# Whose Work is Essential? Rethinking Class in a Time of Crisis

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**Abstract:**

**Introduction:**

Considering the market dynamics and wealth disparities left by the 2008 recession, and the endurance of capital accumulation strategies that center on speculative appreciation, this study analyzed potential employment outcome heterogeneity using homeownership status as a relative measure of class advantage during COVID-19, to conduct sub-group demographic and occupational analysis using a multinomial logistic regression analysis.

**Method and Measures:**

The data from the study included 40,477 individuals in the civilian non-institutional population from the Community Population Survey (CPS), between the ages of 16-85. Differentiated employment outcomes, operationalized into six possible events were utilized as the dependent variables which included: essential work, telework, involuntary and voluntary unemployment, and not in labor force (NILF) due to either household duties or some duty unrelated to illness or schooling.

**Results:**

Homeowners, between 2020 and 2021, regardless of race, gender, and occupational location, did have a relative income and telework employment advantage compared to renters, thereby confirming a partial relative class advantage. Although homeowners did have a partial employment advantage, the greater likelihood of unemployment and not in labor force outcomes for homeowners shows that they still suffered from employment precarity thus emphasizing the potentially conditional nature of class advantage for workers at higher-income occupational positions as well as the occupational and class based disadvantage that exists for renters who were more likely to be essential workers and to have less autonomy in determining life and occupational conditions.

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Before closing this note, I want to acknowledge those individuals whose lives were lost to the COVID-19 pandemic and those who continue to struggle in the aftermath of the economic chaos exacerbated by it. May their positions and perseverance in the face of tragedy teach us to one day prioritize human lives over profit.

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## Introduction: Policy Response during the COVID-19 Pandemic

The initial wave of COVID-19 infections in early 2020 led state and federal governing bodies to impose partial economic lockdowns (CISA, March 19, 2020). A federal memorandum issued in conjunction with that policy focused on work and workers: remote work, often from home, was promoted by a number of measures, and “essential critical infrastructure" workers were asked to remain in their workplaces.

This memorandum was not a mandate but rather was framed to enable local jurisdictions and businesses to designate essential workers at their discretion. They were asked to consider nine principles when they drafted policies or plans to accomplish the following objectives: to protect critical supply chains, to ensure the operational continuation of sectors which enable capital and labor reproduction, and to refine administrative and bureaucratic processes to ensure the consistency of industry.

Although this was not a formal "essential worker" mandate, other agencies, such as the Centers for Disease Control and Prevention (CDC) and the Department of Labor (DoL), endorsed the memo's recommendations. The aim was to elaborate agency-specific responses to the pandemic, which led, over time, to a narrowing of the category of essential workers. The ensuing consequences, both for workers and the economy, are the subject of my thesis.

The first part of the current thesis focuses on providing the policy background under which essential work was framed. The second part shows the overall literature on homeownership to substantiate its use throughout the empirical study. In this section I will also elaborate on the theoretical framework that influenced the current study. The third part focuses on the historical development of essential work, from WWI until the current COVID-19 period. The fourth part shows the current literature on COVID-19 and the state of the economy leading up to the COVID-19 period. The following sections thereafter detail the method, empirical findings, and discuss the implications of the research findings.

## Essential Workers and the Pandemic: Background

On March 19, 2020, the Cybersecurity and Infrastructure Security Agency (CISA) first identified essential critical infrastructure workers and industries in a public memorandum. President Trump had established CISA as a division of the Department of Homeland Security (DHS) in 2018 to "provide strategic guidance, promote a national unity of effort, and coordinate the overall federal effort to ensure the security and resilience of the Nation's critical infrastructure" (CISA 2020). During the COVID-19 pandemic, CISA was assigned to define the work conditions that would enable the continuation of daily life and industry.

The essential worker designation was broadly applied to workers from a variety of sectors and industries who would be expected to continue their work at their physical location, subject to direct proximal interaction with others, and were limited in their ability to quarantine amidst a pandemic, unless their job duties were transferable to the home. Initially, the phrase "essential worker" functioned as a representative term, wielded by the Cybersecurity and Infrastructure Security Agency (CISA) within federal labor and migration policies, so that the agency could both identify and dictate the conditions of work for workers, whose physical work location and duties, were deemed necessary for the maintenance of order, safety and the relative continuation of normalcy. The memorandum not only applied to those workers whose physical attendance at their regular workplace was essential but also recognized the need to create alternative mediums for work for those who might be able to conduct their essential labor remotely. CISA's original statement highlighted the special responsibility of workers in critical infrastructure industries, as identified by the Department of Homeland Security, to maintain a normal work schedule (CISA, March 19, 2020), with a focus echoing a speech by the president on healthcare services and pharmaceutical and food supply.

CISA defined the following sixteen sectors and those workers within them as critical to the continuation of "the services and functions Americans depend on daily" (2020). Critical sectors direct to the maintenance of national infrastructure and the military industrial complex include chemical, critical manufacturing, dams, defense industrial base, energy, nuclear reactors, water, government facilities, materials and waste, and emergency services. The following essential sectors represent occupations that are necessary for the reproduction of daily life under the current daily life dependence on technological, transportation and consumption services: communications, information technology, commercial facilities, food and agriculture, healthcare and public health, transportation[1] (CISA, March 19, 2020). Notably, workers within entertainment and hospitality sectors, restaurant staff required for dine-in services, and any activity that did not lend to social distancing expectations including childcare workers and community support workers such as those employed in shelter and food assistance programs were not listed as essential.

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[1] Communications included all workers central to the dissemination and maintenance of information broadcasting and user access; information technology included all workers central to the maintenance of national and global systems of communication, spanning from those directly supporting systems to those supporting such workers and workspace including cleaning personnel; commercial facilities was included in the main list of sectors, representative of the critical infrastructure network but critical workers within the sector were not directly identified and rather were included individually in other expanded categories such as community-based essential functions which included workers in hotels used for COVID-19 mitigation, teachers facilitating social distance learning, and government agency personnel; financial included all workers required to process and maintain financial systems and those tasked with customer support; food and agriculture included all workers necessary for the continuation of food supply chains, including all retail, transportation, agriculture, food processing and service operations required to maintain food access; healthcare and public health included all workers required for the continuation of healthcare facilities and procedures and those required for COVID-19 alleviation and prevention specific services; transportation systems included all mass transit employees, distribution service workers, and those responsible for the continuation of such services.

The list of applicable occupations and workers in each sector is extensive and includes firms, industries, management, and workers. Despite the designation of critical and essential industries, sectors, firms, and workers, the memorandum was to function as a guide that would enable state, local, and industry partners to identify the essential workers critical to the maintenance of daily services and functions. Following such identification, state, local, and industry partners were tasked with the creation of policies and plans that would enable the continuation of critical infrastructure, and although less emphasized the safety of essential workers. Pandemic specific plans detailed both the workers that would be able to shift to remote work and those essential workers whose workday operations required a workplace presence.

Due to its lack of specificity, a consequence of ceding federal authority of this designation to state and local levels, there was no time frame nor mention of the number of workers the essential work designation might affect. The one consideration that did seem to imply that firms and local jurisdictions did not have absolute agency in designating essential workers, focused on emphasizing the overall supply-chain dependence of jurisdictions and businesses across firms, industries, and geographical locations. The memorandum was amended four additional times in March 28, 2020, April 17, 2020, August 18, 2020, and August 10, 2021, expanding to include more specific occupations related to courts, transportation, and community assistance programs (CISA August 13, 2021). Eventually and its most current version the CISA memorandum, released on August 18, 2020, and amended again on August 10, 2021, does more than provide an expansive suggestion on the designation of essential workers. The latest memorandum acts as a recommendation of workplace safety to employers and details the federally approved steps they should take to guarantee worker safety, including vaccination encouragement and decreased penalties for illness related absenteeism. Due to such recommendation remaining untied to a direct mandate, worker protection programs may have been unsystematically enforced, giving industries and local jurisdictions a great degree of authority and autonomy over their enforcement thereby increasing the risk to essential workers and undermining their rights to safety and stability. A recent study based on a national sample of US food retail workers concluded that overall, 40.3% of workers surveyed between July and October of 2020, did not feel protected by COVID-19 workplace safety controls, which oftentimes did not adequately guarantee a reduction in interpersonal contact or adequate protective equipment (Ceryes et. al., 2021).

Further, recent research has shown that decentralized policies from the 1970´s to 2014, contributed to differential life expectancies across states and a life expectancy decline in conservative states that did not implement economic regulations or policies to protect marginalized groups (Montez at. al., 2020). Although the current study will not address the differential execution of pandemic workplace recommendations or its direct consequence on pandemic related death or morbidity rates, an examination of the demographic and occupational locations of essential workers, as related to their COVID-19 economic and class position will show who was most likely to suffer the potential consequences of the flexible enforcement standards, since as Gutin and Hummer (2021) posited in their life expectancy study: “human longevity is not context free” (514).

To examine the demographic and occupational locations of workers, as well as their ability to determine their own employment circumstances, this study centered on the following question: to what extent can the impact of the COVID-19 pandemic, within a one-year interval and on a national level, highlight long-term patterns of inequality with regards to employment outcomes and the contradiction of occupational and demographic positions, as portrayed by homeownership status? The following sections will focus on the historical significance of homeownership and the category of essential work to portray the context in which the current manifestation of both categories has developed within present-day and past employment patterns that have arisen due to economic crises, labor mobilization, and federal and state-level governmental and economic policies.

**The Significance of Relative Class Advantage on Homeownership:**

Homeownership status, following the 2008 recession and the housing bubble crash, can be interpreted as a measure of relative class advantage indicating employment stability and wage advantage. Such advantage may be particularly salient for individuals who were able to maintain their homes throughout the COVID-19 pandemic. Although homeownership may not be a measure of absolute class employment advantage, given the general capitalist trend towards increased employment precarity across sectors and within sectors (Marx 1967; Smith 1974; Capelli 2001; Kalleberg 2009; Dwyer & Wright 2019; Howell & Kalleberg 2019), individuals who owned a home and were able to keep their home throughout the pandemic may have a relative but conditional class advantage[2] compared to renters of similar demographic or occupational characteristics. The visible relative class advantage of homeowners compared to renters of a similar background, would be conditional because it would be dependent on the

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[2] Throughout this study any mention of relative class position, will also imply that its relativity is conditional to employment stability, either through direct job longevity or by giving workers the ability to move through occupations that grant them a relative wage and work stability advantage. Work stability here means that workers should expect a consistent weekly work schedule and weekly wage, for the time that they are employed. Salary, which is just a measurement of weekly pay for work, will be treated as a form of wage. Individuals with relative class advantage might also have a relative income advantage, but that may depend on other factors, including their gender and racial background, since current and past social practices affect how an individual´s identity impacts their access to income outside of wages. For this reason, the income gap, often termed as being a measure of the wealth gap (Killewald, Pfeffer, and Schachner 2017) between workers will not be an assumption of relative class advantage, although its existence would imply a greater relative within and between group class advantage compared to those homeowners without it.

stability of their employment and income, which alone would guarantee the homeowners´ ability to pay the taxes and/or mortgage that would guarantee the stability of their home ownership status, especially in the absence of a mortgage, a property tax forgiveness program or a social movement that disrupts current property relations and fiscal enforcement processes.

The risk-driven subprime lending strategies of financial firms leading to the 2008 recession led to an expansive housing bubble crash and an increased period of record-high unemployment, which followed from a decline in investment confidence, placed several homeowners at risk of losing their home. Both the Federal Reserve´s strict monetarist policy and President Barack Obama´s administrative failure to respond to the need for a homeowner bailout or economic recovery plan (Levy 2021 p.724), following the housing bubble crash, led to 10 million foreclosed homes, and wiped out roughly 2/3 of the assets of prior homeowners, now in the ranks of those who must rent their dwellings (Knewitz 2021, p. 4). Those who lost their homes following the crisis, represented roughly 4.6% of those who had owned a house (Levy 2021, p. 579). The immediate impact of the housing bubble crash, according to Knewitz (2021) was mostly felt by the "so called" middle 60% of wealth classes, whose median wealth between 2007 and 2010 dropped by 47% (p. 4). Massey (2020) identified that beyond this impact, black racial minorities, regardless of income level, were the most targeted by the risky subprime mortgage market and were "57% more likely to enter foreclosure and 76% more likely to have their homes repossessed than white borrowers in white neighborhoods, placing a total of $3.5 million in black home equity at risk and $2.0 million already lost to forfeiture" (p. 6).

Recent economic scholarship shows the growing importance of socioeconomic characteristics to explain homeownership gaps (Chakrabarty et. al., 2018; Goodman and Mayer, 2018), particularly after the housing crash when the subprime loan market declined, and financial institutions tightened mortgage credit requirements (Chakrabarty et. al., 2018; Goodman and Mayer, 2018; Graff, 2018). Although socioeconomic factors like educational level and income seem to create considerable gaps in homeownership, they do not entirely explain the homeownership disparities between minority and white populations, signaling potential institutional market discrimination (Bostic 2003; Pager and Shepperd 2008; Massey 2020) and/or the long-term endurance or effect of housing segregation (Sugrue 1996; Roediger 2005; Sampson 2012) and the disparities that resulted from such segregation with regards to intergenerational wealth and advantage (Killewald & Kaufman 2018).

Killewald and Kaufman (2018) who studied disparities in wealth determinants, including homeownership, between black and Hispanic minorities compared to white individuals, throughout the life course, found that the disparities that arise in middle adulthood, arise due to the impact of intergenerational wealth but are also perpetuated in each generation, which they theorize, in line with Anette Lareau (2003), is the outcome of the transmission of differential advantages in cultural, economic, and social capital. Quillian, Lee, and Honore (2020) recently found that potential market discrimination is more of an effect of the persistence of discriminatory practices in the mortgage market, through racial gaps of loan denial, and mortgage cost, rather than direct housing discrimination, as elaborated through a study of audits by the U.S. Department of Housing and Urban Development (HUDS). Since the formal legal structure that upheld housing disparities between races in the form of direct housing discrimination has decreased, and housing disparities are now linked more directly with credit institutions, minority homeowners, particularly racial minorities who were not able to close the homeownership gap, such as Black and Hispanic individuals, might have a greater wage advantage than white homeowners compared to respective individuals of the same race who are renters. Such a theorized wage advantage difference is especially salient with the "house-showing" racial disparity that Quillian, Lee, and Honore (2020), found to exist, due to realtors disparate treatment of Black and Hispanic individuals, who unlike white individuals must often pre-qualify for a mortgage before having access to a showing (p. 13). Despite the difference in homeownership rates across races, homeownership does not cease to be a marker of relative class advantage within groups of the same demographic and occupational characteristics.

Currently homeownership tends to be the largest monetary investment for a large fraction of American workers and will be interpreted as a form of invested equity throughout this study. Like all forms of equity, housing prices fluctuate, at times perhaps providing homeowning workers evidence of an unconditional class advantage that may objectively not exist due to the volatility of the market. While home price may seem to indicate wealth appreciation at a certain moment, overall appreciation of home prices may impact the mobility available to individuals and households through such appreciation. Further home price stagnation in certain areas, such as those in historically segregated locations may not lead to wealth appreciation and may rather lead to greater racial wealth disparities. As a form of equity, homeownership may bestow homeowners with a psychological wage–an enhanced symbolic status acting as a kind of compensation (Du Bois, 2001, p. 700)–that may result in a reduction in frictional (voluntary) unemployment, and presents, particularly for white homeowners, a manner through which households can expand their income through refinancing, and accumulate wealth, should house values appreciate (Levy 2021 p. 493). Although the conditional class advantage captured by homeownership between races is partially an outcome of structural inequalities (Massey 2020 pp.4-5), minority homeowners may still possess a relative employment and occupational advantage over renters of respective racial backgrounds (Chakrabarty et. al., 2018 p. 282).

Conversely, despite minority homeowners' relative advantage over minority renters, they may also suffer greater over-time ownership precarity (Sharp and Hall 2014) and wealth stagnation (Krivo & Kaufman 2004) compared to white homeowners. Bank savings for example have been found to predict homeownership attainment among immigrant and minority households (Mundra and Oyelere 2017), which shows that homeowners probably do have a relative employment and occupational advantage over renters. The relative employment and occupational advantage of workers determine the feasibility of homeownership rather than homeownership impacting labor market incomes: the effects of household composition which have been noted throughout literature that focus on the transmission of differential advantages across generations is premised on the economic position of the household and respective spouses and the opportunities such economic advantage enabled parents to cultivate their children, rather than emerging in some static manner through household configuration or homeownership status. Additionally, the persistence of significant disparities, for example, between Black and Puerto Rican populations compared to the white population, after considering socioeconomic and household factors, has suggested that there is a dual housing market ideology–a racially informed normative perspective that privileges white individuals and informs the policies, laws, and arrangements that organize the housing market (1359)–which Kuebler and Rugh, (2013) identify as the logic of laissez faire racism (1365). Although laissez faire racism only captures the extra-legal manifestation of systematic racism in the current era (Fraser 2018), the socioeconomic and dual market dynamic captured by it suggests that homeownership status reflects both relative and absolute group differences in employment stability across time, as well as the "constitutive whiteness of credit worthiness" (Robinson 2020 p.43). Credit worthiness is determined through the valuation of economic soundness and the expectation of employment and income stability–

both of which rely on models that reflect “settled expectations of relative white privilege as a legitimate and natural baseline” (Harris 1993, p. 1714). Perhaps those members of marginalized groups that do own a home will show a greater relative advantage over renters compared to white homeowners and white renters, since the latter group faces decreased barriers to mortgage access (Massey 2020 p. 5). Even if such homeownership advantage is not visible within individuals of the same race, the guarantee of the benefits accorded to homeownership, such as wealth appreciation and a long-term dwelling is not stable across races, especially for African American homeowners who tend to receive subprime mortgages with higher interest rates and tend to deal with greater evictions after foreclosures and decreased property value appreciation in areas with concentrated minority populations (Massey 2020, p. 6). After 2007, homeownership disparities are largely predicted by income and wealth, household composition, credit line access, and occupational prestige (Kuebler and Rugh, 2013). With all these trends in consideration, the relative employment status of homeowners compared to renters is then an analytical tool that allows analysis on the contradictory class locations of workers whose relative employment positions reflect intersectional advantages and disadvantages and the social facts and employment composition that leads to the disparities between workers of different racial and class characteristics.

**Inequality Research and Social Ideals post 1960´s Integration:**

Following the legal victories of the Civil Rights Movement in the 1960´s, racial minorities began to have access to broader opportunities in employment and educational sectors, which led to the differentiation of formerly segregated and ghettoized racial groups into stratified class levels (Crenshaw 1988; Glaude 2007). A similar gender dynamic emerged as women began to enter the workforce in the 1970´s, following the victory of the women´s movement and the decline of labor union bargaining power (Kristal, 2010), through which male earner power declined and the dual earner household became a prevalent social pattern (Hochschild 1989; Levy 2021). Both victories and shifts, did not result in equitable conditions for all workers across racial, socioeconomic, and gender groups or even within them, due to several social disparities that became emphasized but surpassed by some members of historically disenfranchised groups under the neoliberal turn of the late 1970´s (Crenshaw 1988, p. 1377) and the domestic economic shift from manufacturing to a service and information economy (Dywer and Wright 2018 p.69-70). As federal and state funding for programs that had once provided support to struggling families declined due to shifting governmental policies and funding for local institutions, including public schools, became conditional on local property taxation and valuation, historical patterns of racial and class inequality became visible in the differential racial and wealth distribution of neighborhoods (Sampson 2012; Massey 2020).

As researchers find the nuances and complexity of the outcome of policy shifts and the endurance of long-term patterns of marginalization and tradition in differential outcomes for people of similar demographic identities, certain orthodoxies regarding gender and role expectations and the cultural differences invoked by race have remained within the literature, at times reducing a complex identity to its highest social average as compared to the universalized white man as referent group (Milkman 1954; Watkins 2003). Such orthodoxies obscure the comparison group´s relative differences to members of a similar identity and naturalize the roles or cultural expectations that lead to the absolute difference between the referent and comparison groups by not presenting the manner through which the differences reflect social rather than natural facts.

Oftentimes literature cemented to such orthodoxy may acknowledge past policies that led to group marginalization or segregation, but the persistence of disparities is oftentimes atomized so that smaller groups or location become significant indicators of an individual´s mobility or group-wide immobility (Examples: Portes 1998; Wilkes and Iceland 2004; Sampson 2011; 2012; Massey 1989; 2020). Such research captures the effects of several existing dynamics, some resulting from structurally located problems (Thompson 2010; Hinton 2015; Ladson-Billings 2013) while others arise from the patterns that form through the persistence of individual white racial bias and stigma (Sugrue 1996; Massey 2020). Roediger (2017), breaking with the past reduction of homeownership disparity, as either strictly cognitive or structural, showed that structural practices cannot be divorced from individual racial bias, so far as the covenants and the credit market that enabled homeownership, employment concentration differences, and renting practices formally protected in law prior to the Civil Rights Act of 1968 were entrenched practices that protected the homeowner status of white workers and were manifest in both institutional and informal group practices. Such practices and institutional arrangement were substantiated by the imagery of the White American citizen as the natural owner of property. Perhaps, such a historical social fact may help to explain the absolute employment advantages of white homeowners over the historically segregated Black and Hispanic homeowners (Massey 2020) who unlike Asians, were not able to close the homeownership gap, following the 2008 recession (Chakrabarty et. al., 2018). Robinson (2020), also shows the connection between structural practices and racial bias, by showing that housing finance markets, after President Lyndon B. Johnson´s Great Society policies, of the late 1960´s, which sought to expand low-cost housing for African Americans, were not determined by profitability and shows that their profitability were undervalued due to public notions of race and credit worthiness, which Nixon was able to utilize to undermine Johnson´s original program.

In the realm of gender– homeownership, and the prevalence of the household effect on homeownership rates within such literature (Mundra and Oyelere, 2017; Chakrabarty 2018; Dwyer 2018)– may indicate the endurance of the nuclear family as an ideal, which may feature the traditional male breadwinner and stay-at-home wife in arrangement but is most likely represented by the dual-earning transitional family (Hochschild 1989; Levy 2021). The transitional family, as termed by Arlie Hochschild (1989) reflects a family that has embraced the necessity or desirability of a dual earning household but has not adequately addressed the unequal distribution of domestic labor, which still falls largely on women, both due to individual household dynamics and the gender expectations, both in the public sphere of work and private sphere of the home, that enable the differentiation of gender roles and occupational differences. Materially this social ideal may be upheld by policies that do not address the gender pay gap, childcare needs, or the differential effects of involuntary unemployment (Hochschild 1989). Such ideal is also upheld by work requirements in welfare programs which encourage a breadwinner-caretaker division of labor or at least a continuous rate of employment for single parents, thereby creating a disadvantage for single mothers who empirically demonstrate lower levels of such employment (Zatz 2009). Beyond the connection of homeownership and household ideals to the reproduction of hegemonic gender norms, employment and social realities may either bolster or challenge the dual-earner household, although the complexity of the intersection of race, gender, and class complicates the manner through which employment and household labor distribution is impacted (Milkman 1954; Hochschild 1989; Duffy 2007). Gerstel and Clawson (2014) who examined the temporal flexibility of men and women in four medical occupations, going from doctors to emergency medical technicians, found that while men and women in advantaged occupations tend to engage in ´gender´ in a conventional way, with women prioritizing the family while men prioritize their own careers, people at lower-level occupations do not have the temporal flexibility to differentiate household tasks and tend to ´undo gender´.

To capture the nuances and the effect of social facts on gender and racial disparities on employment outcomes, both during crises and periods of market homeostasis, current standard models of inequality research must expand and acknowledge the intersection between social facts, capital accumulation structures, and labor market outcomes (Fraser 2018 p.13-14). Such research requires a class location measure that enables analysis of the relative differences in racial and gender disparities, given the current dynamic in which class location–as something that emerges both from an individual´s childhood socioeconomic level and present occupation and income level– tends to mediate access to resources, prior only marginally available to women and racial minorities. The importance of class and childhood socioeconomic position emerges in an economic context and an institutional arrangement that has prioritized laissez faire structures within civil society. Such a structure emphasizes the necessity of employment to meet life standards. Employment determines the feasibility of access to the necessities of workers that are specific to historical development and standards and which they must work to either attain through purchase or to retain access to government programs that subsidize their attainment when employment wages remain low. In the following section, the meaning of class as it is widely used and as it is understood within this study will be elaborated.

**Theoretical Framework: Contradictory Class Locations**

According to Hirschman (2021) research orthodoxies are an outcome of the formation of knowledge infrastructures that initially facilitate the collection, processing and distribution of data but can overtime lead to a “domain-based absence knowledge” (746) and “iterative cycle of non-knowledge” (748) that obscures discovering new social trends as they emerge because such infrastructures privilege existing models and variables. For example, the neighborhood turn in stratification research led to a shift from a prevalence of research on racial segregation and discrimination towards new perspectives regarding the effect of social network strength (Granovetter 1973; 1985; Portes 1998) and neighborhood collective efficacy (Sampson 2012). Such a shift exemplified in Sampson´s 2012, study on neighborhood efficiency, obscured the mechanism of discrimination at the root of group level differences in resources, geographic advantage, and social mobility. Location advantage, within literature surrounding this colorblind knowledge infrastructure, is perceived as an outcome of the social, cultural, and economic capital that the individual or small group can utilize to pursue employment, business, and educational opportunities that bolster or maintain their class position. Crenshaw (1988), who does position her analysis within current state policies argues against such a perspective, claiming instead that entrenched race-consciousness has led to the outcomes that such research attempts to divorce from claims of discrimination or labor market positions.

As any group in the current era, workers, despite having a relative similarity to other workers by being dependent on wages for their livelihoods, particularly since they tend to be located in different socioeconomic and occupational positions within the capital accumulation process and thus may receive differential wages and benefits, come to see each other as distinct groups and to view “class disparities to be the consequence of individual and group merit within a supposed system of equal opportunity" (Crenshaw 1988 p. 1383). The consequence according to Crenshaw (1988) is the perpetuation of a race consciousness that:

> "…also reinforces whites´ sense that American society is really meritocratic, and this helps prevent them from questioning the basic legitimacy of the free market. Believing both that Blacks are inferior and that the economy impartially rewards the superior over the inferior, whites see that most Blacks are indeed worse off than whites are, which reinforces their sense that the market is operating "fairly and impartially" (1380).

Research emphasis on the polarization of the job market, without positioning such polarization within the economic development that has driven it, thus reinforces the prevalent notion of race consciousness. Class analysis through a measure of relative class advantage beyond being an analytical tool, also allows insight into political developments within and between workers (Smith 1974 p. 175-179) and may aid in refuting the reproduction of knowledge that reinforces class consciousness. As workers of similar minority races come to different class positions– something which this study attempted to capture by using homeownership status– they may come to perpetuate the legitimacy of a system that undermines a large concentration of workers of similar demographic characteristics (Crenshaw 1988 p. 1379).

The ultimate purpose of this study is to examine whether homeownership status during COVID-19 portrays the possible existence of contradictory class locations, following and extending Erik Olin Wright´s (1997) class model, for all workers–between and within demographic and occupational groups. Such extension will allow an examination of the endurance and structural significance of what David Harvey (1989) termed labor market structures and the structural (involuntary) unemployment that emerged following the flexible accumulation economy that proceeded from the decline of unions and the neoliberal shift after the stagflation crisis of the 1970´s. While the original analytical structure of contradictory class locations as used by Wright (1997) was intended to capture the paradoxical interests and relative autonomy of workers in positions at the border of the working class, those in supervisory and technical professional positions, Smith (1974), made a compelling assertion that while such workers may have a relatively better situation in life, such situation does not imply emancipation from the condition of having to sell their labor in order to maintain such a relative class position. Although workers may then be located in different occupational and socioeconomic levels and may have relative advantages and disadvantages relative to other workers, such fact does not negate their proletariat position in the capitalist system of production, which requires all workers to labor for the wages that alone uphold their life situation and consumption capacity (Smith 1974 p. 175-81). Given that all who work for and depend on a wage are workers, regardless of their education level or occupational prestige, the significance of their relative positions depends on the development of the capitalist production process and the lines of division that are demarcated by the structures that enable capital accumulation (Smith 1974 p. 179; Gordon, Edwards, and Reich 1982).

The concept of contradictory class location will be used in this study as a concept that supersedes so called “middle-class” boundaries and will be studied with regards to all workers. Class is perceived in this way, not in its stratification reduction, whereby differing levels correspond to a specific income level, but as a position that may have cognitive and material differences within the antagonistic social relations that exist within the capitalist system of production between those who labor for wages, workers, and those who earn a surplus from such wages, capitalists (Smith 1974; Wright 1997). While the former can only express a relative position at a specific time, since the significance and fairness of wages is always in flux, the latter positions workers, structurally within the production process, and thus becomes an analytical tool for understanding social stability and movements that arise to address grievances over the unbalanced power of capitalists and the consequences of capital accumulation strategies (Smith 1974 p. 180).

The absence of full employment and the concentration of capital into fewer hands result from the capitalist system of production, primarily through the principles that govern competition, and the bureaucratic practices that have increasingly favored capital concentration and the continuation of industry rather than the livelihood of people or practices that might enable the growth of public wealth (Marx 1967 (1867) pp. 397-400; Weber 1958 (1946), p. 215; Foster et. al., 2010, pp. 52-7. Bureaucratic regulations that favor the interests of capitalists may come to enable capital concentration or business monopolization through the legal or extra-legal facilitation of the automation of labor, production inefficacy, and investment strategies that largely impact both capital accumulation rates, national production rates, and the employment situation of workers.

**Class and Structures of Accumulation**

As flexible forms of employment became normalized due to the decline of labor unions and the ascendance of political business lobbies after the 1970´s (Harvey 1989; Centeno and Cohen 2012; Levy 2021), workers have been forced to readjust their employment expectations and life standards as their ability to raise demands and expect security, high wages, and stability within the workplace decreased relative to the collective power that was available to union workers in the Fordist era (Durand, 2019; Harvey 1989; Moody 2011). Since the liberalization of markets beginning in the 1970's, increasingly precarious work conditions, compared only to the stable work conditions of union members in large industries during the Fordist era, have exacerbated instability, insecurity, and inequality among U.S. workers across industries, firms, age brackets, employment levels, and education levels (Kalleberg, 2009). Liberalization refers to the tendency to dis-embed the market from the state by decreasing state regulation of workplace contracts, lay-offs and firings, firm restructuring and downsizing, and workplace conditions. The Fordist years prior to this liberalization were characterized by clear employment contracts, internal markets composed of hierarchies that included opportunity for upward mobility, regulated market exchange and negotiations, and union regulation over the valuation of labor and workplace stability, satisfaction, and security (Cappelli, 2001). Despite the general trend towards policies that largely disenfranchise workers, improved opportunities for education and the breaking down of legal barriers to opportunities once denied to racial minorities and women have improved the overall opportunities of workers. Such improved opportunities, as well as the benefits accorded to workers at the financial and technological sectors, the growth of the service economy and the decline in funding for public infrastructure and government positions (Levy 2021, p. 735), have led to the overall segmentation of workers, with some in occupations with higher rates of stability and a wage premium and others in occupations with high rates of turnover, involuntary unemployment, and low wages (Harvey 1989, p.164; Gordon, Edwards, and Reich 1982). The distinct color line and the private/public gender sphere distinction that had formerly led to the exclusion of women and racial minorities from occupations that offered adequate wages and opportunities for social mobility during the Fordist era started to blur at the same point that the prior employment relations based on union bargaining power declined.

Although past but recent literature (Cappelli, 2001, Kalleberg, 2009) has focused on the current so called “flexible accumulation” era (Harvey 1989, p. 155) as an anomaly in this regard, Marx (1967) identified this dynamic as the general tendency of employment dynamics as a consequence of capitalist competition whose enterprises must remain flexible enough that they surpass the general rate and cost of production of other capitalists, thereby leading to the reduction of production costs through shifts in employment, technological innovation, and management strategies (pp. 624-28). Further, scholars have identified that the centralized large-scale enterprises that are posited as the main feature of industry during this era, coexisted with decentralized smaller scale firms or large-scale firms where labor unions were not impactful or recognized. As such labor dynamics during the Fordist era already featured the worker segmentation and precarity that emerged as a visible research trend with widely applied flexible accumulation practices (Pietrykowski, 1995; Sugrue 2014). A noted consequence of capitalist competition has been theorized to be the segmentation of workers, (Harvey 1989, p. 164) which beyond affecting the labor status of those that can remain employed and the relative position they occupy within the worker class, also leads to a growing group of unemployed workers, known as the industrial reserve army, “whose misery is in inverse ratio to its torment of labor”, and whose employment position is a general consequence of the general law of capitalist accumulation and economic growth (Marx 1967, p. 644). Given that capitalism is a system that must continuously expand and speed-up for market competition to remain tenable, profitable production tends to require the constant reduction of labor or the cost of production, both of which then cause an eventual crisis of overproduction by reducing aggregate demand and the part of production that allows the capitalist to transcend the standard pace dictated by machinery: living labor (Marx 1967, p. 626-9). Capitalism´s tendency towards overproduction, captures then the tendency for the rate of profit to fall, a tendency which has been artificially counteracted since the stagflation crisis of the 1970´s through monetarist policies that rely on debt to facilitate quantitative easing and through coercive restriction of unionization efforts (Harvey 1989; Kliman 2011), facilitated by a deregulation of labor negotiation and recognition standards and the decentralization of collective bargaining systems (Freeman 1995). The artificial intervention of federal agencies to prevent the destruction of failing capitalist enterprises has kept the rate of profitability below notable growth by preventing the emergence of new capitalist investment in productive enterprises (Kliman 2011 p. 3) and has led to the vast growth of national debt: “These policies have artificially boosted profitability and economic growth, but in an unsustainable manner that has repeatedly led to burst bubbles and debt crises” (Kliman, 2011, p.4). These processes are important so far as they demonstrate the dynamic through which homeownership has become a vital component of holding up a “zombie-like economy”, captured by the creeping dystopias of the early 21st Century featuring an ongoing and inevitable crisis (Levy, 2021 p. 651). Beyond the cultural significance of these processes, they have also led to a general decrease in real wages for most people (Howell and Kalleberg, 2019) and heightened wealth disparities (Piketty, 2014; Hirschman 2021), thus amplifying the economic and symbolic status of tradition, the golden age of the past, and the status and striving for homeownership (Levy 2021, pp. 740-1).

Although capitalism is not by necessity or formally racist or sexist, the social stigma that undergirds both may serve to maintain a status quo and enable capitalist accumulation, by privileging certain individuals who are not stigmatized above others, thereby potentially increasing inter-group competition over a seemingly scarce resource, in this case employment, wages, status enhancing occupations, or property ownership and justify the precarious effects of unrestrained capitalism and profit motives (Marx 1967, p. 634; Fraser 2018, p. 13-4). Throughout this thesis, employment segmentation, which arises due to racial, gender, and occupational disparities, will not be treated as a unilateral universal category whereby there is an absolute gender or racial determinacy to class location (Milkman 1954 p. 5-11). Rather the category will be treated as reflecting the conditions that arise due to the intersection of workers´ identities and the social facts and social structures that lead to differentiated expectations and employment outcomes, the social and labor movements that may challenge practices identified as unjust, the preferences of employers and market agents, and the enforcement of anti-discrimination laws and economic and civic policies by government agencies.

Given the connection of the historical development of essential worker as an employment category and homeownership after the post-WWII Fordist era, the following section will explore the dynamics that centered homeownership and the dual-earner household as the quintessential feature of middle-class success and American citizenship. Such exposition will allow a closer understanding of existing employment and moral dynamics that have arisen in the post 1970´s neoliberal era and will frame the review of past literature on the effects of COVID-19 on employment work status and health outcomes and the discussion of the empirical results.

**Essential Workers and Labor Struggle: The Historical Background**

The term "essential worker" has historical ties to the war economy during the World Wars and later to policies intended to alleviate the effects of stagflation and the crisis of overproduction. The category was first introduced during World War I in 1918, in an economic plan that imposed the production output of industries and allocated workers within them. Due to the conscription of men and inter-industry competition for workers, which had led to an increase of wages and high worker turnover, certain industries were unable to maintain enough workers to produce the commodities necessary for the war effort. To counter, the production problems that resulted from this dynamic, the *United States employment service bureau of the Department of Labor,* was created to mediate a central flow of economic activity. Such mediation required an adjustable industry prioritization standard that was captured through the identification of different levels of essential and inessential industries.

Essential industries were divided into four groups of preferred industries from the most important industries at group 1 to subordinate industries located in groups 2 to 4 (Fox 1918). Group 1 industries received worker priority and included plants that manufactured ammunition, military-grade chemicals and transportation vehicles, fuel and electric energy for residential consumption, feed for livestock, and food for human consumption (Fox 1918). Also included in the overall essential industries at the lower levels were brass and copper manufacturing, locomotives and traveling cranes, mining tools and equipment for rails and other public utilities (Fox 1918). A new agency, the District of Columbia Community Labor Board, elaborated the list of inessential work, which included industries engaged in the production of goods not necessary for the war effort and crowd facing service workers such as janitors, chauffeurs, barber-shop attendants, and dance teachers (*The Christian Science Monitor* August 27, 1918). When possible, employers of inessential industries were advised to hire women so that men could be transferred to essential industries where their patriotic effort was required (*The Christian Science Monitor* August 27, 1918). Inessential industries were not prioritized and were expected to decrease or cease production and services when there was a need for workers to be reallocated. Women in inessential industries were recruited at times to take the place of essential workers and were able to attain a pay equal to men through the work status and agency interference, but they were also subject to the increased requirements of long workdays and the sped-up rate of production that also applied to men. The District of Columbia Community Labor Board ´s actions, which directly affected the life and consumption standards of individuals were not immediately perceived as legitimate and strong protests and criticisms followed from the reduction of services. The legitimacy contestation was tampered, first through the use of language and symbols of patriotism and sacrifice in newspaper reports, later through the establishment of interinstitutional and organization cooperation, and finally through the imposition of a punitive social system that criminalized resistance to the unofficial "work or fight" orders that validated the economic plan and agencies' authority.

Throughout the shifts to the employment policies, essential workers were in a contradictory situation: they received a form of autonomy and safety by being able to escape the frontlines of trench war but forfeited their ability to determine their work conditions and employment location. According to the plan, workers were to forfeit their freedom to change jobs or seek higher wages through a limitation to their mobility and employability as determined by the employment service bureau, the agency through which they would be expected to apply for employment (*The Washington Post*, June 18, 1918). Essential employers were urged to refrain from directly hiring workers and to go through the central employment agency, so that there would be a decrease in the production and wage "waste" created by competition. Employers who agreed to the arrangement, sacrificed their ability to determine who to hire and the production output of plants, but would be able to maintain a constant flow of labor without having to increase wages and would not suffer from a crisis of overproduction, since its commodities were to be purchased and distributed by the government. Although no worker was directly forced to labor, a uniform anti-loafing law was created by the Department of Labor in conjunction with a special war committee of the American Bar Association, in 1918, which would be sent to state governors with a request that its provisions be adapted to local conditions along with anti-vagrancy laws (*Wall Street Journal* June 25, 1918). Through such anti loafing laws, men not engaged in recognized business activity would be assigned a job by a local authority or conscripted–such laws thereby created a "fight or work" ultimatum for men.

The National War Labor Board, an agency established in 1917 by the Council of National Defense, under President Woodrow Wilson, was to act as a mediator between organized labor and war time industries by establishing the formal contract the two parties would have to honor during the war time (*Los Angeles Times*, August 10, 1917). Such an agency, which acted in a similar manner during WWII, was created through the cooperation of the National Civic Federation, an organization which brought together chosen representatives of big business and organized labor to curb the influence of socialists in organized labor and to deal with militant labor strikes (*New York Times* February 26, 1917).

While the American Federation of Labor (AFL), under Samuel Gompers, directly agreed to the covenant that established the authority of the National War Labor Board to limit organized labor's right to dispute work conditions, other unions including the Industrial Workers of the World (IWW), did engage in strikes when contracts were not favorable to workers. When unions did allow workers to strike, they were threatened with a penalty lasting one year, during which striking workers would no longer qualify for employment, and be subject to potential conscription, since their exception to the draft was dependent on their employment in essential industries. Labor disputes that led to strikes, by unions outside the control of the AFL were depicted as a socialist or pro-German threat and in that vein delegitimized and subject to armed brutality. Members of striking unions were also depicted as lawless and faithless and worthy of the employment penalty.

Throughout this centralized control phase, essential workers and employers were rewarded with high praise as national heroes who through their patriotic efforts and sacrifice would help to exterminate Germany, then depicted as the foreign global threat. Such praise did not guarantee a reduction of turnover rates, particularly since prior to WWI, workdays tended to be irregular–something which had normalized employee turnover (Gordon, Edwards, and Reich 1982 p.171-2). The lack of effectiveness in the tactic of the heroization of work portrays that in the absence of some material or moral benefit to workers, the attempt to manufacture a psychological wage to spur harmony from workers will not succeed as intended. Workers, uplifted in status through name only but who may have felt themselves exploited so far as the workday length increased but not their pay or bargaining power and who maybe did not identify directly with the manufactured symbolic status, instead sought further means to resist authoritarian structures (Gordon, Edwards, and Reich 1982). Such a dynamic may help explain, the rise in unionization proceeding this period, as well as the failure of scientific management, which as a strategy failed in its ability to control workers, many of whom continued to join forces to refute exploitative and unfair work conditions. During this time workers mobilized around issues spanning from dissatisfaction with their immediate workplace to the state of the economy generally when the economic collapse of the 1930´s occurred (Gordon, Edwards, and Reich 1982). During the period of WWII, essential worker was utilized once again in a similar manner, this time leading to a consolidated agreement between organized labor and capital and the heightened role of the state in regulating a macroeconomy of "regulationist institutionalist structures" (Kotz 2003), which lasted until the stagflation crisis of the 1970´s.

During the Great Depression, prior to WWII, President Franklin D. Roosevelt, as a response to continued labor agitation, which heightened in 1934 and 1935, created several agencies to manage and regulate the economy on a macro-level, including the National Labor Relations Board (NLRB), the Federal Housing Administration (FHA), the Federal National Mortgage Association (FNMA or "Fannie Mae"), the Works Progress Administration (WPA), the Public Works Administration (PWA), and the Securities and Exchange Commission (SEC), among others (Levy 2021, p. 389). Such agencies were intended to regulate commerce, to deflate unemployment, to guarantee a good quality of life to workers, to regulate financial transactions, to protect collective bargaining and the rights of workers, and to ensure that a crisis of overproduction would not reoccur. Although the agencies were erected to fulfil a purpose, their fate still depended on their interpretation and their legitimate realm of action as determined by the goals of the government, which would historically shift depending on whether labor or industry had more power to determine or agitate for such goals.

The period leading up to WWII had led the federal government to become central in the administration of worker´s life standards and industry regulation. The strengthening of the federal government during this time cannot be divorced from the vast amount of labor agitation that occurred during 1934 and 1935, which often pushed President Roosevelt towards the implementation of policies not favored by capitalists both in productive and financial enterprises (Levy 2021). By WWII, workers' rights to self-determination through collective bargaining and union membership was an established fact, forcing the war-time agency tasked with recruiting essential workers, the War Manpower Commission, to engage in practices that relied more heavily on the façade of voluntarism rather than direct conscription, although an element of the latter was still visible in certain sectors where underemployment would have directly impacted the war effort (*The Wall Street Journal*, November 21, 1942).

Because the National Labor Relations Board was already in existence at this point, the protected collective bargaining of unions created some difficulties in the enforcement of the war-time targeted work and draft distribution, especially because striking was still a protected action under the National Labor Relations Act of 1935. For example, an article in the *New York Times*, (February 26, 1943), reported on an incident where 650 miners went on strike to protect a fellow unmarried coworker from war conscription, despite the social expectation that unmarried and fatherless men would be sent to war while war-time protection would be accorded to fathers in the form of a draft exemption. A focus on the household, as “key” beyond the war effort, drove a new war-time draft exemption that would apply to married men with dependents, which at first applied to all men in industry but later applied only to those in essential industries, so as to ensure that wartime industries met production output goals (*Chicago Daily Tribune*, March 31, 1943). Such identification extended from the wartime draft and became the manner through which government agencies identified workers that were to have access to housing, in the newly constructed personal housing units, or wartime privileges, such as access to laundry facilities otherwise considered luxurious, should they enlist in one of the wartime industries and commit to their occupation unless they were deemed more essential elsewhere.

Wartime industries included all production, extraction, and maintenance industries that produced wartime weapons, transportation vehicles, food and chemicals, and those that were required for the continued education, communication, and training of the populace, including welfare and governmental services (*Chicago Daily Tribune*, March 31, 1943). All other production, outside of wartime necessities and those that ensured the continuation of worker´s capacity to work, like laundry facilities, were deemed inessential. Wartime production thus coincided with large scale industries that already had high levels of union membership, leading industrialists, and businessmen to forge agreements with labor unions, both to ensure the constant labor pool required for industry and to decrease turnover rates (*The Wall Street Journal*, December 31, 1941; *New York Times*, April 10, *The Wall Street Journal*, April 20, 1943; Lewisohn, October 7, 1945). Such an agreement did not guarantee the expected outcome of reduced turnover rates, something which becomes clear through the various policies attempted at this time to increase the pool and retention of workers´ into essential work. A notable aspect of the original Wagner Act of 1935 was its exclusion of agricultural and domestic workers, which kept the majority of African Americans, who were concentrated into these sectors, without the legal means to organize or contest their exploitation, but which may have also given them an initial ability to move out of such sectors during the war (Rosenfeld and Kleykamp 2012, p. 1461).

Voluntary policies were instituted to allow workers who at first were not able to move across essential jobs, some leeway should they meet the criteria for it, which included possessing a higher skill necessary to a higher paid occupation, excessive distance of the job to the home, and a substantially less favorable wage or condition compared to the community of the worker (*New York Times*, April 10, 1943). Unions were thus given the task to mediate between state needs and industry needs, potentially undermining workers desires for mobility and higher wages (*New York Times*, April 10, 1943). Although the policy was intended to give greater autonomy to workers, it required a certification from the employer or union the worker intended to leave and as such may became a policy enforced to favor wartime needs (*The Wall Street Journal*, April 20, 1943). Such policy was created as the legitimacy of scientific management declined and was replaced by human relations management, which favored cooperation between workers and management rather than a hierarchal relationship (Lewisohn, October 7, 1945; Lichtenstein and Shermer, 2012).

As essential industries expanded, and the wartime effort required greater men in combat, African Americans and women were recruited into the wartime industries. The recruitment of women undermined the wartime protection accorded to male essential workers and could potentially lead to the industry´s reclassification from essential to inessential, unless the occupation required more than three to four weeks training for a worker–differentiated in the policy as women workers– to reach the adequate occupational competency (*The Wall Street Journal*, November 21, 1942). Such reclassification would thus impact the stability once guaranteed to male workers in reclassified industries, leading to work shifts or direct wartime conscription. Although, women became essential to the wartime effort by the end of the war and contributors to the union´s collective power, they were often dismissed from employment after the war ended and replaced by returning men, especially in industries that were predominantly male in composition prior to the war effort like the auto manufacturing industry, where women were never able to consolidate a lasting covenant with male coworkers within the labor union (Milkman, 1954, pp. 144).

The disposability of women, in conjunction with the fact that their presence in an occupation would lead to the devaluation of its categorization, shows that even at this point, ideas on the differentiation of gender roles largely prevailed and determined the employability of women, as well as their dependence on male breadwinners. For men in unions and industries targeting women for dismissal, the normalization of working women would increase competition for employment and potentially deflate their wages (Milkman, 1954, pp. 144-151). The less rigidly defined definition of essential work, coupled with the de-legitimacy of scientific management had created some avenues to expand workplace participation but also increased workplace competition and segmentation, both in terms of employment stability and wages, in traditionally segregated environments (Milkman, 1954, 140-44). The unintended outcome of this dynamic, which emerged on the back of labor agitation, thus led unions to abandon the newly integrated African American and female workers when employers targeted them widely for dismissal, due to the union´s lack of ability or willingness to mobilize the traditional workforce of the respective industry in favor of the aggrieved workers (Milkman, 1954, pp. 151-2). Such, aspect was not true, particularly in industries where female or African American participation, prior to the war was significant (Milkman, 1954, pp. 148-151). The dynamics that emerged from these opposing industry arrangements, both the exclusion and inclusion of previously marginalized workers into industries and corresponding unions, thus set-up the playing field that capitalists would attempt to utilize to disenfranchise workers broadly by disempowering and delegitimizing labor unions.

**Post-War Development of Essential Work and Structures of Accumulation**

As men returned from war, large scale production did not decrease but shifted towards household goods and mass scale private housing projects, thereby birthing the consumption society that would become prevalent in the 1950´s and beyond (Levy, 2021). After the war, internal migration and general housing shortages led to a great demand for a national plan to spur housing production. Large scale housing projects at an early point featured public housing plans but these were abandoned in favor of construction projects for single family homes with the destruction of the 1945 Taft-Ellender-Wagner Housing Bill, which had included several provisions for the construction of public housing. The destruction of the bill was due to the actions of the National Association of Realtors (NAHB) and the National Association of Home Builders who put up $5 million to fight the housing legislation, which was eventually discredited by Joseph McCarthy as a communist plot (Levy, 2021, p.451). The destruction of this bill solidified the essence of American individualism and freedom´s connection to homeownership, thus fastening a moment of potential revolutionary change to the Jeffersonian idea of citizenship and privilege as property based. Single-home ownership was not disconnected but in line with the white nuclear family, which became the demographic targeted by government programs facilitating homeownership (452).

The impact of the private housing market, which allowed for the possibility of the nuclear family and its stabilization as a unit of private collaboration for the white working class, also led to a GDP growth of 6.1%.  Most of the investment that spurred this growth, a total of $50 billion dollars came from the FHA who inserted the funds directly into the economy (Levy 2021, 452). Public wealth, 14% of total domestic GDP, was thus injected towards the construction of enterprises which became a private form of property and a focal location for capital accumulation. At this point, the economy shifted towards a macroeconomy of controlled growth, sustained by investment and consumption (Levy 2021, p. 452), thereby entangling "abundance and consumption with civic identity" (p. 456). Abundance and consumption would guarantee the concentration of capital into larger industries and would be facilitated by market and credit systems which would sustain such goals so long as the nuclear family continued to be positioned favorably and continued to have the means to maintain the necessary standard of consumption. The nuclear family thus became a focal location of self-determination for spouses, but its existence relied still on the self-determination of workers through the continued power of unions and collective bargaining.

The eventual glut of macroeconomic control, as large-scale industries in differing nations began to reach similar levels of overproduction, limited national industries´ ability to increase their profits through exports or labor manipulation since unions had to agree on an increase on the rate of production or a pay decrease (Harvey 1989). To grapple with such limitations industrialists took advantage of technological advancements in communication and transportation to begin the globalization process that resulted in the off shoring of industries to locations with cheaper and more flexible labor.

Industry owners where this was not yet possible launched wide-scale attacks on the legitimacy of unions, blaming the stagflation crisis of the 1970´s on union greed and invoking the language of self-determination directed this time towards the individual and the direct employer-employee relationship (Lichtenstein and Shermer 2012): self-determination could be tapped by determined individuals but only in the absence of constraint would such determination allow unbridled mobility and gain. Beyond the redirected ideology of self-determination, industries pursued other means to increase work output such as decentralization of large-scale enterprises, using new technologies to create just-in-time models, and pursued at-will contracts, which although “equal” in name only, appear to offer the worker the greatest freedom of movement and individual negotiation. In this spirit, in the 1970s, the essential worker term was adapted not for war collective purposes but to designate public workers in sectors of the economy "essential" to infrastructure, who were barred from striking during labor disputes.

At the federal level, union workers, following the Hartley-Taft agreement of 1947, already had to follow stringent laws that prohibited a general strike across sectors and ~~also~~ made wildcat strikes illegal by requiring unions to notify employers about their intent to strike thirty-days in advanced. Through such agreement, the prior Wagner Act of 1935 (also known as the National Labor Relations Act of 1935), was amended to limit the legal acts that were available to organized labor but still maintained language, which still exists today, on the protection accorded to unions by the federal agency. During the stagflation crisis of the 1970´s, a new narrative was disseminated that blamed the national economic depression on the bargaining power of organized labor, leading to a greater enforcement of the labor law´s limits to legal worker agitation and an increasingly negative public attitude towards unions and formal contracts (Freeman 1995). During the strikes following the lifting of policies that imposed industry limits and employment protection in the 1970`s, states such as Illinois and New York created their own versions of anti-strike laws and invoked the language of essential work and critical infrastructure although such laws then did not apply to private sector workers. What is most notable about the use of essential during this time is that states rather than the federal government began to use the term to limit the labor strikes of public sector workers. Such dynamic followed from the post-war era´s capitalist strategy to mobilize states' rights, in right-to-work campaigns, through which they were able to bypass the established closed-shop clauses in union-employer contracts.

Such specificity in the use of the essential term in states, did not limit the federal government´s ability to intervene in labor conflicts since several aspects of the National Labor Relations Act gave the government the ability to intervene in labor disputes that threatened the continuity of critical infrastructure. Essential work during this time shifted from a term that accorded glory and an uplifted status to non-professional workers during the world wars, as a form of a psychological wage (Du Bois, 2001), to one that limited worker´s rights to strike during contract negotiations[3]. The prior regulationist institutional structures that were formed during the wars had limited both capital and workers in a macroeconomy that imposed limits to capital expansion and growth, but which also created a stronger tie between workers and their workplace. When the regulationist structures lost their legitimacy and a less regulated economy

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[3] Although rank-and-file actions– movements that derive from below the union leadership–did remain prevalent after the 1947 Hartley-Taft agreement, they started to be more harshly punished and did not receive adequate NLRB protections. Such movements were eventually subsumed and delegitimized by the McCarthyism acts in the 1950´s that banned so called communists and socialists from union leadership positions (Moody 2011). Of further note is the possible connection between sentiments about government employee excess, which was partially visible during WWII on government employees and the eventual limitation and targeting of government employee mobilization in the 1970´s.

became salient, the prior claim that both capital and labor could exist in harmonious state by "working together for the greater good of both" became obsolete. At this point, the essential work designation was utilized not to guarantee employment, wages, safety, bargaining power, or stability to workers but rather to undermine the claims available to them through organized labor´s legitimacy during the collaborative macroeconomic period. Further capital through various campaigns, at the cultural and political level was able to disentangle the self-determination of workers from their capacity to implement collective bargaining and positioned self-determination as the idea that individual choice and merit would enable individuals to reach their highest potential (537): the framework of equal opportunity and the ethics of individualism.

Black workers after the 1960´s received further workplace protections and were integrated into the formerly segregated and racially exclusionary AFL associated unions due to the enforcement of the Civil Rights Act and the legal struggle such act legitimized (Rosenfeld and Kleykamp 2012). Some of the white AFL workers, who identified their own personal qualities and the economic power they acquired through collective bargaining in their employer´s power (Smith 2006), and who lost the heightened status of their psychological wage and wage advantage may have felt increased identification to their employer and a desire to supersede "solidarity ordered by the state" (Smith 2017), thereby supporting the industrialist attack on unions[4]. The ideology of self-determination was thus implemented by individuals who measured their freedom by asset worth and mobility, captured best by the southern rock band Lynyrd

[4] Although other unions did exist at the time of the civil rights act, like the Teamsters, the Congress of Industrial Organizations (CIO), the International Longshore & Warehouse (ILWU), and the Industrial Workers of the World (IWW), they had what Kim Moody (2011) termed a militant minority core of workers and organizers from a variety of radical, socialist, and syndicalist movements that not only enabled mobilization of worker activity from below, in rank-and-file actions, but also made such unions more racially integrated. The AFL is infamous for its staunch segregationist labor strategy, prior to the 1960´s, as well as its continued collaboration with labor, which only heightened in the neoliberal era (Moody 2011), a fact that enabled its integration into the larger production enterprises, who wanted to decrease worker militancy (Harvey 1989; Moody 2011; Rosenfeld and Kleykamp 2012).

Skynyrd line: "Won´t you fly high, free bird, yeah (Levy 2021, 524)"[5]. Such freedom did not guarantee freedom from authority and oftentimes those who most internalized the ideology also became proponents of controlling the behaviors of individuals who they perceived had stepped out of line of the natural order. Such individuals were likely to be and probably continue to be concentrated in efforts against legislation that would facilitate the emancipation of women and the integration of racial minorities: perhaps power over the "naturally" marginal or those who stepped out of line would thus be synonymous with the self-determination of such individuals (Smith 2006). The latter dynamic potentially points to the continued existence of a psychological wage personified into a character structure. Although the nuclear family unit was becoming less tenable and less stable at this point, the two-member household and home ownership success narrative remained an operational image in the American civic and political narrative, especially for conservative and pro-industry political projects (621-632). Such image became all the more important for the conservative and industry political project as labor unions weakened and decreased in influence and capitalist enterprise became unfettered from the regulation of labor contracts. The following section will examine the market dynamics already in existence during the current essential worker stage.

## Current Economic Dynamics and Capital Accumulation Structures

The Volcker shock, of the late 1970´s, following the monetarist policy of the Federal Reserve which had increased interest rates to double digits, led to record high unemployment and "fiscal austerity, market-determined interest and exchange rates, free trade, inward investment

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[5] Although white workers had benefitted from the government programs that were created as a response to labor strikes in the 1930´s, their overall relative prosperity coupled with suburbanization, and the cultural impact of the Cold War, made it so that they came to see their social position as an outcome of individual hard work rather than as an outcome of the class struggle that had made the government programs possible.

deregulation, privatization, market deregulation and a commitment to protecting private property" (Centeno & Cohen, 2012, p. 319) and was identified by Levy (2021) as opening a new era of governmental control which would reflect a monetarist shift in economic policy (p. 598). The unemployment and inflation that emerged during stagflation was used to deprioritize all qualitative considerations of equitable growth from economic policy, and provided "a major coup for those who subscribed to anti-state policy views" who now had the precedence of the crisis as the legitimacy behind the institution of neoliberal policy and the rejection of any state-planned policy that would interfere with economic growth and private enrichment (Centeno & Cohen, 2012, 319). Often, instead, workers were asked to sacrifice their life or work standards, to maintain the vitality of national economic growth *(*Centeno & Cohen, 2012, p. 319*).* Levy's (2021) argument posits that investment became defined by a logic of speculative appreciation untied to durable assets or past business performance – and which resulted in an economy of reduced investment in production, short-term liquidity, policies of fiscal austerity, regressive taxation, and employment growth in the service, financial, and technological sectors–all of which resulted in a growing disparity in wealth and income inequality (Levy, 2021, p.938; Wodtke 2016). Due to capital´s ability to mobilize individuals around state´s rights and the individualist form of self-determination against the laws that protected labor unions and formal employment contracts, the real wages of traditional male breadwinners plummeted, thus making the way both for the dual earning household and a shift in the significance of home ownership (Levy, 2021, pp. 690-701). In the past housing boom of the 1950´s the ownership of the home did not have the same financial incentive that it came to assume after the financialization of mortgages and was rather pursued to ensure access to the private sphere of the self-determination of the household (Levy 2021, p. 493). After the 1970´s, expectations for housing appreciation and credit access came to replace worker´s prior expectations that their labor earning would not depreciate. Homeownership thus became both a financial and psychological wage to deflated wages (493; 694).

Because housing also became an integral part of the liquid speculative market (Levy 2021, p. 694), and was coupled with a time period in which men´s wages were deflated or nonexistent–for those in deindustrialized centers (557-8)–conservative notions of citizenship and the natural order of the two-member heterosexual household, the economic and the pro-family movements became entangled during the Richard Nixon era, culminating in the 2000´s into George Bush´s project to "go after the terrorists and to create an ownership society" (698). In 2003, only four years after the repeal of the Glass-Steagall Act of 1933, which had imposed limitations on the banking section´s ability to diversify its market, George W. Bush enacted a policy of consumer credit expansion and applied cuts to credit regulations, for the sake of expanding the "ownership society"–the so-called bedrock of American society (Levy 2021, p. 637). Throughout the stagflation period and with the shift from an economy of scale to an economy of scope, work issues around workplace authority and wages, increased worker agitation and a great worker resignation emerged. These parallel events show a potential link between workers´ desire for national protection and recognition, through structures that enable a perception of collaboration and contract fairness at work and their anomic reactions once bargaining processes crumble.

The latter breakdown of processes may become more visible during times of crisis, when institutional response may become insufficient in addressing real-life issues. Whether the traditional imagery of the American homeowner as citizen complicates past research on the differential impact of COVID-19 and whether homeowners have an actual or psychological class advantage over renters will be the focus of the following sections.

**Essential Workers and Labor Market Compositions: Current Research**

Although essential worker is a historical category that captures a broad history of labor mobilization by the federal government and labor union dynamics, its current use throughout recent literature only captures the immediate circumstance and absolute positions of workers relative to the white male referent, who is assumed, to be better well positioned. Such literature does identify the inequality of employment circumstances and life circumstances of workers generally but often fail to acknowledge existing contradictory outcomes in the established employment categories or in the groups that they identify as most or least disadvantaged. The COVID-19 pandemic coincides with a largely bleak labor market in which the highest growth of jobs has been in the service sector and low-wage jobs outgrew middle-wage jobs even in the modest job growth that became visible in manufacturing (Dwyer & Wright 2019). Job quality has generally declined, with employment growth most located in jobs that pay low-wages or poverty-wages, which has resulted in a fall of 6.2% in average market income, a decline of almost $2,000 dollars (Howell & Kalleberg 2019:19).

Women and racial minorities were identified, by Howell and Kalleberg (2019), to be the most vulnerable members of the labor force prior to the pandemic and most likely to be unable to move out of low-wage jobs that do not offer nonwage benefits like employer-paid health insurance and pensions. Such vulnerability extends, as Duffy (2007) shows to the transformation of ´domestic work´ by servants in private homes into "nonnurturant" service work, whose composition tends to reflect historical ethnic-racial hierarchies that remain entrenched in the labor market, even as more men are represented with them. Duffy (2007) shows that although the occupational gendered concentration of nonnurturant service work declined below 60% in 2000, the representation of women in such work is still above 50% and they tend to be relatively more represented, in the sector, than men of the same race. Moody (2017), using data from 2012, shows that the majority of racial minorities tend to work in non-managerial and non-professional sectors – whereas most women workers tend to be found in service, sales, and office work – although their presence in traditionally male occupations has also shifted and they are represented in greater numbers in manufacturing, transportation and warehousing, and makeup 41% of the information sector (pp. 37-38).

Of those in service, women outnumber men in those occupations that have associations to domestic work in the private rather than the public sphere, and which require nurturing labor, such as social or carework, including teaching and nursing (Duffy 2007, p. 331). Domestic work, both paid and unpaid, or what has traditionally been called reproductive labor by social reproduction theorists, continues to impact women´s employment mobility and leisure decisions, due to the "gender-typing process that appears to supersede the public-private boundary in location" (Duffy 2007, 331).

While the increased representation of women in traditionally male dominated occupations does imply a shift in the gendered dynamics that once prevented women access to such occupations, such improvement, is also coupled with a general decrease in the employment to population ratio (Moody, 2017, p.37) and a general decline in wages across geographic areas and education levels (Howell & Kalleberg, 2019). Such employment to population ratio decline and the decline of real wages generally is the effect of automation and just-in-time management strategies that owners of capital have pursued to accumulate capital through wage and job expropriation (Moody, 2017), as the rate of profit remains stagnant, in the absence of productive growth (Kliman, 2011). These strategies have caused a rise in unequal income and wealth growth, with a huge disparity between metro concentrated higher-wage workers and geographically dispersed and growing low-wage workers– the outcome of a decimated middle-wage level (Howell and Kalleberg, 2019).

**Further Context for Gender and Racial Economic Disparities**

After the 2008 Great Recession, owners of private enterprises, have continued with the speculative investment and pursuit of short-term profits that caused the initial economic crash. Throughout this time, capitalist enterprises have relied on financialization measures which value their company based on the future value of their company and the potential of the human capital of their high-level managers, rather than their actual production output– an accumulation practice that has led to vast employment losses and average market wage decreases, and a growth of national debt when quantitative easing and bailout measures are introduced in order to avoid a depression and the labor mobilization that may proceed it (Kliman 2011; Moody 2017; Levy 2021). Although labor unions still offer employment protection to workers, particularly Black workers who have historically experienced marginalization and discrimination in private non-union work, de-unionization prior to the pandemic, extending back to the 1970´s, resulted in heightened racial wage gaps for both male and female workers (Rosenfeld and Kleykamp, 2012). In terms of numbers as of 2012, women, Latinos, Asians and immigrants were most likely to pursue unionization or union membership, although Black workers membership continues to supersede white workers (Moody 2017, 36). Although low-wage job growth coincides with an increase in flexible part-time jobs – such jobs do not offer evidence of the increase in what has traditionally been referred to as contingent, gigariat, or precarious employment – and rather highlight the growing vulnerability and the weekly wage and workweek instability of a significant portion of Americans in the traditional labor force, whose work hours fluctuate depending on current demand (Moody 2017; Howell & Kalleberg, 2019). The labor market composition and current economic dynamic offers a comparison point for the current research on the socioeconomic situation that emerged during the pandemic. As clear gender and racial boundaries become muddled and the number of people suffering declines in life standards grow in number through declining job numbers and wages, an analysis that highlights the impact of the general economic condition of all workers, that also weights the residual effect of race, gender, and occupational prestige becomes the more important. Current COVID-19 research has tackled some of the problems I will invoke throughout the latter analysis of my study, but none have considered its overall implications for social research on class and intersectionality.

**COVID-19 Demographic and Occupational Disparities**

Recent socioeconomic literature on the impact of COVID-19 highlights the ways in which the partial closing of the economy has largely emphasized racial, gender, educational and income disparities already potentially in existence between workers. Karpman et. al., (2020) in an analysis on families´ self-reported strain to afford basic needs concluded that during the beginning months of the pandemic, 41.5% of adults reported a job loss, 27.9% of adults generally had to tap savings or increased credit card debt to meet personal needs, a number which increases to 43.9% for adults in families. Low income, Hispanic, and Black adults were more likely than other groups to tap into savings or use credit card debt to meet needs. Morales, Morales, and Beltran (2020), in a similar analysis on food security, concluded that while there was no significant difference in food insecurity across minority racial and ethnic groups, Black households were more likely to report that they could not afford to buy more food compared to people of other minority races, who did experience less food securities than whites.

Cowin, Martin, and Stevens (2020) measured evictions levels, although no demographic variables were available in their analysis, and found that by July 2020, evictions levels had reached pre-pandemic levels, only buttressed by local policies that banned both evictions filings and eviction hearings. The researchers surmised that the lack of central eviction policy led to a sharp but differential increase in evictions once the temporary federal ban on evictions was lifted and concluded that the ban, without the cancelation of rents owed, most likely affected households that faced job loss and economic upheaval throughout the pandemic and who were thus not in a position to pay back the missing rents. Many studies have reported that the employment and income effects of the pandemic disproportionally affected racial and ethnic minorities (Hardy and Logan 2020; Matthew *et. al*., 2020; Lee *et. al*., 2021), women (Landivar et. al., 2020), younger workers between 16-24 years of age, parents (Kesler and Bash 2021), and those with less education who experienced the greatest formal unemployment (Daly, Buckman, and Seitelman 2020; Kesler and Bash 2021). Brooks, Mueller, and Thiede (2021), who analyzed COVID-19 employment disparities between urban and rural areas concluded that while unemployment and inability to work was greater in urban areas, people in rural areas were less likely to be able to telework. Such differences may have arisen either due to infrastructure differences or occupational dynamics in both areas. Although the authors also considered policy differences in urban and rural areas as well as unionization rate disparities, there was little evidence to back up such conclusion. Recent research has found long-term employment advantages for union members (Milkman and Luce 2021; McNicholas, Shierholz, and Poydock 2021), white workers (Matthew *et. al*., 2020; Lee *et. al*., 2021) and workers in information, financial, business administration and professional and business services industries, which were able to transition to telework during the early lockdown stage (Matthew *et. al*., 2020).

Additionally, Lee et al, (2021), found that the differential impact of COVID-19 of employment likelihood was worse initially for minorities, particularly Hispanics and Asians initially, while Black workers had a smaller initial impact but experienced a slower recovery.

Maestripieri (2021), calling for research with an intersectional lens, theorized that the "intersections of multiple structures of inequalities [would show] a multiplying effect when disadvantaged positions intersect in the same individual". While this theory may be true when differentiation of individuals outside of absolute differences is not possible, using a measure, like home ownership that divides individuals by those with higher wages and those with lower wages resulted in the partial erasure of the visibility of the absolute employment advantage difference of race and education, while emphasizing the employment differences caused by gender and within group employment and income locations. Occupational and employment differences of renters and homeowners, may thus show labor market dynamics more meaningfully, highlighting the reality of class differentiation as an outcome of labor market dynamics, social stigma and norms, and market development throughout and before the pandemic. Such analysis may also emphasize the inequality that becomes visible due to the differential access of Americans to home ownership and certain occupations with better wages, stability, and benefits. Even though racial disadvantage across groups became insignificant in the current analysis, descriptive proportional differences, may still offer a way to think about the potential multiplication of disadvantage due to the long-term impact of wage, employment, and wealth gaps. If conditions are worsening for certain workers, despite racial identity, does the concentration of racial minorities into such jobs imply a society demarcated by an enduring color line (Du Bois 2015) between decently paying and low-paying jobs that do not offer traditional employment protections and stability? Further, perhaps beyond formal discrimination, which remains a difficult phenomenon to prove, lack of employment protections for occupations that pay lower wages, represented in this study by those workers that were renters, at least compared to homeowners, may have led to overall greater employment heterogeneity for renters. If homeowners are concentrated in a smaller fraction of the labor force that still make decent wages, since 2008, then such concentration may highlight not just racial disparities but overall wealth disparities between workers of similar racial and gender backgrounds. Further consideration of the proportions of workers of different races in each homeownership level may further complicate labor market analysis. Further, as narratives continue to be disseminated about the so-called great resignation, thereby deemphasizing the compulsory risk of essential work, the differentiated employment situation of unemployed workers and those in the not in labor force categories may allow some initial insight as to whether and which previously employed workers were able or willing to voluntarily leave their prior place of employment.

**Research Questions and Hypothesis:**

My study intends to answer the following questions: 1) Was homeownership during COVID-19, a measure of relative class advantage within and across racial, gender, and occupational groups, as indicated by a worker being less likely to be an essential worker and more likely to be a teleworker; 2) Was this employment advantage stable or differential within and across gender, race, and occupational clusters and across a one-year interval difference; and 3) Is such employment advantage contradicted or confirmed by voluntary and involuntary unemployment and voluntary not in labor force categories? I predict that homeownership during COVID-19 did operate as a measure of class advantage within racial groups, gender groups, and workers in occupational clusters. If this is the case, the effect of race would become insignificant across employment outcomes, except for employment outcomes that demonstrate proportionately high racial stratification, given educational disparities and potential employment racial segregation. The employment advantage of homeowners will probably be complicated by unemployment and not in labor force outcomes, which I predict will be most visible for women who are still gender-typed as responsible for household and family care and must assume the employment consequences for these responsibilities, particularly women without the household income to contract out such household duties (Hochschild 1989; Gerstel and Clawson 2014). Across the one-year interval I predicted that homeowners would have the highest probabilities for telework across racial, gender, and occupational clusters, and lower probabilities of essential work, since they probably did have greater employment protections.

To test the first hypothesis, I ran a multinomial logistic regression with main and interaction effects, in order to analyze the odds of homeowners, minority races, women, and occupational clusters on unemployment, employment, and not in labor force outcomes, and used essential work as my base outcome. To test the second hypothesis, that the effect of homeownership would stratify traditional racial and gender categories and cause within group differences, I found the predicted probabilities of employment, unemployment, and not in labor force of homeowners and renters during 2020 and 2021 for White, Black, Hispanic, Asian and workers of other races differentiated by men and women and separately examined the same predicted probabilities for workers in different occupational clusters. All reported findings of the multinomial regression model are to be understood, as situational, holding all other variables constant. I also include an examination of across time employment changes, in my analysis, using the same employment outcome categories for individuals who were homeowners and those that were renters, to further understand the differential effects of class advantage on the movement across employment and the reserve army of the unemployed. Such analysis allowed insight into how the relative class advantage of homeowners is also conditional on industry practices and federal, state, and local legislation[6].

## Current Study:

My overall goal is to evaluate whether and how the employment outcomes of the overall population throughout 2020 and the comparable months in 2021, as a one-year interval of the COVID-19 pandemic developed between homeowners and renters stratified by gender and racial demographic and occupational backgrounds. By analyzing the development of cross-sectional employment outcomes, I hope to understand how racial minorities and women that were positioned in the current literature as experiencing homogenous, advantages or disadvantages experienced differentiated employment outcomes, depending on their partial longstanding economic standing. Homeownership was used as a proxy to analyze relative economic advantage, given the established connection between homeownership and socioeconomic advantage across and within groups. If there was no relative employment status advantage to homeownership, that is if homeowners did not have more autonomy in determining their employment situation either through telework or voluntary unemployment compared to renters of the same racial and gender group, then my goal is to examine the employment outcome of homeowners to identify whether a psychological wage is visible within their employment outcomes, which I theorize will be visible in lower rates of voluntary unemployment or not in labor force outcomes.

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[6] The only legislation considered here is the shift from the lock-down to the gradual reopening of the economy in 2021. I do not capture the real-time effects of local and state legislation and rather look at the general impact of the federal re-opening of the economy in 2021. Although I do not analyze state or county level legislation effect differences, I control for metro as compared to non-metro areas since the economic makeup of such places was the interest of this study rather than a direct analysis of the causal effect of legislation on employment outcomes. Because my analysis in 2021 spans from May to December the use of federal, state, and local legislation may be more less appropriate since the effects cannot be isolated and rather are understood as a coupled effect.

**Data:**

The data of the study included a full sample of the 2020-2021 Current Population Survey, including the ASEC supplement, integrated by and downloaded from IPUMS-CPS (Flood et. al., 2020). The Current Population Survey (CPS) is a micro dataset of about 60,000 households, focused on the non-institutional population above 15 years of age, and selected through a probability selected sample of addresses, primarily co-sponsored by the Census Bureau and the Bureau of Labor Statistics, with an emphasis on labor force and demographic characteristics in the Basic Monthly Survey. Random sample selection is based on a selected dwelling rather than household, so the members of a dwelling can change, should the prior household move, but IPUMS integrated variable codes that allow identification of households and individuals across the survey, who are surveyed for four consecutive months, placed on a hold for eight months, and then surveyed again for four consecutive months. Such rotational pattern does allow for panel observations across time but does limit which monthly intervals allow for panel analysis.

Each March, the data includes variables from the Annual Social and Economic Supplement (ASEC), which allow insight into the prior year´s salary, health care coverage, union membership, dwelling ownership, migration, and work experience. Because of attrition and dwelling household changes during the survey, not all participants surveyed across the months or years will remain within the survey (Flood et al, 2020). During the COVID-19 pandemic, attrition increased specially for lower income and minority households, which resulted in an overrepresentation of white individuals and those of higher incomes, and an underrepresentation of minority and low-income individuals in the current data (Rothbaum and Bee 2021). Because of attrition and sampling issues in the survey, including oversampling of the Hispanic population, and due to my use of monthly micro-data observations, I used the WTFINL, based on the inverse probability of selection into sample and adjustments to the known distribution of the entire population (Flood et al, 2020), and necessary when conducting analysis on monthly level data, as my propensity weight in my data analysis to deal with bias in the estimated errors in the available data (Mercer, Lau and Kennedy 2018).

**Variables and Observations:**

To maintain consistencies throughout the years, I limited the observations studied to the months between May and December, of each year, to account for the months in which COVID-related variables were available in 2020, so that I could study employment trend development in the exact same interval each year later to maintain some level of continuity and similar annual reference (Flood 2020). These data focus on men and women between the ages of 16–85, who make up the non-institutional civilian population and included those who were either employed, unemployed, and not in the labor force. The data from the study included 40,477 individuals in the civilian non-institutional population from the Community Population Survey (CPS), between the ages of 16-85. Differentiated employment outcomes, operationalized into six possible events were utilized as the dependent variable in categorical form and included: essential work, telework, involuntary and voluntary unemployment, and not in labor force (NILF) due to either household duties or some duty unrelated to illness or schooling. Of those essential work was the base reference outcome. Although illness and disability were categories of interest to the study, they represented too few observations and thus were not the proper size to include in the study. The main independent variables of interest, both in the multinomial regression results, and the ensuing marginal effects analysis was homeownership status and time, the former coded to show the relative odds ratio of the employment outcome compared to the odds ratio of essential work of homeowners compared to renters, and the latter to capture the effect of a one-year interval on the relative odds ratio. An interaction effect between time and homeownership was utilized to capture the changing relative odds of employment type compared to essential work for renters through time. Such change emphasized increased or decreased relative changes throughout time and also enabled the marginal effects analyses that framed the analysis on the probability of employment outcome by demographic and occupational differences disaggregated by time and homeownership status.

The intent of selecting these outcomes as dependent variables is to study employment dynamics between homeowners and renters of different demographic and occupational clusters among remote workers, essential workers, and what I will argue we can call the COVID-19 reserve army of the unemployed (that is, everyone whose employment status is affected or potentially affected by the "essential worker" designation and the viability of the limited economy). Although housing variables were only available during the March ASEC, by linking the individual limited panel data across months, I was able to add housing variables to individuals with an observation in the ASEC survey, who were surveyed either before or after the ASEC portion. Such transformation of missing data was possible since the dwelling type of each housing is constant throughout the survey and unique identifiers allowed me to fill in the data that were missing for individuals who did have an observation in the ASEC survey.

The variables utilized throughout the study both as controls within the multinomial regression model and later to understand the relative class advantage of workers with similar demographic and in similar occupational clusters were operationalized in the following way. Races were divided into the categories of white, black, Asian, and other races. I also controlled for education level, divided into less than high school (reference), high school graduate, some college, college graduate, and graduate degree, age (16-24, 25-54, 55+), nativity (reference nonnative), citizen status (reference no citizenship), marriage status (reference not married), and metro area divided as metro area (reference), metro-adjacent, and not in a metro area.

Occupational clusters studied include 1) service occupations, excluding care occupations that require a higher credential; 2) professional occupations which include office logistics and higher independent office workers; 3) construction, extraction, and maintenance; 4) information and financial occupations; 5) health care occupations and first responders; 6) transportation occupations;  7) Social and Care Work;  8) Food Supply Chain occupations including agriculture; 9) Sales occupations, which include all sales positions excluding retail sales; 10) supervisors; 11) and managers. I chose the clusters based on Kim Moody´s (2011) labor market analysis and to account both for Erik Olin Wright´s (1997) analytical class concept of contradictory class locations and to account for the impact of financialization and the importance of information occupations in the new speculative economy as suggested by Jonathan Levy (2021). To further analyze Wright´s concept, I added a cluster of first line supervisors and managers to the overall model. Although I intended to further differentiate the occupational clusters by potential level of independence and bureaucratic hierarchy, further differentiation did not allow the proposed multinomial logistic regression model to converge and produced too much individual heterogeneity. Of all occupational clusters, the odds of employment outcome for food supply chain workers was used as reference to compare the odds of employment outcome for workers in all other occupations. I chose this category as reference since a leading narrative during the pandemic was a stoked fear of essential commodity shortages and as such, I identified this category as providing a reference point between high-wage information and technological occupations and low-wage service work and proletarianized carework occupations and also to demonstrate the manner through which capital accumulation strategies and the employment outcome such strategies manifest, valued speculative over productive and socially valuable enterprises.

**Method and Measures:**

By studying the different employment-level demographic and occupational compositions of workers by homeownership status, I hope to understand the potential employment advantage and overall relative class advantage of homeowners compared to workers who rented throughout the pandemic. Although I did not examine the effect of homeownership or renting on workers yearly wages through a regression analysis, I plan to use descriptive statistics, including the disparate proportions of homeownership by race to understand my overall multinomial regression findings.

Using a multinomial logistic regression, I studied the odds of employment status outcome during the first two years of COVID-19  by homeownership status, time interval, and the interaction between homeownership status and time interval, and controlled for race, gender (male as reference), and occupational clusters during COVID-19, using both the odds ratio of each employment outcome compared to the reference outcome of essential work and comparing the odds ratio of homeowners to renters, the odds ratio in 2021 compared to 2020, and the change in the odds ratio of employment outcome for renters in 2021 compared to 2020. To study the predicted probabilities of each employment, unemployment, and not in labor force outcome by workers of different races and differentiated by gender and separately by workers in each occupational cluster, I use the discrete marginal effects available on Stata 17, which predicts the average predicted probability of employment outcome, by specified demographic or occupational cluster and holds all other variables constant, and utilized the interaction effect of homeownership status and time to study how relative class position impacted employment outcome. The odds of employment outcome of renters were compared to the odds of employment outcome of homeowners, the reference category. Races were divided into the categories of white, black, Asian, other races, and white as reference. To find the change in predicted probability of employment outcome by homeownership and year, I used the interaction effect between homeownership and year. Although the addition of the interaction did not significantly alter the log odds of the other main categories, I included the interaction term to study the change in employment outcome through the marginal effects command.

Although my final analysis only uses one multinomial logistic model (see below for equation), I ran two other models as sensitivity checks, in order to gauge whether the predicted probability of employment outcome changed with the addition of the interaction term and also ran models without the homeownership term, in order to check whether the differential impact of race, stratified by gender was positional as a demographic effect or due to the labor market position of individuals within occupational clusters. Although I will not include other models analyzed, the addition of homeownership mostly impacted the log odds of race and occupations, making the former insignificant except at the telework level and the latter more significant. Using the multinomial logistic regression allowed me to find the log of odds of an event, telework, voluntary and involuntary unemployment and not in labor force due to a chosen circumstance or household responsibilities. Each log odds was converted to odds ratio by finding the exponent of the estimated log odds, which allowed analysis of the odds of employment outcome compared to the reference outcome by variable. Overall, this study compared the probability of each employment outcome for ten demographic sub-groups groups: (1) White male non-institutional civilian population; (2) Black men in the non-institutional civilian population; and (3) Hispanic men non-institutional population; and (4) Asian men in the non-institutional civilian population using three logistic regression models; (5) Men of other races in the non-institutional civilian population; (6)White woman in the Non-union non-institutional civilian population; (7) Black woman in the non-institutional civilian population; and (8) Hispanic women non-institutional population; (9) Asian women in the non-institutional civilian population; and (10) Women of other races in the non-institutional civilian population. Each demographic group listed was further stratified by homeownership status, homeowner or renter, and year of the study, 2020 or 2021. I also separately studied the probability of employment outcome for each of the eleven occupational clusters by each year and homeownership status.

The multinomial logistic regression model is a multi-level logistic analysis that examines the log odds of the outcome of several categorical events, modeled separately as a binary discrete event, compared to the log odds of a reference discrete event (Kim 2021). Generally, the log odds cannot be meaningfully compared but can be converted into odds ratios, that do allow an interpretation of the odds of the outcome. The multinomial logistic regression also allows the estimation of specified predicted probabilities, which I utilized to examine within and across group differences between racial groups, genders, and occupational clusters. To test the fit of the model, and to determine how well the sample data matched the population, and how well all categorical outcome variables fit the overall distribution, I ran a generalized Hosmer-Lemeshow goodness-of-fit test and determined that the observed values remained close to the standard normal distribution and that the cell sizes across categories were adequate (Fagerland and Hosmer 2012).

## Empirical Findings:

### Odds of Employment Outcome: Renters and Homeowners

All the reported findings of this section and the significance of control, demographic, and occupational cluster variables can be found on Table 5. From the findings that will be detailed further below, homeownership did appear as a relative measure of employment advantage compared to renters´ overall employment outcomes.

Overall, the odds of having a job that allowed telework compared to essential work was 5.6% lower for renters than homeowners through the time intervals studied, holding all other variables constant[7]. During 2021, for the months of May to December, the odds of workers having a job that allowed telework compared to essential work was 24.9% lower than the odds of workers having a job that allowed telework compared to essential work during the respective months in 2020. As time progressed, the odds of renters being able to telework compared to those that were essential workers in 2021, was 22.4% higher than the odds of telework compared to those in essential work for renters in 2020. Although renter´s showed higher odds for essential work in 2021 as compared to their odds of telework compared to essential work in 2020, this does not generally imply that they ended up in a better situation over time compared to homeowners since their odds only improved relative to other renters and not compared to homeowners.

The odds of voluntary unemployment for renters compared to essential work was more than double (2.77) the corresponding odds of voluntary unemployment compared to the odds of essential work for homeowners. Throughout time the odds of voluntary unemployment decreased so that in 2021 the odds of voluntary unemployment for all workers, regardless of homeownership, occupation, race, gender, education, native and citizen status, or whether they

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[7] Unless otherwise specified, all reported findings should be understood as conditional on the other variables remaining constant.

lived in a metro area was 9.6% lower than the odds of voluntary unemployment in 2020. In 2021, the odds of renters being voluntarily unemployed compared to essential work was 48.6% lower than the odds of renters being voluntarily unemployed in 2020.

In comparison to voluntary unemployment where renters had more than double odds of such outcome compared to homeowners, renters' odds of being involuntarily unemployed compared to the odds of essential work was only 23.3% higher than the odds of involuntary unemployment compared to the odds of essential work for homeowners. After one year, in 2021, workers odds of involuntarily unemployment compared to essential work was 79.3% lower than the odds of being involuntarily unemployed in 2020. Despite such odds change through time, renters´ odds of involuntary unemployment in 2021 was 19.4% higher than their odds of involuntary unemployment in 2020.

Of workers in the not in labor force for reasons other than illness, household responsibilities, or higher education, the odds of renters compared to homeowners to have such reserve employment outcome compared to essential work was 23.3% higher. In 2021, the entire population of individuals studied, had a odds 78.3% lower than the odds of being in such reserve employment situation during 2020. Despite the reduction in the odds of the general population for NILF for reasons other than education, household tasks, or illness, in 2021, renters' odds of such reserve condition was 19.4% higher than their odds for the same reserve condition in 2020.

Renters had higher odds of being out of the labor force for household duties compared to the odds of essential work– an odds ratio 39.7% higher than the relative odds for homeowners. The odds of being out of the labor force compared to essential work for household duties in 2021 was 82.6% lower than the odds of being out of the labor force for household duties in 2020. The odds of being out of the labor force for household duties compared to essential work for renters in 2021 was 20.2% lower than the odds of being out the out of the labor force for such duties in 2020.

The previous section focused on the relative odds ratio of each employment outcome compared to the relative odds ratio of essential work for renters compared to homeowners, in 2021 compared to 2020, and for renters in 2021 compared to 2020. Such ratios do not indicate direct probability and rather highlight direct relationships between the ratio of one outcome compared to the odds of the relative outcome–essential work. The next section will more adequately capture the disaggregated predicted probabilities of employment, unemployment, and not in labor force outcomes by race, gender, and occupational cluster.

**Employment Outcomes by Race, Gender, and Occupational Cluster:**

Differentiation by homeownership status, allowed an examination of the differential employment and reserve outcome of men and women by race (See Table 1 below). While the average likelihood of essential employment for male renters in 2020 was 86.9% and in 2021 was 84.1% for male homeowners such likelihood was only 64% in 2020 and 62.5% in 2021 (See figure 3). In 2020, across races the likelihood of essential work for male renters was significantly different to the employment likelihood of white male renters for Hispanic renters, who had an 89.2% essential work likelihood, Asian workers, who had an essential work likelihood of 86.4%, and workers of other races studied, who had an essential work likelihood of 82.8%. While Hispanics had the highest probability rate of essential work, and Black and white workers had a similar probability of frontline work, Asian, and workers of other races, had a lower rate of essential work. In 2021 the employment likelihood of essential work for male renters compared to the likelihood of essential work for white male renters was only significantly different for Asian workers, who had an essential work likelihood of 83.4% and workers of other races, who had an essential work likelihood of 79.1%. Such difference showed a lower rate of essential work for Asians and workers of other races compared to all other male renters.

*Table 1) Predicted Probability of Employment Status during COVID-19 by Race*

| Table 1) Predicted Probability of Employment Status during COVID-19 by Race | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Predicted Probabilities** | **Frontline Work (Men)** | | **Frontline Work (Women)** | | **Telework (Men)** | | **Telework Work (Women)** | |
| | Adjusted Prediction | | Adjusted Prediction | | Adjusted Prediction | | Adjusted Prediction | |
| | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 |
| **White** | | | | | | | | |
| Homeowner | 64.33% | 63.05% | 58.68% | 57.26% | 23.22% | 21.49% | 26.57% | 24.48% |
| Renter | 88.23% | 85.71% | 85.42% | 82.42% | 7.92% | 8.89% | 9.62% | 10.72% |
| **Black** | | | | | | | | |
| Homeowner | 64.99% | 63.11% | 59.31% | 57.27% | 19.55% | 17.92% | 22.37% | 20.40% |
| Renter | 88.70% | 86.06% | 85.93% | 82.76% | 6.63% | 7.44% | 8.06% | 8.97% |
| **Hispanic** | | | | | | | | |
| Homeowner | 66.41% | 64.92% | 60.81% | 59.15% | 20.32% | 18.76% | 23.34% | 21.44% |
| Renter | 89.25% | 86.80% | 86.60% | 83.66% | 6.79% | 7.63% | 8.26% | 9.22% |
| **Asian** | | | | | | | | |
| Homeowner | 60.47% | 58.66% | 54.56% | 52.60% | 23.18% | 21.23% | 26.23% | 23.88% |
| Renter | 86.44% | 83.39% | 83.22% | 79.62% | 8.24% | 9.18% | 9.95% | 11.00% |
| **Other** | | | | | | | | |
| Homeowner | 53.13% | 51.32% | 46.59% | 44.66% | 27.10% | 24.72% | 29.81% | 26.98% |
| Renter | 82.76% | 79.14% | 78.53% | 74.28% | 10.50% | 11.60% | 12.49% | 13.65% |
| **Average (All)** | | | | | | | | |
| Homeowner | 61.42% | 59.95% | 61.42% | 59.95% | 24.17% | 22.27% | 24.17% | 22.27% |
| Renter | 86.89% | 84.08% | 86.89% | 84.08% | 8.50% | 9.50% | 8.50% | 9.50% |
| **Average (Men)** | | | | | | | | |
| Homeowner | 63.96% | 62.53% | 58.24% | 56.67% | 22.62% | 20.88% | 25.83% | 23.74% |
| Renter | 88.11% | 85.52% | 85.25% | 82.15% | 7.75% | 8.69% | 9.40% | 10.47% |

Telework, for which education and occupational cluster remained significant in the multinomial regression model, was an outcome in which only Asian men did not have a significant difference in their likelihood of telework compared to white men. While Black and Hispanic male homeowners had less probability of telework, compared to white male homeowners, men of other races who were homeowners, had a greater probability and were the only group that had an increase in telework in 2021. White male homeowners had a probability of telework of 23.2% in 2020 and 21.5% in 2021; Black male homeowners had a probability of telework of 19.5% in 2020 and 17.9% in 2021; Hispanic male homeowners had a probability of telework of 20.3% in 2020 and 18.8% in 2021; Asian male homeowners had a probability of telework of 23.2% in 2020 and 21.2% in 2021; Homeowners of other races had a probability of telework of 27.1% in 2020 and 24.7% in 2021.

Female renters and homeowners´ employment likelihood for telework and essential work outcomes pattern-wise was similar to the trend that became visible for men: women homeowners were more likely to be in telework conditions while renters were more likely to be in essential work. The one difference between men and women was that while female renters had less likelihood of essential employment compared to men, that is lower probabilities, female homeowners had a greater probability of being in positions where they worked remotely, compared to men with similar racial characteristic and homeownership positions (see figure 2).

*Table 2) Predicted Probability of Unemployment Status during COVID-19 by Race*

| Table 2) Predicted Probability of Employment Status during COVID-19 by Race | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Predicted Probabilities** | **Unemployed Voluntary (Men)** | | **Unemployed Voluntary (Women)** | | **Unemployed Involuntary: Laid off (Men)** | | **Unemployed Involuntary: Laid off (Women)** | |
| | Adjusted Prediction | | Adjusted Prediction | | Adjusted Prediction | | Adjusted Prediction | |
| | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 |
| **White** | | | | | | | | |
| Homeowner | 0.19% | 0.51% | 0.25% | 0.67% | 11.15% | 13.47% | 12.36% | 14.87% |
| Renter | 0.23% | 0.31% | 0.32% | 0.43% | 3.31% | 4.73% | 3.89% | 5.53% |
| **Black** | | | | | | | | |
| Homeowner | 0.15% | 0.41% | 0.20% | 0.54% | 13.49% | 16.15% | 14.96% | 17.81% |
| Renter | 0.19% | 0.25% | 0.27% | 0.35% | 3.99% | 5.69% | 4.69% | 6.65% |
| **Hispanic** | | | | | | | | |
| Homeowner | 0.13% | 0.36% | 0.18% | 0.47% | 11.98% | 14.44% | 13.33% | 15.99% |
| Renter | 0.16% | 0.21% | 0.23% | 0.30% | 3.49% | 4.99% | 4.11% | 5.85% |
| **Asian** | | | | | | | | |
| Homeowner | 0.29% | 0.77% | 0.37% | 1.00% | 14.84% | 17.75% | 16.27% | 19.34% |
| Renter | 0.37% | 0.49% | 0.52% | 0.67% | 4.59% | 6.52% | 5.37% | 7.57% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Other** | | | | | | | | |
| Homeowner | 0.10% | 0.26% | 0.12% | 0.33% | 17.16% | 20.44% | 18.28% | 21.61% |
| Renter | 0.14% | 0.18% | 0.19% | 0.24% | 5.79% | 8.15% | 6.67% | 9.29% |
| **Average (All)** | | | | | | | | |
| Homeowner | 0.19% | 0.52% | 0.19% | 0.52% | 12.63% | 15.20% | 12.63% | 15.20% |
| Renter | 0.25% | 0.32% | 0.25% | 0.32% | 3.87% | 5.51% | 3.87% | 5.51% |
| **Average (Men)** | | | | | | | | |
| Homeowner | 0.17% | 0.45% | 0.22% | 0.59% | 12.00% | 14.46% | 13.28% | 15.93% |
| Renter | 0.21% | 0.28% | 0.29% | 0.38% | 3.58% | 5.11% | 4.21% | 5.97% |

The voluntary unemployment likelihood of renters and homeowners, across races was less than 1%, except for female Asian homeowners whose voluntary unemployment likelihood reached 1% in 2021 (see figure 5 and 6). Such outcome entailed the greatest likelihood of voluntary unemployment compared to the likelihood of such outcome for other individuals of other races across homeownership status. Across gender, Asian homeowners and renters had the greatest probability of voluntary unemployment, although homeowners had a greater likelihood of such reserve outcome compared to Asian renters. Homeowners across races had a greater likelihood of voluntary unemployment compared to renters in 2021 but a lower probability of voluntary unemployment in 2020 compared to respective renters. Of these, white homeowners in 2021 had the second greatest voluntary unemployment likelihood, followed by Hispanic homeowners, Black homeowners, and those of the reserve of other racial backgrounds.

Women compared to men, had a greater likelihood of voluntary unemployment across races, and female homeowners had a greater probability of being in this reserve condition. In comparison to 2020, both men and women in 2021, overall had a much greater involuntary unemployment likelihood, and the disparity between homeowners and renters was much greater.

While male renters had an average likelihood of involuntary unemployment of 3.6% in 2020 and 5.1% in 2021, male homeowners had an involuntary unemployment probability of 12%

in 2020 and 14.5% in 2021. Female renters had an average involuntary unemployment of 4.3% in 2020 and 6% in 2021 compared to female homeowners who had an average involuntary unemployment likelihood of 13.3% in 2020 and 15.9% in 2021. Racial minorities also suffered from slight unemployment disadvantages regardless of race. By magnitude, workers of other races had the greatest probability of involuntarily unemployment, followed by Asian workers, Black workers, Hispanic workers, and white workers throughout both time periods studied, but greater in 2021 compared to involuntary unemployment likelihood in 2020. Regardless of race, homeowners were more likely to have a higher likelihood of involuntary unemployment compared to renters of the same gender or race. The visible racial disparities with regards to involuntary unemployment outcomes may be due to differences in occupational compositions.

*Table 3) Predicted Probability of NILF Status during COVID-19 by Race*

**Table 3) Predicted Probability of Employment Status during COVID-19 by Race**

| **Predicted Probabilities** | **Not in Labor Force (Other) Men** | | **Not in Labor Force (Other) Women** | | **Not in Labor Force (Childcare) Men** | | **Not in Labor Force (Childcare) Women** | |
|---|---|---|---|---|---|---|---|---|
| | Adjusted Prediction | | Adjusted Prediction | | Adjusted Prediction | | Adjusted Prediction | |
| | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 |
| **White** | | | | | | | | |
| Homeowner | 0.77% | 1.06% | 0.67% | 0.91% | 0.34% | 0.23% | 1.48% | 1.80% |
| Renter | 0.19% | 0.20% | 0.17% | 0.18% | 0.12% | 0.08% | 0.57% | 0.71% |
| **Black** | | | | | | | | |
| Homeowner | 1.36% | 1.84% | 1.18% | 1.59% | 1.84% | 0.56% | 1.98% | 2.39% |
| Renter | 0.32% | 0.35% | 0.30% | 0.32% | 0.35% | 0.21% | 0.76% | 0.95% |
| **Hispanic** | | | | | | | | |
| Homeowner | 0.77% | 1.05% | 0.66% | 0.90% | 0.39% | 0.47% | 1.68% | 2.04% |
| Renter | 0.18% | 0.19% | 0.17% | 0.18% | 0.14% | 0.17% | 0.63% | 0.80% |
| **Asian** | | | | | | | | |
| Homeowner | 0.77% | 1.05% | 0.66% | 0.89% | 0.44% | 0.54% | 1.89% | 2.28% |
| Renter | 0.19% | 0.21% | 0.18% | 0.19% | 0.17% | 0.21% | 0.76% | 0.95% |
| **Other** | | | | | | | | |
| Homeowner | 1.59% | 2.14% | 1.32% | 1.77% | 0.93% | 1.13% | 3.88% | 4.65% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Renter | 0.43% | 0.46% | 0.39% | 0.41% | 0.38% | 0.48% | 1.73% | 2.13% |
| **Average (All)** | | | | | | | | |
| Homeowner | 0.81% | 1.11% | 0.81% | 1.11% | 0.78% | 0.95% | 0.78% | 0.95% |
| Renter | 0.20% | 0.22% | 0.20% | 0.22% | 0.29% | 0.37% | 0.29% | 0.37% |
| **Average (Men)** | | | | | | | | |
| Homeowner | 0.87% | 1.19% | 0.75% | 1.02% | 0.39% | 0.48% | 1.69% | 2.05% |
| Renter | 0.21% | 0.23% | 0.19% | 0.21% | 0.14% | 0.18% | 0.65% | 0.82% |

Not in labor force outcome for reasons other than household duties, school, or illness likelihood in 2020 were below 1% but increased above 1% for homeowners in 2021: male homeowners' probability of such not in labor force outcome was, on average, 1.2% while the outcome for women was 1.0%. Workers of other races and Black homeowners were more likely than other racial groups or comparable renters to be leave the labor force for this varied outcome.

A not in labor force outcome that impacted mostly women was leaving the workforce to take care of household duties. Women who were homeowners were more likely than female renters and male homeowners to leave the workforce for household duties. White women were the least likely to have left the workforce to deal with such duties. Racial minorities who were homeowners were most likely to have left the work force to deal with household duties compared to renters. Throughout time, while the probability of white and Black men´s participation in this NILF outcome decrease, the women´s probability for NILF for household duties, regardless of race, in 2021 compared to 2020, increased. One slight anomaly here, is that while men´s probability of leaving the workforce for household duties remained significantly below women´s, Black male homeowners had a similar probability to Black female homeowners of leaving the workforce to deal with household responsibilities. The probability of Hispanic, Asian, and men of other races, to have left the work force for household duties increased in 2021 compared to 2020 but remained much lower than the probability of women, less than 1% in 2021.

In terms of worker employment outcome depending on homeownership status and occupational cluster, homeowners were more likely than renters to be in work conditions that allowed telework, but whether telework was dominant in an occupational cluster depended on the feasibility of transferring the job to a remote location (see Table 7 and figure 9). Of workers who became involuntarily unemployed and were homeowners, most were in service, transportation, manufacturing and food production, construction, extraction, and maintenance occupations (see figure 10). Relative involuntary unemployment likelihood was also a possible outcome for homeowners who worked in food supply chains, professional, sales, social and care work, and management positions.

**Limitations:**

Although I originally intended to include variables related to union membership and full time compared to part-time work in my model, they often rely on the immediate circumstance of the worker, and hence could not be used in the cross-sectional analysis detailed above, without eliminating unemployment and not in labor force outcomes. The same applies to the inclusion of income, which unless a person was employed would otherwise be coded as missing. Since the CPS survey is a monthly household survey that requires voluntary participation, there are some issues related to participant attrition and non-response across months. A change in the manner through which first responses were collected during the COVID-19 months, led to decreased participation among contacted participants (Flood et. al., 2020). Further, because of the dwelling rather than individual or household sampling selection of the survey, participants who may have lost their home, whether they owned it or rented it were dropped from the survey. For this reason, homeowners and renters that are represented in the study may have suffered consequences that the analysis is not able to pick up without access to restricted data. Another limitation of this survey is the potential differential enforcement of employment categories across numerators, particularly because people may not use the kind of language that the survey uses, or their situation may be more complex than the questions allow. The CPS tends to ask about employment situation within the prior week and may thus overlook the employment variable situation of workers between the time of the prior month´s week of interest and the new month´s relative week. Additionally, both the unemployment outcomes studied were not coded with relevant information regarding the reason for unemployment and thus all analysis of such condition will rely on prior research findings and the overall composition of unemployed workers, which may allow some analysis of the production process and the occupational composition that enables capital continuation and growth.

## Empirical Discussion:

### Relative Probability of Employment Outcome and Occupational Composition:

To summarize, homeowners had an overall advantage over renters with regards to their relative probability of essential work, however there was a relative improvement to the odds ratio of essential work for renters in 2021. The relative improvement to the relative probability of renters for telework may have been due to the lifting of the lockdown measures and a shift of former teleworkers who owned homes into essential work, thereby numerically emphasizing the odds ratio of those renters who were able to telework.

Renters who were essential workers, in terms of occupational composition were concentrated in blue-collar service and transportation occupations: 18.63% of renters who worked essential jobs were blue-collar service workers and 10.72% of renters were in transportation occupations compared to homeowners in the same employment situation for which only 10.68% were service workers and only 7.95% were transportation workers (See Table 8). Occupational clusters for which there was less than a 2% distribution difference for homeowners and renters in essential work included food supply chain, information and financial professional, social and care work, manufacturing, extraction, and maintenance, first line supervisors, and sales. Homeowners were most concentrated in management (12.99%), health care and first responders (11.17%), as well as professional occupations (8.72%). What becomes interesting in these disparate and similar levels of occupational concentration between homeowners and renters is that they denote a difference at least to the extent that homeowner´s respective occupational distribution tends towards occupations that require higher education or specialized training. Renters were mostly concentrated in occupations that tend to require less formal education and although such jobs do require some level of proficiency and training, they tend to require less specialization and more job dexterity and flexibility. In terms of educational distribution, essential workers were more likely to have less than a Bachelor´s degree: 66.54% of homeowners and 76.19% of renters in essential work had less than a bachelor´s degree, compared to telework in which about 26.05% of homeowners and 23.41% of renters had less than a bachelor's degree. The relative employment advantage of homeowners also depends then on occupational location and its entanglement with education, thereby portraying that worker´s ability to telework depended much more on occupational location than long-term economic advantage. Rather than autonomy, the telework category captures industry decisions with regards to transitioning those who could telework to a location most suitable for its industry. Renters and homeowners who teleworked (see Table 16) were similarly distributed with regards to occupational clusters except for the management cluster where homeowners were more likely to be concentrated. Occupations alone were not an indication of absolute employment advantage and most likely depended on the management perspective regarding the feasibility of managing such workers from afar as well as the necessity of such workers for the continuation of business: the only consideration which may have kept essential, and teleworkers employed. The overall impact of the relative employment advantage of homeowners was thus dependent on federal and local policies with regards to the opening of the economy and whether their place of employment had a preference or necessity for their immediate or continued return to work. How this may have impacted the odds of workers with regards to voluntary and involuntary shifts into unemployment and the not in labor force throughout the one-year interval will be the focus of the next sections.

The one unemployment outcome that further complicates the interpretation of homeowner´s relative employment advantage is the higher odds ratio that renters had over homeowners with regards to the odds of voluntary unemployment as compared to the odds of essential work throughout the time studied. A higher relative rate of voluntary unemployment as compared to essential work may either signal dissatisfaction with the workplace arrangement that leads workers´ to accept a lowered household income, greater financial ability to leave work, at least for a brief time, either to temporarily deal with life circumstances or a dissatisfactory work arrangement, or it may signal a lowered psychological commitment to the respective workplace. Because such workers remained part of the official labor force it can be assumed that they intended to return to the workforce.

Renters who became voluntarily unemployed, in terms of occupational composition were concentrated in blue-collar service transportation occupations and managers across sectors: 28.85% of renters voluntarily unemployed were blue-collar service, 10.27% were transportation workers, and 10.62% were managers. Many homeowners who became involuntarily unemployed worked in service, professional, healthcare and first responder, and construction, extraction, and maintenance occupational clusters: 25.63% of homeowners voluntarily employed were service workers, 9.8% were professional workers, 8.81% worked in health care or first responder occupations, and 10.81% worked in construction, extraction, and maintenance occupations. A Pew study (Parker and Horowitz 2022) recently found that the top four reasons workers quit their jobs in 2021 was because they felt the pay was too low, there were no opportunities for advancement, they felt disrespected at work, or because of childcare issues. Of the ten categories workers verbalized for quitting their jobs, the reason “employer required a COVID-19 vaccine” was the lowest, and rather workers focused on work conditions and benefits and number of hours required. Although the number of workers who did quit may have expressed dissatisfaction, all the categories like pay, childcare issues, and disrespect at work, may signal that rather than dissatisfaction workers reacted to fatalistic circumstances, in which lack of COVID-19 protocol enforcement or wide-scale childcare worker program, left some unable to continue working. Such workers may have felt that such conditions forced them to concentrate on finding a new job that would adequately provide the pay and work conditions that would allow them to balance not just their job but other household and self-care responsibilities. Although the latter have been premised as individual choices through the neoliberal emphasis on the ethics of individuality, self-care activities like eating, avoiding illness, and reenergizing are required for the continuation of labor and for the next generation’s ability to work and tend to be necessary activities for all workers (Marx 1967; Munro 2019).

The relative odds of involuntary unemployment compared to essential work was higher for renters than homeowners but did decrease throughout time. By 2021, renters did end up having a relative increase in their odds of involuntary unemployment despite the relative decrease in the odds of essential work for all workers. The overall time related change of the odds of involuntary unemployment was most likely due to the lifting of the lock-down measures which may have led to greater demand for workers´ and decreased structural unemployment. Notably, renters who were involuntarily unemployed, in terms of occupational composition were concentrated in blue-collar service occupations: 31.18% of renters involuntarily unemployed were blue-collar service workers compared to homeowners in the same employment situation for which only 23.59% were service workers. Such concentration into occupations with greater part-time employment structures may thus mediate, as Tomlinson (2006) found manager's perceptions of part-time worker´s commitment to the workplace and thus affect both the relationship between full-time and part-time workers, as well as part-time workers career trajectories. Other occupational concentration differences were not as large as the occupational difference of service work for renters compared to homeowners. Of note, is the higher prevalence of management, healthcare and first responder, and social and care workers for those involuntarily unemployed who were homeowners compared to renters (see Table 16). Workers in such occupations may have been initially impacted by the pandemic during the lock-down but may have been called back to their positions once the economy opened again. The discrepancy between homeowners and renters with regards to involuntary unemployment may thus reflect the development of the economy and the existing employment dynamics of workers in different occupations, with different work arrangements, which engender different levels of commitment between workers and differing hiring and firing practices. Although this cannot be captured in this analysis, the size of the industry and whether the worker was laid off or furloughed may further enable an elaboration of how pre-COVID market arrangements, impacted workers at differing rates across time, and whether unemployment was due to the economic impact of the pandemic or due to planned worker obsolescence within a firm and business, such as occurred in the manufacturing sector, despite the profitability of the enterprise (Moody 2017).

Homeowners and renters were similarly concentrated in high numbers in the professional, service, transportation, construction, extraction, and maintenance, and sales occupational clusters (see table 16). Of these, renters were concentrated in higher numbers in service work– 32.37 percent compared to 23.18% for homeowners–although the highest concentration of all workers, regardless of homeownership status, was predominantly in the service occupation. Homeowners were highly and disparately concentrated in social and care work and sales: 10.39% of homeowners had been in a social and care work occupation whereas 11.30% had been in sales. The second greatest concentration of renters was in the transportation occupational cluster. Regardless of homeownership status then, service workers were more likely than other workers to have left the labor force for some undisclosed reason. The undisclosed reason for leaving the labor force may have been an outcome of dissatisfaction with workplace conditions or with the work situation, particularly because of the disadvantaged position of service workers with regards to benefits, workweek stability, and pay (Howell & Kalleberg 2019). Because the reason for their position outside the labor force is undisclosed such category can only show the shift of workers into conditions outside the labor force that may have been part of what was termed the great resignation. Leaving the workforce, regardless of the reason, partially shows the relative but conditional class advantage of homeowners, which although relative in terms of wages and wage stability, is still dependent on work conditions, life balance, and occupational advantage. Occupational advantage depends on the technological stage that enables production or investment appreciation and on the relative importance of the occupation for the appreciation and valuation of an enterprise or company.

Although Duffy (2007) theorized that workers in relative better class position would be most likely to engage in housework due to the endurance of gender-typing within such group, renters compared to homeowners had higher odds of being out of the labor force for household duties compared to the odds of essential work. Throughout time the odds of this NILF decreased both for renters and homeowners. Homeowners and renters in this reserve condition were also concentrated in service occupations: 37.12% of renters and 23.95% of homeowners were service workers. Homeowners in this reserve outcome were also concentrated in professional (9.13%), management (9.21%), social and care work (12.78%), and sales occupations (15.44%). Renters were highly concentrated in transportation (9.71%), sales (10.86%), and social and care work (12.89%). The similar concentration of homeowners in service and care work may reflect again the outcome of unfavorable work conditions, coupled with reduced social services that would have enabled workers to remain in the labor force, not just for those who had lower relative class advantage but across the worker class. Whether a gender dynamic is also visible will be discussed in the section on the predicted probabilities of each employment and reserve labor outcome.

Throughout time (see Tables 9 and 10) 12.61% of renters compared to 16.21% of homeowners were teleworkers at some point. Of those who were essential workers and renters in May 2020, 26.81% became essential workers, 71.48% stayed teleworkers, .24% voluntarily became unemployed, .27% were not in the labor force for a reason not related to schooling, illness, or household responsibilities, 38% became part of the not in labor force due to household responsibilities, and .83% became involuntarily employed. In comparison, of those who were teleworkers and homeowners in May 2020, 31.63% became essential workers, 67% stayed teleworkers, .02% voluntarily became unemployed, .27% were not in the labor force for a reason not related to schooling, illness, or household responsibilities, .39% became part of the not in labor force due to household responsibilities and .71% became involuntarily employed. Teleworkers who were homeowners in May 2020 had less propensity to stay teleworkers compared to renters and had a very similar frequency to stay employed, around 98%, but were also less likely to become voluntarily and involuntarily unemployed. Compared to homeowners, essential workers who were renters were less likely to remain essential workers 91.8% compared to 92.12% (-.32%), less likely to transition into telework 4.35% compared to 5.73% (- 1.38%), but more likely to transition to: 1) telework for a reason not related to schooling, illness, or household responsibilities, .64% compared to .37%; 2) not in labor force for household responsibilities 1.26% compared to .77%; 3) voluntary unemployment, .39% compared to .11%; and 4) involuntary unemployment, 1.65% compared to .9% for homeowners. In terms of the number of workers who were essential workers at any point in the time studied, only 54.96% of renters were essential workers, while 62.66% of homeowners were teleworkers. Although essential work does represent a potential health risk, these figures demonstrate that homeowners did have a relative employment advantage with 78.87% of homeowners able to transition or stay into conditions of employment throughout the pandemic while 67.57% of renters were able to stay or transition to employment throughout the time. While 32.43% of renters who were employed became part of the reserve army of the unemployed, that is those in condition outside employment, 21.13% of homeowners became unemployed throughout the time. Although homeownership does not guarantee employment outcome, it does seem to indicate a better employment location, that is employment that is relatively stable and offers greater income compared to renters. Homeowners had a projected average wage advantage over renters of $11,686.40 (see table 4) and an average income advantage of $29,054.21. What is most notable with regards to homeowners' income is that there was an additional amount of income after wages, while for renters the projected[8] amount was greater than the income amount reported across groups, except for people of other races. Because taxable income was lower than the projected wages of workers who were renters, it is sensible to assume that renters may have been in work conditions defined by periods of irregular work hours or potentially issues that resulted in the lowering of wages if such jobs did not offer salaries or benefits. Although the mechanism behind the income disparities is not entirely clear, it can be concluded that homeowners on average, had some additional income beyond their wages, while renters ended up making a few thousand less than projected. Homeowners then do have a relative employment advantage, that translates into a relative class advantage. Such advantage does not guarantee stable employment in the absolute sense but does guarantee a greater degree of stability as well as pay and work conditions that allow workers to make the expected annual amount of annual income even during a pandemic, at least for those that remained employed. The latter conclusion might help explain then the lower rates of involuntary unemployment and not in labor force outcomes for homeowners, who either were able to contract out household responsibilities or had a job that they felt was relatively better than those otherwise available those in relatively worse class positions and as such were less likely to abandon their positions.  Homeownership then might be associated with both an actual wage advantage and a psychological wage–a perceived bettered status of those that are able to occupy a relatively better class position. The current analysis did

[8] To project the yearly wages of workers, I took the average weekly income and multiplied it by 54 weeks. I wanted to project what the average wage would have been for workers if they received all expected average weekly wages.

not differentiate by gender, race, and only engaged with a surface level analysis of potential effects caused by gender or the occupational concentrations of renters and homeowners at the respective employment outcome. The next sections will study how homeownership impacted individuals predicted probabilities of labor force or reserve condition by race and gender and then by occupational cluster to better understand the employment dynamic that emerged from differentiation of racial groups into polarized relative class positions.

**Employment Outcomes by Race and Gender and Occupational Cluster:**

While renters had higher rates of essential work, across gender, men had greater rates of essential work, despite homeownership status, while employed women had higher probabilities of telework. Men who were homeowners had a higher likelihood than men who were renters to be teleworkers, while men who were renters had a higher likelihood to be essential workers. While workers of all other races, had an increase in their likelihood of telework in 2021, Asian workers suffered a decrease, hence Asian workers´ overall employment likelihood decreased in 2021 compared to all other workers (see figures 3-4; see tables 12-15). Such difference may be the result of the targeting of Asian workers, due to the scapegoating of Asians, through references to the Asian virus that occurred broadly in the media during the Pandemic. Like Asian men, Asian women, both homeowners and renters, were also most negatively impacted with regards to employment outcomes. Such disparity, despite evidence that had previously shown a narrowing gap between Asian and white households, with regards to homeownership (Chakrabarty et. al. 2018) – evidence of Asians previous relative class advantage compared to other minority races – may illustrate the effect of narratives that increase stigmatization on employment outcomes. From this potential causal relationship, the moral norms and images that drive employment outcomes may become clearer. Employment outcomes, which are the effect of both moral and economic considerations, beyond existing above social norms and narratives, reflect the manner through which stigma can manifest into disparate employment outcomes (Marx 1967; Crenshaw 1988). The mechanism through which stigma may have led to Asian employment disadvantage is worth examining in future research. The moral evaluation of laborers is particularly salient when the reserve army of the employed is larger than the demand for workers, which can shift at any point depending on the conditions through which capital accumulation or concentration remains possible (Marx 1967). Although any absolute conclusion regarding the mechanism that led to the employment disadvantage of Asian workers, is not possible here the position of workers in unemployment and not in labor force outcomes may show some tentative evidence of the effect of stigma and media narratives on a racial group´s employability.

Although homeowners had a telework employment advantage compared to renters, their relative class advantage was limited to their telework outcome and did not impact their involuntary unemployment outcome. Women homeowners had a telework advantage compared to men and female renters, but an essential work disadvantage and involuntary work disadvantage compared to women renters and men. The slight advantage that women renters had over women homeowners did not lead to an essential work advantage compared to men of the same race and homeownership status. In this case the disadvantage of women compared to men in terms of essential work was a health advantage, at least partially, although partnerships and marriages with men may have led to the insignificance of this “so-called” advantage.

While women who were homeowners did have a slight telework advantage compared to male homeowners, they also potentially suffered worst involuntary unemployment outcomes. Such slight disadvantage may have been due to the expectations managers had regarding women´s ability to maintain consistent commitment to the workplace (Hochschild 1989; Tomlinson 2006), although whether this was the mechanism that caused such disadvantage for female workers would require further analysis. If female unemployment disparities were due to such a mechanism, then the embeddedness of stigma and norms that position women within the home rather than work would become more visible.

Further the occupational concentration of women homeowners in service, social & care work, professional, and sales occupations compared to male homeowners who were concentrated into information and financial, transportation, construction, extraction and maintenance, and management occupations may have also caused the involuntary unemployment likelihood disparities if disruptions in such industries caused employers to lay off a significant portion of its labor force (see tables 7 and 8). Greater numbers of white workers were concentrated in information and financial, professional, management, service and care work, and sales, although Black and Hispanic workers had a greater concentration in service and care work and a similar concentration in sales (see Table 4). Hispanic workers also had a greater concentration than other races in construction, extraction, and maintenance occupations. Asian workers were concentrated in greater numbers in service work compared to Hispanic workers and had lower concentration in information and financial work and professional occupations compared to white workers.

Workers of other races were the mostly concentrated in information and financial, management, and service occupations. The relative class advantage of workers, captured by homeownership status, is thus not an absolute guarantee of employment safety and work condition autonomy and is instead dependent on how jobs in specific sectors remain important or necessary for the capital accumulation process. Because workers of different races tend to be concentrated in oppositional locations, also polarized into decent paying and lower paying jobs, the racial disparities that form in some ways also show the potential effect of the impact of economic shifts on employment stability even for those racial groups who appear to have a relative class advantage. The constant shifts in employment need that drives capital accumulation practices in the current era impact not just those already in relative worse employment situation but those whose positions signifies a better class location–which extends from occupational location to social location.

The NILF for other reasons outcome may have captured a desire to leave as mentioned and shown by the Pew study or a reason outside the worker’s control. Men compared to women homeowners, across races were more likely to be in this labor force condition showing perhaps either the private role of men, a disparate availability of resources, here supported by the greater wages of men and historical practices privileging the savings and property of men, or the inability for men to admit to leaving the labor force for household duties (see figures 7-8). Although the immediate circumstance is not clear, future research might consider the circumstances under which men leave the labor force and the rates at which they return to it. Because male homeowners do tend to have a significant income advantage compared to female homeowners, of the same race, it is possible that they had the capacity to choose to leave the labor force, although with the given data it is not possible to understand whether autonomy was expressed in their decision. Even if such men left for safety concerns, such leave depended on a lack of ability to enforce safety norms in their workplaces and not out of some sense of absolute autonomy.

White women were the least likely to have left the workforce to deal with household duties–something that may capture the potential effect of being able to contract out household duties or to already have such a setup in place (Hochschild 1989). Racial minorities who were homeowners were most likely to have left the work force to deal with household duties-perhaps due to the persistence of gender-typing in such communities, cultural expectations for dealing not just with children but extended relative, or else due to a lack of savings, since such dynamic tends to follow familial wealth and the outcomes of credit markets which have been documented to disadvantage racial minorities (see figures 7-8). Although female homeowners thus had more autonomy compared to female renters of the same race, their decision to leave the workforce may have proceeded from a context in which gender was already manifested in different ways depending on the relative class advantage that is tied not just to property conditions but to racial identity, and the economic practices that privilege certain group´s ability to accumulate wealth (Roediger 2017; Killewald, Pfeffer & Schachner 2017; Killewald & Bryan 2018).

The only occupations for which the likelihood of telework was dominant was professional and financial and technology occupational clusters. Even within such occupations, renters tended to work in essential work conditions. This means that the telework employment advantage, which was captured by homeownership, applied only to those jobs that required less direct oversight or that could be measured with direct productivity expectations. On the other hand, lower positions may have been clerical and privier to fluctuations and such workers may have received less ability to telework. Because employment categories could not be further atomized without losing the cohesion of the model, such conclusion is tentative rather than absolute. What may be interpreted as autonomy for professional and highly educated workers, may thus actually be linked to greater measures of productivity for abstract labor.

The high prevalence of woman in the rank of workers most impacted by involuntary unemployment as well as the potential lack of flexibility accorded to women in occupations within construction, extraction and maintenance and manufacturing clusters which tend to still have a high prevalence of men and as such might not offer a work arrangement that would allow women to balance household tasks and work (Moody 2017) might show the effect of gender-typing on women´s labor outcomes (see figures 5-6). Such conclusion is partially supported by the prevalence of workers who left the labor force for household duties, who were also concentrated in service, manufacturing and food production, and construction, extraction, and maintenance. Because women homeowners had a higher likelihood of this employment outcome then such reserve outcome might emphasize the disadvantage women faced throughout the pandemic, despite also having a higher probability of telework.

The mechanism behind voluntary unemployment differences between races and the higher probability of women being in this reserve outcome is not clear, however Asian men and women´s higher likelihood of this outcome may also point to the effect of workplace stigma and concern for safety. Lack of information on unemployment and lack of specificity on the NILF outcomes within the data, led to inconclusive mechanisms, however overall, it is clear that a mixture of social facts and expectations, occupational factors, and stigmatization effects must be taken into account to account for the contradictory results presented. Overall, there was a visible Asian unemployment disadvantage despite their advantage in the probability of telework, captured not simply in the renter lower relative class disadvantage but also in the higher prevalence of involuntary and voluntary unemployment for Asian homeowners. Women both homeowners and renters had a greater probability of telework compared to men, but also faced a greater probability of involuntary unemployment and NILF for household duties. Here the potential improvement of women´s employment outcome through educational access may have been buttressed by existing social expectations and the second shift (Hochschild 1989). Overall, however most of the results detailed had a wide variety of exceptions, showing that using a measure of class advantage, in this case homeowners, makes the clear cut lines and advantages between workers more blurry, bringing attention back to the relative precarity that impact all workers– which must be understood both in terms of capital accumulation strategies and how they shape available employment and the social facts that contribute to the persistence of high rates of minority and female unemployment disadvantage, although such difference, particularly when comparing people of similar class advantage is not significant and shows convergence of circumstances. A surprising finding in the study was the higher probability of unemployment disadvantage for homeowners compared to renters, contradicting prior research on employment heterogeneity and homeownership, although this may be due the household dynamic, since previous research has linked the nuclear household type to homeownership.

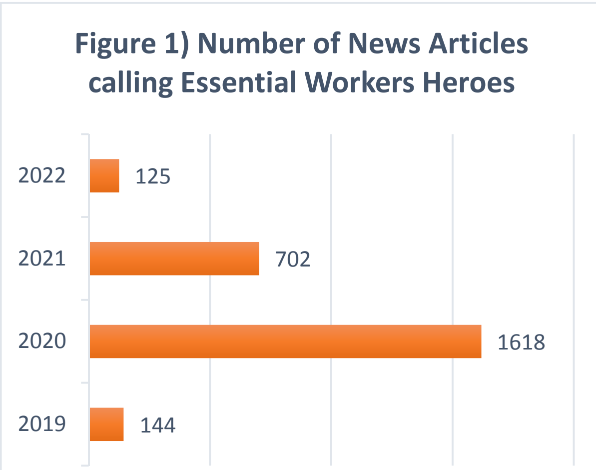
**Theoretical Discussion:**

The following section tied together all the findings and contradictions within and between workers and those not in the labor force in order to offer an analysis of current segmentation models and how they may obscure the cognitive maps that are formed from analyses, and narratives that focus on absolute job polarization rather than the contradictions within relative class positions and the advantages and disadvantages that connect to such employment locations.

Findings were used to explore several themes that connect to class composition analysis including:

1) the segmentation of workers into several peripheries and levels, as proposed by David Harvey (1989) and Gordon et. al., (1982); 2) the stability of the composition of the reserve army of the unemployed, as coined by Karl Marx (1867) and the social factors which may determine its in/stability, often limited or supported through national policies that favor market expansion and protection (Levy 2021). A main theme I explored was Erik Olin Wright´s (1997) concept of

contradictory class locations. While exploring such themes, I considered the potential political dynamic elaborated by current knowledge infrastructures that privilege analyses without reference to current accumulation strategies or social facts.




| | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|
| Series1 | 144 | 1618 | 702 | 125 |

*Figure 1: Frequency of News Articles Linking Essential Workers to Heroes*

During the pandemic, as the phrase "essential work" spread through the press, it was linked to images of heroism and national struggle. As such it may have become a moral signifier for at-risk workers, now portrayed as warriors, lifting their social status. Did that moral signifier function to legitimate work in conditions of increased exposure to risk particularly when most workers remained essential and could not work remotely?

Increased likelihood of illness and death for essential workers and their immediate networks – whether families, roommates or friends – were justified by framing such work as a moral duty that would enable the continuation of life, the nation, and the economy. Although a recent media focus has centered on the great resignation and women´s inability to stay in the labor force or employed, figure 1, shows that the highest prevalence of workers throughout time were concentrated in essential work, followed by telework, and lastly by involuntary unemployment, with very low levels of work conditions that would have proved the narrative of the great resignation factual. The great resignation narrative may thus obscure how employment decisions by firms initially created the so-called employment crisis by firing workers at high rates. Workers, who may have experienced a moment of glory in 2020, did not have a long-term benefit to such glorification nor an outcome to confirm that their sacrifice extended beyond themselves onto a successful nation-state or economic triumph since the lingering threat of the pandemic and its economic implications never ceased. Additionally, while workers at first encountered a form of empathy through employment policies that directed recuperation times and occupational flexibility, throughout time the essential work mandate ceased to call on workplaces to guarantee safety and instead emphasized worker individual responsibility to remain safe, which the workplace would only need to support in a limited manner (CISA 2020). Figure 1 shows that during 2020, captured by time 2, there were 1618 articles that tied essential workers to national heroes directly. Essential workers in 2019, a term that had previously referenced either labor union or migrant workers, became uplifted in symbolic status through media narratives that increased the link between essential work and glorified hero status by 1123%, from 144 to 1618. As the economy reopened the symbolic gesture decreased so, that by 2022 the number of articles linking essential workers to heroes dropped below 2019 levels. Instead, the great resignation narrative was widely disseminated portraying at times workers as having full autonomy and not considering the conditions that may have led some workers to leave their employment or the work force. Since 2020, 1091 articles, according to the ProQuest article search, have focused on the great resignation. Whether such articles vilify or provide empathy for workers is outside the frame of the current analysis but may provide some insight to the current increase in unionization drives as well as the manner through which workers´ positions are represented within the nation and the economy overall to potentially legitimize authoritarian tendencies. Although the current neoliberal perspective posits that occupations are not reliant on others, and that rather it is supply-chains that matter, the pandemic employment outcomes emphasized how much collaboration occurs between occupations and that the restriction of one can lead to the unintended restriction of the other. For example, essential work outcome for care workers, which was restricted by the bargaining power of unions and concerns about child safety, led to high rates of telework for care workers, thereby restricting the employment outcomes of female homeowners, who were most likely gender-typed both at work and in the home (Duffy 2007; Lyttelton, Zang, and Musick 2020; Dunatchik et al 2021) and also who were divided in their means to leave the labor force or reduce their work hours (Zamarro, Perez-Arce and Prados 2021). Employment outcomes were not random individual decisions nor were they mere expressions of social contagion as suggested by the great resignation narrative. Both individual decision and social contagion imply that workers can determine their employment outcomes, to the extent that they are culturally endowed with the correct behavior (Crenshaw 1988), human capital (Levy 2021), and social network (Granovetter 1973). The high likelihood of involuntary unemployment for homeowners, who probably had a relative class advantage prior to the pandemic, discounts the notion that workers beyond a specific level have an autonomy unavailable to other workers. Further the negative outcome of conditions as they developed for workers, for example the dual responsibility that fell on mothers led to disparate negative mental health consequences (Lyttelton, Zang, and Musick 2020). If autonomy had truly driven work conditions for workers, mental health would not have suffered. The great resignation narrative regardless of intent or overview of workers may have furthered the stigmatization of those locked into service work, since former research has shown the endurance of employment closure for such workers (Tomlinson 2006). Industry level decisions may have initially dislodged such workers from employment forcing them to rely on unemployment insurance which at this point may have allowed them some bargaining power not available at other times when policy did not favor workers in conditions of exacerbated precarity. Whether access to unemployment insurance was equal in both conservative and liberal states would show further insight to the disparate effect of wide-level unemployment, further emphasizing the effect of the pandemic related economic crisis and the reality behind the media mass resignation narrative.

To view class as a gradation and outside the capital accumulation process, as occurs in stratification theories, naturalizes the polarization of jobs and also does not locate how capital accumulation strategies affect the valuation of employment, thereby making wage, stability, and employment benefit differences seem fair and also leading to the cultural simplification of lasting racial disparities in employment outcomes and occupational segregation (Crenshaw 1988). Such naturalization of job polarization, divides and conquers workers who would otherwise appear to have similar concerns and differences, thereby locking people into bargaining arrangements that do not benefit their autonomy and restrict the workers ability to resist proletarianization, which is an outcome of an increased labor pool and the decreased importance of their role for short-term capital accumulation (Moody 2017, pp. 193-195). Further, as the two-party system grew to reflect internal capitalist conflict, emphasized through "organization, debate, and political conflict… and organized through think tanks, pressure groups, trade associations, and lobbying firms" (Moody 2017 p. 109), the largest labor union the AFL-CIO merged with capital through the democrats in a liberal-labor coalition whose main focus was private property and the market. Political mandates that emerge from such a coalition often reflect the influence of such groups rather than the common demands of workers (Moody 2017 pp. 79-80). Although the state appears distinct from industry, the two tend to form an embedded entanglement, that disfavors workers through lack of direct regulations that favor industry sovereignty and de-platform alternatives that would guarantee environment, economic, and psychological stability (Moody 2017; Centeno and Cohen 2012; Hochschild 2016). Support of such government tends to arise from individuals who score high on right-wing authoritarianism and social dominance orientation across demographic and positional differences (Smith and Hanley 2018) and reflects the endurance of what Crenshaw (1988) termed race consciousness–that is "the modern belief in cultural inferiority, which acts to further Black subordination by justifying all the forms of unofficial racial discrimination, injury, and neglect that flourish in a society that is only formally dedicated to equality" (1380). Although even whites and model minority groups are negatively impacted by the justification of job polarization, they may end up basking in the reflected glory of having proximity to the positive stereotypes applied to successful workers and as such do not question the disparity their life may have in comparison to the dominant stereotype and/or narrative nor the decline of their employment and life standards since their reality does not disturb their self-integrity so far as their identity is a form of psychological wage advantage. Class analysis is thus not just a manner through which relative monolithic disparities should be captured but should rather inform research that shows potential group contradictions and within group disparities. Such class approach would open the door to research on political patterns and civic society manifestations of protest, violence, and acquiesce.

**Implications of Findings on Class Composition and Analysis**

The visibility of job polarization is caused not by some arbitrary or static shift in the valuation of workers, but is caused by changes within the production process, and is a consequence of the speed-up and growth of the capitalist accumulation process and the necessity of the acceleration of production surplus conversion to sustain the lagging

Historical Oppositional Dualities

| White Images | Black Images |
|---|---|
| Industrious | Lazy |
| Intelligent | Unintelligent |
| Moral | Immoral |
| Knowledgeable | Ignorant |
| Enabling Culture | Disabling Culture |
| Law-Abiding | Criminal |

*Figure 2: From Crenshaw 1988 p. 1373*

profitability of industries (Kliman 2011; Levy 2021). Positions most directly necessary to guarantee the continuous growth and acceleration of current capital centralization practices tend to be the ones most highly compensated and tend to receive the greatest benefit and workweek stability (Dwyer and Wright 2019). Although concepts such as contradictory class locations are useful in an examination of job polarization, they do not capture the employment outcome contradictions that plague all workers because of their dependence on wages and wages relationship to the capital accumulation process (Smith 1974).

Contradictory class locations (Wright 1985) feature a scheme to analyze the potential lowered state of exploitation as well as the credentials that place workers in specific locations and give them some relative autonomy to perform their work. Such conceptualization of class may be more suited, and less culturally reductive, if expanded from a way to analyze workers at the margins of the working class to a way to think about the potential connection between workers and the manner through which they come to relate to one another, as well as the tendencies that determine their particular class positions and the precarity that may make such location and job quality inconsistent throughout time, if not in tenure then at least in workplace changes. Such analysis would have to locate workers within an analysis that examines current changes to the capitalist accumulation strategy, as well as the policies and movements that enable or restrict such attempts. Further, such analysis would have to understand that employment is not a static status but rather is conditional to the necessity of variable and human effort in capitalist enterprise.

As capitalism has developed, and the potential for wealth has increased, less investment has gone towards employment and production and more has been invested into technology, machinery, real estate development and speculation (Levy 2021, pp. 633-37; 670-676)– a tendency that Marx predicted when he speculated on the development of the reserve army of labor and the integration of modern machinery into productive enterprises (Marx 1967 pp.644-645). Speculation as Levy (2021) shows creates an economic and political climate defined by chaos and short-term booms that rapidly lead to economic crises, since every item of consumption and the credit that drives it becomes a form of capital centralization strategy, thereby leading to increased wealth inequality, a reduction in the employment-to-population ratio, and the concentration of capital into fewer hands (682-690). Speculative focused enterprise thus emphasizes the exclusionary mechanism of employment–now organized through class and geographic position at birth, captured broadly in social network theory and marry mismatch theory (Levy 2021, 689-690). Such is the dynamic that must be examined when labor demography seeks to outline how moral social norms are still embedded within the economy and civil society and also the extent to which inequality has altered both employment access, stability, geographic inequalities, and the relations between people–both within enterprise, kinship networks, life trajectories, and marriage choices. Not through their separation but rather by examining how social norms and stigma are utilized to substantiate worsening employment projections, life standards, inflation, and the environmental effects of industry–that is by examining the frequency of workers as they flow in and out of the reserve army of the unemployed and the long-term effect of the decline of industrialization and just-in-time-principles. As capital grows in quantity, a segment of educated and highly paid officials becomes necessary in inverse proportionality to the decrease of manufacturing workers necessary at a given time (Marx 1967, pp. 632-645). Such decrease of necessary workers and increase of management duties in industry thus increases and leads to the segmentation of workers into the industrial reserve army, since the general law of capitalist accumulation–that is the necessity of capitalists to reduce the cost of industry enterprise, thereby decreasing the livelihood of a large portion of the population, reduces many to: "the misery of constantly extending strata of the active army of labor, and the dead weight of pauperism" (Marx 1967 p.644). The indeterminacy of bureaucratic principles and arrangements, coupled with the increase in machinery, increases the intensity of the working day for all workers and increases the precarity suffered even by those who have a relative class advantage, even if the precarity outcome is lower (Marx 1967 p.645). Beyond capturing labor as a distinctly separate sphere that utilizes a reduced form of class analysis, social analysis must strive to show economic disparities´ impact on social organization and political patterns, since these alone give legitimacy to the reported outcomes and the conditions that enable industry sovereignty and free-market legitimacy.

**Future Studies:**

In the future, I hope to examine the outcome of class positions, and the restricted autonomy of workers across sectors, on their political perspectives. I hope to study how the modern manifestation of self-determination gives salience to race consciousness and authoritarianism. My working theory is that atomized self-determination under fatalistic circumstances emphasizes within group status differences, regardless of a worker´s employment location, and also emphasizes the ethics of individualism, thereby legitimizing subservience to the legitimate authority of the group and a heightened sense of a general competition between groups that leads to racial animosity, scapegoating, and homicidal violence. In line with my current analysis on homeownership and broadly thinking of geographic inequality and the shifting dynamic of residential segregation, I might extent my model to an analysis of how people also make sense of both their class location and livelihoods, considering not just the effect of industrial decline and jobless growth, but the mechanisms that make city level displacement possible and how people moving into such areas, both those who are politicized and those with moderate political relationships make sense of their social role in displacing devalued communities as they settle into potentially better class positions. Such an analysis would allow me to make sense of how people´s occupational, social location, political orientation, and geographic location impacts their relationship both to the effects of capital speculation and those pushed further into pauperism. In the end the Lazarus layers of the reserve army of labor and labor generally manifest in concrete cognitive realities for individuals and communities and unpacking such realities is the goal of my life-long research interest.

## Data Archive and Logistic Model

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Appendix:
**Main Tables 4-7**

*Table 4: Descriptive Statistics and Average Wage Difference*

| **Table 4:** Descriptive Statistics and Average Wage Difference (Non-Institutional Population) | | | | | | |
|---|---|---|---|---|---|---|
| | **2021** | **2020** | **2021** | **2020** | **2021** | **2020** |
| | **White** | | **Black** | | **Hispanic** | |
| Sample Size | 770,780 | 648,358 | 111,755 | 89,111 | 148,963 | 115,283 |
| Employed | 436,662 | 360,015 | 58,716 | 44,890 | 90,097 | 66,143 |
| Unemployed | 18,310 | 24,520 | 5,376 | 5,654 | 6,640 | 5,654 |
| Not in Labor Force | 113,945 | 97,368 | 27,253 | 22,176 | 36,605 | 22,176 |
| Retired | 198,532 | 163,812 | 19,974 | 16,055 | 14,940 | 16,055 |
| Employment-Population Ratio (%) | 56.65 | 55.53 | 52.54 | 50.38 | 60.48 | 57.37 |
| Unemployment Rate (%) | 4.02 | 6.38 | 8.39 | 11.19 | 6.86 | 7.87 |
| Labor Participation Rate (%) | 59.03 | 59.31 | 57.35 | 56.72 | 64.94 | 62.28 |
| Essential Workers | 333,413 | 178,432 | 45,952 | 23,319 | 73,093 | 35,749 |
| Telework | 59,675 | 60,397 | 6,818 | 6,035 | 7,069 | 6,576 |
| Unemployed (Voluntary) | 1,935 | 1,384 | 473 | 294 | 492 | 290 |
| Unemployed (Involuntary) | 16,375 | 23,136 | 4,903 | 5,360 | 6,148 | 7,476 |
| Not in Labor Force (Other) | 7,477 | 7,917 | 2,114 | 2,277 | 2,505 | 2,491 |
| Not in Labor Force (Childcare) | 30,702 | 25,097 | 5,078 | 3,689 | 13,491 | 10,268 |
| **(% of Total)** | | | | | | |
| Essential Workers | 74.16 | 60.21 | 70.33 | 56.91 | 71.10 | 56.88 |
| Telework | 13.27 | 20.38 | 10.43 | 14.73 | 6.88 | 10.46 |
| Unemployed (Voluntary) | 0.43 | 0.47 | 0.72 | 0.72 | 0.48 | 0.46 |
| Unemployed (Involuntary) | 3.64 | 7.81 | 7.50 | 13.08 | 5.98 | 11.89 |
| Not in Labor Force (Other) | 1.66 | 2.67 | 3.24 | 5.56 | 2.44 | 3.96 |
| Not in Labor Force (Childcare) | 6.83 | 8.47 | 7.77 | 9.00 | 13.12 | 16.34 |
| **Education** | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Less than High School | 7.86 | 7.93 | 13.76 | 14.30 | 27.96 | 27.57 |
| High School Graduate | 27.74 | 27.65 | 33.97 | 33.36 | 31.65 | 30.69 |
| Some College | 27.33 | 27.70 | 28.14 | 28.38 | 22.97 | 23.99 |
| Bachelor´s Degree | 23.26 | 23.02 | 15.13 | 14.96 | 12.18 | 12.23 |
| Graduate Degree | 13.81 | 13.70 | 9.01 | 9.00 | 5.23 | 5.52 |
| **Personal Characteristic** | | | | | | |
| Women | 51.27 | 51.39 | 55.17 | 55.82 | 51.30 | 51.60 |
| Men | 48.73 | 48.61 | 44.83 | 44.18 | 48.70 | 48.40 |
| Married | 55.79 | 56.74 | 34.09 | 32.73 | 46.48 | 48.07 |
| Not Married | 44.21 | 43.26 | 65.91 | 67.27 | 53.52 | 51.93 |
| Age | | | | | | |
| 16-24 | 10.54 | 10.61 | 14.55 | 14.18 | 19.78 | 19.39 |
| 25-54 | 42.96 | 42.65 | 47.33 | 47.20 | 56.77 | 55.83 |
| 55-65 | 44.96 | 44.96 | 36.52 | 36.89 | 21.99 | 23.28 |
| Lives in Metro | 22.58 | 22.42 | 46.23 | 47.11 | 42.82 | 42.65 |
| Lives in Metro Adjacent Area | 48.94 | 48.87 | 40.13 | 39.41 | 48.50 | 48.94 |
| Not in Metro | 28.48 | 28.71 | 13.64 | 13.48 | 8.68 | 8.41 |
| Born Abroad | 3.88 | 3.78 | 11.24 | 11.34 | 44.12 | 43.81 |
| Native | 96.12 | 96.22 | 88.76 | 88.66 | 55.88 | 56.19 |
| Not a Citizen | 1.32 | 1.28 | 4.01 | 4.27 | 26.53 | 25.23 |
| Citizen | 98.68 | 98.72 | 95.99 | 95.73 | 73.47 | 74.77 |
| **Occupation** | | | | | | |
| Food Supply Chain | 1.31 | 1.36 | 1.02 | 1.17 | 3.11 | 3.15 |
| Information & Financial | 8.31 | 8.19 | 5.28 | 5.44 | 4.00 | 4.18 |
| Professional | 11 | 10.82 | 8.48 | 8.36 | 6.84 | 7.10 |
| Health Care & First Responder | 8.4 | 8.41 | 9.00 | 8.95 | 4.69 | 4.79 |
| Service | 11.73 | 11.76 | 15.93 | 16.99 | 21.75 | 21.67 |
| Social & Care Work | 11.24 | 11.51 | 14.39 | 14.84 | 8.66 | 8.97 |
| Transportation | 6.16 | 6.04 | 12.46 | 11.53 | 9.44 | 9.42 |
| Manufacturing & Food Production | 3.87 | 3.85 | 5.23 | 4.81 | 5.61 | 5.49 |
| Construction, Extraction, and Maintenance | 7.47 | 7.46 | 4.71 | 4.81 | 14.33 | 13.08 |
| First Line Supervisors | 5.58 | 5.53 | 4.54 | 4.22 | 4.72 | 5.07 |
| Management | 14.59 | 14.63 | 8.31 | 8.16 | 7.47 | 7.39 |
| Sales | 10.34 | 10.44 | 10.66 | 10.71 | 9.39 | 9.69 |
| **Home Ownership Status** | | | | | | |
| Homeowner | 79.51 | 79.81 | 53.55 | 54.21 | 55.72 | 57.45 |
| Renter | 20.49 | 20.19 | 46.45 | 45.79 | 44.28 | 42.55 |
| **Income Difference Categories** | Average Wave | Taxable Income | Average Wave | Taxable Income | Average Wave | Taxable Income |

| | | | | | | |
|---|---|---|---|---|---|---|
| Homeowner | 68,177.97 | 89,426.57 | 57,717.47 | 61,817.71 | 54,470.72 | 54,438.99 |
| Men | 77,772.31 | 95,328.86 | 62,655.93 | 69,925.20 | 59,704.67 | 55,148.78 |
| Women | 57,836.11 | 82,139.90 | 53,494.31 | 54,312.77 | 47,972.71 | 53,531.57 |
| **Average Gender Wage Diff (Homeowner)** | 19,936.21 | 13,188.96 | 9,161.62 | 15,612.43 | 11,731.95 | 1,617.21 |
| Renter | 56,069.12 | 51,703.03 | 43,708.91 | 37,070.68 | 43,686.64 | 33,335.96 |
| Men | 62,495.50 | 55,633.20 | 49,195.56 | 40,561.11 | 48,226.93 | 35,556.36 |
| Women | 49,319.34 | 47,224.08 | 39,522.27 | 34,402.04 | 37,902.11 | 30,519.77 |
| **Average Gender Wage Diff (Renter)** | 13,176.15 | 8,409.12 | 9,673.30 | 6,159.07 | 10,324.82 | 5,036.59 |
| **Average Wage difference** | 12,108.85 | 37,723.54 | 14,008.56 | 24,747.03 | 10,784.08 | 21,103.03 |

| **Table 4: (Continued)** | 2021 | 2020 | 2021 | 2020 |
|---|---|---|---|---|
| | Asian | | Other | |
| Sample Size | 30,523 | 24,553 | 63,860 | 51,721 |
| Employed | 16,934 | 12,870 | 38,448 | 29,459 |
| Unemployed | 1,463 | 1,658 | 1,995 | 2,926 |
| Not in Labor Force | 7,963 | 6,635 | 12,975 | 11,124 |
| Retired | 3,963 | 3,245 | 10,271 | 8,038 |
| Employment-Population Ratio (%) | 55.48 | 52.42 | 60.21 | 56.96 |
| Unemployment Rate (%) | 7.95 | 11.41 | 4.93 | 9.04 |
| Labor Participation Rate (%) | 60.27 | 59.17 | 63.33 | 62.61 |
| Essential Workers | 13,000 | 6,351 | 24,604 | 11,321 |
| Telework | 2,049 | 1,800 | 9,903 | 7,669 |
| Unemployed (Voluntary) | 156 | 119 | 160 | 114 |

| | | | | |
|---|---|---|---|---|
| Unemployed (Involuntary) | 1,307 | 1,539 | 1,835 | 2,812 |
| Not in Labor Force (Other) | 591 | 600 | 922 | 1,798 |
| Not in Labor Force (Childcare) | 2,020 | 1,706 | 4,826 | 268 |
| **(% of Total)** | | | | |
| Essential Workers | 67.98 | 52.42 | 58.23 | 41.82 |
| Telework | 10.71 | 14.86 | 23.44 | 28.33 |
| Unemployed (Voluntary) | 0.82 | 0.98 | 0.38 | 0.42 |
| Unemployed (Involuntary) | 6.83 | 12.70 | 4.34 | 10.39 |
| Not in Labor Force (Other) | 3.09 | 4.95 | 2.18 | 4.34 |
| Not in Labor Force (Childcare) | 10.56 | 14.08 | 11.42 | 14.71 |
| **Education** | | | | |
| Less than High School | 15.15 | 15.09 | 9.92 | 10.11 |
| High School Graduate | 32.25 | 31.22 | 19.17 | 18.94 |
| Some College | 29.76 | 31.42 | 17.58 | 17.80 |
| Bachelor´s Degree | 15.06 | 14.98 | 29.76 | 30.43 |
| Graduate Degree | 7.77 | 7.29 | 23.58 | 22.71 |
| **Personal Characteristic** | | | | |
| Women | 52.63 | 52.54 | 53.32 | 53.02 |
| Men | 47.37 | 47.46 | 46.68 | 46.98 |
| Married | 38.59 | 38.41 | 60.42 | 61.55 |
| Not Married | 61.41 | 61.59 | 39.58 | 38.45 |
| Age | | | | |
| 16-24 | 20.60 | 21.74 | 12.83 | 12.92 |
| 25-54 | 51.14 | 49.40 | 54.97 | 55.29 |
| 55-65 | 26.90 | 27.28 | 30.78 | 30.08 |
| Lives in Metro | 29.29 | 29.27 | 46.96 | 46.71 |
| Lives in Metro Adjacent Area | 39.37 | 39.25 | 48.92 | 49.35 |
| Not in Metro | 31.33 | 31.48 | 4.11 | 3.93 |
| Born Abroad | 7.39 | 5.93 | 64.58 | 64.75 |
| Native | 92.61 | 94.07 | 35.42 | 35.25 |
| Not a Citizen | 3.26 | 2.53 | 25.23 | 26.28 |
| Citizen | 96.74 | 97.47 | 74.77 | 73.72 |
| **Occupation** | | | | |
| Food Supply Chain | 1.74 | 1.58 | 1.04 | 1.08 |
| Information & Financial | 5.54 | 5.53 | 20.61 | 20.48 |
| Professional | 9.17 | 9.61 | 9.27 | 9.63 |
| Health Care & First Responder | 7.57 | 7.09 | 9.70 | 9.38 |
| Service | 18.02 | 18.54 | 14.77 | 15.42 |
| Social & Care Work | 11.24 | 12.04 | 9.72 | 9.25 |
| Transportation | 9.38 | 8.37 | 4.81 | 4.82 |

| | | | | |
|---|---|---|---|---|
| Manufacturing & Food Production | 4.24 | 3.66 | 3.98 | 3.88 |
| Construction, Extraction, and Maintenance | 7.88 | 7.60 | 3.12 | 3.15 |
| First Line Supervisors | 4.86 | 4.91 | 3.61 | 4.23 |
| Management | 10.17 | 10.75 | 11.67 | 10.96 |
| Sales | 10.20 | 10.33 | 7.70 | 7.72 |
| **Home Ownership Status** | | | | |
| Homeowner | 64.71 | 64.54 | 70.24 | 67.00 |
| Renter | 35.29 | 35.46 | 29.76 | 33.00 |
| **Income Difference Categories** | Average Wave | Taxable Income | Average Wave | Taxable Income |
| Homeowner | 60,891.91 | 62,109.94 | 79,841.27 | 107,467.30 |
| Men | 66,462.28 | 66,332.24 | 90,518.47 | 115,436.00 |
| Women | 54,597.67 | 57,339.40 | 69,209.53 | 96,738.35 |
| **Average Gender Wage Diff (Homeowner)** | 11,864.61 | 8,992.84 | 21,308.94 | 18,697.65 |
| Renter | 51,153.17 | 39,513.68 | 68,049.50 | 68,366.10 |
| Men | 58,885.33 | 47,615.81 | 76,038.59 | 75,870.41 |
| Women | 43,228.59 | 31,970.31 | 56,875.07 | 56,704.41 |
| **Average Gender Wage Diff (Renter)** | 15,656.74 | 15,645.50 | 19,163.52 | 19,166.00 |
| **Average Wage difference** | 9,738.74 | 22,596.26 | 11,791.76 | 39,101.20 |

*Table 5: Multinomial Linear Probability of Employment Probability of Civilian Non-Institutional Population*

| **Table 5: Multinomial Linear Probability Model of Employment Probability of Civilian Non-Institutional Population** | | | |
|---|---|---|---|
| Base Group: Essential Workers | **Teleworkers** | | |
| Homeownership Status (Ref: Homeowner) | Coefficient (Log Odds) | SE | Odds |
| Renter | -0.057 | 0.052 | 0.944 |
| Time | -1.392 | 0.038*** | 0.249 |
| Interaction of Renter and One Year Interval | 0.202 | 0.074** | 1.224 |
| **Control Variables** | | | |
| Female (Reference Male) | 0.227 | 0.035*** | 1.254 |
| Education (Reference LTHS) | | | |

| | | | |
|---|---|---|---|
| High School Graduate | 0.859 | 0.166*** | 2.360 |
| Some College | 1.183 | 0.164*** | 3.265 |
| Bachelor´s Degree | 2.119 | 0.163*** | 8.325 |
| Graduate Degree | 2.680 | 0.165*** | 14.591 |
| Married | 0.0459103 | 0.036 | 1.047 |
| Metro Status (Reference Metro) | | | |
| Adjacent to Metro | -0.198 | 0.036*** | 0.820 |
| Not in Metro Area | -1.136 | 0.058*** | 0.321 |
| Race (Reference White) | | | |
| Black | -0.183 | 0.061** | 0.833 |
| Hispanic | -0.165 | 0.057** | 0.848 |
| Asian | 0.060 | 0.108 | 1.062 |
| Other Races | 0.346 | 0.071*** | 1.413 |
| Age (Reference 16-24) | | | |
| 25-54 | -0.389 | 0.087*** | 0.678 |
| 55+ | -0.240 | 0.038*** | 0.787 |
| Citizen | -0.093 | 0.086 | 0.911 |
| Native | 0.256 | 0.064*** | 1.292 |
| **Occupation (Reference Food Supply Chain)** | | | |
| Information & Financial | 1.264 | 0.161*** | 3.540 |
| Professional | 1.012 | 0.160*** | 2.752 |
| Health Care & First Responder | -1.043 | 0.168*** | 0.352 |
| Service | -1.475 | 0.185*** | 0.229 |
| Social & Care Work | 0.437 | 0.160** | 1.548 |
| Transportation | -2.209 | 0.238*** | 0.110 |
| Manufacturing & Food Production | -1.322 | 0.225*** | 0.267 |
| Construction, Extraction, and Maintenance | -1.230 | 0.195*** | 0.292 |
| First Line Supervisors | -0.533 | 0.176** | 0.587 |
| Management | 0.703 | 0.159*** | 2.019 |
| Sales | 0.600 | 0.161*** | 1.822 |
| Base Group: Essential Workers | **Unemployed (Voluntary)** | | |
| Homeownership Status (Ref: Homeowner) | Coefficient (Log Odds) | SE | Odds |
| Renter | 1.019 | 0.289*** | 2.771 |
| Time | -0.101 | 0.279 | 0.904 |
| Interaction of Renter and One Year Interval | -0.709 | 0.394 | 0.492 |
| **Control Variables** | | | |
| Female (Reference Male) | 0.367 | 0.216 | 1.443 |
| Education (Reference LTHS) | | | |

| | | | |
|---|---|---|---|
| High School Graduate | 0.272 | 0.39 | 1.313 |
| Some College | 0.160 | 0.41 | 1.174 |
| Bachelor´s Degree | -0.028 | 0.454 | 0.972 |
| Graduate Degree | 0.200 | 0.514 | 1.222 |
| Married (Reference Non-Married) | -0.746 | 0.210*** | 0.474 |
| Metro Status (Reference Metro Area) | | | |
| Adjacent to Metro | 0.185 | 0.239 | 1.203 |
| Not in Metro Area | -0.322 | 0.318 | 0.725 |
| Race (Reference White ) | | | |
| Black | -0.205 | 0.304 | 0.815 |
| Hispanic | -0.371 | 0.328 | 0.690 |
| Asian | 0.491 | 0.457 | 1.633 |
| Other Races | -0.466 | 0.57 | 0.628 |
| Age (Reference 16-24) | | | |
| 25-54 | 0.742 | 0.259** | 2.099 |
| 55+ | -0.782 | 0.290** | 0.457 |
| Not in Metro Area | | | |
| Citizen | 1.105 | 0.513* | 3.019 |
| Native | -0.727 | 0.366* | 0.483 |
| **Occupation (Reference Food Supply Chain)** | | | |
| Information & Financial | 0.699 | 0.93 | 2.012 |
| Professional | 0.982 | 0.861 | 2.670 |
| Health Care & First Responder | -0.176 | 0.940 | 0.839 |
| Service | 1.147 | 0.841 | 3.149 |
| Social & Care Work | 0.035 | 0.941 | 1.036 |
| Transportation | 0.357 | 0.902 | 1.429 |
| Manufacturing & Food Production | 1.397 | 0.893 | 4.044 |
| Construction, Extraction, and Maintenance | 0.386 | 0.894 | 1.472 |
| First Line Supervisors | 0.328 | 0.976 | 1.389 |
| Management | 0.669 | 0.871 | 1.953 |
| Sales | 0.885 | 0.861 | 2.424 |

| Base Group: Essential Workers | **Unemployed (Involuntary: Laid off)** | | |
|---|---|---|---|
| Homeownership Status (Ref: Homeowner) | **Coefficient (Log Odds)** | **SE** | **Odds** |
| Renter | 0.209 | 0.061*** | 1.233 |
| Time | -1.530 | 0.060*** | 0.217 |
| Interaction of Renter and One Year Interval | 0.177 | 0.097 | 1.194 |
| **Control Variables** | | | |
| Female (Reference Male) | 0.195 | 0.049*** | 1.215 |

| | | | |
|---|---|---|---|
| Education (Reference LTHS) | | | |
| High School Graduate | -0.166 | 0.083* | 0.847 |
| Some College | -0.095 | 0.085 | 0.909 |
| Bachelor´s Degree | -0.065 | 0.092 | 0.937 |
| Graduate Degree | 0.026 | 0.110 | 1.026 |
| Married | -0.330 | 0.048*** | 0.719 |
| Metro Status (Reference Metro) | | | |
| Adjacent to Metro | -0.103 | 0.050* | 0.902 |
| Not in Metro Area | -0.571 | 0.071*** | 0.565 |
| Race (Reference White) | | | |
| Black | 0.180 | 0.072* | 1.198 |
| Hispanic | 0.040 | 0.071 | 1.041 |
| Asian | 0.348 | 0.138* | 1.416 |
| Other Races | 0.622 | 0.094*** | 1.864 |
| Age (Reference 16-24) | | | |
| 25-54 | 0.162 | 0.080* | 1.176 |
| 55+ | 0.046 | 0.051 | 1.047 |
| Citizen | 0.252 | 0.101* | 1.287 |
| Native | -0.214 | 0.083** | 0.808 |
| **Occupation (Reference Food Supply Chain)** | | | |
| Information & Financial | 0.102 | 0.215 | 1.107 |
| Professional | 0.558 | 0.203** | 1.748 |
| Health Care & First Responder | -0.694 | 0.216*** | 0.500 |
| Service | 1.024 | 0.193*** | 2.784 |
| Social & Care Work | 0.067 | 0.205 | 1.070 |
| Transportation | 0.467 | 0.201* | 1.595 |
| Manufacturing & Food Production | 0.412 | 0.211 | 1.510 |
| Construction, Extraction, and Maintenance | 0.501 | 0.202* | 1.651 |
| First Line Supervisors | -0.485 | 0.227* | 0.616 |
| Management | -0.164 | 0.205 | 0.849 |
| Sales | 0.328 | 0.202 | 1.388 |
| Base Group: Essential Workers | **Not in Labor Force (Other Not illness or School)** | | |
| Homeownership Status (Ref: Homeowner) | Coefficient (Log Odds) | SE | Odds |
| Renter | 0.223 | 0.191 | 1.250 |
| Time | -1.331 | 0.185*** | 0.264 |
| Interaction of Renter and One Year Interval | 0.041 | 0.297 | 1.042 |
| **Control Variables** | | | |
| Female (Reference Male) | 1.558 | 0.174*** | 4.748 |
| Education (Reference LTHS) | | | |

| | | | |
|---|---|---|---|
| High School Graduate | 0.322 | 0.274 | 1.379 |
| Some College | -0.103 | 0.285 | 0.902 |
| Bachelor´s Degree | 0.051 | 0.301 | 1.052 |
| Graduate Degree | 0.151 | 0.350 | 1.163 |
| Married) | 0.370 | 0.155* | 1.448 |
| Metro Status (Reference Metro) | | | |
| Adjacent to Metro | -0.014 | 0.158 | 0.986 |
| Not in Metro Area | -0.668 | 0.242** | 0.513 |
| Race (Reference White) | | | |
| Black | 0.283 | 0.228 | 1.327 |
| Hispanic | 0.092 | 0.219 | 1.097 |
| Asian | 0.321 | 0.404 | 1.378 |
| Other Races | 1.196 | 0.273*** | 3.308 |
| Age (Reference 16-24) | | | |
| 25-54 | -0.039 | 0.286 | 0.961 |
| 55+ | -0.633 | 0.191*** | 0.531 |
| Citizen | 0.125 | 0.308 | 1.133 |
| Native | 0.130 | 0.266 | 1.139 |
| **Occupation (Reference Food Supply Chain)** | | | |
| Information & Financial | 0.692 | 0.802 | 1.998 |
| Professional | 0.698 | 0.764 | 2.009 |
| Health Care & First Responder | -0.326 | 0.803 | 0.722 |
| Service | 1.494 | 0.730* | 4.456 |
| Social & Care Work | 0.707 | 0.754 | 2.028 |
| Transportation | 1.002 | 0.755 | 2.725 |
| Manufacturing & Food Production | 0.810 | 0.808 | 2.248 |
| Construction, Extraction, and Maintenance | 0.933 | 0.796 | 2.543 |
| First Line Supervisors | 0.384 | 0.803 | 1.469 |
| Management | 0.469 | 0.767 | 1.598 |
| Sales | 0.871 | 0.747 | 2.389 |

| Base Group: Essential Workers | **Not in Labor Force (Childcare)** | | |
|---|---|---|---|
| Homeownership Status (Ref: Homeowner) | Coefficient (Log Odds) | SE | Odds |
| Renter | 0.334 | 0.167* | 1.397 |
| Time | -1.746 | 0.217*** | 0.174 |
| Interaction of Renter and One Year Interval | -0.225 | 0.349 | 0.798 |
| **Control Variables** | | | |
| Female (Reference Male) | -0.053 | 0.152 | 0.948 |
| Education (Reference LTHS) | | | |
| High School Graduate | 0.114 | 0.241 | 1.121 |

| | | | |
|---|---|---|---|
| Some College | -0.074 | 0.25 | 0.928 |
| Bachelor´s Degree | -0.194 | 0.272 | 0.824 |
| Graduate Degree | -0.193 | 0.352 | 0.824 |
| Married | -0.548 | 0.164** | 0.578 |
| Metro Status (Reference Metro) | | | |
| Adjacent to Metro | -0.014 | 0.158 | 0.986 |
| Not in Metro Area | -0.668 | 0.242** | 0.513 |
| Race (Reference White) | | | |
| Black | 0.552 | 0.202** | 1.737 |
| Hispanic | -0.044 | 0.214 | 0.957 |
| Asian | 0.061 | 0.564 | 1.063 |
| Other Races | 0.909 | 0.286** | 2.481 |
| Age (Reference 16-24) | | | |
| 25-54 | 0.416 | 0.224 | 1.517 |
| 55+ | 0.223 | 0.166 | 1.249 |
| Citizen | -0.597 | 0.296* | 0.550 |
| Native | 0.093 | 0.271 | 1.097 |
| **Occupation (Reference Food Supply Chain)** | | | |
| Information & Financial | 0.561 | 1.221 | 1.752 |
| Professional | 2.679 | 1.045** | 14.566 |
| Health Care & First Responder | 1.187 | 1.079 | 3.277 |
| Service | 3.055 | 1.015** | 21.229 |
| Social & Care Work | 2.084 | 1.040* | 8.037 |
| Transportation | 2.059 | 1.037* | 7.834 |
| Manufacturing & Food Production | 2.648 | 1.042* | 14.126 |
| Construction, Extraction, and Maintenance | 2.253 | 1.031* | 9.514 |
| First Line Supervisors | 1.992 | 1.057 | 7.333 |
| Management | 2.187 | 1.041* | 8.910 |
| Sales | 2.578 | 1.030* | 13.177 |
| Number of obs = 40,477 | | 95% Confidence Level | * |
| Prob > chi2 = 0.0000 | | 99% Confidence Level | ** |
| | | 99.99% Confidence Level | *** |

*Table 6: Predicted Probability of Employment Status during COVID-19*

| **Table 6: Predicted Probability of Employment Status during COVID-19 (Marginal Effects)** | | | | |
|---|---|---|---|---|
| **Predicted Probabilities** | **Frontline Work (Men)** | **Frontline Work (Women)** | **Telework (Men)** | **Telework Work (Women)** |

| | Adjusted Prediction | | Adjusted Prediction | | Adjusted Prediction | | Adjusted Prediction | |
|---|---|---|---|---|---|---|---|---|
| | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 |
| **White** | | | | | | | | |
| Homeowner | 64.33% | 63.05% | 58.68% | 57.26% | 23.22 % | 21.49 % | 26.57% | 24.48% |
| Renter | 88.23% | 85.71% | 85.42% | 82.42% | 7.92% | 8.89% | 9.62% | 10.72% |
| **Black** | | | | | | | | |
| Homeowner | 64.99% | 63.11% | 59.31% | 57.27% | 19.55 % | 17.92 % | 22.37% | 20.40% |
| Renter | 88.70% | 86.06% | 85.93% | 82.76% | 6.63% | 7.44% | 8.06% | 8.97% |
| **Hispanic** | | | | | | | | |
| Homeowner | 66.41% | 64.92% | 60.81% | 59.15% | 20.32 % | 18.76 % | 23.34% | 21.44% |
| Renter | 89.25% | 86.80% | 86.60% | 83.66% | 6.79% | 7.63% | 8.26% | 9.22% |
| **Asian** | | | | | | | | |
| Homeowner | 60.47% | 58.66% | 54.56% | 52.60% | 23.18 % | 21.23 % | 26.23% | 23.88% |
| Renter | 86.44% | 83.39% | 83.22% | 79.62% | 8.24% | 9.18% | 9.95% | 11.00% |
| **Other** | | | | | | | | |
| Homeowner | 53.13% | 51.32% | 46.59% | 44.66% | 27.10 % | 24.72 % | 29.81% | 26.98% |
| Renter | 82.76% | 79.14% | 78.53% | 74.28% | 10.50 % | 11.60 % | 12.49% | 13.65% |
| **Average (All)** | | | | | | | | |
| Homeowner | 61.42% | 59.95% | 61.42% | 59.95% | 24.17 % | 22.27 % | 24.17% | 22.27% |
| Renter | 86.89% | 84.08% | 86.89% | 84.08% | 8.50% | 9.50% | 8.50% | 9.50% |
| **Average (Men)** | | | | | | | | |
| Homeowner | 63.96% | 62.53% | 58.24% | 56.67% | 22.62 % | 20.88 % | 25.83% | 23.74% |
| Renter | 88.11% | 85.52% | 85.25% | 82.15% | 7.75% | 8.69% | 9.40% | 10.47% |
| **Predicted Probabilities** | **Unemployed Voluntary (Men)** | | **Unemployed Voluntary (Women)** | | **Unemployed Involuntary: Laid off (Men)** | | **Unemployed Involuntary: Laid off (Women)** | |
| | Adjusted Prediction | | Adjusted Prediction | | Adjusted Prediction | | Adjusted Prediction | |
| | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 |
| **White** | | | | | | | | |
| Homeowner | 0.19% | 0.51% | 0.25% | 0.67% | 11.15 % | 13.47 % | 12.36% | 14.87% |
| Renter | 0.23% | 0.31% | 0.32% | 0.43% | 3.31% | 4.73% | 3.89% | 5.53% |
| **Black** | | | | | | | | |
| Homeowner | 0.15% | 0.41% | 0.20% | 0.54% | 13.49 % | 16.15 % | 14.96% | 17.81% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Renter | 0.19% | 0.25% | 0.27% | 0.35% | 3.99% | 5.69% | 4.69% | 6.65% |
| **Hispanic** | | | | | | | | |
| Homeowner | 0.13% | 0.36% | 0.18% | 0.47% | 11.98% | 14.44% | 13.33% | 15.99% |
| Renter | 0.16% | 0.21% | 0.23% | 0.30% | 3.49% | 4.99% | 4.11% | 5.85% |
| **Asian** | | | | | | | | |
| Homeowner | 0.29% | 0.77% | 0.37% | 1.00% | 14.84% | 17.75% | 16.27% | 19.34% |
| Renter | 0.37% | 0.49% | 0.52% | 0.67% | 4.59% | 6.52% | 5.37% | 7.57% |
| **Other** | | | | | | | | |
| Homeowner | 0.10% | 0.26% | 0.12% | 0.33% | 17.16% | 20.44% | 18.28% | 21.61% |
| Renter | 0.14% | 0.18% | 0.19% | 0.24% | 5.79% | 8.15% | 6.67% | 9.29% |
| **Average (All)** | | | | | | | | |
| Homeowner | 0.19% | 0.52% | 0.19% | 0.52% | 12.63% | 15.20% | 12.63% | 15.20% |
| Renter | 0.25% | 0.32% | 0.25% | 0.32% | 3.87% | 5.51% | 3.87% | 5.51% |
| **Average (Men)** | | | | | | | | |
| Homeowner | 0.17% | 0.45% | 0.22% | 0.59% | 12.00% | 14.46% | 13.28% | 15.93% |
| Renter | 0.21% | 0.28% | 0.29% | 0.38% | 3.58% | 5.11% | 4.21% | 5.97% |
| **Predicted Probabilities** | **Not in Labor Force (Other) Men** | | **Not in Labor Force (Other) Women** | | **Not in Labor Force (Childcare) Men** | | **Not in Labor Force (Childcare) Women** | |
| | Adjusted Prediction | | Adjusted Prediction | | Adjusted Prediction | | Adjusted Prediction | |
| | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 |
| **White** | | | | | | | | |
| Homeowner | 0.77% | 1.06% | 0.67% | 0.91% | 0.34% | 0.23% | 1.48% | 1.80% |
| Renter | 0.19% | 0.20% | 0.17% | 0.18% | 0.12% | 0.08% | 0.57% | 0.71% |
| **Black** | | | | | | | | |
| Homeowner | 1.36% | 1.84% | 1.18% | 1.59% | 1.84% | 0.56% | 1.98% | 2.39% |
| Renter | 0.32% | 0.35% | 0.30% | 0.32% | 0.35% | 0.21% | 0.76% | 0.95% |
| **Hispanic** | | | | | | | | |
| Homeowner | 0.77% | 1.05% | 0.66% | 0.90% | 0.39% | 0.47% | 1.68% | 2.04% |
| Renter | 0.18% | 0.19% | 0.17% | 0.18% | 0.14% | 0.17% | 0.63% | 0.80% |
| **Asian** | | | | | | | | |
| Homeowner | 0.77% | 1.05% | 0.66% | 0.89% | 0.44% | 0.54% | 1.89% | 2.28% |
| Renter | 0.19% | 0.21% | 0.18% | 0.19% | 0.17% | 0.21% | 0.76% | 0.95% |
| **Other** | | | | | | | | |
| Homeowner | 1.59% | 2.14% | 1.32% | 1.77% | 0.93% | 1.13% | 3.88% | 4.65% |
| Renter | 0.43% | 0.46% | 0.39% | 0.41% | 0.38% | 0.48% | 1.73% | 2.13% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Average (All)** | | | | | | | | |
| Homeowner | 0.81% | 1.11% | 0.81% | 1.11% | 0.78% | 0.95% | 0.78% | 0.95% |
| Renter | 0.20% | 0.22% | 0.20% | 0.22% | 0.29% | 0.37% | 0.29% | 0.37% |
| **Average (Men)** | | | | | | | | |
| Homeowner | 0.87% | 1.19% | 0.75% | 1.02% | 0.39% | 0.48% | 1.69% | 2.05% |
| Renter | 0.21% | 0.23% | 0.19% | 0.21% | 0.14% | 0.18% | 0.65% | 0.82% |

*Table 7: Predicted Probability of Employment Status during COVID-19 by Occupation*

| **Table 7: Predicted Probability of Employment Status during COVID-19 by Occupation** | | | | |
|---|---|---|---|---|
| **Predicted Probabilities** | **Frontline Work** | | **Telework** | |
| | 2020 | 2021 | 2020 | 2021 |
| **Food Supply Chain** | | | | |
| Homeowners | 61.77% | 61.04% | 27.36% | 25.53% |
| Renters | 86.98% | 84.40% | 9.58% | 10.74% |
| **Information & Financial** | | | | |
| Homeowners | 36.08% | 36.54% | 56.59% | 54.10% |
| Renters | 69.60% | 65.86% | 27.14% | 29.67% |
| **Professional** | | | | |
| Homeowners | 39.20% | 38.89% | 47.80% | 44.78% |
| Renters | 72.59% | 68.61% | 22.00% | 24.03% |
| **Health Care & First Responder** | | | | |
| Homeowners | 79.97% | 78.93% | 12.48% | 11.63% |
| Renters | 94.32% | 92.96% | 3.66% | 4.17% |
| **Service** | | | | |
| Homeowners | 61.27% | 56.67% | 6.21% | 5.42% |
| Renters | 87.44% | 83.36% | 2.20% | 2.43% |
| **Social & Care Work** | | | | |
| Homeowners | 52.88% | 52.47% | 36.26% | 33.97% |
| Renters | 82.22% | 79.19% | 14.02% | 15.60% |
| **Transportation** | | | | |
| Homeowners | 74.28% | 70.47% | 3.61% | 3.24% |
| Renters | 92.72% | 90.10% | 1.12% | 1.26% |
| **Manufacturing & Food Production** | | | | |
| Homeowners | 70.76% | 67.12% | 8.35% | 7.48% |
| Renters | 91.10% | 88.36% | 2.67% | 3.00% |
| **Construction, Extraction, and Maintenance** | | | | |
| Homeowners | 69.54% | 66.25% | 9.01% | 8.10% |

| | | | | |
|---|---|---|---|---|
| Renters | 90.84% | 88.00% | 2.93% | 3.27% |
| **First Line Supervisors** | | | | |
| Homeowners | 72.16% | 71.11% | 18.76% | 17.45% |
| Renters | 91.45% | 89.63% | 5.91% | 6.69% |
| **Management** | | | | |
| Homeowners | 48.46% | 48.53% | 43.35% | 40.99% |
| Renters | 79.29% | 76.20% | 17.64% | 19.58% |
| **Sales** | | | | |
| Homeowners | 48.11% | 47.46% | 38.84% | 36.18% |
| Renters | 79.23% | 75.76% | 15.90% | 17.57% |
| | **Unemployed (Voluntary)** | | **Unemployed (Involuntary)** | |
| | 2020 | 2021 | 2020 | 2021 |
| **Food Supply Chain** | | | | |
| Homeowners | 0.11% | 0.29% | 10.28% | 12.52% |
| Renters | 0.13% | 0.18% | 3.13% | 4.48% |
| **Information & Financial** | | | | |
| Homeowners | 0.12% | 0.35% | 6.65% | 8.30% |
| Renters | 0.22% | 0.28% | 2.78% | 3.87% |
| **Professional** | | | | |
| Homeowners | 0.18% | 0.49% | 11.40% | 13.94% |
| Renters | 0.30% | 0.38% | 4.57% | 6.36% |
| **Health Care & First Responder** | | | | |
| Homeowners | 0.11% | 0.31% | 6.65% | 8.09% |
| Renters | 0.12% | 0.16% | 1.70% | 2.46% |
| **Service** | | | | |
| Homeowners | 0.33% | 0.84% | 28.38% | 32.37% |
| Renters | 0.42% | 0.55% | 8.77% | 12.31% |
| **Social & Care Work** | | | | |
| Homeowners | 0.09% | 0.26% | 9.41% | 11.51% |
| Renters | 0.13% | 0.17% | 3.17% | 4.49% |
| **Transportation** | | | | |
| Homeowners | 0.18% | 0.47% | 19.72% | 23.06% |
| Renters | 0.20% | 0.27% | 5.33% | 7.62% |
| **Manufacturing & Food Production** | | | | |
| Homeowners | 0.49% | 1.28% | 17.78% | 20.79% |
| Renters | 0.57% | 0.75% | 4.96% | 7.08% |
| **Construction, Extraction, and Maintenance** | | | | |
| Homeowners | 0.17% | 0.46% | 19.10% | 22.44% |
| Renters | 0.21% | 0.27% | 5.40% | 7.70% |

| | | | | |
|---|---|---|---|---|
| **First Line Supervisors** | | | | |
| Homeowners | 0.17% | 0.47% | 7.39% | 8.98% |
| Renters | 0.20% | 0.26% | 2.03% | 2.93% |
| **Management** | | | | |
| Homeowners | 0.16% | 0.45% | 6.85% | 8.45% |
| Renters | 0.24% | 0.31% | 2.43% | 3.43% |
| **Sales** | | | | |
| Homeowners | 0.20% | 0.54% | 11.11% | 13.51% |
| Renters | 0.30% | 0.39% | 3.96% | 5.57% |

| | Not in Labor Force (Other) | | Not in Labor Force (Childcare) | |
|---|---|---|---|---|
| | 2020 | 2021 | 2020 | 2021 |
| **Food Supply Chain** | | | | |
| Homeowners | 0.10% | 0.14% | 0.39% | 0.48% |
| Renters | 0.02% | 0.03% | 0.14% | 0.18% |
| **Information & Financial** | | | | |
| Homeowners | 0.10% | 0.14% | 0.45% | 0.57% |
| Renters | 0.03% | 0.04% | 0.23% | 0.28% |
| **Professional** | | | | |
| Homeowners | 0.93% | 1.28% | 0.49% | 0.61% |
| Renters | 0.30% | 0.32% | 0.24% | 0.30% |
| **Health Care & First Responder** | | | | |
| Homeowners | 0.42% | 0.59% | 0.36% | 0.45% |
| Renters | 0.09% | 0.10% | 0.11% | 0.14% |
| **Service** | | | | |
| Homeowners | 2.11% | 2.72% | 1.71% | 1.97% |
| Renters | 0.52% | 0.56% | 0.64% | 0.80% |
| **Social & Care Work** | | | | |
| Homeowners | 0.69% | 0.95% | 0.67% | 0.83% |
| Renters | 0.19% | 0.20% | 0.28% | 0.35% |
| **Transportation** | | | | |
| Homeowners | 0.94% | 1.25% | 1.27% | 1.50% |
| Renters | 0.21% | 0.22% | 0.42% | 0.53% |
| **Manufacturing & Food Production** | | | | |
| Homeowners | 1.62% | 2.15% | 0.99% | 1.18% |
| Renters | 0.36% | 0.39% | 0.34% | 0.43% |
| **Construction, Extraction, and Maintenance** | | | | |
| Homeowners | 1.07% | 1.43% | 1.11% | 1.32% |
| Renters | 0.24% | 0.26% | 0.38% | 0.48% |

| | | | | |
|---|---|---|---|---|
| **First Line Supervisors** | | | | |
| Homeowners | 0.86% | 1.18% | 0.66% | 0.82% |
| Renters | 0.19% | 0.21% | 0.22% | 0.28% |
| **Management** | | | | |
| Homeowners | 0.70% | 0.98% | 0.48% | 0.61% |
| Renters | 0.20% | 0.21% | 0.21% | 0.26% |
| **Sales** | | | | |
| Homeowners | 1.03% | 1.42% | 0.72% | 0.89% |
| Renters | 0.30% | 0.31% | 0.31% | 0.39% |

## Additional Tables for Discussion (Tables 8-16)

*Table 8: Occupational Distribution of Married and Single Men and Women by Homeownership Status*

| **Table 8:** Occupational Distribution of Married and Single Men and Women by Homeownership Status | | | | | |
|---|---|---|---|---|---|
| | Married Female Renter | Single Female Renter | Married Female Homeowner | Single Female Homeowner | Avg. Female |
| Food Supply Chain | 2.01 | 1.38 | 0.96 | 1.16 | 1.17 |
| Information & Financial | 4.59 | 4.62 | 6.3 | 5.31 | 5.56 |
| Professional | 11.77 | 12.04 | 15.37 | 13.78 | 13.45 |
| Health Care & First Responder | 8.75 | 7.77 | 12.71 | 10.63 | 10.74 |
| Service | 19.36 | 23.91 | 9.66 | 18.24 | 16.83 |
| Social & Care Work | 19.61 | 17.55 | 19.04 | 16.9 | 17.94 |
| Transportation | 4.41 | 3.9 | 2.17 | 3.25 | 3.19 |
| Manufacturing & Food Production | 3.24 | 2.55 | 2.14 | 2.78 | 2.5 |
| Construction, Extraction, and Maintenance | 0.69 | 0.83 | 0.44 | 0.81 | 0.67 |
| First Line Supervisors | 4.18 | 4.03 | 3.77 | 3.99 | 3.89 |
| Management | 9.51 | 8.54 | 13.67 | 9.82 | 10.91 |
| Sales | 11.88 | 12.87 | 13.77 | 13.35 | 13.15 |
| | Married Male Renter | Single Male Renter | Married Male Homeowner | Single Male Homeowner | Avg. Male |
| Food Supply Chain | 3.17 | 2.33 | 1.42 | 1.94 | 1.89 |
| Information & Financial | 8.87 | 10.39 | 12.67 | 8.52 | 10.38 |
| Professional | 6.24 | 8.06 | 7.5 | 6.82 | 6.89 |
| Health Care & First Responder | 4.47 | 4.39 | 6.66 | 4.79 | 5.46 |
| Service | 11.4 | 16.16 | 5.47 | 14.33 | 11.24 |
| Social & Care Work | 5.05 | 4.88 | 5.49 | 4.45 | 5.03 |
| Transportation | 13.54 | 12.1 | 8.09 | 12.37 | 10.71 |
| Manufacturing & Food Production | 6.02 | 6.04 | 5.15 | 6.57 | 5.77 |
| Construction, Extraction, and Maintenance | 16.94 | 13.76 | 12.89 | 15.54 | 14.4 |
| First Line Supervisors | 5.54 | 5 | 8 | 6.09 | 6.46 |
| Management | 12.22 | 9.21 | 19.55 | 10.9 | 14.39 |
| Sales | 6.53 | 7.67 | 7.12 | 7.67 | 7.38 |

*Table 9: COVID-19 Employment Transition Probabilities through Time and Panel Observations for Renters*

| | **Table 9:** COVID-19 Employment Transition Probabilities through Time and Panel Observations (Renters) | | | | | |
|---|---|---|---|---|---|---|
| | Essential Worker (T>0) | Teleworker (T>0) | Unemployed Voluntary (T>0) | Not in Labor Force (Other) (T>0) | Not in Labor Force (Childcare) (T>0) | Unemployed Involuntary (T>0) |

| | | | | | | |
|---|---|---|---|---|---|---|
| Essential Worker (T=0) | 91.8 | 4.35 | 0.29 | 0.64 | 1.26 | 1.65 |
| Teleworker (T=0) | 26.81 | 71.48 | 0.24 | 0.27 | 0.38 | 0.83 |
| Unemployed Voluntary (T=0) | 10.83 | 2.28 | 70.09 | 5.13 | 8.83 | 2.85 |
| Not in Labor Force (Other) (T=0) | 16.71 | 2.01 | 2.14 | 36.81 | 17.59 | 24.75 |
| Not in Labor Force (Childcare) (T=0) | 7.12 | 0.56 | 0.47 | 3.14 | 82.05 | 6.65 |
| Unemployed Involuntary (T=0) | 13.89 | 1.68 | 0.07 | 5.51 | 6.49 | 72.36 |
| Total | 54.96 | 12.61 | 1.34 | 2.98 | 13.22 | 14.89 |

*Table 10: COVID-19 Employment Transition Probabilities through Time and Panel Observations for Homeowners*

| | **Table 10: COVID-19 Employment Transition Probabilities through Time and Panel Observations (Homeowners)** | | | | | |
|---|---|---|---|---|---|---|
| | Essential Worker (T>0) | Telewo rker (T>0) | Unemployed Voluntary (T>0) | Not in Labor Force (Other) (T>0) | Not in Labor Force (Childcare) (T>0) | Unemployed Involuntary (T>0) |
| Essential Worker (T=0) | 92.12 | 5.73 | 0.11 | 0.37 | 0.77 | 0.9 |
| Teleworker (T=0) | 31.63 | 67 | 0.02 | 0.27 | 0.39 | 0.71 |
| Unemployed Voluntary (T=0) | 11.99 | 1.75 | 68.71 | 9.36 | 5.26 | 2.92 |
| Not in Labor Force (Other) (T=0) | 18.78 | 1.99 | 1.08 | 37.39 | 15.96 | 24.81 |
| Not in Labor Force (Childcare) (T=0) | 6.07 | 0.74 | 0.21 | 2.16 | 86.9 | 3.91 |
| Unemployed Involuntary (T=0) | 17.39 | 2.77 | 0.15 | 4.56 | 5.45 | 69.68 |
| Total | 62.66 | 16.21 | 0.5 | 1.71 | 10.6 | 8.32 |

*Table 11: COVID-19 Employment Probabilities through Time and by Race*

| | Table 11: COVID-19 Employment Probabilities through Time and by Race | | | | | |
|---|---|---|---|---|---|---|
| | Essential Worker | Teleworker | Unemployed Voluntary | Not in Labor Force (Other) | Not in Labor Force (Childcare) | Unemployed Involuntary |
| White | 0.762 | 0.153 | 0.003 | 0.004 | 0.005 | 0.073 |
| W-2020 | 0.615 | 0.243 | 0.003 | 0.008 | 0.007 | 0.124 |
| W-2021 | 0.863 | 0.090 | 0.003 | 0.002 | 0.003 | 0.040 |
| Black | 0.768 | 0.129 | 0.003 | 0.007 | 0.006 | 0.088 |
| B-2020 | 0.620 | 0.204 | 0.002 | 0.014 | 0.010 | 0.150 |
| B-2021 | 0.867 | 0.075 | 0.002 | 0.003 | 0.004 | 0.048 |
| Hispanic | 0.779 | 0.133 | 0.002 | 0.004 | 0.005 | 0.077 |
| H-2020 | 0.635 | 0.213 | 0.002 | 0.008 | 0.008 | 0.134 |
| H-2021 | 0.874 | 0.077 | 0.002 | 0.002 | 0.003 | 0.042 |
| Asian | 0.731 | 0.156 | 0.005 | 0.004 | 0.006 | 0.099 |
| A-2020 | 0.574 | 0.240 | 0.004 | 0.008 | 0.009 | 0.164 |
| A-2021 | 0.842 | 0.093 | 0.005 | 0.002 | 0.004 | 0.055 |
| Other | 0.668 | 0.190 | 0.002 | 0.009 | 0.013 | 0.119 |
| O-2020 | 0.498 | 0.278 | 0.001 | 0.016 | 0.019 | 0.188 |
| O-2021 | 0.799 | 0.118 | 0.002 | 0.004 | 0.008 | 0.069 |

*Table 12: Average Percent Point Difference of Predictability of Employment of Renters by Race in 2020*

| Table 12: Average Percentage Point Difference of Predictability of Employment of Renters by Race | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Black | SE | Hispanic | SE | Asian | SE | Other | SE |
| Essential Worker (T=0) | 0.08% | 0.001 | 1.91% | 0.010 | -4.51% | 0.020* | -12.05% | 0.016*** |
| Teleworker (T=0) | -3.80% | 0.010*** | -2.88% | 0.009** | -0.40% | 0.019 | 3.01% | 0.030* |
| Unemployed Voluntary (T=0) | -0.11% | 0.001 | -0.17% | 0.001 | 0.30% | 0.004 | -0.29% | 0.002 |
| Not in Labor Force (Other) (T=0) | 0.73% | 0.007* | -0.01% | 0.002 | -0.02% | 0.005 | 0.98% | 0.01 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Not in Labor Force (Childcare) (T=0) | 0.28 % | 0.002 | 0.11% | 0.002 | 0.23 % | 0.004 | 1.38% | 0.014* |
| Unemployed Involuntary (T=0) | 2.82 % | 0.009** | 1.05% | 0.008 | 4.40 % | 0.020* | 6.97% | 0.015*** |
| Reference group= White Workers | | | | | | | | |

*Table 13: Average Percentage Point Difference of Predictability of Employment of Renters by Race in 2021*

| **Table 13: Average Percentage Point Difference of Predictability of Employment of Renters by Race** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Black | SE | Hispanic | SE | Asian | SE | Other | SE |
| Essential Worker (T=1) | 0.37 % | 0.006 | 1.16% | 0.006* | -2.52 % | 0.014 | -7.18 % | 0.011*** |
| Teleworker (T=1) | -1.59 % | 0.005*** | -1.37% | 0.004** | 0.29 % | 0.010 | 2.85 % | 0.007*** |
| Unemployed Voluntary (T=1) | -0.07 % | 0.001 | -0.11% | 0.001 | 0.21 % | 0.003 | -0.15 % | 0.001 |
| Not in Labor Force (Other) (T=1) | 0.14 % | 0.001* | -0.01% | 0.000 | 0.01 % | 0.001 | 0.24 % | 0.001 |
| Not in Labor Force (Childcare) (T=1) | 0.11 % | 0.001 | 0.04% | 0.001 | 0.11 % | 0.002 | 0.65 % | 0.003* |
| Unemployed Involuntary (T=1) | 1.04 % | 0.004** | 0.28% | 0.004 | 1.91 % | 0.009* | 3.60 % | 0.007*** |
| Reference group= White Workers | | | | | | | | |

*Table 14: Average Percentage Point Difference of Predictability of Employment of Homeowners by Race in 2020*

| **Table 14: Average Percentage Point Difference of Predictability of Employment of Homeowners by Race** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Black | SE | Hispanic | SE | Asian | SE | Other | SE |
| Essential Worker (T=0) | 0.69 % | 0.012 | 2.13% | 0.011* | -3.97 % | 0.022 | -11.54 % | 0.015*** |
| Teleworker (T=0) | -3.91 % | 0.010*** | -3.06% | 0.010** | -0.16 % | 0.020 | 3.70% | 0.014** |
| Unemployed Voluntary (T=0) | -0.04 % | 0.001 | -0.06% | 0.001 | 0.11 % | 0.001 | -0.10% | 0.001 |
| Not in Labor Force (Other) (T=0) | 0.55 % | 0.002* | -0.01% | 0.002 | 0.00 % | 0.004 | 0.74% | 0.004 |
| Not in Labor Force (Childcare) (T=0) | 0.23 % | 0.002 | 0.09% | 0.002 | 0.20 % | 0.004 | 1.16% | 0.005* |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Unemployed Involuntary (T=0) | 2.48 % | 0.009** | 0.90% | 0.008 | 3.82 % | 0.018 * | 6.05% | 0.013*** |
| Reference group= White Workers | | | | | | | | |

*Table 15: Average Percentage Point Difference of Predictability of Employment of Homeowners by Race in 2021*

| **Table 15:** **Average Percentage Point Difference of Predictability of Employment of Homeowners by Race** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Black | SE | Hispanic | SE | Asian | SE | Other | SE |
| Essential Worker (T=1) | 0.51 % | 0.005 | 1.10% | 0.005* | -1.96 % | 0.012 * | -6.02 % | 0.009*** |
| Teleworker (T=1) | -1.41 % | 0.004** | -1.23% | 0.004** | 0.33 % | 0.009 | 2.74 % | 0.007*** |
| Unemployed Voluntary (T=1) | -0.05 % | 0.001 | -0.08% | 0.001 | 0.16 % | 0.002 | -0.11 % | 0.001 |
| Not in Labor Force (Other) (T=1) | 0.13 % | 0.010* | -0.01% | 0.000 | 0.01 % | 0.001 | 0.23 % | 0.001 |
| Not in Labor Force (Childcare) (T=1) | 0.09 % | 0.001 | 0.03% | 0.001 | 0.09 % | 0.001 | 0.53 % | 0.002* |
| Unemployed Involuntary (T=1) | 0.73 % | 0.003* | 0.19% | 0.003 | 1.38 % | 0.006 * | 2.63 % | 0.005*** |
| Reference group= White Workers | | | | | | | | |

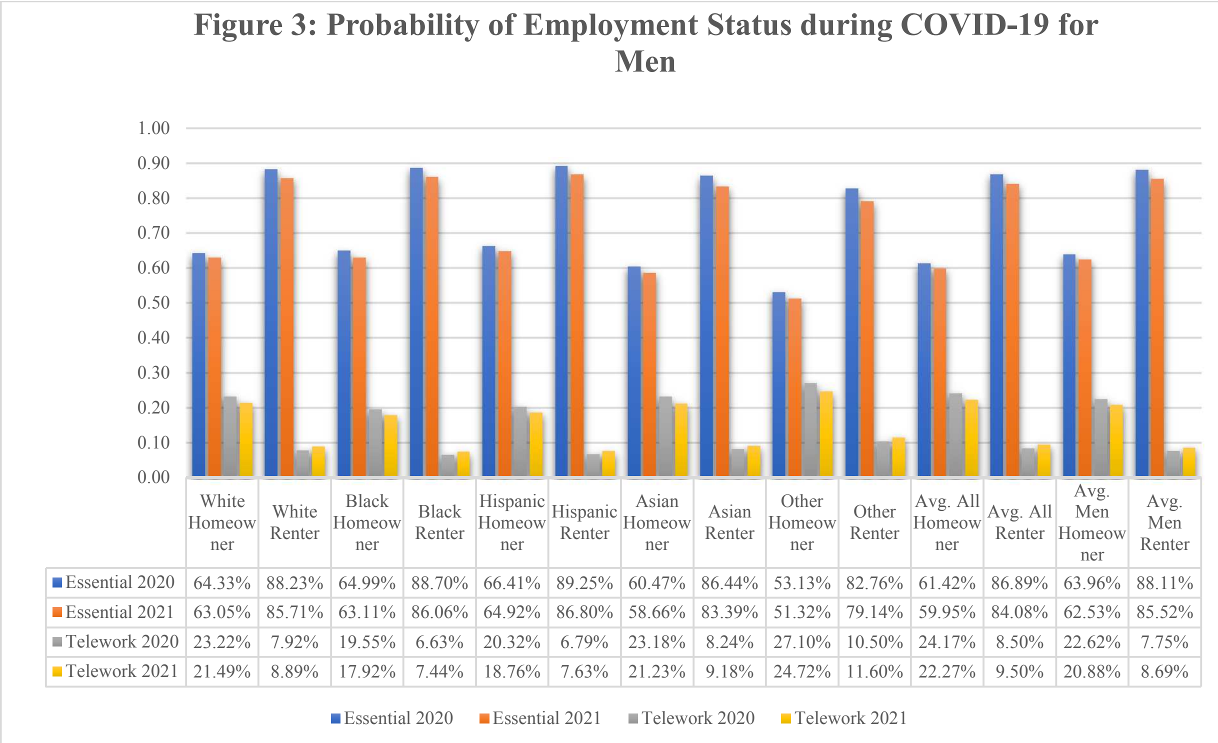
*Table 16: Composition of Workers in Occupations by Employment and Reserve Status*

| **Table 16:** **Composition of Workers in Occupations** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Composition of Workers in Occupations (Unemployed Voluntary)** | | | | **Composition of Workers in Occupations (Essential Workers)** | | | |
| | **Renters** | **Homeowners** | **Difference** | | **Renters** | **Homeowners** | **Difference** |
| Food Supply Chain | 1.99 | 1.54 | 0.45 | Food Supply Chain | 2.21 | 1.35 | 0.86 |
| Information & Financial | 4.63 | 5.42 | -0.79 | Information & Financial | 4.42 | 6.31 | -1.89 |
| Professional | 5.43 | 9.8 | -4.37 | Professional | 6.62 | 8.62 | -2 |
| Health Care & First Responder | 3.33 | 8.81 | -5.48 | Health Care & First Responder | 7.29 | 11.17 | -3.88 |
| Service | 28.85 | 25.63 | 3.22 | Service | 18.63 | 10.68 | 7.95 |
| Social & Care Work | 4.77 | 5.06 | -0.29 | Social & Care Work | 10.98 | 10.21 | 0.77 |
| Transportation | 10.27 | 7.36 | 2.91 | Transportation | 10.72 | 7.58 | 3.14 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Manufacturing & Food Production | 4.06 | 7.07 | -3.01 | Manufacturing & Food Production | 5.72 | 4.85 | 0.87 |
| Construction, Extraction, and Maintenance | 4.35 | 10.81 | -6.46 | Construction, Extraction, and Maintenance | 9.89 | 8.96 | 0.93 |
| First Line Supervisors | 4.65 | 1.53 | 3.12 | First Line Supervisors | 5.51 | 6.85 | -1.34 |
| Management | 10.62 | 5.55 | 5.07 | Management | 8.21 | 12.99 | -4.78 |
| Sales | 17.05 | 11.42 | 5.63 | Sales | 9.79 | 10.43 | -0.64 |
| **Composition of Workers in Occupations (Unemployed Involuntary)** | | | | **Composition of Workers in Occupations (Teleworkers)** | | | |
| | **Renters** | **Homeowners** | **Difference** | | **Renters** | **Homeowners** | **Difference** |
| Food Supply Chain | 2.13 | 1.81 | 0.32 | Food Supply Chain | 0.82 | 0.45 | 0.37 |
| Information & Financial | 3.33 | 4.31 | -0.98 | Information & Financial | 23.65 | 22.04 | 1.61 |
| Professional | 7.35 | 10.35 | -3 | Professional | 21 | 18.94 | 2.06 |
| Health Care & First Responder | 2.07 | 4.81 | -2.74 | Health Care & First Responder | 3.43 | 4.79 | -1.36 |
| Service | 31.18 | 23.59 | 7.59 | Service | 1.86 | 1.42 | 0.44 |
| Social & Care Work | 7.59 | 8.9 | -1.31 | Social & Care Work | 15.28 | 14.55 | 0.73 |
| Transportation | 12.22 | 9.74 | 2.48 | Transportation | 0.65 | 0.34 | 0.31 |
| Manufacturing & Food Production | 5.72 | 5.35 | 0.37 | Manufacturing & Food Production | 0.57 | 0.67 | -0.1 |
| Construction, Extraction, and Maintenance | 10.15 | 10.48 | -0.33 | Construction, Extraction, and Maintenance | 0.67 | 0.91 | -0.24 |
| First Line Supervisors | 3.02 | 3.67 | -0.65 | First Line Supervisors | 2.07 | 2.38 | -0.31 |
| Management | 5.83 | 7.95 | -2.12 | Management | 17.72 | 21.85 | -4.13 |
| Sales | 9.4 | 9.03 | 0.37 | Sales | 12.28 | 11.67 | 0.61 |
| **Composition of Workers in Occupations (NILF Other)** | | | | **Composition of Workers in Occupations (NILF Domestic Labor)** | | | |
| | **Renters** | **Homeowners** | **Difference** | | **Renters** | **Homeowners** | **Difference** |
| Food Supply Chain | 1.28 | 1.11 | 0.17 | Food Supply Chain | 1.32 | 2.58 | -1.26 |
| Information & Financial | 2.26 | 4.31 | -2.05 | Information & Financial | 2.56 | 2.85 | -0.29 |
| Professional | 9.75 | 8.5 | 1.25 | Professional | 6.87 | 9.13 | -2.26 |
| Health Care & First Responder | 2.64 | 4.76 | -2.12 | Health Care & First Responder | 4.31 | 4.45 | -0.14 |
| Service | 32.37 | 23.18 | 9.19 | Service | 37.12 | 23.95 | 13.17 |
| Social & Care Work | 6.07 | 10.39 | -4.32 | Social & Care Work | 12.89 | 12.78 | 0.11 |
| Transportation | 11.65 | 7.25 | 4.4 | Transportation | 9.71 | 7.35 | 2.36 |

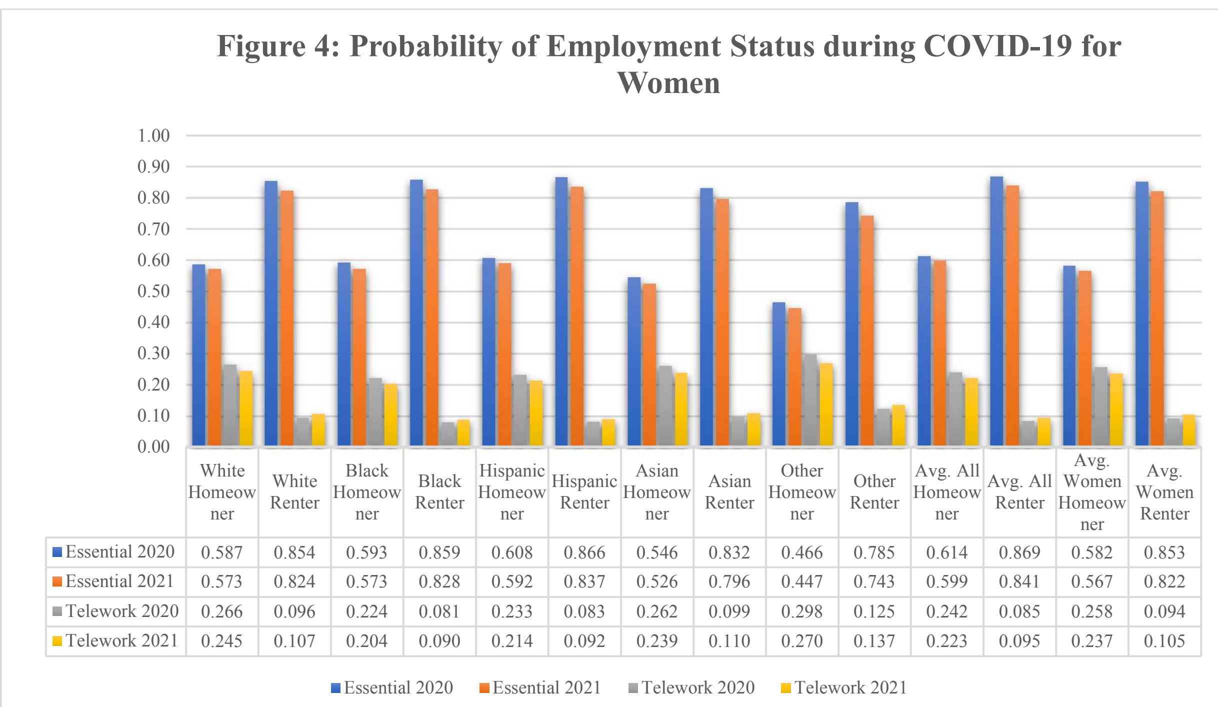
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Manufacturing & Food Production | 7.66 | 6.91 | 0.75 | Manufacturing & Food Production | 3.51 | 4.34 | -0.83 |
| Construction, Extraction, and Maintenance | 9.41 | 11.3 | -1.89 | Construction, Extraction, and Maintenance | 3.27 | 4.51 | -1.24 |
| First Line Supervisors | 2.41 | 4.78 | -2.37 | First Line Supervisors | 4.74 | 3.42 | 1.32 |
| Management | 6.23 | 7.11 | -0.88 | Management | 2.85 | 9.21 | -6.36 |
| Sales | 8.26 | 10.41 | -2.15 | Sales | 10.86 | 15.44 | -4.58 |

Appendix:
Employment Status Likelihood Graphs by Gender and Race




| | White Homeowner | White Renter | Black Homeowner | Black Renter | Hispanic Homeowner | Hispanic Renter | Asian Homeowner | Asian Renter | Other Homeowner | Other Renter | Avg. All Homeowner | Avg. All Renter | Avg. Men Homeowner | Avg. Men Renter |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Essential 2020 | 64.33% | 88.23% | 64.99% | 88.70% | 66.41% | 89.25% | 60.47% | 86.44% | 53.13% | 82.76% | 61.42% | 86.89% | 63.96% | 88.11% |
| Essential 2021 | 63.05% | 85.71% | 63.11% | 86.06% | 64.92% | 86.80% | 58.66% | 83.39% | 51.32% | 79.14% | 59.95% | 84.08% | 62.53% | 85.52% |
| Telework 2020 | 23.22% | 7.92% | 19.55% | 6.63% | 20.32% | 6.79% | 23.18% | 8.24% | 27.10% | 10.50% | 24.17% | 8.50% | 22.62% | 7.75% |
| Telework 2021 | 21.49% | 8.89% | 17.92% | 7.44% | 18.76% | 7.63% | 21.23% | 9.18% | 24.72% | 11.60% | 22.27% | 9.50% | 20.88% | 8.69% |

*Figure 3: Probability of Employment Status during COVID-19 for Men*

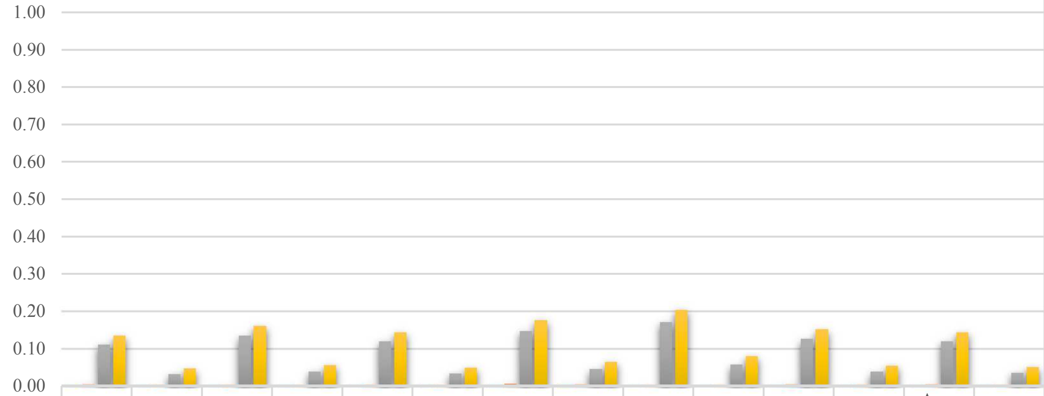



| | White Homeowner | White Renter | Black Homeowner | Black Renter | Hispanic Homeowner | Hispanic Renter | Asian Homeowner | Asian Renter | Other Homeowner | Other Renter | Avg. All Homeowner | Avg. All Renter | Avg. Women Homeowner | Avg. Women Renter |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Essential 2020 | 0.587 | 0.854 | 0.593 | 0.859 | 0.608 | 0.866 | 0.546 | 0.832 | 0.466 | 0.785 | 0.614 | 0.869 | 0.582 | 0.853 |
| Essential 2021 | 0.573 | 0.824 | 0.573 | 0.828 | 0.592 | 0.837 | 0.526 | 0.796 | 0.447 | 0.743 | 0.599 | 0.841 | 0.567 | 0.822 |
| Telework 2020 | 0.266 | 0.096 | 0.224 | 0.081 | 0.233 | 0.083 | 0.262 | 0.099 | 0.298 | 0.125 | 0.242 | 0.085 | 0.258 | 0.094 |
| Telework 2021 | 0.245 | 0.107 | 0.204 | 0.090 | 0.214 | 0.092 | 0.239 | 0.110 | 0.270 | 0.137 | 0.223 | 0.095 | 0.237 | 0.105 |

*Figure 4:Probability of Employment Status during COVID-19 for Women*

Unemployment Status Likelihood Graphs by Gender and Race

**Figure 5: Probability of Unemployment Status during Covid-19 for Men**




| | White Homeowner | White Renter | Black Homeowner | Black Renter | Hispanic Homeowner | Hispanic Renter | Asian Homeowner | Asian Renter | Other Homeowner | Other Renter | Avg. All Homeowner | Avg. All Renter | Avg. Men Homeowner | Avg. Men Renter |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unemployed (Vol) 2020 | 0.19% | 0.23% | 0.15% | 0.19% | 0.13% | 0.16% | 0.29% | 0.37% | 0.10% | 0.14% | 0.19% | 0.25% | 0.17% | 0.21% |
| Unemployed (Vol) 2021 | 0.51% | 0.31% | 0.41% | 0.25% | 0.36% | 0.21% | 0.77% | 0.49% | 0.26% | 0.18% | 0.52% | 0.32% | 0.45% | 0.28% |
| Unemployed (Invol) 2020 | 11.15% | 3.31% | 13.49% | 3.99% | 11.98% | 3.49% | 14.84% | 4.59% | 17.16% | 5.79% | 12.63% | 3.87% | 12.00% | 3.58% |
| Unemployed (Invol) 2021 | 13.47% | 4.73% | 16.15% | 5.69% | 14.44% | 4.99% | 17.75% | 6.52% | 20.44% | 8.15% | 15.20% | 5.51% | 14.46% | 5.11% |

Unemployed (Vol) 2020 Unemployed (Vol) 2021 Unemployed (Invol) 2020 Unemployed (Invol) 2021

*Figure 5: Probability of Unemployment Status during COVID-19 for Men*

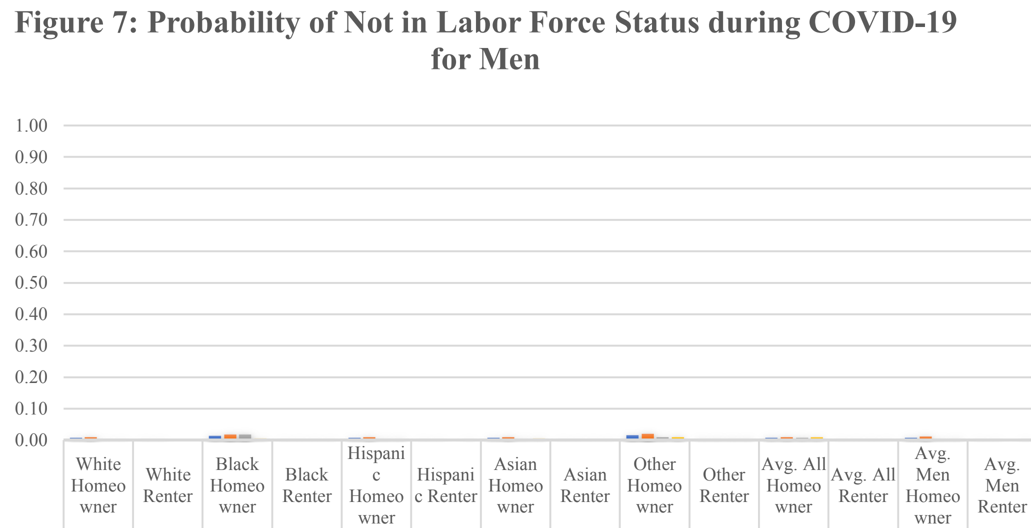
**Figure 6: Probability of Unemployment Status during COVID-19 for Women**


| | White Homeowner | White Renter | Black Homeowner | Black Renter | Hispanic Homeowner | Hispanic Renter | Asian Homeowner | Asian Renter | Other Homeowner | Other Renter | Avg. All Homeowner | Avg. All Renter | Avg. Women Homeowner | Avg. Women Renter |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unemployed (Vol) 2020 | 0.002 | 0.003 | 0.002 | 0.003 | 0.002 | 0.002 | 0.004 | 0.005 | 0.001 | 0.002 | 0.002 | 0.002 | 0.002 | 0.003 |
| Unemployed (Vol) 2021 | 0.007 | 0.004 | 0.005 | 0.003 | 0.005 | 0.003 | 0.010 | 0.007 | 0.003 | 0.002 | 0.005 | 0.003 | 0.006 | 0.004 |
| Unemployed (Invol) 2020 | 0.124 | 0.039 | 0.150 | 0.047 | 0.133 | 0.041 | 0.163 | 0.054 | 0.183 | 0.067 | 0.126 | 0.039 | 0.133 | 0.042 |
| Unemployed (Invol) 2021 | 0.149 | 0.055 | 0.178 | 0.067 | 0.160 | 0.058 | 0.193 | 0.076 | 0.216 | 0.093 | 0.152 | 0.055 | 0.159 | 0.060 |

Unemployed (Vol) 2020 Unemployed (Vol) 2021 Unemployed (Invol) 2020 Unemployed (Invol) 2021

*Figure 6: Probability of Unemployment Status during COVID-19 for Women*

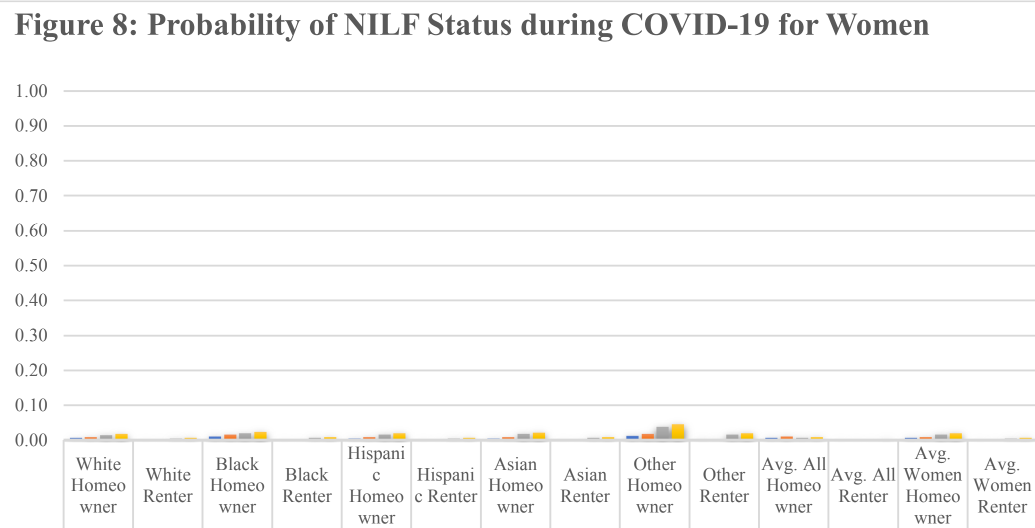
Not in Labor Force Status Likelihood Graphs by Gender and Race




| | White Homeowner | White Renter | Black Homeowner | Black Renter | Hispanic Homeowner | Hispanic Renter | Asian Homeowner | Asian Renter | Other Homeowner | Other Renter | Avg. All Homeowner | Avg. All Renter | Avg. Men Homeowner | Avg. Men Renter |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NILF (Other) 2020 | 0.77% | 0.19% | 1.36% | 0.32% | 0.77% | 0.18% | 0.77% | 0.19% | 1.59% | 0.43% | 0.81% | 0.20% | 0.87% | 0.21% |
| NILF (Other) 2021 | 1.06% | 0.20% | 1.84% | 0.35% | 1.05% | 0.19% | 1.05% | 0.21% | 2.14% | 0.46% | 1.11% | 0.22% | 1.19% | 0.23% |
| NILF (Childcare) 2020 | 0.34% | 0.12% | 1.84% | 0.35% | 0.39% | 0.14% | 0.44% | 0.17% | 0.93% | 0.38% | 0.78% | 0.29% | 0.39% | 0.14% |
| NILF (Childcare) 2021 | 0.23% | 0.08% | 0.56% | 0.21% | 0.47% | 0.17% | 0.54% | 0.21% | 1.13% | 0.48% | 0.95% | 0.37% | 0.48% | 0.18% |

NILF (Other) 2020 NILF (Other) 2021 NILF (Childcare) 2020 NILF (Childcare) 2021

*Figure 7: Probability of Not in Labor Force Status during COVID-19 for Men*




| | White Homeowner | White Renter | Black Homeowner | Black Renter | Hispanic Homeowner | Hispanic Renter | Asian Homeowner | Asian Renter | Other Homeowner | Other Renter | Avg. All Homeowner | Avg. All Renter | Avg. Women Homeowner | Avg. Women Renter |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NILF (Other) 2020 | 0.007 | 0.002 | 0.012 | 0.003 | 0.007 | 0.002 | 0.007 | 0.002 | 0.013 | 0.004 | 0.008 | 0.002 | 0.008 | 0.002 |
| NILF (Other) 2021 | 0.009 | 0.002 | 0.016 | 0.003 | 0.009 | 0.002 | 0.009 | 0.002 | 0.018 | 0.004 | 0.011 | 0.002 | 0.010 | 0.002 |
| NILF (Childcare) 2020 | 0.015 | 0.006 | 0.020 | 0.008 | 0.017 | 0.006 | 0.019 | 0.008 | 0.039 | 0.017 | 0.008 | 0.003 | 0.017 | 0.007 |
| NILF (Childcare) 2021 | 0.018 | 0.007 | 0.024 | 0.010 | 0.020 | 0.008 | 0.023 | 0.010 | 0.047 | 0.021 | 0.010 | 0.004 | 0.021 | 0.008 |

NILF (Other) 2020 NILF (Other) 2021 NILF (Childcare) 2020 NILF (Childcare) 2021

*Figure 8: Probability of Not in Labor Force Status during COVID-19 for Women*

Employment Status Likelihood Graphs by Occupation

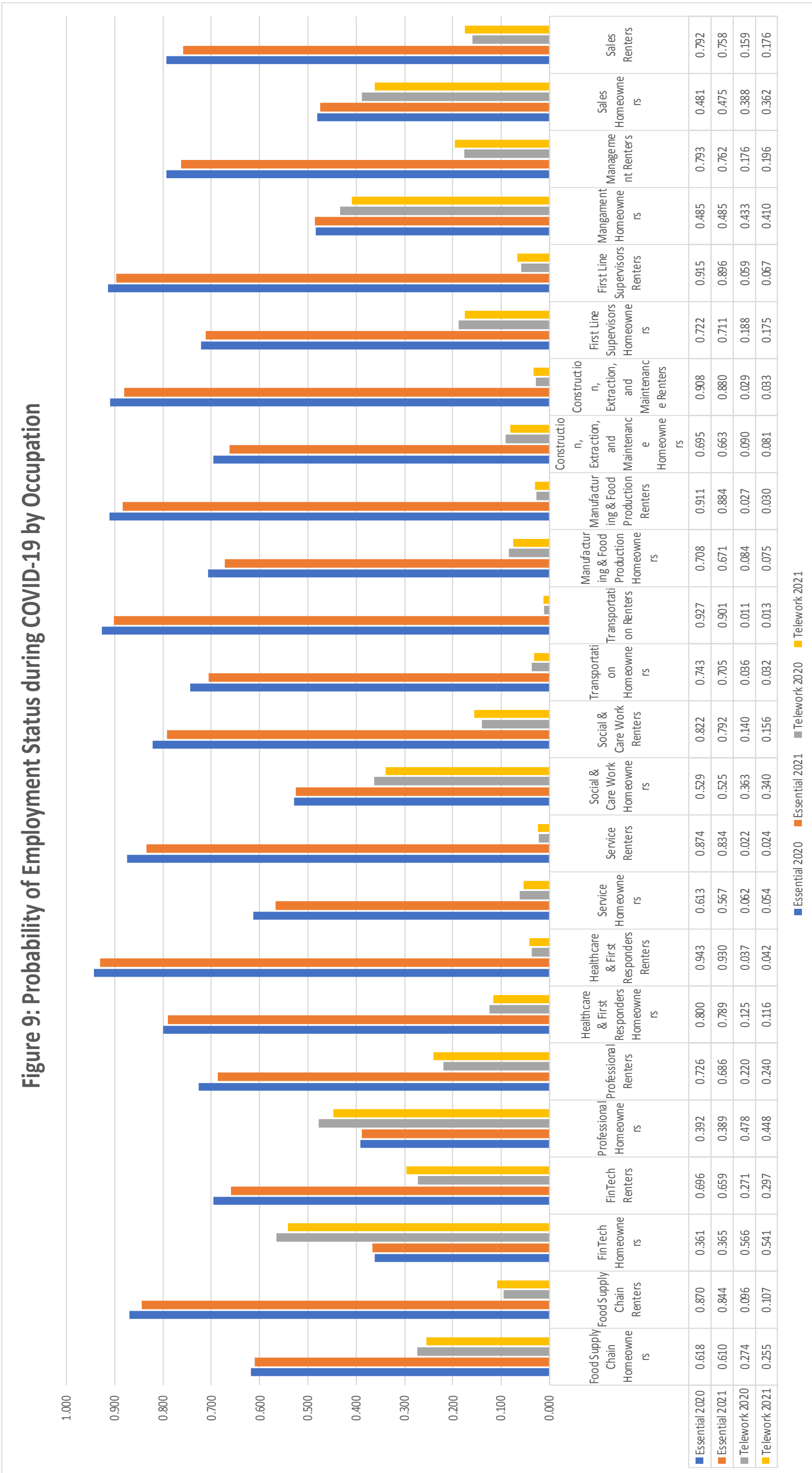
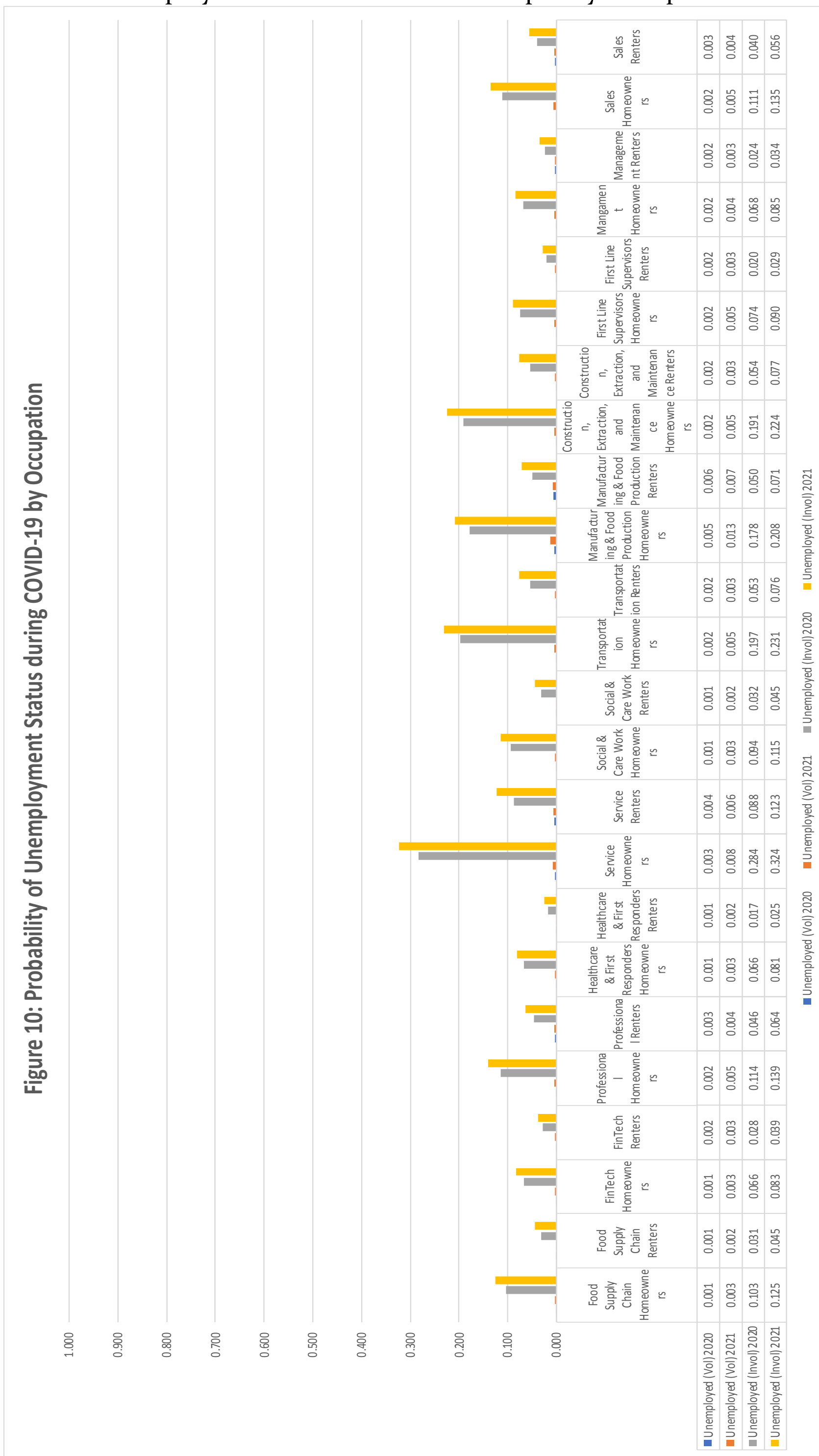



*Figure 9: Probability of Employment Status during COVID-19 by Occupation*

Unemployment Status Likelihood Graphs by Occupation

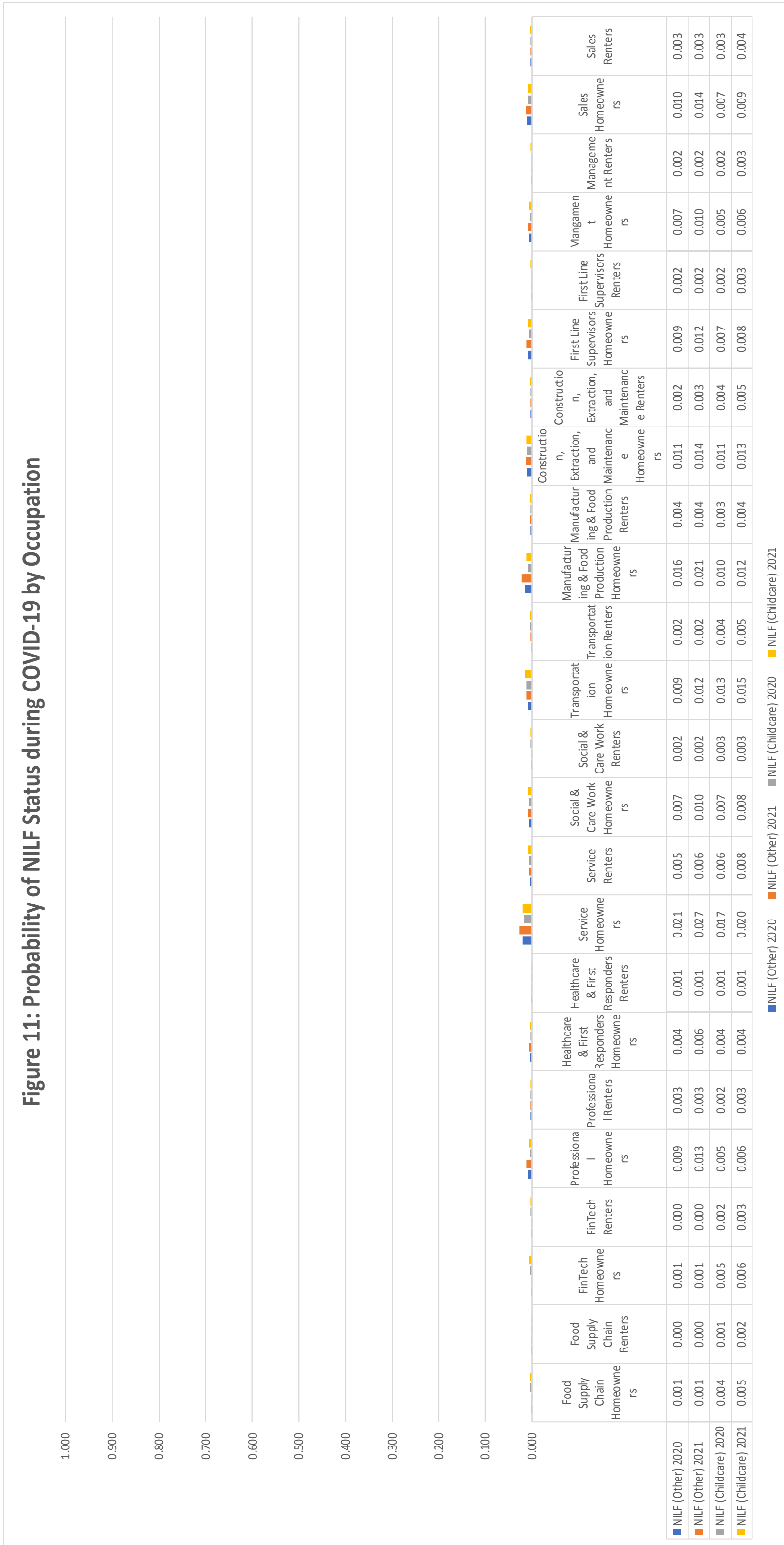



| | Food Supply Chain Homeowners | Food Supply Chain Renters | FinTech Homeowners | FinTech Renters | Professional Homeowners | Professional Renters | Healthcare & First Responders Homeowners | Healthcare & First Responders Renters | Service Homeowners | Service Renters | Social & Care Work Homeowners | Social & Care Work Renters |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unemployed (Vol) 2020 | 0.001 | 0.001 | 0.001 | 0.002 | 0.002 | 0.003 | 0.001 | 0.001 | 0.003 | 0.004 | 0.001 | 0.001 |
| Unemployed (Vol) 2021 | 0.003 | 0.002 | 0.003 | 0.003 | 0.005 | 0.004 | 0.003 | 0.002 | 0.008 | 0.006 | 0.003 | 0.002 |
| Unemployed (Invol) 2020 | 0.103 | 0.031 | 0.066 | 0.028 | 0.114 | 0.046 | 0.066 | 0.017 | 0.284 | 0.088 | 0.094 | 0.032 |
| Unemployed (Invol) 2021 | 0.125 | 0.045 | 0.083 | 0.039 | 0.139 | 0.064 | 0.081 | 0.025 | 0.324 | 0.123 | 0.115 | 0.045 |

| | Transportation Homeowners | Transportation Renters | Manufacturing & Food Production Homeowners | Manufacturing & Food Production Renters | Construction, Extraction, and Maintenance Homeowners | Construction, Extraction, and Maintenance Renters | First Line Supervisors Homeowners | First Line Supervisors Renters | Mangament Homeowners | Management Renters | Sales Homeowners | Sales Renters |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Unemployed (Vol) 2020 | 0.002 | 0.002 | 0.005 | 0.006 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.003 |
| Unemployed (Vol) 2021 | 0.005 | 0.003 | 0.013 | 0.007 | 0.005 | 0.003 | 0.005 | 0.003 | 0.004 | 0.003 | 0.005 | 0.004 |
| Unemployed (Invol) 2020 | 0.197 | 0.053 | 0.178 | 0.050 | 0.191 | 0.054 | 0.074 | 0.020 | 0.068 | 0.024 | 0.111 | 0.040 |
| Unemployed (Invol) 2021 | 0.231 | 0.076 | 0.208 | 0.071 | 0.224 | 0.077 | 0.090 | 0.029 | 0.085 | 0.034 | 0.135 | 0.056 |

*Figure 10: Probability of Unemployment Status during COVID-19 by Occupation*

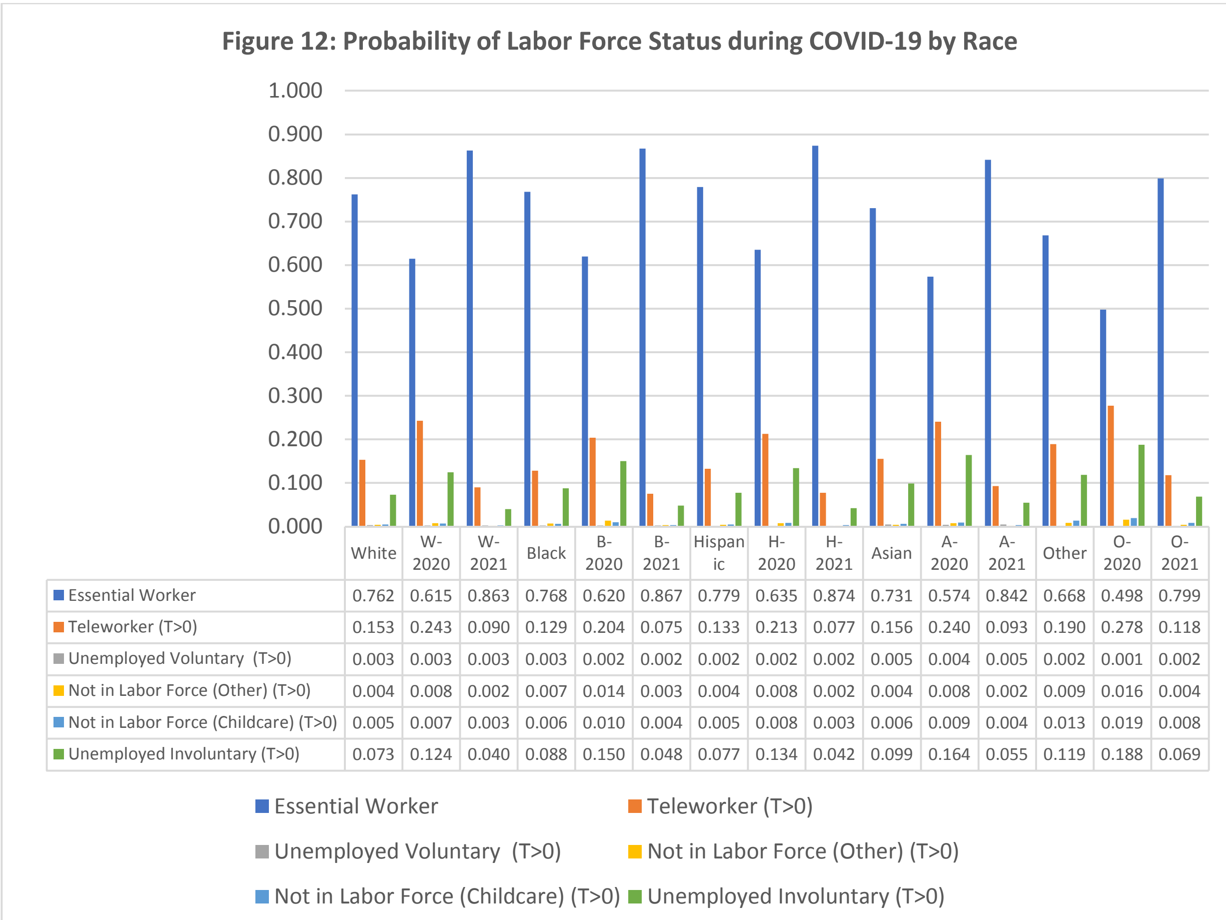
Not in Labor Force Status Likelihood Graphs by Occupation




| | Food Supply Chain Homeowners | Food Supply Chain Renters | FinTech Homeowners | FinTech Renters | Professional Homeowners | Professional Renters | Healthcare & First Responders Homeowners | Healthcare & First Responders Renters | Service Homeowners | Service Renters | Social & Care Work Homeowners | Social & Care Work Renters | Transportation Homeowners | Transportation Renters | Manufacturing & Food Production Homeowners | Manufacturing & Food Production Renters | Construction, Extraction, and Maintenance Homeowners | Construction, Extraction, and Maintenance Renters | First Line Supervisors Homeowners | First Line Supervisors Renters | Mangament Homeowners | Management Renters | Sales Homeowners | Sales Renters |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NILF (Other) 2020 | 0.001 | 0.000 | 0.001 | 0.000 | 0.009 | 0.003 | 0.004 | 0.001 | 0.021 | 0.005 | 0.007 | 0.002 | 0.009 | 0.002 | 0.016 | 0.004 | 0.011 | 0.002 | 0.009 | 0.002 | 0.007 | 0.002 | 0.010 | 0.003 |
| NILF (Other) 2021 | 0.001 | 0.000 | 0.001 | 0.000 | 0.013 | 0.003 | 0.006 | 0.001 | 0.027 | 0.006 | 0.010 | 0.002 | 0.012 | 0.002 | 0.021 | 0.004 | 0.014 | 0.003 | 0.012 | 0.002 | 0.010 | 0.002 | 0.014 | 0.003 |
| NILF (Childcare) 2020 | 0.004 | 0.001 | 0.005 | 0.002 | 0.005 | 0.002 | 0.004 | 0.001 | 0.017 | 0.006 | 0.007 | 0.003 | 0.013 | 0.004 | 0.010 | 0.003 | 0.011 | 0.004 | 0.007 | 0.002 | 0.005 | 0.002 | 0.007 | 0.003 |
| NILF (Childcare) 2021 | 0.005 | 0.002 | 0.006 | 0.003 | 0.006 | 0.003 | 0.004 | 0.001 | 0.020 | 0.008 | 0.008 | 0.003 | 0.015 | 0.005 | 0.012 | 0.004 | 0.013 | 0.005 | 0.008 | 0.003 | 0.006 | 0.003 | 0.009 | 0.004 |

*Figure 11: Probability of NILF Status during COVID-19 by Occupation*

Labor Force and Reserve Status during COVID-19 by Race




| | White | W-2020 | W-2021 | Black | B-2020 | B-2021 | Hispanic | H-2020 | H-2021 | Asian | A-2020 | A-2021 | Other | O-2020 | O-2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Essential Worker | 0.762 | 0.615 | 0.863 | 0.768 | 0.620 | 0.867 | 0.779 | 0.635 | 0.874 | 0.731 | 0.574 | 0.842 | 0.668 | 0.498 | 0.799 |
| Teleworker (T>0) | 0.153 | 0.243 | 0.090 | 0.129 | 0.204 | 0.075 | 0.133 | 0.213 | 0.077 | 0.156 | 0.240 | 0.093 | 0.190 | 0.278 | 0.118 |
| Unemployed Voluntary (T>0) | 0.003 | 0.003 | 0.003 | 0.003 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | 0.005 | 0.004 | 0.005 | 0.002 | 0.001 | 0.002 |
| Not in Labor Force (Other) (T>0) | 0.004 | 0.008 | 0.002 | 0.007 | 0.014 | 0.003 | 0.004 | 0.008 | 0.002 | 0.004 | 0.008 | 0.002 | 0.009 | 0.016 | 0.004 |
| Not in Labor Force (Childcare) (T>0) | 0.005 | 0.007 | 0.003 | 0.006 | 0.010 | 0.004 | 0.005 | 0.008 | 0.003 | 0.006 | 0.009 | 0.004 | 0.013 | 0.019 | 0.008 |
| Unemployed Involuntary (T>0) | 0.073 | 0.124 | 0.040 | 0.088 | 0.150 | 0.048 | 0.077 | 0.134 | 0.042 | 0.099 | 0.164 | 0.055 | 0.119 | 0.188 | 0.069 |

*Figure 12: Probability of Labor Force Status during Covid-19 by Race*