their job is down in Louisiana even if they want to.

Jason was not the only interviewee who discussed how financial instability inhibited people from moving post-natural disasters. Lesly, a middle-aged woman who primarily lives in Jackson Mississippi, said “I mean, the idea of having to go stay in a hotel for multiple days, having to buy a lot of fuel to bring back, having to pay for your insurance deductible or things on your house. That was a challenge for a lot of my friends” (Lesly Personal Correspondence 2022). Interviewee Lesly touches on the problems with insurance in Louisiana which was an overall major complaint in almost all of my interviews.

My respondent, Megan* who is a recently retired woman who worked at an animal shelter for thirty- three years discussed why she does not have insurance. “I have no insurance on my house. Okay, that can't afford it. They canceled me a little over two years ago. Because I do live in an older home again, like a lot of people, it's, it's my parents' home. So to be able to get insurance, I have a tin roof, I have an Acadian style house, it has a tin roof, which is in great condition, and it doesn't leak. They don't like that they wanted me to change the roof. They don't like that my wiring is over 50 years old, I would have had to re-watch, and they wanted me to list the house above flood level. So between those three things, it cost me about \$60 to \$65,000, to do those " (Megan Personal Correspondence August 2022). In Megan’s case, she is unable to

afford insurance and the companies would like her to change architectural things to her house, instead of insuring her.

Another layer of financial instability is instances of people losing their jobs. Jack lost his business, he had a bar in Coteau, Louisiana. He explained that during the hurricane the roof collapsed, and the wall which was brick collapsed, and it was deemed a total loss.

Not only did Jack lose his bar business, but his current job as an engineer still does not have full employment and everything is gone in the area. Homes and businesses are gone, and there are no restaurants or gas stations for at least twenty miles from where he works. This demonstrates that people are starting to abandon and leave that area.

One of the major problems that concluded my research when it comes to insurance companies is arguing that since a person is in a flood zone they will raise the prices. Anastasia alludes to this situation in her interview, most of Louisiana would be considered a floodplain. Anastasia is correct in this assumption. FEMA has designated that at least 51 percent of the state is considered Special Flood Hazard Areas (Louisiana Watershed Initiative, 2023). In her interview, Anastasia says, “So you pretty much if you have a mortgage in Louisiana, more than likely, you're in a flood zone. And therefore you have to carry flood insurance. And if you're zoned in, in an area that has high flood potential, it can be very, very expensive. And then once a storm comes through whether or not you have damage or not. Your insurance continues to rise each year. I knew that after Ida, several of my family and friends have had their insurance drop them. And we didn't see this so much after Katrina, as we have for Ida. But most of our friends and family, the insurance that they had, don't want to pay their claim. So they're all in litigation to get their homes restored” (Anastasia personal communication June 2022). Even though we were discussing insurance, Caitlyn hinted at another previously mentioned intersection. I argue

that this coincides with the intersections of socioeconomic status. If one can barely afford to make ends meet as it is then it is even harder to make ends meet with high insurance rates.

The discussion of how insurance has affected people moving because they cannot afford it came up constantly. Lesly* told me “Very recently, my homeowner's insurance dropped me with no warning. They said they were reducing their risk. And so then when I tried to get the new policy, it was almost five times the cost. She's so when you think about paying \$10,000 a year in homeowners and flood insurance and what that would buy you somewhere else. People don't factor that into the cost of living in New Orleans. And it's a problem. Yeah, um, you know, my friends that live elsewhere would never think that they have \$10,000 a year and insurance. And I've never filed a claim. So that's \$10,000 a year just to make sure that if something did happen, you would have something left. Kinda crazy. So yes, that would influence my decision to leave the city. Certainly, if I couldn't insure my property, or I couldn't afford to insure my property, I wouldn't stay” (Lesly personal communication June 2022). It is crucial to understand that since Louisiana is not becoming affordable because of insurance, people such as Lesly, are considering leaving the area. As long as hurricanes are happening in Louisiana and insurance is projected to rise, people will have no choice but to leave the area; however, people may not be able to leave since they cannot get the proper money from the insurance company.

Caitlyn explained what she had to go through regarding insurance. “It's just when you are at a point where you've lost your residency and all of your belongings, and you're at Ground Zero, and you've paid for the cost of insurance. And they don't respond the way you think that they will. It's very discouraging because of either the insurance doubled. So instead of around \$2,000 stuff we paid around \$5,600. So my parent's house was completely totaled. It was about a \$300,000 house and they're still arguing with the insurance company because they only want

to get the \$30,000 for it.” (Caitlyn personal communication June 2022). Caitlyn’s example alludes to the notion that people may want to leave the area, or Louisiana as a whole, but are unable to since they aren’t getting the appropriate amount of money from the insurance companies.

During Caitlyn’s interview, I wanted her to explain insurance provided I am not from the area and I wanted someone from the area’s perspective. Caitlyn said “With a lot of people down here and the insurance, there’s an insurance company that just closed down that liquidated and did not notify of any of their injuries. Well, so they’re not gonna be pulling out any of those people.” (Caitlyn personal communication June 2022). This piece of the interview coincides with Anastasia’s as both women are claiming that insurance companies in Louisiana will just pull out and leave their customers high and dry.

Jack* argued that the biggest issue post-Hurricane Ida was the insurance companies. He explained that since his insurance company will not give him the amount of money that equates to the damage from the hurricane. They offered much less. At the time of our interview, in June of 2022, he did not have a home. In Jack’s experience, his old insurance sold their homeowners policies to another insurance company. Jack also explained to me that many insurance companies in Louisiana went bankrupt post-Hurricane Ida.

Ineffectiveness of not only insurance companies but of the Louisiana government and government lead organizations specifically the Federal Emergency Management Agency, also known as FEMA. FEMA’s role is centered around disaster relief. FEMA has a goal to assist with post-disaster relief in various places in the United States (FEMA, 2023). This assistance can be monetary, or through projects to help post-disaster (FEMA, 2023). For example, FEMA

was sent to help post-Hurricane Ida and more than 1.8 billion dollars was given to Louisiana to help with the aftermath of Hurricane Ida (FEMA, 2023).

“They were told you need to move. If you don't move, we're not going to help you again. You know, that's a hard thing because I understand the famous point where you know, funds are limited. We just can't keep bailing you out time after time after time. But understand people's heart that this is their family home that you know, parents and grandparents you just don't want to leave. So I do in fact know people sound a little foolish, that were told by FEMA for it. We're not helping. We told you after the last hurricane got out, and you chose to stay. We're not helping you again.” (Megan Personal Communication August 2022). Megan also alluded to not trusting the Louisiana government. She said, “If something happens, is FEMA going to be there for me? I don't know. So that's very scary. So some kind of way. The government needs to come up with something to help us help ourselves. We're not looking for handouts. We're just looking to be able to live.” (Megan Personal Communication August 2022).

Megan continued discussing leaving because of these outside influences not helping after a climatic event. She said, “Not so much the lack of FEMA funding, the lack of this, the lack of that insurance is the biggest impact we have. And it's just a domino effect from climate change, to coastal erosion, to possibly more hurricanes to no new areas flooding, to lack of help to the government, bam, to insurance. It's all directly related. And insurance is the thing that's impacting our state that has the biggest impact right now, the biggest negative impact. You know, just this year, I can't tell you how many people I know, that are not even in a flood zone, but they're in a parish, that the lower areas of that parish floods, and the insurances, you know, they're not going to have this arbitrary line. Well, if you're above the street, they're just saying we're not insuring this parish. But more than that, now, they're saying we're not insuring the

state. Wow. So they're just leaving the entire state. I can't tell you the number of people I know who have gotten that letter this year saying, 'Come renew, we're not renewing you because we are leaving the state'." (Megan Personal Communication August 2022).

Lesly commented on the government from a healthcare perspective. In the interview Lesly responded after I asked if she saw the government assistance and she said "I guess because I'm in healthcare. And I'm sort of in touch with that side of things. I saw a lot of government initiatives around making sure that people's health care needs were met in terms of things like, if you don't have power and you're oxygen dependent. Or if you need dialysis services. There was a lot of direction and help for folks like that, who might be really in a bad place. But in terms of cleanup effort, or assistance immediately after the storm, no, there really wasn't much." (Lesly Personal Communication June 2022).

Experiences with FEMA and trailers were not just isolated events, I had a respondent experience this. Jack explained that his ex-wife had to live in a FEMA trailer on his property since she had lost her home. She had to stay on the property since all FEMA could give her was a trailer, even though she lost her home around a year prior.

While FEMA did come to give aid, many local people felt the need to volunteer since the flooding was getting worse. A couple of my respondents explained that they saw more initiative from local communities, or other state communities, rather than government. Caitlyn, who is an emergency responder, said that people came from Texas and Florida to help out. She also explained that emergency local response teams would come together to help with the extra call volume.

Even with FEMA and the Red Cross and volunteers, Anastasia explained with something as big as Hurricane Ida you still do not get all of the resources you need. Other

respondents did see government initiatives from different sides of institutions. For example, Lesly stated, “I guess because I'm in healthcare. And I'm sort of in touch with that side of things. I saw a lot of government initiatives around making sure that people's health care needs were met in terms like if you don't have power and you're oxygen dependent. Or if you need dialysis services. There was a lot of direction and help for folks like that, who might be really in a bad place.” (Lesly Personal Communication June 2022). While Lesly claims that the government was aiding in health care she also explains that the government lacked in other areas. She continued, “But in terms of the cleanup effort or assistance immediately after the storm, no, there wasn't much”. (Lesly Personal Communication June 2022). While the government was focused heavily on various interviews, the overall infrastructure of Louisiana did not help the citizens during or after the hurricane.

During my interviews, I always asked about Hurricane Katrina, since it was the biggest hurricane before Ida and the literature I used for my review had argued that Louisiana failed and the levees broke. Megan* had highlighted the problems with Louisiana's infrastructure postHurricane Katrina, but included that Hurricane Ida did have the levees that helped.

However,

Sandy made a comment that while that sector of infrastructure was effective, others were not. She alluded to the political infrastructure as one of the reasons that the Southern Louisiana area was as widely impacted by the hurricane. Megan said that the government during Katrina had more funds to be able to help. She said, “And then you had Katrina. So you didn't have all of these back to back to back hurricanes hitting and causing so much damage. So you had more help from the government, you had more help from citizens, people just wanted to donate because, you know, everybody saw the pictures on the news, they saw the loss of life. So the

outpouring of help from both the private sector, the business sector, and the government was greater, because funds were more readily available. With Ida, you know, now you have you had COVID going on. And just you know, funds are limited, businesses are struggling to survive. By this time, the government and FEMA or whoever had been hit with so many hurricanes, they had tightened, the requirements for helping funds were more restrictive. It was just harder for people, businesses and government to react to it, and help than it was for Katrina” (Megan Personal Communication June 2022).

Various interviewees also discussed the problems with resources that were depleted and the struggles they had to face while trying to evacuate from their homes. As expected, many people were trying to get out of Louisiana and into other areas not affected by the hurricane at the same scale as Southern Louisiana Lesly* said during our interview while she was discussing having to leave Jackson Mississippi. She went to Jackson to stay with her mom for a weekend, she did not take the evacuation seriously. She then had to leave and go back to her home because of a neighbor reporting a tree down. She recounts the scarcity of places to stay. “There were a lot of other people from the city in the surrounding area that drove north. And so all of the hotels were full. That wasn't a barrier to me because I had family to stay with.” (Lesly Personal Communication June 2022). This begs the question, what happens to people who are unable to stay with their families or friends? What is being done to help those who are stuck without a place for refuge?

People were not just struggling with finding places to stay, people were struggling to find necessities to live. Lesly* continues, “But I thought about things like maybe I should go buy some water or a generator or tarps to bring back. And there were none of those things to be had. People had just cleaned out everything in Jackson. So I mean, you couldn't buy a gas can.

So that was a little bit of a barrier. I would say fuel was a challenge. I was worried about getting to New Orleans and how much gas I had. I took gas with me to go back. Other than that, I would say not necessarily for me, but for a lot of my friends the cost was a challenge.” (Lesly Personal Communication June 2022).

Lesly was not the only respondent who commented on disappearing resources. Cassandra explained that people had to drive extensive amounts of distances to get objects such as milk, and eggs. The food that they did have had been spoiled so they were desperate to find these staples. Not only was it an issue of people losing their power and their food being spoiled, but Cassandra explained that the majority of grocery stores lost their power, which meant that they also had food that was spoiled.

Communities that can be considered vulnerable, including young mothers, were also impacted by these depleting resources. Cassandra explains that one of her family members, a young mother, had to call Cassandra and her family begging for them to stock up on baby formula. This mother was scared that her baby was not going to survive.

Kim also explained that people may not move just because of the hurricanes, but rather the lack of resources. She said, “If people are, ironically, the people that bought my in-laws' house moved up from China, they bought their house. They're just like we can't, we can't keep doing it over and over again. And you're seeing a lot more in the coastal areas, families that have lived there all their lives moving not necessarily because of the hurricane. But what happens afterwards? Like the stores are getting damaged, the gas stations are getting damaged. And they're coming back and rebuilding. So it's basically moving because of a lack of resources.” (Kim Personal Communication June 2022).

While the majority of my respondents are still in the area many of them plan to leave. My respondents want to leave knowing that hurricanes are becoming more of an issue. They have little access to resources when a hurricane does hit. The government does not put in the effort that they feel is necessary and they argue that they have to trust outside communities to respond. However, while they may want to leave it becomes hard when they can't afford to.

CHAPTER V: CONCLUSION

After my thesis project, I have concluded that based on my interviewees answers, people who reside in Louisiana are being influenced by climate change, by means of hurricanes, to move out of state. I also was able to conclude that various intersections, namely economic status, and age, were factors to prevent people in Lafourche Parish from moving out of the state. For my research, I decided to focus on the aftermath of Hurricane Ida. In order to conclude this, I compiled my interviews and found various themes that stuck out.

As previously mentioned, various themes came out of my research. For example, the Louisianan government was not always effective in helping its own citizens post hurricane Ida. Respondents reported seeing more of an effort from their own communities, or out of state communities, rather than the state government. This in turn caused some distrust with some of my respondents, with the government in regards to disaster relief. This is significant because as I have previously touched on in my background and literature review, hurricanes and other natural disasters are not projected to slow or stop anytime in the near future. Therefore, without an effective government post disaster, Louisiana citizens are going to have to look for outside or communal help. This distrust of the efficiency of the Louisiana government can have the opportunity to cause added stress in an already stressful time.

The needs of my respondents in Louisiana post hurricane were not being met. A young mother had to struggle with finding food for her baby. Being that she was a young mother, she may have less of a voice because of her age and gender. The stores and places that carried resources for her child near her could not supply the necessities for her baby. This begs the question, if she were not a young mother but rather a man, would supplies be more at the ready for her disposal?

Not only were respondents having to worry about basic necessities during the hurricane, but they were also worried about these necessities post hurricane. Not only was there a depletion of resources, but respondents had to worry about how to pay for their livelihoods. Businesses were destroyed, people also lost their jobs. As aforementioned in my discussion, bar owners lost their buildings and fishermen lost their jobs (Chavez 2022). Not only did fishermen lose their jobs, but it impacted their culture as Louisiana citizens. One of my respondents spoke towards this, and losing their livelihood which deeply contributed to the overall culture of Louisiana, could negatively impact their idea of belonging in Louisiana.

Not only were people feeling the economic effects of the hurricane within their businesses and jobs but there was another factor that really affected finances. Insurances were not helping their clients. Instead, they were hurting them. They raised premiums, dropped clients, and major insurance companies bought out smaller local ones. For example, eleven insurance companies went bankrupt after Hurricane Ida (Frank 2022). Premiums sky rocketed for the majority of my respondents. The insurance companies would not pay the actual amount of monetary damage caused to citizens homes. These companies that were created to help citizens, are profiting from the hurricane as insurance rates continue to climb.

In conclusion, the lives of Louisiana citizens will continuously be negatively impacted unless several changes are made post hurricane season. The state government will need to adopt measures to help its own citizens. Otherwise, the citizens will continue to have to rely on outside help.

Second, the citizens will continue to have to search for depleted resources until the companies in Louisiana recognize that items such as baby formula are a necessity. The resources will need to be available to all types of people who reside in Louisiana, and in

surrounding areas. This could impact the migration patterns in Louisiana if people cannot find resources to feed their families or themselves.

With all of these negative sanctions to the people of Louisiana, one might wonder if they will move. However, those of my respondents spoke about moving, many of them could not. One of the biggest reasons being, they simply cannot afford to. Several of my respondents knew that they wanted to move, they acknowledged that devastating hurricanes were still going to continue to happen, however they did not have the means to. Intersections of economic stability was one of the biggest themes within my research.

Another reason for the hesitation to move is they want to be near their families. My younger respondents understood that climate change was going to affect their lives, however their family members did want to move. Their families were inadvertently keeping them in the state of Louisiana. Age also was a deterrent for leaving. A retired respondent of mine, Megan*, explained that because of her age as well as her lack of income, she cannot move even though she wishes to.

However, I had respondents explain that if more damage was done to their residence, they would move. Anastasia* was very aware of the impending threats of climate change and hurricanes as whole. . Anastasia said during our interview, “If there was another disaster, and we evacuated, we definitely evacuate. I'm not going to write out any storm in New Orleans area, and nor does my family in Lafourche. Parish, it's just a riff that no one wants to take. However, if I sustained major damage, I would move.” (Anastasia Personal Communication 2022). Other respondents also stated that they were leaving, not necessarily because of the hurricane, but rather because of job opportunities.

In conclusion, the aftermath of Hurricane Ida affected all of my respondents. However, it did not affect all of my respondents equally. Various backgrounds, including socioeconomic status, age and other factors of intersectionality played into their experiences with the aftermath of the hurricane. Furthermore, the effectiveness and the ineffectiveness of the government and infrastructure changed the course of the lasting damage caused by the hurricane.

The respondents I interviewed had differing opinions on the hurricane and climate change in general, however they all commented on how it changed their experiences in some fashion. Importantly, respondents wanted to leave the area because of the ever growing problem of hurricanes as well as the need to adapt to them. One can hypothesize that if the government and the infrastructure cannot bend to the needs of those located in Louisiana then the drive to move out of the area may continue.

I argue that the research that I have conducted would be beneficial to continue on with. The research of this project could be expanded on a larger scale. Further research could dive into more intersections as well as larger areas in Southern Louisiana. These climatic events are not going away and we need to continue on listening to the people who are on the front lines.

The people in Southern Louisiana deserve to have their stories told and deserve to be protected by the institutions that surround their communities. The stories that were told by my respondents highlight the ineffectiveness of the government and the lack of responsiveness post hurricane. The stories also highlight the social intersections that stall people's needs to leave out of Louisiana. I would like to suggest to the government of Louisiana as well as the national government to listen to the stories of the people who are having their lives changed by climate change. With the assistance of different organizations including the government, as well as

having cooperation and intention of helping people from insurance companies, there is the potential to help people leave areas that are being destroyed around them.

Furthermore, as it has already been discussed that climate change is not going to slow anytime soon, people will need to leave the area. With Louisiana being a hotspot for climate change events, such as hurricanes, people will need to leave their homes in the state in order to stay safe.

Figure 3: Sydney Breiner, *Bar Destroyed By Hurricane Ida*, Lafourche Louisiana

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³ Sydney Breiner, *Bar Destroyed By Hurricane Ida*, Lafourche Louisiana

Figure 4: Sydney Breiner, *Trailer Destroyed by Hurricane Ida*, Lafourche, Louisiana

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⁴ Sydney Breiner, *Trailer Destroyed by Hurricane Ida*, Lafourche, Louisiana

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