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Food Insecurity in Mississippi: Examining the Relationship between Food Insecurity and Race

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FOOD INSECURITY IN MISSISSIPPI: Examining the Relationship between Food Insecurity and Race

by

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Abstract

The relationship between food insecurity and race is examined in this thesis. The author analyzes the history and background of food and race in Mississippi to bring about a recommendation to change policy. An analysis of USDA data as well as a spatial analysis was used as the primary method for investigating the relationship between race and food insecurity in Mississippi. The findings indicate that, in the urban setting, at ½ mile, 61% of whites are food insecure, and in the urban setting, at the 1 mile, 64% of whites are food insecure. In urban settings, the White population of Mississippians are the ones who are most likely to be food insecure. However, in rural populations in Mississippi, African Americans are those who are most likely to be food insecure. This led to the realization that due to these findings, institutionalized racism was not the leading factor in race related food insecurity. This led the author to identify poverty and as a leading issue with food insecurity in Mississippi. The findings in this thesis lead to policy recommendations for both urban and rural Mississippi. For these policies to be effective, systemic poverty must be addressed, and access needs to be extended in different methods depending on the area of Mississippi affected.

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Chapter I: Introduction

Food Insecurity and Food Deserts

Food insecurity is a term that has been coined rather recently within the scheme of words. The definition of this term is defined by the USDA as "a household-level economic and social condition of limited or uncertain access to adequate food" (Murthy, 2016, p. 656). Another widely used definition of food insecurity comes from the 1996 United Nations World Food Summit: "when all people, at all times, have access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life" (Ivers, 2015, p. 2). Previously, people often used "hungry" as a term to describe people who were dealing with issues of food insecurity. However, now, society has realized that there is a big difference between "hunger" and "food insecurity". Now hunger is used more strictly as a current state of being which is fixed when one is given food. Food insecurity is a more difficult problem to address.

Food insecurity is no new problem to the United States. Lack of access to healthy food, whether through availability of food or no money to buy it, has been an issue that affects citizens of the United States, especially for low-income families (Swann, 2017). The overall rate of food insecurity in the United States increased from 11 % before the Great Recession began in late 2007 to nearly 15 % in 2008 (Coleman-Jensen, A., Nord, M., Andrews, M., & Carlson, S., 2011). In 2015, approximately 1 in 8 U.S. households

experienced food insecurity at some point in the year (Swann, 2017, p. 1). “In 2018, an estimated 1 in 9 Americans were food insecure, equating to over 37 million Americans, including more than 11 million children” (Coleman-Jensen, A., et al., 2019).

Another issue related to the definition of food insecurity is “food deserts”. “Recent studies have identified socially distressed neighbourhoods with poor access to healthy food as ‘food deserts’,” (Larsen, K., & Gilliland, J., 2009, p.1158). “In the US, low-income, minority-dominated urban neighbourhoods are often considered food deserts, as supermarkets have vacated these communities,” (Larsen, K., & Gilliland, J., 2009, p. 1158). These food deserts are places where the residents have limited access to healthy and relevant food since the resources such as vehicles, distance, and money can be a factor.

The Problem

The problem that will be explored within this thesis is the issue of who are the people who are experiencing food insecurity at higher rates in Mississippi. People of all backgrounds can fall into hard times; however, there is a higher percentage of people of a certain demographic who experience limited food access. In particular, this thesis will explore how African Americans experience food insecurity. There are several factors that come together to play a significant role in issues with food insecurity. These factors include poverty, age, gender, education, and race. Race plays a factor as systemic racism has been plaguing the United States and Mississippi. As defined by Ture and Hamilton and Carmichael, racism is “the predication of decisions and policies on considerations of race for the purpose of *subordinating* a racial group and maintaining control over that

group" (Ture, Hamilton & Carmichael, 1968, p.218). "Acts by the total white community against the black community [institutional racism]" is also known as systemic racism (Ture, Hamilton & Carmichael, 1968, p.218). Systemic racism therefore is quite similar to institutional racism. Systemic racism "operates within 'established and respected forces in the society, and receives far less public condemnation than the first type'," (Castle, Wendel, Kerr, Brooms, & Rollins, 2019, p. 27). Understanding the ties between food insecurity and racism can help society establish better policies that promote equality through food access in the United States and Mississippi. Mississippi had the highest rate of food insecurity in the nation between 2014-2016 (Coleman-Jensen et al., 2017).

Food Insecurity and Race

Food insecurity is a problem that affects many Americans, but it disproportionately affects African Americans. "In 2014, 30% of African-American households with children [in the U.S.] had low or very low food security, a rate double that of white households with children" (Burke, Jones, Frongillo, Fram, Blake, & Freedman, 2018, p. 276). Compared to white households, the difference in prevalence between low food security and very low food security is larger for African American households (Coleman-Jensen, 2015).

Race plays a large underlying role in determining whether someone will be food insecure or not. "Race or ethnicity can also be associated with other social and environmental characteristics that affect food access and availability. For example, members of racial or ethnic minority groups may experience unequal access to social positions and resources owing to prejudice and discrimination related to employment or

housing," (Devine, 2005, p. 124). Therefore, race can be a characteristic that predicts other conditions due to institutional racism's reach into many different areas of one's life. For example race can predict what neighborhood people may live in. These neighborhoods could be what defines where its residents will eat and where they will go for their grocery shopping. Neighborhood segregation is the issue of neighborhoods being segregated due to factors like household income and property value. Whilst household income and property value are issues that contribute to neighborhood segregation, underlying issues like generational racialized poverty, unequal educational opportunities, and redlining that are linked with institutionalized racism are also problems that contributed to neighborhood segregation. Within neighborhood segregation, there are 4 times more supermarkets located in white neighborhoods, compared to African American neighborhoods in the United States (Morland, Wing, Roux, & Poole, 2002).

The objective of this thesis is to examine the relationship between food insecurity and race within the scope of Mississippi. The primary research question is, "What is the relationship among race, racism, and food insecurity in Mississippi?". Chapter II will highlight a background of race relations and food in Mississippi. Chapter III will provide the methodology of the research. Chapter IV will show findings of the research. Chapter V will provide recommendations to address food insecurity as well as provide a conclusion.

Chapter II: Background of Food and African Americans in Mississippi

The history of race relations in Mississippi and its prevalence in the state is a complex one. It has never been easy in Mississippi where race relations can still be an issue even today. It all began with the issue of slavery which started in 1720 when the first cargo from Africa was brought into the area (Hawes, 1913). The kind of care that these enslaved were in varied from enslaver to enslaver. Some slave owners kept their enslaved in closer relation to themselves, working and living with them inside the house. However, others were not as kind and would separate themselves from their enslaved so that they could mistreat them more often with less of a hurt conscience. Rarely, if ever, was teaching their slaves how to read and write the first priority of the enslavers. However, in Mississippi, what was more common was the teaching of the Bible within the enslaved community. Often they would go to Sunday school and attend their own segregated services. However, what is most commonly documented about these days were the mistreatment and extreme cases against morality for possessing other humans. Enslaved people had no rights; they couldn't vote, own land, or speak their mind without fear of repercussion. Enslaved people from the South sought freedom by traveling north towards Canada, however, most would be caught and sent back to their owners with a reward from an advertisement they may see in a local newspaper due to the Fugitive

Slave Act (Bolton, 2019). Once back, they would face serious punishments from their enslaver like beatings or even worse, death.

The United States legally abolished the international slave trade in 1810, but this did not mean that it completely halted the importation of slaves from across the globe into the United States overnight (Diouf, 2007, p. 135). Men, women, and children were continuing to be brought to America from nations like Benin, Nigeria, and more with the intent to use them as free laborers. Many families were separated, creating brutal experiences for those arriving in America. Once they arrived in America, the enslaved would take the last names of their new owners. Due to this tradition, it became difficult to track all of the enslaved people and their lost families in Africa. This erasing of history has attributed to the lack of understanding that many non-historians have about the slavery time period. Due to this issue, many things that have been accepted as true are documented from either slave narratives, formerly enslaved people who wrote autobiographies after the Civil War, or enslavers. From this information, it is known that what enslaved people ate varied from plantation to plantation and from state to state. The basic foods are quite common for all regions, however, there was variance in the techniques depending on the region and skill of the enslaved cooks. Most enslaved people were given rations of food staples like corn. On holidays, the amount of food would increase. When they wanted to get more food, they would resort to trapping game. “Some were permitted to sell their excess produce to the plantation owner or on market day sell their excess produce to other plantation owners or those living in towns” shows how

enslaved people had to decide whether they wanted to eat their excess produce or sell it in exchange for goods like coffee, tea, spices, or, on occasion, their freedom (Smith, 2013).

The diets of enslaved people consisted of things that were common in areas like Africa, South America, and Asia since they would grow foods that were not common in England. This would include tomatoes, peppers, eggplants, peanuts, sweet potatoes, yams, assorted greens, okra, black-eyed peas, sesame seeds, watermelon, cassava, muscovy ducks, and guinea hens (Covey & Eisnach, 2009). Some food that both enslaved people and enslavers would eat include chitlins, also known as the organs of a pig (Smith, 2013). Some enslaved people also owned chickens which led to the entrance of fried chicken into African American foodways in the Southern United States (Mitchell, 2009). Enslaved people often labored in plantations kitchens, especially in wealthy plantation homes. There, they would cook all of the cuisine for the family. Thinking back to the food mentioned like watermelon, cassava, sweet potatoes, okra, black-eyed peas, and assorted greens, they were often prepared by those enslaved cooks in the home. Therefore, the cuisine that is often associated with Southern culture is defined by the cuisine that enslaved cooks popularized in Southern plantations.

Due to the differing conditions of enslaved people, it is difficult to know the statistics of food insecurity in their populations. Since slaves did not have rights at the time, the right to food was not considered. There wasn't any concern about whether or not slaves were getting the proper amount of food or not. Their health for many slave owners was for one purpose which was to get work done. Food security of slaves depended on the status of their owners and their own food security. It also depended on

the generosity of the slave owner who would decide how much food they would allot to the slaves. It also had to keep the owner at an economical advantage. “On plantations of some size, there were basically two different systems of food distribution: one in which the enslaved were fed from a centralized kitchen somewhere on the plantation, and another wherein the enslaved were given their rations on a schedule and allowed to prepare them in their own cabins or within what ever communities they might have created for themselves,” shows how the enslaved people were fed (Harris, 2011, p. 95). To help supplement their rations, the enslaved people would often go hunting for their own food or sometimes even steal crops if needed. Another factor that played into the diets of slaves was that of the region that they were in.

Since Mississippi plantation owners found enslaved labor integral in the production of their crops, they sought to defend the institution of slavery (Hawes, 1913). Therefore, when the Civil War occurred, Mississippi fought alongside the Confederacy to defend the rights to own slaves. Many African Americans from Mississippi joined the war, however, most fought for the Union to support abolitionism. “In Mississippi alone, 18,000 black men were mustered into the Union Army and Navy. So great was the black enthusiasm for the war that during the final stages in mid-1865, there were more black men in the uniforms of the United States armed forces than there were white men in the entire Confederate Army” (McBride, 2011, p. 11).

With the tension between the North and the South, America was facing a crisis by being at war with itself. In the beginning stages of the war, many early battles that were fought were won by the Confederacy. Whilst in the middle of the Civil War in 1863,

Abraham Lincoln issued the Emancipation Proclamation which stated that " 'all persons held as slaves' within the rebellious states 'are, and henceforward shall be free'" (Guelzo, 2005, p. 202). Most enslaved people remained in bondage until after the end of the war.

The Bureau of Colored Troops was established in March of 1863. "The first battle fought by black troops in Mississippi was the battle of Ship Island near Pascagoula in April 1863. The troops, however, were members of the 2nd Louisiana (Corps d'Afrique), consisting wholly of Louisiana Native Guardsmen, who had been absorbed into the Union's armed forces" (McBride, 2011). Following the Emancipation Proclamation and the creation of the Bureau of Colored Troops, the tide began to change in favor of the Union. The Battle of Vicksburg taking place in Vicksburg, MS was arguably the most pivotal moment in the United States for the Union Army. After the Siege of Vicksburg in 1863, the Union gained control of the Mississippi River. Then, in 1865, the Union Army claimed victory in the Civil War (McBride, 2011).

The Civil War era had a strong impact on Mississippi. Remnants of this time can still be observed throughout the state with 800 Confederate monuments throughout the state, which is more than any other state in the United States (Sedore, 2020). In the time period of the Civil War, food in the South was very much affected. Food shortages became widely known and accepted during the war. Therefore, most Southerners were food insecure. The foods that were common in this time period for both enslaved and enslavers were pork and corn, chicken, wild game, sweet potatoes, greens, and field peas. "As food prices rose, agricultural production fell, and provisions could no longer be transported, even plantation owners, previously used to the fancier fare of balls and

dinner parties, were reduced to this basic southern diet, which had previously been reserved for the slaves in their households" (Edge, 2014, p. 39). At this point, food insecurity affected everyone in the South, including all races in Mississippi. Whilst the food shortage meant that everyone was eating worse, the worst of the eating was being done by the soldiers participating in the war. Confederate soldiers were given standard meals that included cornmeal, beef, hardtack, and sometimes, rice, field peas, or potatoes (Edge, 2014, p. 40). However, often this diet they were given was insufficient due to problems like spoiled meat, unripe fruit, and polluted water which led to problems like typhoid and dysentery (Edge, 2014, p. 40).

From a Confederate soldier named John S. Jackman's diary, he described the prices of the food, "Prices current: spring chickens, 50 to 75 cents; tough hens, 80 cents to $1; old roosters, $1 to $1.25; turkeys, $1.50 to $2.00; old ganders, $1.50; goose, same; vegetables 50 cents for peeping over the fence into the garden" (Grivetti, Corlett, & Lockett, 2002, p. 111). With the famine that the South was experiencing during this war, the races of the South were either quite equal with their quality of food or far distant. People were either eating minimally and eating the most basic of foods, or they were throwing the most extravagant of parties with the most extravagant of foods (Edge, 2014, p. 40). Though to varying degrees, food insecurity afflicted everyone in Mississippi during the Civil War, including the enslaved, enslavers, poor whites, and free Blacks.

Following the Civil War, many African Americans existed in an in-between state. They had moved past being slaves due to the Thirteenth Amendment added to the United States Constitution that abolished slavery, but they hadn't yet gained a fully defined

description of their roles as citizens in society. “They were no longer considered property, but their citizenship and ability to form legal domestic bonds had not yet been fully defined” (Perrone, 2019, p. 133). It wasn’t until the Fourteenth Amendment to the United States Constitution in 1868 that African Americans became recognized as United States citizens.

Although this milestone occurred, conditions did not entirely improve for African Americans in the United States, especially in the South, for decades to come. This is largely due to the Jim Crow laws that emerged after the Thirteenth and Fourteenth Amendments provided more liberties to African Americans. They were called Jim Crow laws after a popular Black character played by a white man in a minstrel show. “Jim Crow laws had their origins in a variety of sources, including the Black Codes imposed upon African Americans immediately after the U.S. Civil War and prewar discrimination in railroad cars in the northern states” (Vieira, 2011, p. 353). These laws became the accepted law due to Supreme Court case precedent set by Plessy v. Ferguson in 1896. This case began the notorious “separate but equal” standard that was upheld until the end of the Civil Rights Era.

In this time period after the Civil War and before the 1900s, the Ku Klux Klan (KKK) formed in the South in Pulaski, Tennessee. It quickly spread throughout the South, notably to Mississippi. This first installation of the KKK had no further organized existence after March of 1869, but its formal campaign of white supremacy persisted and evolved over time(Lester, Wilson, & Fleming, 1905, p. 131). The KKK had several other phases like the second Klan from 1915 to 1944 and the third Klan from 1946 to present.

In the period following Emancipation, some African Americans decided to move to other southern cities. When these places became more populated, and when the racial terrorism came to be too much, they then moved to places like Detroit or Chicago. Most decided to stay in the rural South, though, and many became sharecroppers as a way to gain resources to sustain life.

This system of sharecropping likely started near Natchez, Mississippi where there are records of the Army and Freedman's Bureau playing an indirect role in the emergence of the system (Davis, 1977). The foods that these sharecroppers ate were limited since they didn't have the same resources that they had access to in the plantation kitchens. Therefore, African American families had the knowledge of how to make more complex foods but were restricted to more basic foods. "... while plantations had contained a wide range of food resources, sharecroppers obtained food from a narrower one. They had few cooking utensils, sometimes using lard or soup cans to make cakes of assorted sizes," (Yentsch, 2008, p. 20). There were also white sharecroppers in the United States that lived through poverty and had hard experiences, but their struggle was not as racialized as the African American sharecroppers.

African American sharecroppers were largely food insecure at this time because they faced major difficulties when trying to obtain food. For example, the local stores were often intentionally placed outside of the predominantly African American neighborhood. Also, African Americans had little space to meet any of their own agricultural needs; therefore, they couldn't grow much of their own food. For example, one sharecropper reported in a journal, "We usually eats butts meat an' rice for supper, an'

if I'm lucky, we has some sort o' vegetubbles, an' maybe a little stewed peaches or such for sweetin'. . . [there is] butt meat an' grits for the chilluns' breakfast, . . . we don' worry bout no midday meal," (Yentsch, 2008, p. 23). This showed that African Americans during this period usually ate the bare minimum. They didn't worry about a midday meal since they didn't have enough food to warrant another meal at that time. Black sharecroppers ate what they could eat, they did not eat what they wanted to eat.

As time continued, African Americans in the South began to make strides towards actual freedom. As 1910 approached, many more African Americans became store owners. They could expand their land and make more food. Conditions were improving for some. However, in 1913, President Woodrow Wilson oversaw the beginning of federal segregation. "By the end of 1913, segregation had been realized in the Bureau of Engraving and Printing, the Post Office Department, the Office of the Auditor for the Post Office, and had even begun in the City Post Office in Washington, D.C," (Wolgemuth, 1959, p. 161). This was disheartening for many African Americans since many had voted for Wilson with hopes of progressive views that would improve conditions for African Americans.

Not soon after this, however, Americans were thrust into World War I with not much time to think about social injustices. There were two African American combat divisions that had been established by the War Department, the Ninety-Second and the Ninety-Third Divisions (Williams, 2010, p. 2). There were around 357,000 African Americans who served the United States in World War I, and the majority of them fought in the French War Zone (Ellis, 2001, p. 74).

Following the armistice of World War I, conditions did not get better for African Americans, even those who fought in the war. In 1919, there were numerous race riots throughout the country. These riots, also known as Red Summer, took place in Washington, D.C.; Knoxville, Tennessee; Longview, Texas; Phillips County, Arkansas; Omaha, Nebraska; and Chicago, IL. Chicago's race riots became the most notorious of all due to the sheer number of those dead and injured following the week of violence. Also, due to the Great Migration which led many African Americans to northern cities like Chicago, tensions were running higher between the racial groups. Chicago's race riot began in the last week of July, 1919 when a young African American boy swam across an imaginary segregation line at the beach. Once he crossed that line, he drowned because of white boys who threw rocks at him. Following this tragedy, the police refused to arrest the white boys despite multiple eyewitnesses identifying them. The results of three days of riots led to twenty African Americans dead, fourteen white men dead, and a number of African American homes burned (Sandburg, 1919, p. 1). After thirteen days of this riot, thirty-eight people were dead, five hundred and thirty-seven people were injured, and one thousand African American families were without homes (Addison, Bryan, Carter, Del Tufo, Diallo, Kinzey, 2013, p. 4).

The Chicago race riots of 1919 event marked a significant point in history where violence between the white population and the African American population was escalating and tensions were rising. Directly following this event was the emergence of the Harlem Renaissance in Harlem, New York which significantly impacted African American culture throughout the United States and other nations in Africa and Europe.

The breakthroughs from this time include poetry, literature, music, and more. Some kinds of music that really blossomed thanks to the Harlem Renaissance include Blues and Jazz music. This movement largely took place in the 1920s as African Americans were using their talents to move towards modernism. “The literary renaissance was in part an attempt to augment the value of black culture within the national cultural field -- to accrue what Bourdieu terms ‘cultural capital’ as *one* aspect of the struggle for social power and justice,” (Hutchinson, 1995, p. 12). This cultural explosion from the Harlem Renaissance helped shape how African Americans in the United States were viewed. Rather than being stereotyped as rural and uneducated, African Americans following the Harlem Renaissance were viewed as having more intellect and social consciousness. With the trends of the 1920s, the Harlem Renaissance was greatly influenced by the Roaring 20s. Therefore, staying up late and drinking at night was a trend for both whites and African Americans; however, they were just doing so in segregated buildings. With this trend of late nights, food during the Harlem Renaissance had to be created to fit this new need. One of America’s staples emerged from the Harlem Renaissance, and that is chicken and waffles. Late at night, some would argue if chicken or waffles would be better to eat. Joseph Wells, owner of Wells restaurant in New York, then put both chicken and waffles together on a dish. Once eaten together, the rest became history and quickly spread across the United States to be hailed as an iconic southern dish. This is best described by John T. Edge, the director of the Southern Foodways Alliance, in an interview about the subject. Edge said, “it's a Southern dish, but a Southern dish once or twice removed from the South” (Godoy, 2013).

The other food trends of this time include regulations that hadn't existed before. Food preservation became more of a priority following World War I when canned foods and other rations were preserved for soldiers. Refrigerators were becoming more common, but it was still a luxury that was seen most likely in rich households. "In the 1920s and 1930s a process for electric pasteurization of milk was introduced in the USA from Europe, the so-called 'Electropure Process' which, contrary to the discontinuous process usual at that time, was described as product-saving treatment," (Sitzmann, 1995, p. 237). Nutrition also became a focus during this time period. "While Herbert Hoover of the American Relief Administration was committed to using the US wheat surpluses, he employed the services of the physiologist and nutritionist, Ralph Kellogg," (Weindling, 1995, p. 319). Vitamins and food fortification was just beginning during this time period which led to major developments in the nutrition of Americans in the following few decades.

The 1930s were characterized by tragedy and hardship with the Great Depression. Caused by a stock market crash at the end of 1929, the decade was shrouded in economic despair. While overall migration was reduced, this led many Mississippians to leave the South once more to try to find better prospects. "Between 1840 and 1940 Mississippi had a black majority population, and the ruling white minority became, and remained, obsessed with imposing and maintaining its rule. So many blacks escaped the state [Mississippi] during the First World War and the Depression that whites became the majority again," (Mitchell, 2014, p. 309). The migration of white Mississippians greatly affected the experience that African Americans had in Mississippi since they gained the

majority. However, this did not mean that they gained many specific breakthroughs in civil rights.

As a result of the economic issues, many African Americans voted for Franklin Delano Roosevelt (FDR) to become the next president of the United States. In 1936, the Republican nominee Alf London only received about twenty-eight percent of the African American vote (History, Art & Archives, U.S. House of Representatives, 2008). FDR's New Deal had great promise to promote economic recovery for many citizens, and he wasn't excluding the African American population. However, discrimination still occurred during this time period. "During the Great Depression, those first to lose their jobs were Hispanic and African American men, followed by African American women whose domestic jobs were given to white women," (Barrow, 2007, p. 203).

Forrester Blanchard Washington was recruited to the first New Deal administration by FDR. He worked as the director of Negro Work in the the Federal Emergency Relief Administration (FERA). There, he noticed many different policies that were put into effect which discriminated against African Americans. He found that there were certain groups that, by denying employment opportunities to African Americans, were playing a role in developing welfare dependencies. Within FERA, it was the first time nationally that there was a system put into place that aimed to feed hungry people. "The system created weekly 'grocery orders,' coupons that were traded for food at local markets. The food relief had to meet nutritional recommendations for an adequate diet, hearkening back to W.O. Atwater's dietary standards," (Nickols, 2017, p. 440). This

could be the beginning of food insecure people across America, including African Americans, benefiting from governmental programs to help sustain their ability to eat.

Not long after FDR was elected President of the United States, Adolf Hitler was named Chancellor of Germany. The United States' involvement in World War II began after the bombing of Pearl Harbor by Japanese forces on December 7, 1941. Just like the Great Migration in 1916, there was another flood of African Americans leaving the rural South for other cities, usually in the North. "Some 1.5 million African Americans left the South during the 1940s, mainly for the industrial cities of the North. Once again, serious housing shortages and job competition led to increased tension between blacks and whites," (Lynch, 2019). This led to another series of race riots, in which the worst of them happened in Detroit, Michigan in 1943. These racial tensions did not stop African Americans from participating in the army. Many joined all branches for the fight, yet the army was still not fully integrated.

Since many resources were limited in the United States due to the effects of war, citizens had to cut back on their usage of certain food products. To do so was patriotic and was supporting the war effort from the home front. In 1940, the Committee of Food Habits was formed which had the goals to ensure that Americans would have a nutritious diet and also keep morale high despite the food shortages and rationing (Dantec-Lowry, 2019, p. 8). The food shortages and rationing meant that not many groups of Americans were getting the food that they wanted. "By spring 1943, the federal Office of Price Administration had allotted points to each item on a long list of meats, dairy products, cooking fats, canned and frozen fruit and vegetables," (O'Neil, 2013). Everyone was

given a certain allotment of points, and some goods had higher point prices than others based on what was needed overseas or what had low stock. Food access was limited across the country due to certain foods being inaccessible to citizens through the rationing program.

"Immediately after World War II, surplus provisions were sold in supermarkets, and manufacturers—mostly to ensure their own survival—began marketing canned and other packaged foods to middle class civilian consumers as items that would facilitate their busy lifestyles," (Tunc & Babic, 2017). Despite food becoming more convenient for Americans, African Americans were still facing employment discrimination in the South. Therefore, in Mississippi, many African Americans remained in the poorer population. At this time, in 1946, the National School Lunch Act was passed which created the National School Lunch Program for students. This provided low-cost or free meals for students, and many of those living at the poverty level or below would eat their only meals at school due to the accessibility of the National School Lunch Program.

Following the end of World War II, rights and treatments of African Americans in the United States had become more of a focus than they had before. A few steps forward were made during the war for African Americans; therefore, following the war, the motivation to move forward and fight for better conditions and rights inspired the Civil Rights Movement.

The Civil Rights Movement is commonly characterized by occurring in the years from 1954 to 1968. Mississippi played an integral part in this movement due to the many tragic events and successful campaigns that occurred in the state. Mississippi was

considered the birthplace of the Civil Rights Movement as the lynching of Emmett Till for allegedly flirting with a white girl that took place in Money, MS in 1955; the woman later denied the accusation that Till whistled at her (Sugarman, 2009).

Mississippi had the highest number of lynchings from 1882-1968 with over 500 people being lynched in the state, a fact that is present in the National Museum of African American History and Culture in Washington, D.C and commemorated at the Memorial for Peace and Justice in Birmingham, AL. Freedom Summer took place in Mississippi where several young volunteers who were trying to help African Americans register to vote were killed. There were demonstrations across the state to try to advocate for integration. In Biloxi, young men and women staged peaceful protests by wading into the beach that was segregated and promoted for whites only. Oxford, Mississippi was a late adopter of college integration when James Meredith integrated the University of Mississippi in October of 1962 with the intervention of the U.S. federal government. In Mississippi, Medgar Evers, the field secretary of the NAACP and an activist during the Civil Rights Movement, was murdered in a case that has become popularized by the media, even including a biographical drama film surrounding his life named *Ghosts of Mississippi.* Mississippi was the home to many horrific events that have scarred the history of the state for lifetimes to come.

Nearby states also had a great effect on civil rights in the South. In Alabama, many very significant events were taking place like the Montgomery Bus Boycott and the iconic march in Selma, Alabama. Alabama is also the state that was home to the infamous church bombing incident that left several little girls dead and several families

without their loving daughters. The most famed leader of the Civil Rights Movement, Martin Luther King Jr., was assassinated in Memphis, Tennessee, which is merely minutes away from the border of Mississippi.

Although tragedy and pain has become one of the most remembered things about the movement, the resiliency of the African American community and their tactics for equality are what really marks the time period. Food during the time of the Civil Rights Movement became an integral part of advocacy and peaceful protests. Sit-ins were conducted across the country where African Americans would go to segregated restaurants and wait to be served. The most iconic of these sit-ins occurred in Greensboro, North Carolina. There, four students began the demonstration. Once refused, they came back with more support. "The four students returned the next day with 25 others, and by day five of the sit-in more than 300 supporters, some of them white,appeared at the store, taking turns occupying the 65 lunch counter seats," (Pusey, 2014, p. 72). Eventually, the targeted store closed and reopened to serve people of all races. The sit-in movement was also active in Mississippi.

Whilst this period of time was ongoing, food aid measures in the United States began to be developed. "1954 is also the time when the United States government established the Agricultural Trade Development and Assistance Act, perhaps better known as Public Law (PL) 480. PL 480, which turned fifty years in 2004, was, and still is, the US administration appropriation to finance food aid activities," (Simón, 2012, p. 13). This began the legacy of the United States using government funds to help improve the quality of lives of people who may not get the food needed for a good quality of life

since food aid activities were funded. However, food insecurity, or what was then described as hunger, hadn't yet become a public issue. That wasn't until later the next decade.

The most turbulent phase of the U.S. Civil Rights Movement reached major milestones in 1964 and 1965, with the passage of the Civil Rights Act and Voting Rights Act, respectively. These two acts prohibited discrimination on the basis of race and outlawed old southern tactics which were used to prevent African Americans from voting. After these rights were achieved, the public's attention was turned towards hunger in the United States. "Hunger became a truly public issue in the United States in the late 1960s, even though a number of major federal assistance programs were already in place. The crucial period during which the issue emerged was bracketed by the April 1967 visit to the Mississippi Delta by the Senate Subcommittee on Employment, Manpower and Poverty led by Joseph Clark (D-Pa.) and Robert Kennedy (D-N.Y.), and the broadcast on May 28, 1968, of the CBS television documentary, 'Hunger in America'" (Eisinger, 1998, p. 12).

This sparked a movement for the United States to implement more policies to help citizens who weren't getting the food they needed. This was supported with the creation of the food stamps pilot in 1964. Food stamps are now known as SNAP which stands for Supplemental Nutrition Assistance Program, but food stamps was the widely used term for decades. The goal of the program was "to promote the general welfare, that the Nation's abundance of food should be utilized… to safeguard the health and well-being of the nation's population and raise levels of nutrition among low-income

households," (Bartfeld, Gundersen, Smeeding, & Ziliak, 2015, p. 3). At this time, food insecurity was becoming more of an issue for children in Mississippi. This was especially true for the Mississippi Delta where "Hunger in America" exposed the conditions that African Americans were living in.

In the late 1960s and 1970s, the varieties of food developed in the United States especially with the growing popularity of African American foods into the public sphere. In this decade, soul food restaurants emerged onto the scene. These places offered a significant space that was welcoming and comfortable for the African American population; it was food they knew with the people they knew serving it, though it was not universally embraced. "Helen Mendes, author of the pioneering *African Heritage Cookbook*, proclaimed in 1971, 'Soul food united African-Americans not only to their people's history, but with their contemporary Black brothers and sisters around the world,'" (Walach, 2019, p. 174). Soul food was used as a way to celebrate African American culture in a place where it had been overlooked or shunned before. "In the 1960s, soul food -- defined for the moment as the traditional food of African Americans -- burst into the American mainstream as the edible form of the emerging Black is Beautiful and Black Power ethos," (Miller, 2013, p.1). During this time, it was used as a way to unite a group of people who had been previously disenfranchised. Soul food was a form of community.

Whilst this movement was helping to popularize African American culture across the country, food programs were being developed to aid people who were suffering. At this time, there still was no official count of the amount of people in America who were

hungry. This didn't happen until "in the late 1980s, a food sufficiency question similar to the one in the Nationwide Food Consumption Surveys, along with other questions on regular access to food supplies adapted from the CCHIP [Community Childhood Hunger Identification Project] questionnaire, were included by the National Center for Health Statistics (NCHS) in the third National Health and Nutrition Examination Survey (NHANES III)," (National Research Council, 2006, p. 25). In 1975, the Special Supplemental Food Program for Women, Infants, and Children (WIC) was made a permanent program. It benefits pregnant women, postpartum until 6 months, and breastfeeding within a year. It benefits infants up to one year and children up to 5 years. It is a need based program, and its three roles are "to find out about a child's need for immunization and share that information with parents, to carry out minimum immunization screening and referral protocols, not replacing the State Immunization Program responsibilities, and to implement other measures to increase immunization rates of WIC children," (Starbuck, n.d.)

In the 1990s, food security became more of a nationally known topic with policies and official universal language that was used. At this time, food safety became a large focus of food related issues in the United States. "The safety of the U.S. food supply is a legitimate concern and a scientifically complex issue. Recent reports from the Food and Drug Administration and Centers for Disease Control indicate that about 33 million people, or 14% of the U.S. population, become ill each year from microorganisms in foods, leading to 9,000 deaths annually," (Barton & Barbeau, 1992).

This decade also saw the emergence of organic food certification thanks to the passage of the national Organic Food Production Act of 1990 (Mosier & Thilmany, 2016) and the introduction of the food pyramid by the USDA. The food pyramid became controversial due to the issues it presented. “Many of the issues with the old graphic were a problem of oversimplification. The coloured triangle was simply not detailed enough to denote the subtle differences in nutritional value between, say, a grain of white long-grain rice and its brown or wild counterparts,” (Lancet, 2005, p. 1516). Since then, there have been many changes and modifications to these nutrition standards. Some of these changes include MyPlate, a famous initiative led by First Lady Michelle Obama to combat childhood obesity along with her campaign Let’s Move! The late 90s saw the emergence of a landmark case against the USDA. The Pigford case was a milestone case that “charged the USDA with discrimination in the dispersal and allocation of farm loans and credit, as well as with inadequate response to complaints filed between 1983 and 1997”, (Orozco, Ward, & Graddy-Lovelace, 2018). It has shown that the USDA has a past of discrimination against Black farmers in the United States.

Present day sees both the issues of food and race in the United States as well as the combination of the two. When Barack Obama was elected in 2008 as the first African American president of the United States, history was made in favor of a step towards better representation for African Americans. However, race remains a contentious topic due to the tragedies and advocacy against racial biases coming from the police force and other institutions. Due to several high-profile news cases following the deaths of Tamir Rice, Alton Sterling, and Michael Brown, and more recently George Floyd and Breonna

Taylor, to name a few Black people killed by the police protests across the country advocated for less lethal force against African Americans. Black Lives Matter emerged in 2014 as a way for African American activists and their allies to speak out against racial injustices. "... #BlackLivesMatter represents an ideal that motivates, mobilizes, and informs the actions and programs of many local branches of the movement. Much like the way a corporate franchise works, minus revenue and profit, #BlackLivesMatter is akin to a social movement brand that can be picked up and deployed by any interested group of activists inclined to speak out and act against racial injustice," (Lebron, 2017, p. xii).

Food access has also been a problem that has been growing in recent times. "The 2008 global food price crisis and subsequent food price spikes renewed political, societal and scientific interest in the notion of food security worldwide," (Sassi, 2018, p. vii). These challenges of food are intertwined with other challenges that are faced disproportionately by racial minorities.

This background of food and race in Mississippi weaves intricately with the main objective of this thesis which is to examine the relationship between food insecurity and race within the scope of Mississippi. As time goes on and dynamics evolve, it is important to know what foundation has been laid. With challenges disproportionately affecting African Americans beginning at slavery and not ending even in today's society, one should do what they can to try to understand the dynamics that are detrimental. Therefore, knowing the background of race and food in Mississippi helps one to develop a narrative for this research.

Historically, Mississippi has been a state with racial tensions and problems. Race relations is not a new theme to be introduced to the state. Therefore, examining the issue of race and food in this state is pivotal to enacting real change that can make a difference in Mississippi and other states. To fix any problem, one must first acknowledge that there is a problem. The intention of the thesis is to examine the relationship between race and food insecurity in Mississippi so that a reflection can be made on the divide or lack thereof.

The primary research question is, “What is the relationship between race and food insecurity in Mississippi?” Knowing the history is the first part in examining the relationship. Next, data sets will be examined to highlight the measurement of race and food insecurity in Mississippi.

Chapter III: Methodology

The author utilized data gathered by the United States Department of Agriculture (USDA) for this research. The Food Access Research Atlas[1] was used to determine the status of food insecurity in Mississippi. This mapping tool can create maps showing food access indicators by census tract using different measures and indicators of supermarket accessibility. One can compare food access measures based on 2015 data with the previous 2010 measures, view indicators of food access for selected subpopulations, and download census-tract-level data on food access measures. The data sources include "In the 2017 report, a directory of supermarkets, supercenters, and large grocery stores within the United States, including Alaska and Hawaii, was derived from merging the 2015 STARS directory of stores authorized to accept SNAP benefits and the 2015 Trade Dimensions TDLinx directory of stores," (Economic Research Service, 2019). "Block-level population data from the 2010 Census of Population and Housing were aerially allocated down to ½-kilometer-square grids across the United States. For each ½-kilometer-square grid cell, the distance was calculated from its geographic center to the center of the grid cell with the nearest supermarket. Once distance to the nearest supermarket or large grocery store was calculated for each grid cell, the number of individuals living more than 10 miles from a supermarket or large grocery store was aggregated to the tract level," describes how this information was gathered (Economic Research Services, 2019).

[1] In the Food Access Research Atlas, several indicators are available to measure food access along these dimensions. For example, users can choose alternative distance markers to measure low access in a neighborhood, such as the number and share of people more than half a mile to a supermarket or 1 mile to a supermarket. Users can also view other census-tract-level characteristics that provide context on food access in neighborhoods, such as whether the tract has a high percentage of households far from supermarkets and without vehicles, individuals with low income, or people residing in group quarters.

A table has been inserted below to describe the variable code used, what that term means, and a definition of the variable.

Variable Code	Variable	Definition
Lapophalf	low access, population at ½ mile, number	the number of individuals living more than ½ mile from the nearest supermarket, supercenter, or large grocery store
Lawhitehalf	low access, White population at ½ mile, number	the number of individuals who are White living more than ½ mile from the nearest supermarket, supercenter, or large grocery store
Lablackhalf	low access, Black or African American population at ½ mile, number	the number of individuals who are Black or African American living more than ½ mile from the nearest supermarket,supercenter, or large grocery store
lapop1	low access, population at 1 mile, number	the number of individuals living more than 1 mile from the nearest supermarket, supercenter, or large grocery store
lawhite1	low access, White population at 1 mile, number	the number of individuals who are White living more than 1 mile from the nearest supermarket, supercenter, or large grocery store
lablack1	low access, Black or African American population at 1 mile, number	the number of individuals who are Black or African American living more than 1 mile from the nearest supermarket,supercenter, or large grocery store
lapop10	low access, population at 10 miles, number	the number of individuals living more than 10 miles from the nearest supermarket, supercenter, or large grocery store
lawhite10	low access, White population at 10 miles, number	the number of individuals who are White living more than 10 miles from the nearest supermarket, supercenter, or large grocery store

lablack10	low access, Black or African American population at 10 miles, number	the number of individuals who are Black or African American living more than 10 miles from the nearest supermarket,supercenter, or large grocery store
lapop20	low access, population at 20 miles, number	the number of individuals living more than 20 miles from the nearest supermarket, supercenter, or large grocery store
lawhite20	low access, White population at 20 miles, number	the number of individuals who are White living more than 20 miles from the nearest supermarket, supercenter, or large grocery store
lablack20	low access, Black or African American population at 20 miles, number	the number of individuals who are Black or African American living more than 20 miles from the nearest supermarket,supercenter, or large grocery store
TractWhite	Tract White population, number	the number of individuals who are White living in a population
TractBlack	Tract Black or African American population, number	the number of individuals who are Black or African American living in a tract

I gathered information from downloading a USDA excel file which held information for all food desert tracts in the United States. From there, I deleted all info from other states besides Mississippi. That left 662 tracts in Mississippi to study. From this information, I compared the population of low access of African American people in the tract and white people in the tract to get the number of people at half a mile, one mile, ten miles, and twenty miles. I did this by adding the columns of lapophalf, lawhitehalf, lablackhalf, lapop1, lawhite1, lablack1, lapop10, lawhite10, lablack10, lapop20, lawhite20, lablack20, and TractWhite and TractBlack. From there, I compared lapophalf

with lablackhalf and lawhitehalf. I compared lapop1 with lawhite1 and lablack1, and so on and so forth. I also compared the totals of all lawhite to TractWhite as well as lablack to TractBlack. I compared both of these so I could understand what percentage the African American population as a whole was compared to the number of low access. I also compared the number to the amount of population in low access. Therefore, I was able to find the proportions of people in these Mississippi food deserts and see at what rate the African American population and the white population were affected by food insecurity.

Chapter IV: Findings

From the USDA's Food Access Research Atlas, "an estimated 2.1 million households, or 1.8 percent of all households, are in low-income and low access census tracts and are far from a supermarket and do not have a vehicle. An additional 0.3 million people are more than 20 miles from a supermarket," (Economic Research Service, 2019). Findings were gathered from a comparison of numbers only looking at information gathered for Mississippi. Comparing the numbers of White population and African American population with low access with the total number of population at low access provides a better understanding of the relationship between race and food access.

Table 4.1

	# of White population, low access MS	# of African American or Black population, low access MS	# of population, low access MS

½ mile	1,596,478	930,942	2,625,309
1 mile	1,311,677	653,352	2,035,741
10 miles	107,137	69,743	181,794
20 miles	84	181	265

Table 4.1 describes the number of White population, African American population, and total population with low access at the ½ mile, 1 mile, 10 miles, and 20 miles range. Comparing the numbers from the racial groups to the numbers of the population in general yields varied results. 181 African Americans at the 20 miles range with low access compared to the 265 population shows that African Americans comprise a large percentage of those with low access at the 20 miles range. 181/265 is .683. This means that African Americans comprise 69% of the population at 20 miles range with low access in Mississippi when rounded to the nearest percentage. For the White population in the 20 miles range, there were 84 people with low access. Therefore, 84/265 is .317. This means that 32% of the population at the 20 mile range with low access is made up of the White population when rounded to the nearest percentage.

Looking at the other mile ranges, however, leads to different trends. At 10 miles range, the number of African Americans at low access is 69,743. Comparing that number to the total number population at low access in that range, 181,794, it leads to .3836. This means that 38% of the low access in the 10 miles range is comprised of African Americans when rounded to the nearest percentage. Looking at the White population

with low access in the 10 miles range, which is 107,137, compared to the 181,794 total population in the 10 miles range yields .5893. 59% of the low access population in the 10 miles range is composed of White Mississippians when rounded to the nearest percentage. At the 1 mile range, 653,352 is the number of African American population in Mississippi at low access. 2,035,741 is the total number of people in Mississippi with low access at the 1 mile range. 653,352/2,035,741 is .3209. 32% of the low access population at 1 mile range is made up of African Americans. Comparing the White population with low access at the 1 mile range, which is 1,311,677, with the total number of people in Mississippi with low access at the 1 mile range, which is 2,035,741, the result is .6443, or 64% when rounding down to the nearest percentage.

Lastly, the ½ mile range total population with low access in Mississippi is 2,625,309. When this is compared to the total African American population with low access in the ½ mile range, 930,942/2,625,309, the result is .3546. This leads to 35% to be the composition of the African American population at low access in the ½ mile range when it is rounded to the nearest percentage. Comparing the White population number at the ½ mile range, which is 1,596,478, to the same total population at the ½ mile range, which is 2,625,309, leads to 1,596,478/2,625,309. This total is .6081 which translates to 61% when moved to a percentage and rounded to the nearest percentage. Within these results, it shows that at the 20 mile range, the African American population is more likely to face low access whilst at the ½ mile, 1 mile, and 10 miles the White population is more likely to face low access.

However, to truly understand the numbers given within these results, one must look at the TractWhite and TractBlack populations to better understand at what rate low access is facing these two races. One must understand how many people at each race were surveyed. In that way, the results would be able to be more accurately reflective as to which race faces low access more in Mississippi and at which mile ranges.

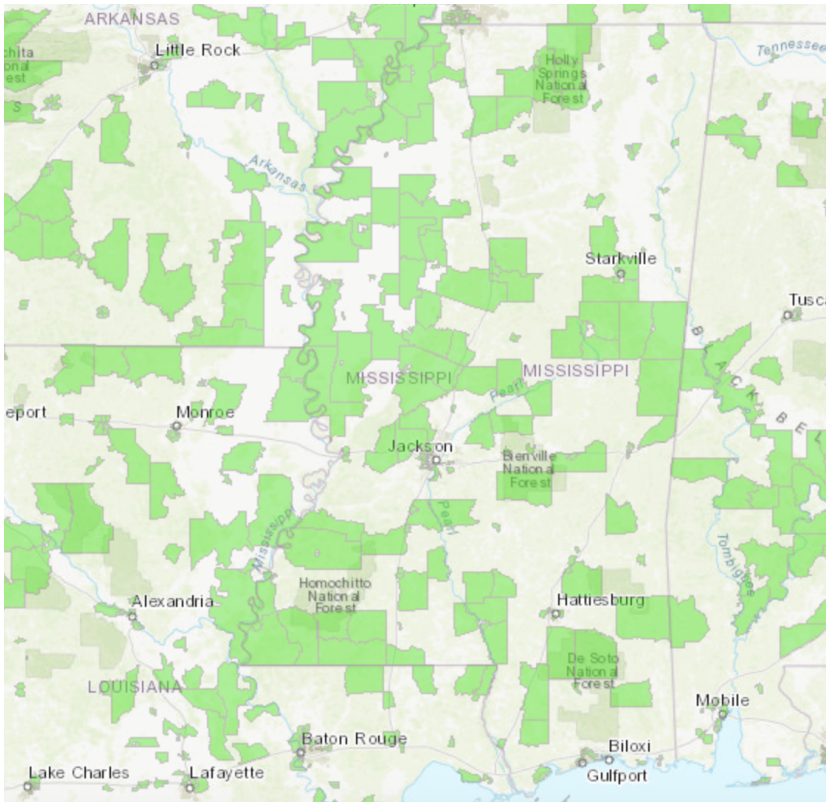
Table 4.2

	% of White population, low access MS	% of African American or Black population, low access MS
½ mile	61%	35%
1 mile	64%	32%
10 miles	59%	38%
20 miles	32%	69%

Table 4.2 shows the progression of the percentages of White and African American population in Mississippi with low access. In more urban areas, the White population is more so at risk of low food access. This is shown in the 61% and 64% of White population in Mississippi at ½ mile and 1 mile with low access. As it becomes more rural with 10 miles and 20 miles, it begins to shift. At 20 miles, it is overwhelmingly more likely for African Americans to be food insecure. Therefore, this leads me to conclude that in urban settings, the White population of Mississippians are the ones who are most likely to be food insecure. However, in rural populations in Mississippi, African Americans are those who are most likely to be food insecure.

Utilizing a spatial analysis to analyze maps from the USDA's Food Access Research Atlas gives an understanding of where food inequities lie. The shaded areas show where food deserts are present in the United States. The shaded area is called a "tract" and the sizes of the tracts are decided based on the size of the neighborhood. Larger tracts are rural and smaller tracts are urban.

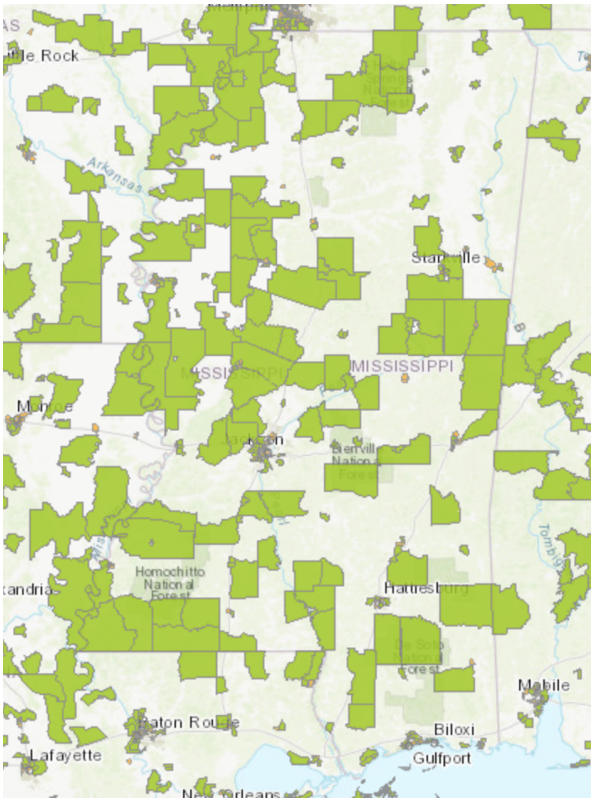
Figure 4.1



Recommend printing in color.

Figure 4.1 shows a map of Mississippi that has highlighted green tracts of low food access and low family income. The defining status for the green tracts are low-income census tracts where a significant number or share of residents is more than 1 mile (urban) or 10 miles (rural) from the nearest supermarket. The tracts are divided into neighborhood areas, thus some tracts are bigger than others. This is also likely because some areas of Mississippi are more rural and in other areas more urban. For example, there are multiple small tracts in Tupelo, MS because it has a higher concentration of people in that area. On the other hand, the tract in Bolivar County has a more spread out population throughout the county which would lead to a larger tract.

Figure 4.2

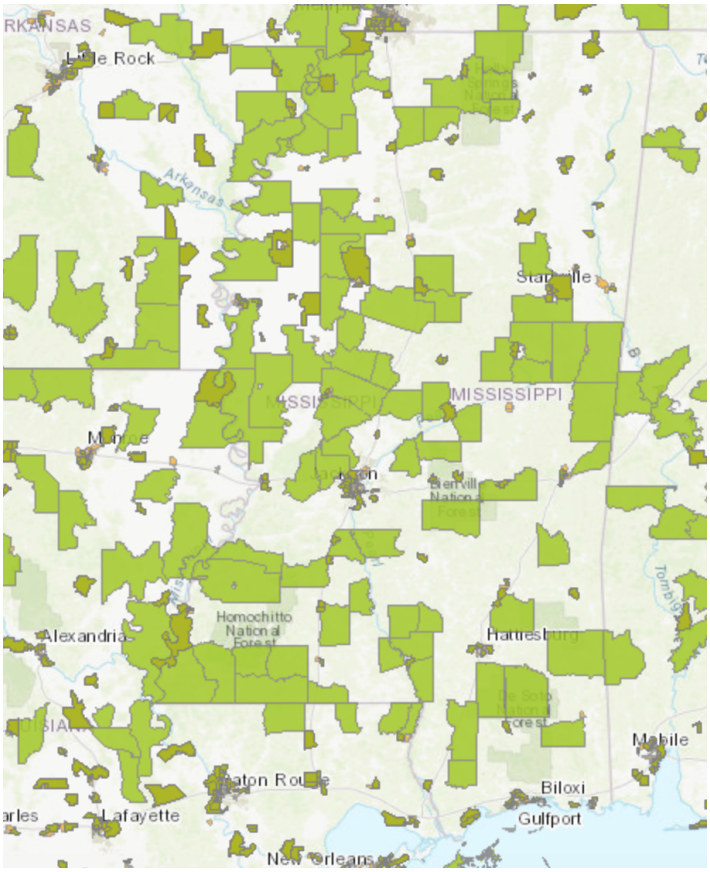


Recommend printing in color.

Figure 4.2 shows another map of Mississippi from the USDA's Food Access Research Atlas. This map includes the green tracts from Figure 4.1, but it also layers a new orange key. The defining status of this orange key is low-income census tracts where a significant number or share of residents is more than ½ mile (urban) or 10 miles (rural) from the nearest supermarket. Figures 4.2, 4.3, and 4.4 were data that the USDA added after initially only having the information from Figure 4.1 present on the atlas. After receiving backlash from some members of the public for what was deemed inaccuracies,

the USDA added more measures of different distances to try to diversify their results to help accurately reflect a wider variety of populations.

Figure 4.3

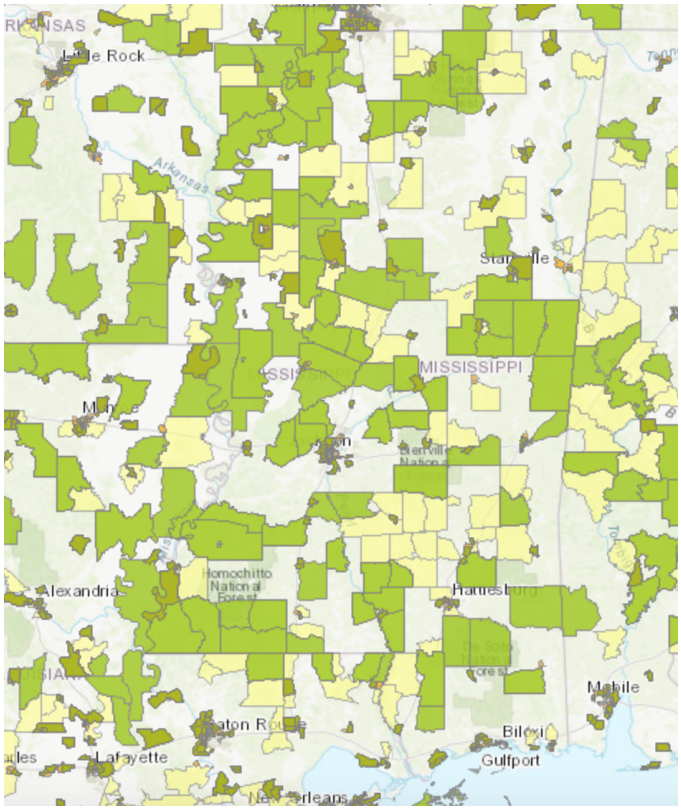


Recommend printing in color.

This figure shows the tracts from Figures 4.1 and 4.2 layered with another layer, this time, red. This red layer is connected with the key as it shows low-income census tracts where a significant number or share of residents is more than 1 mile (urban) or 20 miles (rural) from the nearest supermarket. As the shades become deeper, this does not

mean that it is an area with more chronic food insecurity. However, it is just used as yet another measure to try to ensure accuracy among different areas of the nation.

Figure 4.4

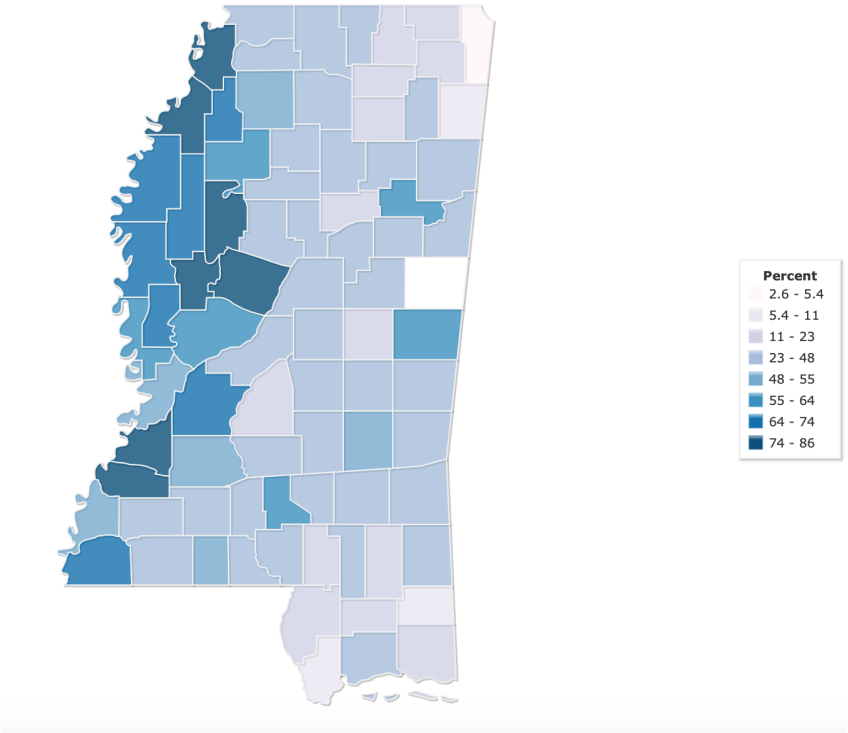


Recommend printing in color.

Figure 4.4 is the graphic that has all layers added together. The last layer that has been added to this graphic is the yellow layer which represents the key low income and low access using vehicle access. The definition from the USDA given to this layer is

low-income census tract where more than 100 housing units do not have a vehicle and are more than ½ mile from the nearest supermarket, or a significant number or share of residents are more than 20 miles from the nearest supermarket. This layer, when added with the others, has the possibility to show where food insecurity may be more of an issue. According to Alana Rhone, an Agricultural Economist in the Food Assistance Branch in the Food Economics Division of the USDA and listed contact for information on the Food Access Research Atlas, this layer overlapped with Figure 4.1 is what she widely used to understand the more at risk population. Those who are far from food and also do not have a car to go reach said food are likely to face a larger problem with food access.

Figure 4.5



In Figure 4.5, there is a map of the state of Mississippi with the percentage of African American population in certain counties. The information for this figure was gathered from the U.S. Census Bureau and Population Estimates Program. The deeper the blues reflect the higher percentage of African American population in these counties. This shows that the counties on the western side of the state have a higher percentage of African American residents.

Chapter V: Recommendations

Food insecurity is a problem that plagues America, and Mississippi is not excluded in this. Based on my findings in Chapter IV, it is observed that in more urban areas of Mississippi, the White population is more likely to be food insecure. The data indicate, in the urban setting, at ½ mile, 61% of whites are food insecure, and in the urban setting, at the 1 mile, 64% of whites are food insecure. As the landscape becomes more rural with 10 miles and 20 miles, food insecurity and race begin to shift. At 20 miles, it is overwhelmingly more likely for African Americans to be food insecure. Therefore, this leads me to conclude that in urban settings, the white population of Mississippians are the ones who are most likely to be food insecure. However, in rural populations in Mississippi, African Americans are those who are most likely to be food insecure. Policies that may work in urban areas will not work the same in rural areas and vice versa. This is because in rural areas the population is much less dense than in urban areas. This leads to a clear observation that a one-size fits all policy will not work in this case. Therefore, several different policy alternatives that should be considered to combat food insecurity at both the urban and rural levels in Mississippi.

Recommendations for Urban Mississippi

A recommendation would be to introduce incentives that would help healthy supermarkets to thrive in urban settings. The main incentive that would help a new healthy food market for an urban neighborhood would be zoning incentives. There are strict rules that urban areas have to abide by with zoning. Creating zoning incentives would allow supermarkets to be built in areas that they are normally not allowed. There would be requirements for the store to be able to qualify for the zoning incentives. The store would have to be primarily selling food, so over 50% of the products have to be food products. Then, 30% of the selling area would be dedicated to perishable foods like fruits, vegetables, and meat. This would encourage the food being sold to be healthy. Some of the zoning incentives would include an increased building height and increase floor-to-floor area ratio. This zoning incentive would be effective in helping increase the amount of healthy food accessible in urban areas as it would offer something desirable to the retailer which in turn would offer healthy foods to citizens. "Zoning for health or selecting locations to intervene … is one way to achieve this objective cost effectively," (Chen & Florax, 2010). This shows that zoning is an effective way to get healthy food available for those who may otherwise not have it. Zoning is used often at the municipal level. There are examples of zoning working effectively in New Orleans with the Community Development Block Grants that helped a post-Katrina city to begin their Fresh Food Retailer Initiative which helped to support healthy and fresh food stores

(Chrisinger, 2016). The zoning codes could not be implemented universally across all cities in Mississippi since it would not be as effective for rural Mississippi. Therefore, creating a plan for urban Mississippi cities which could benefit from zoning ordinances to help ensure healthy food access for urban Mississippi residents. Zoning would be politically feasible as it is not very controversial to determine zoning and encouraging healthy food access is a bipartisan issue that many people support. The technical feasibility is high as technology would not be very heavily relied upon for the success of this policy. The equity of this policy is not exactly equal for all groups as it would benefit specifically the stores in certain neighborhoods. However, it would help target those in urban areas and help low-income citizens which would help those people achieve an equal level with those who have sufficient access. The administrative feasibility for this project would be high due to the municipal agencies being the ones who would help the policy to succeed in the area that it is needed. This policy would be effective if implemented correctly in urban cities across Mississippi.

Another potential program for urban Mississippians would be a price voucher program with proper identification from SNAP, Medicaid, TANF, Medicare, or WIC. Twice weekly those eligible could get $10 to spend at participating farmers markets. This would add up to be $20 to spend on healthy foods at fresh markets weekly. This program would be funded jointly through the Mississippi Department of Agriculture and the Mississippi Department of Health. This is due to its relevance to both departments with the encouragement of local agriculture purchases and healthy decisions being made which would decrease the amount of food-related illnesses in the state. "…the Double Up

Food Bucks program increased vegetable expenditures, fruit and vegetable expenditure shares, and variety of fruits and vegetables purchased," is an example of how this program has been successful in increasing healthy food purchases with SNAP in an urban setting in Detroit, Michigan (Steele-Adjognon & Weatherspoon, 2017). The program of doubling SNAP dollars at healthy food retailers is new to Mississippi, but it is not new across the country. Some states that currently implement such a program include Colorado, Kentucky, Virginia, and Arkansas. In Bloomington, Indiana, a study was done to test the effectiveness of a double bucks program for SNAP beneficiaries. It was concluded that, "this research highlights the nutritional benefit and impact of market bucks programs. Having a double-buck program suppresses financial barriers while simultaneously prompting people to purchase local, healthy food," (Farmer, Babb, Minard & Veldman, 2019). This shows that the effectiveness of this program has been proven in communities to increase the purchase of healthy foods which has made them more accessible to those in need. The political feasibility of this program may be slightly difficult because funding for social welfare programs can sometimes not be supported in a bipartisan manner. The social acceptability of this program is high as it would help many citizens throughout the state of Mississippi have access to food which is a topic that is heavily supported. The equity of the program is questionable as it panders to one specific group of those who receive government benefits and those who do not receive the benefits would not have any assistance through this program. However, it is helping to bridge the gap between poverty lines and thus helps to put Mississippians onto a more even playing field. The technical feasibility of this program would be relatively high as it

would not require any more technological support, many programs use wooden medallions to be used as the double bucks. This program has been proven to work in several different cases, and its implementation in Mississippi would be a large step towards making healthy food more accessible to those who need it.

A last recommendation for urban Mississippi would be expand SNAP to be approved for online purchasing. Today, many people are using online grocery services more and more. The participating grocery stores would include Walmart and Amazon, and other local stores would be encouraged to participate. The requirements needed before allowing the online purchase using SNAP would include the store would need an online presence to sell the food through, the store would need to be an eligible SNAP retailer, and Adding SNAP eligibility for online food purchases would help those who do not have the time to go shopping in person. Also, expanding online purchasing of food would be helpful for those who may not utilize their SNAP benefits due to any embarrassment. Online SNAP purchasing would support all people in the community by helping to ensure that those with SNAP benefits would be able to use them appropriately by ensuring that they won't go unused. This program was initially approved in 2014 by Congress in the passage of the Farm Bill (Agricultural Act of 2014). However, it took five years to see the program begin to be put in place when New York started its first pilot program in 2019. The program has since been expanded and is now currently being trialed in more states in America due to the coronavirus pandemic. The Food and Nutrition Service in the USDA has launched this pilot program and currently has 19 participating states, including Alabama, Florida, Missouri, and Texas. There are 18 more

states that are in the planning phase and will soon be available in states including Georgia and Tennessee. Mississippi has yet to participate in this program that would add another avenue for SNAP benefits to be used, which would expand the channels for those who need it to access it. The social acceptability of this program would be well accepted. With the growing popularity of online shopping and with the social distancing guidelines of the United States today, buying groceries online is hugely popular and could be putting those with low food access at a disadvantage by exposing them to potential risks by being in the grocery store in person. This program would be very equitable since people who do not use SNAP benefits are able to purchase online groceries. Expanding this program for Mississippians who use SNAP to be able to purchase their groceries online would make them more equal to those who are already able to do so. The program expands the liberties of SNAP users as it gives them another choice for how to purchase the food they need. There is a small issue with technical feasibility since there would be a need to develop online retailers to ensure that the SNAP benefits could be used and still be secure with the customer's PIN and other sensitive information. Despite this, the other positive results from the criteria framework show that this idea would be a great implementation to increase food access in urban Mississippi.

Recommendations for Rural Mississippi

A recommendation I have would be to have a service for the people who live in rural areas with no access to a vehicle and live miles away from food, a distance difficult to traverse without a bus, train, or car. Public transportation does not have a presence in

Mississippi. Therefore, introducing a program that delivers meals to homes would be integral for those who cannot venture far enough to get food for themselves. A program could be made that transports healthy foods from local farmers markets from the same area of rural Mississippi as the residents receiving the food. Despite rural Mississippi being where most of where agriculture is present, it is some of the most food insecure parts of the state. By using local farmers as the food suppliers, the local economy is being stimulated and the local people are being fed. This program would function better if it accepted SNAP and WIC benefits so that the food would be affordable for those it was delivering to. "Our findings suggest that participants at sites that received the [Veggie Vehicle] improved their [fruits & vegetables] consumption as compared to participants at sites assigned to the control condition," shows that fruits and veggies consumption rose in citizens in North Carolina who participated in the mobile food market as opposed to the control group that did not participate in the mobile food van (Leone, Tripicchio, Haynes-Maslow, McGuirt, Grady Smith, Armstrong-Brown & Ammerman, 2018). When food is brought to communities in need, there is a positive result of more healthy food being consumed. Therefore, it shows that making this food more convenient to be purchased will lead to more consumption of it. The policy of a mobile food van is proven to be effective in this way as it helps food access, especially for those who do not have a vehicle of their own to get to food. The social acceptability of this program would be quite high as it would not be controversial to have a healthy food van bringing goods around to rural areas in need. This program would increase freedom and liberty to those of rural communities as it gives them more choices and would help to open them up to

more access to healthy foods. The technical feasibility of this would be the only deterrent as it is hard to stock a van full of equipment that would help keep these healthy foods fresh and prevent spoilage. However, once that obstacle was overcome, it would be a great program to increase the access of healthy foods in rural communities in Mississippi.

Another alternative would be to help rural communities grow their own food. Therefore, if they aren't able to get food since it is too far from them, growing their own food would be a remedy to that issue by bringing it closer to them, maybe even to their own backyard. This program would be most successful as a joint partnership with non-profits in rural areas to administer the program at a local level. It would be a public trust which endows grants to those non-profits in rural areas. Organic production resources and technical assistance would be delivered through the use of a hired partner site coordinator. The grant money would help to cover labor, equipment, instructional costs, and administrative costs. Money would be distributed upon the completion of a grant proposal that has been done by a non-profit. This helps the community because the local non-profits have a better understanding of the community than any outside entity coming in. A similar program has been implemented in the Appalachian region of Kentucky, Ohio, Tennessee, North Carolina, Virginia, and West Virginia. The program is titled Grow Appalachia. It has been successful in helping over 6,000 families and the amount of food grown reaches over 3 million pounds. "Community-based gardening programs are well-documented for their positive impacts in addressing multiple dimensions of sustainable development, including improved food security, human and social capital, and environmental restoration," (Engle & Mullins, 2017). This shows that

the gardening program would improve food security for those who are a part of the community in which the program is in. The administrative feasibility of this program would be increased because the local non-profits would be the ones doing much of the work. The technical feasibility may be difficult just because it would be hard to monitor once the funding was approved. The social acceptability would be great as people likely would not be upset to have access to fresh food. The efficiency of this program would not be at high levels until later in the program as it takes time for the garden to be built and for the food to grow. Despite that set back, the gardens could be used throughout seasons which would make this program a great choice for longevity of increasing food access throughout the years.

Another option could be introducing market incentives to supermarkets in rural areas. The store, to ensure that healthy foods would be included, must dedicate a minimum of 30% of floor space to perishable food items with 500 square feet of fresh produce. If these requirements are met, then the supermarkets would qualify for incentives that would make financially operating the supermarket easier. Financial incentives would be given to those who qualify. Financial incentives would include a reduction in the cost of a retail food permit. This incentive would be a great starting point in attracting a food store to open up. This would be effective since it would make achieving the permit easier and the reduced price would be helpful for stores that may not be located in a rural area due to the fear of no profits due to a smaller population. Another financial incentive would be providing free or low-cost equipment for stocking healthy foods. The public health department could provide display cases and small refrigerators.

Providing equipment could be especially helpful because it not only gives retailers essentials for carrying healthy foods, it also helps make those healthy foods more visible to the customers which would increase healthy food retail. It would make the technical feasibility of the supermarket better as it would help provide necessities for the success of the food market. There are many cities across the United States who have started to use incentives for healthy food retailers so that healthy food can be made more accessible to their citizens. Some cities include San Francisco and New York City. This program has also been made accessible in places like West Virginia's Mid-Ohio valley where they reduce the cost for retail food permits. The Food Trust, a healthy food access organization, helped to create the Pennsylvania Fresh Food Financing Initiative that is a financing program to help increase supermarket development in underserved areas. It has been successful in providing incentives to help increase the availability of healthy food in areas and communities that need it (Giang, Karpyn, Laurison, Hillier, & Perry, 2008). The administrative feasibility of the incentives would be quite high as it is a simple change of code that would be needed; however, it would need to be approved in the correct channels. The equity of the incentives would favor those who are providing the services, but it is for the good of those in need which would make it a good choice to improve equity across the state. The effectiveness of this policy has been proved across other states and cities; therefore, it would likely have a positive effect if also implemented in Mississippi.

Limitations

Some limitations have been identified within the thesis. One limitation falls on the research strategy that the author employed. From using data collected from the USDA, the information used for this thesis was secondary information. Primary information could be collected for this thesis if the author had ventured across communities in Mississippi to distribute surveys and conduct interviews. These methods of primary information collection could have proved useful within the research. Since the information from the USDA largely relies on information from 2015, primary information would have given a more recent perspective on food insecurity issues in Mississippi. This information could have been very helpful on giving a more personal perspective on how food insecurity affects real people in Mississippi. Additionally, it could have helped the author understand the reasons behind low access. Understanding these factors as to why these people are facing low food access would be helpful in creating recommendations for urban and rural communities in Mississippi as knowing a cause would better help for knowing potential solutions.

Another limitation is concerning the data collected by the USDA. The USDA has multiple different levels of food insecurity based on the distance from a supermarket. However, this may not be entirely accurate across the whole of the United States. For example, in Mississippi, a state where many individuals drive, ½ mile is not very far from a grocery store. This could be different for other communities. Therefore, counting all of the people in that area may inflate food insecurity numbers for that group of people. This has the potential to be a reason to explain the high numbers of food insecure people in those areas.

A final limitation is that there is not much previous data that has been reported on the history of race and food insecurity in Mississippi. It was difficult to find many resources that gave a better understanding on food access throughout the centuries in Mississippi. Slave histories and oral stories were used to understand how they ate in the past, and those could be unreliable if parts of information were forgotten. The lack of data on the history of food access and race in Mississippi made it difficult to create a comprehensive narrative on the evolution of food access in the state. Hopefully, by completing this research, there has been an addition in resources on racial food insecurity inequities in Mississippi.

Chapter VI: Conclusion

Food insecurity has plagued the United States for centuries. People have been unable to access food as long as the country has been a nation. Mississippi has been a state that has been more at risk than other states where food insecurity is concerned. While this thesis sought to understand the relationship between race and food insecurity in Mississippi, a greater understanding of Mississippi became realized. Understanding that more African American Mississippians in rural communities faced food insecurity, compared to whites comports with the authors assumptions. However, when beginning this thesis, I was not expecting to uncover that more whites in urban areas are more likely to be food insecure, compared to black Mississippians. This discovery highlights that institutional racism may be deteriorating, yet income inequality is the variable driving food insecurity in the State of Mississippi. While institutional racism is still a driving force of food insecurity, it is not the only factor that affects food insecurity in Mississippi. I have been shocked to learn that my assumptions were wrong and that there are more white citizens in Mississippi facing food insecurity. This has led me to make bigger realizations that have lasting impacts for me beyond what I have learned in the research for the thesis. The food justice movement recognizes the food system as "a racial project and problematizes the influence of race and class on the production, distribution and consumption of food," (Alkon & Agyeman, 2011). Identifying food as being a basic human right is the beginning to ensuring equality throughout foodways. Healthy food should not be something that only certain people can afford, especially in a state that is

renowned for agriculture. While food justice is still something that is important to have education on, educating people and politicians about inequalities beyond race can start a chain reaction to relieving inequalities in food access in Mississippi. Beyond that, poverty is a serious problem that plagues this state. This is where research must be conducted for the future of Mississippi to see real social changes. Due to poverty's integrated role with education, crime, and food access, bridging the gap between the rich and the poor could be where equality can begin to become a reality. Seeking to create and implement real policy changes that will positively alter the society in Mississippi is a difficult task to handle. However, taking a step in the right direction will start the trek towards equality and eventually to equity.

As the American political system becomes more and more polarized, it is important to remember that at the end of the day, we are all human. There should be no partisan issues about Americans living a healthy and equal life. Therefore, going forward with these issues on poverty in Mississippi, it is powerful to do so with an agreement from both sides across the aisles, an agreement that all people deserve to live equally in the United States of America.

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