

The 'Chilling' Effects of Misinformation:
Why Immigrants Avoided Welfare Programs that were Excluded from the Public Charge Rule

Adalyn Richards

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Professor Michael Jones-Correa

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Abstract:

In 2019, the Trump administration dramatically expanded the Public Charge Rule to restrict the number of people eligible for visas and green cards. The revised rule made it more difficult for immigrants to enter or remain in the United States if they were dependent on public assistance. This paper investigates why eligible immigrants avoided welfare programs that were excluded from the Public Charge Rule following its announcement in 2018. Building on literature about political rumors and immigrant integration, this paper presents a quantitative and qualitative analysis of misinformation about the Public Charge Rule and the subsequent drop in immigrant welfare usage. Data on misinformation was collected from online news articles and two social media platforms, Facebook and Twitter, from 2018 to 2021. The findings demonstrate the prevalence, common sources, and characteristics of misinformation. Discontinuity analysis was employed to determine the extent to which immigrant welfare participation declined following waves of misinformation about the Public Charge Rule. There is clear evidence that misinformation consistently emerged after important announcements about the rule, followed by a stark decline in immigrant use of public assistance programs that were excluded from the public charge criteria and thus had no bearing on their immigration status. This paper argues that misinformation about the Public Charge Rule was largely responsible for this counterintuitive welfare avoidance by spreading fear and confusion among immigrants. The resulting lack of critical health and nutrition services will have significant consequences on the health, well-being, and integration of immigrant communities for the indefinite future.

Keywords: Public Charge Rule, Immigration Policy, Integration, Welfare, Misinformation, Political Rumors, Social Media, Political Science, Michael Jones-Correa, Jones-Correa, Michael

Introduction

In 2018, the Trump administration announced a new draft of the Public Charge Rule that made two major changes. First, the new rule denied admission (i.e. visas) to immigrants if they were expected to “at any time” become a public charge, defined as a person who is primarily dependent on government services for subsistence (U.S. Department of Homeland Security 2022). Second, for immigrants seeking permanent residency (i.e. green cards), the public charge criteria expanded to include noncash benefits like Medicaid and the Supplemental Nutrition Assistance Program (SNAP) such that 12 months of usage over a 36-month period would trigger a public charge determination and result in deportation. These rules went into effect in 2019, and U.S. Citizenship and Immigration Services (USCIS) began enforcing them in 2020. President Biden reversed the Trump-era policy in 2021, returning to the longstanding Public Charge Rule that had been in effect since 1999.

Under the Trump-era policy, many noncash benefits were suddenly considered under the public charge test, but certain health care, childcare, and nutrition programs were excluded, including the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), the Children’s Health Insurance Program (CHIP), and Emergency Medicaid. Given these carve-outs, immigrants could not be considered a public charge simply because they received these benefits. Nonetheless, immigrant participation in these programs dramatically declined after the announcement of the rule, resulting in a loss of critical welfare services. The Public Charge Rule, therefore, is said to have ‘chilling’ effects on welfare participation, whereby eligible immigrants opted out of public assistance programs that had no bearing on their immigration status. This paper will investigate why immigrants avoided public assistance programs that were excluded

from the Public Charge Rule. It is hypothesized that fear and confusion spread by misinformation about the policy caused welfare avoidance among immigrants.

While Biden reversed the rule in 2021, this topic remains important for several reasons. First, future administrations could revert to the Trump-era policy, potentially causing a further reduction in essential welfare services. Second, even a short-term reduction in health coverage and nutritional assistance, especially during a global health crisis like the COVID-19 pandemic, can have long-term consequences on the social determinants of health. Finally, misinformation surrounding the Public Charge Rule and confusion about immigration policies more generally create significant emotional, financial, and health-related challenges that threaten the integration of foreign-born communities.

History of ‘Chilling’ Effects on Welfare Receipt

1996 Welfare Reform

As a part of President Clinton’s promise to “end welfare as we know it,” Congress passed the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) and the Illegal Immigration Reform and Immigrant Responsibility Act (IIRAIRA) in 1996 (Haider et al. 2004). PRWORA divided legal immigrants into two categories: “qualified” noncitizens who arrived in the U.S. before 1996, and “unqualified” noncitizens who arrived thereafter. While qualified immigrants remained eligible for Medicaid, PRWORA revoked eligibility from unqualified immigrants unless states passed new legislation to independently fund Medicaid coverage for this class of noncitizens. In the same year, IIRAIRA created new regulations regarding the 1952 Immigration and Nationality Act, which denied permanent residency to immigrants who were expected to become a public charge. More specifically, it gave the

Immigration and Naturalization Service (INS) primary responsibility to enforce this law. In 1999, the INS clarified that Medicaid and other cash benefits such as food stamps would not be included in the public charge test, but before then it was unclear which benefits could result in a public charge determination.

The term ‘chilling’ effect was coined by Zimmermann and Fix (1998) in a report documenting changes in welfare access following these reforms. While PRWORA made noncitizens ineligible for many benefits, immigrant eligibility in California remained unchanged thanks to state funding for Temporary Assistance for Needy Families (TANF), Medi-Cal, and General Relief, a county-funded cash assistance program. Nonetheless, Zimmermann and Fix observed a ‘chilling’ effect on noncitizen participation in public assistance programs in California, meaning that immigrants avoided welfare programs for which they remained eligible. Using data from the Los Angeles County Department of Public Social Services, they show a stark drop in noncitizen application approvals from 1996 to 1998 for TANF, Medi-Cal, and General Relief. Noncitizen approvals dropped by 52 percent, while the number of citizen applications approved each month did not change. Zimmerman and Fix hypothesize that immigrants withdrew from these programs following PRWORA because they mistakenly believed that they were no longer eligible.

Other studies corroborated these findings across the U.S. Using federal data, Kandula et al. (2004) confirm that welfare reform had unintended consequences on health care access among the larger, still-eligible immigrant community. Specifically, they found that Medicaid enrollment among qualified immigrants dropped by three percent after 1996, while noncitizen enrollment dropped by only 1.6 percent. They disaggregated results by state, revealing that qualified (pre-1996) immigrants in states that continued funding Medicaid for unqualified (post-

1996) immigrants experienced a lesser decline in Medicaid enrollment. This suggests that state policies can be used as a buffer against the ‘chilling’ effects of federal welfare reform.

Researchers have also studied the mechanisms behind these ‘chilling’ effects. Park et al. (2000) explored the impact of 1996 reforms on Medicaid usage by low-income pregnant immigrants in California, where both qualified and unqualified immigrants remained eligible for coverage. Interviews with safety net prenatal care providers and immigrant health advocates revealed that pregnant women avoided Medicaid due to fears about becoming a public charge, even though the 1996 reforms did not change the benefits included in the public charge test. IIRAIRA merely gave the INS the authority to enforce the longstanding public charge policy, which generated enough fear and confusion to disincentivize enrollment. The Center for Health Policy Research at George Washington University (2000) also found evidence that immigrants were less willing to enroll in Medicaid following 1996 reforms. Using case studies from Illinois, Washington DC, California, and Texas, they confirmed that fears about the INS and the Public Charge Rule motivated welfare avoidance. Hagan and Rodriguez (2003) likewise found that eligible immigrants in Texas voluntarily withdrew from Medicaid because of the confusion regarding eligibility and increased fears about the impact of welfare utilization on family sponsorship and naturalization.

As additional data emerged in subsequent years, however, scholars challenged the widely supported ‘chilling’ effect theory. Van Hook (2003) criticized the common approach used to evaluate the effect of welfare reform on immigrants. Many researchers examined trends in caseloads and receipt of benefits by citizenship status but failed to account for shifts in the size of citizen and noncitizen populations. Fix and Passel (1999) explored this issue by examining hypothetical naturalization rates and concluded that shifts in citizenship could not have

accounted for the chilled welfare usage. Using longitudinal data, however, Van Hook (2003) empirically demonstrated that a “substantial amount” of the disproportionate decline in welfare usage by noncitizens could be attributed to the unprecedented number of naturalized noncitizens in the mid-1990s.

Haider et al. (2004) likewise cast doubt on the ‘chilling’ effect theory by evaluating the impact of macroeconomic conditions on welfare receipt. Looking at seven major public assistance programs, they confirmed that welfare participation declined more sharply for immigrants than for citizens, even for programs unaffected by the 1996 reforms. However, they found that a significant share of this decline was attributable to macroeconomic conditions in the late 1990s; namely, lower unemployment, higher earnings, and better labor market conditions in areas with a high concentration of immigrants. Many immigrants who benefitted from these positive economic conditions no longer needed public assistance, which explains the disproportionate decline in immigrant welfare receipt. Similarly, Lofstrom and Bean (2002) found that labor market conditions, including employment rates across metropolitan areas and states, accounted for at least one-third of the relative decrease in immigrant welfare receipt. While neither study completely rejects the ‘chilling’ effect of the 1996 reforms, they draw attention to alternative explanations that could account for some of the welfare avoidance observed following Trump-era changes to the Public Charge Rule.

2019 Public Charge Rule

After the announcement of the new Public Charge Rule in 2018, there was growing concern that the policy could have ‘chilling’ effects similar to those observed after 1996 welfare reforms. Scholars and advocates worried that changes to the rule could cause a decline in public assistance usage among noncitizens for benefits that were not included in the public charge test

and thus had no bearing on their legal status, such as WIC, CHIP, Emergency Medicaid, national school lunch programs, educational programs, and government-subsidized student and mortgage loans, among several others.¹

Researchers from Migration Policy Institute were the first to estimate the impacts of the new rule. Using ACS data, Capps et al. (2018) estimated that 400,000 to 650,000 legally permanent residents would have been at risk of green card denial in 2017 based on the new public charge criteria, with stronger negative effects for women, children, and the elderly. In a later study, Capps et al. (2020) examined ACS data and found that participation in TANF, SNAP, and Medicaid declined far more rapidly for noncitizens from 2016 to 2019. Although usage fell for both citizens and noncitizens due to improving economic conditions, the steeper decline among immigrants demonstrates the disproportionate impact of the new rule. Barofsky et al. (2020) contextualize these findings by demonstrating that the fear surrounding the 2019 Public Charge Rule reduced immigrant welfare receipt. Using safety-net enrollment data from after the rule was announced but before it was implemented, they found that a one-point increase in a county's noncitizen share was associated with a 0.1-point reduction in child Medicaid use, suggesting that welfare avoidance was driven by immigrants anticipating the rule's future effect. This paper will investigate the cause of this anticipatory welfare avoidance by identifying specific instances and trends of misinformation about the Public Charge Rule.

¹ Full list of programs excluded from the 2019 Public Charge Rule: emergency medical assistance, such as Emergency Medicaid for pregnant women; the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); energy assistance such as the Low Income Home Energy Assistance Program (LIHEAP); disaster relief; school lunch programs; subsidies for foster care and adoption; government-subsidized student and mortgage loans; food pantries; homeless shelters; and educational program such as Head Start.

Researchers from the Urban Institute studied the effects of the new policy on benefits not included in the public charge calculus. Using data from an internet survey, Bernstein et al. (2019) provided the first systematic evidence of this ‘chilling’ effect. They found that one in seven respondents had a family member who did not participate in a noncash welfare program in 2018 due to concerns about future green card status, with stronger ‘chilling’ effects among low-income families. Additionally, they found that people unaffected by the Public Charge Rule, like citizens in immigrant families, also opted out of benefits, indicating a ‘chilling’ effect not just on certain benefits but also on certain demographics not subject to the public charge test. Bernstein et al. (2020) repeated this study a year later using results from the nationally representative Well-Being and Basic Needs Survey and observed a statistically significant increase in the ‘chilling’ effects among adults in immigrant families.

Bernstein et al. (2019) conducted follow-up interviews with respondents who reported avoiding a noncash welfare program in 2018 due to immigration fears. Respondents described ‘chilling’ effects on benefits excluded from public charge test, especially health and nutrition programs, as well as spillover effects on people unaffected by the rule, including foreign-born individuals without green cards, green card holders, and naturalized and birthright citizens. Most interviewees described financial, emotional, or physical hardship as a result of losing these benefits. In a separate follow-up study with low-income California respondents, Bernstein et al. (2021) found that three in ten adults in California living in immigrant families avoided public assistance programs in 2020 because of green card and immigration concerns.

Interviews and surveys focused on the health and nutrition consequences of the 2019 Public Charge Rule confirm these ‘chilling’ effects. Researchers from the Kaiser Family Foundation asked health care professionals about the impact of the new rule on health coverage

and services for immigrant patients (Tolbert et al 2019). They found chilled effects on health and nutrition benefits not included in the public charge test. Health centers reported that immigrants declined to enroll or reenroll in Medicaid due to fear and confusion about the Public Charge Rule. A series of focus groups conducted by the Food Research & Action Center (2022) corroborate these findings. Immigrant parents and nutrition service providers from Arkansas, California, Colorado, and Illinois reported that families that were eligible for benefits which had no impact on their legal status nonetheless avoided federal food and nutrition programs. Specifically, seventy percent of respondents agreed with the statement, “immigrant families who are eligible for federal nutrition programs but do not face public charge consequences are forgoing nutrition benefits because of public charge fears.” This paper will strengthen this causal claim regarding fear and confusion about the Public Charge Rule by identifying trends of misinformation that coincide with Trump’s announcement of the new policy.

Numerous peer-reviewed articles also explore the effects of the Trump-era policy on immigrant welfare usage. In a study focused on health challenges for frontline workers during the COVID-19 pandemic, Touw et al. (2021) estimate that 2.1 million immigrant essential workers and household members avoided Medicaid and 1.3 million avoided SNAP due to changes to the Public Charge Rule, thus highlighting compounded health risks created by public charge policy during the pandemic. Bustamante et al. (2022) estimate that 107,956 to 192,905 Latinx immigrants and 1,294 to 4,702 Asian immigrants in California avoided Medicaid due to immigration concerns. Whereas previous studies classified immigrants by citizenship status (i.e. citizen vs. noncitizen), this study grouped immigrants by green card status. This is a more accurate measure of the impact of the Public Charge Rule, which only affects immigrants

without green cards. Further, this was the first study to disaggregate findings by race, thus highlighting the heterogeneous effects of the rule across different immigrant groups.

Emerging research indicates that ‘chilling’ effects continue to persist even after Biden’s reversal of the rule in 2021. In the summer of 2022, researchers from Migration Policy Institute conducted interviews and focus groups with former unaccompanied noncitizen children, immigration attorneys, government officials, and service providers to identify any lingering effects of the 2019 Public Charge Rule (Beier and Workie 2022). Despite Biden’s reversal more than a year earlier, participants reported enduring fears of becoming a public charge. Immigrant parents, for example, were hesitant to enroll their eligible children in Medicaid even though it was clearly excluded from the new public charge criteria. Service providers reported that even immigrants correctly informed about the new Public Charge Rule avoided benefits out of fears that the policies could change in the future. These findings highlight the need for ongoing research on the lasting impacts of the 2019 Public Charge Rule.

Review of Existing Literature

This paper will investigate why eligible immigrants avoided public assistance programs that were excluded from the public charge test. There are two distinct categories of scholarship that are relevant to this project. First, there is scholarship on political rumors and misinformation, particularly as it pertains to immigration policy. This studies the “why” – why did immigrants opt out of public benefits that had no immigration consequences? This puzzle is the main focus of this paper. Second, there is research on integration issues, with a particular focus on access to health care. This investigates the broader implications of reduced welfare for immigrants – why does it matter? The following sections will introduce the relevant literature within these two categories of scholarship.

Political Rumors & Misinformation

Rumors, Misinformation, or Disinformation?

Rumor scholarship first flourished in the mid-twentieth century, when G.W. Allport and Leo Postman (1947) studied rumors that threatened national morale and safety during World War II. Allport & Postman developed “the basic law of rumor,” which states that rumor strength (R) is dependent on the importance of the topic to the individual concerned (i) times the ambiguity of the information on the subject in question (a). Concerned that this formula ignored the emotional context of a rumor, Ralph Rosnow (1991) offered a modified definition that frames rumormongering as an effort to deal with anxiety by spreading theories that explain uncertainty and provide a basis for behavior. This early scholarship informed modern consensus among scholars about the meaning of a rumor. Sunstein (2009) defines a rumor as “claims of fact – about people, groups, events, and institutions – that have not been shown to be true, but that move from one person to another and hence have credibility not because direct evidence is known to support them, but because other people seem to believe them” (6). Rumors, therefore, have two main features: they lack a standard of proof, and they are not ‘fringe’ beliefs, meaning that they acquire social power through transmission (Berinsky 2012).

While the basic law of rumor focused on one-way rumor transmission, scholars now understand rumormongering to be a *communal* interaction that is fueled by anxiety, uncertainty, and belief (Bordia and Rosnow 1995). As Kuklinski et al. (2000) note, the collective process of rumor transmission can systematically bias communal opinion, causing groups of people to take political action based on false information. Gossip, on the other hand, tends to circulate among insular groups with common histories and interests, and is therefore less consequential in a political sense (Rosnow 2005).

Perhaps even more dangerous than rumors, however, is political misinformation. Rumors are unverified but can be true, but misinformation is always false. According to Berinsky (2012), misinformation is “belief in information that is factually incorrect” (6). Some scholars conceptualize rumors as a subset of misinformation, others suggest that they are a vehicle through which misinformation spreads, and many use the two terms interchangeably (Jerit 2000). This paper conceives of rumors as a type of misinformation but will default to the term “misinformation” when appropriate to define the veracity of claims more precisely. This distinction is important because misinformation, in contrast with rumors, creates actors who are unaware that they are misinformed.

Disinformation, on the other hand, is false or misleading information that is spread intentionally. A similar term, rumor propaganda, is the strategic dissemination of rumors to influence others (Difonzo and Bordia 2007). Expressive responding, a phrase coined by Schaffner & Luks (2018), is disinformation that occurs when people intentionally provide false information to affirm their partisan identity. While false information about the Public Charge Rule is almost exclusively misinformation, this paper will use the term “disinformation” when appropriate to describe actors who strategically spread inaccurate information.

Rumor Psychology

Insights from the field of psychology are helpful to understand why—and under what conditions—people spread false information. As early scholars understood, rumors spread in ambiguous or threatening situations (Allport and Postman 1947; Rosnow 1991). Humans have a social incentive to understand and act efficiently, so people turn to groups when information is

unclear. This results in a group sensemaking activity called “rumor discussion” that aims to make sense of threatening and confusing situations (Difonzo 2007, 2011).

Rosnow (1991) notes that there are four individual-level mechanisms that affect rumor spread: uncertainty, anxiety, importance, and belief in the rumor. In a meta-analysis of five studies, Rosnow (1991) found a small to moderate positive relationship between rumor transmission and uncertainty, defined as a psychological state of doubt about future events. This relationship exists because people in an uncertain state attempt to gain information through group speculation (Difonzo 2011).

Scholars have long assumed that importance positively affects rumor transmission; however, this relationship is not observed in a few studies that fail to define importance as being “personally motivating” (Difonzo 2011). For this reason, Difonzo (2011) alternatively refers to importance as “outcome relevant involvement,” which assesses the significance of a topic to the individual involved in rumor discussion. Using this criteria, studies have established a positive effect of importance on rumor spread and diversity of rumors (Difonzo 2007, 2011), which likely creates even more uncertainty than homogenous rumors.

Anxiety, the angst experienced about a potential consequence, also increases rumor transmission. On a group level, collective anxiety may exacerbate these effects by increasing suggestibility and diminished critical thinking (Difonzo 2011). Rosnow, Yost, and Esposito (1986) distinguish between ‘wish rumors’ involving anxiety about desired consequences and ‘dread rumors’ involving anxiety about undesired consequences. Bordia and DiFonzo (2004) find that dread rumors, like those pertaining to the Public Charge Rule, are more commonly spread, especially on the internet. Drawing from prospect theory, which states that losses are felt more strongly than gains, Difonzo (2011) explains that dread rumors involving potential loss

motivate transmission more than with rumors with equivalent potential gain. Related to anxiety, distrust in organizations and consistency with local superstitions have also been shown to fuel rumor activity (Difonzo 2007).

Belief in a rumor, referred to as credulity, is determined by four main cues: whether the rumor agrees with an individual's current attitude, the perceived credibility of the source, the frequency of the rumor, and whether the rumor has been denied (Difonzo 2011). Rosnow's (1991) meta-analysis demonstrates that belief in a rumor positively affects transmission; however, Rosnow, Esposito, and Gibney (1988) suggest that belief may only matter when there is moderate anxiety. In an analysis of rumors in two real-world settings, Pezzo and Beckstead (2006) find a significant anxiety x belief interaction but observe the reverse effect: anxiety only matters when belief is high. In other words, anxiety increases transmission when rumors are believed, but anxiety has little effect when rumors are assumed to be false. These studies suggest that some degree of anxiety and belief is required to motivate rumor transmission.

Beyond these four primary factors affecting rumor transmission, Jerit and Zhao (2020) find that false statements—even when unintentional—largely depend on the motivations of the individual involved in rumor discussion. Those with accuracy motives hope to make an informed decision, while those with directional motives hope to arrive at a specific conclusion, one that is likely consistent with their partisan ideology. In the context of the Public Charge Rule, immigrants are largely motivated by accuracy, but other actors, such as news outlets, think tanks, and activists may spread misinformation because it is consistent with their political attitudes.

Recent Examples of Political Misinformation

A recent study by Pew Research Center analyzed a wave of political misinformation from 2020 regarding the presidential election and the COVID-19 pandemic. About 60% of respondents agreed that made-up news majorly impacted the outcome of the election, and 72% of respondents said they saw fake news about the election. By mid-April, 64% of respondents said that they had seen news about COVID-19 that seemed completely fictitious. Examples of made-up news reported by respondents included exaggerated or understated severity of the pandemic, information regarding the efficacy of masks, and statements made by President Trump about the number of COVID-related deaths. In both cases—news relating to the election and the pandemic—respondents, particularly republicans, were less likely to agree with misinformed claims if they relied on a combination of news outlets, referred to as a “mixed media diet” (Mitchell et al. 2020). In 2019, Pew Research Center likewise found that Republicans with a mixed media diet had more accurate beliefs about Trump’s first impeachment, while those who used Trump himself as a news source were more exposed to misinformation. Based on these findings, it is hypothesized that consuming media from a combination of sources mitigates the effect of misinformation about the Public Charge Rule.

In a study on misinformation on social media, Muhammed T and Mathew (2022) find that the most common topics of misinformation include health and politics, both highly-sensitive subjects that are relevant to the Public Charge Rule. Information about health is particularly susceptible to misinformation because of the prevalence of wish rumors, such as promises of free medicine, and dread rumors, like the onset of an epidemic. In the context of health, dread rumors appear more trustworthy and are more likely to go viral (Muhammed T and Mathew 2022). For example, numerous studies reported rampant misinformation during the Ebola and Zika epidemics (Baines et al. 2022). In fact, misinformation about Zika was three times more likely to

be spread than was verified information (Sharma et al. 2017). Political misinformation is also particularly common due to confirmation bias and the ‘partisan effect’ theory, which states that readers are more likely to share information that aligns with their existing political attitudes, regardless of its veracity (Muhammed T and Mathew 2022). Even more, political misinformation is difficult to correct because topics of political discussion, like abortion and immigration, are highly sensitive and deeply intertwined with people’s world views (Ecker et al. 2014).

Many Americans are also misinformed about welfare, a topic closely related to both health and politics. In 2009, for example, a rumor circulated that Obama’s health care reforms would include “death panels” to determine whether beneficiaries should receive coverage based on their calculated productivity in society (Berinsky 2012). In reality, the proposal included payments to providers to advise patients on end-of-life care. Two years later, Obama promised to revise the plan to remove funding for end-of-life counseling, a decision clearly influenced by the ‘death panel’ rumors. Another study found that many Illinois residents held false beliefs about welfare policies, like the typical payment size and characteristics of beneficiaries (Kuklinski et al. 2000). False information about the Public Charge Rule is a clear continuation of this trend of misinformation pertaining to health, politics, and welfare.

Misinformation on Social Media

Misinformation has flourished along with the rapid development of the internet and the proliferation of social media. Scholarship on misinformation in social media emerged in 2008 and gained traction in 2010 when Twitter bots spread false information about a U.S. senator (Muhammed T and Mathew 2022). In discussing the dangers of online misinformation, Berinsky (2012) explains that people gain instant credibility when they publish information online,

regardless of its quality. This, combined with the speed of internet communication, greatly increases the risk of widespread online misinformation. Sunstein (2009) adds that the longevity of online information makes false or misleading material potentially permanent.

Muhammed T and Mathew (2022) note that the algorithms behind social media platforms exacerbate misinformation. Their business models aim to maximize engagement, so users frequently see posts based on their existing interests, as is the case for Facebook and Twitter. This creates an ‘echo chamber’ in which users are exposed to repeated content that aligns with their beliefs, thereby increasing the perceived credibility and ‘shareability’ of content. Platforms like Facebook implemented bots that reduce the popularity of posts flagged by fact-checkers; however, this has led users to regard un-flagged content as credible, a phenomenon known as the ‘implied truth effect’ (Muhammed T and Mathew 2022). Gu and Hong (2019) find that these effects may be worse for mobile social media users who have an emotional connection to their cell phone, which could make them more likely to believe misinformation. Welfare-eligible families with limited resources might not have access to computers, making them more susceptible to misinformation consumed through mobile devices.

Furthermore, researchers at Pew Research Center find that reliance on social media for news is associated with greater exposure to misinformation and belief in false claims. Americans who depend on social media for news are less likely to correctly answer questions about current events and politics. They are also more exposed to false narratives about the COVID-19 pandemic, like connections between the coronavirus and 5G technology or the use of vitamin C to prevent infection. While 60% of users believe that information on social media is inaccurate, those who rely on social media for news are less concerned about the potential impact of fake news on major political events like the 2020 election (Mitchell et al. 2020). Based on these

findings, it is anticipated that misinformation about the Public Charge Rule will be concentrated on social media platforms, as opposed to news outlets and government publications.

Misinformation for Immigrants

While political misinformation is detrimental to all, false information about immigration policies, in particular, threatens the very livelihood of millions of immigrants legally residing in the United States. In 2017, for example, rumors of Immigration and Customs Enforcement (ICE) raids spread across the country (Lind 2017). However, there was no evidence that ICE agents set up road checkpoints, requested proof of citizenship from passing cars, or swept through apartment buildings where immigrants reside, despite rumors to the contrary. In Hometown, Texas, these rumors spread over social media and radio stations, instilling anxiety and fear of deportation in the nearby Latinx population (Marquez et al. 2021). In 2019, rumors circulated again after President Trump announced that ICE raids had been “very successful,” prompting advocacy groups to distribute flyers to immigrants with information on imminent raids (Shoichet, Santana, and Acosta, 2019). Again, however, there were no confirmed ICE apprehensions in major cities across the country. In the following year, ICE authorities in Denver issued a statement that “misinformation and rumors concerning U.S. Immigration and Customs Enforcement’s (ICE) presence in neighborhoods conducting enforcement operations continues to be promoted without merit by those with political agendas” (ICE 2020). These examples suggest that fear about immigration consequences may fuel misinformation among noncitizens.

More recently, the New York Times reported that social media accounts weaponized cultural and language barriers to push disinformation on immigrants ahead of the 2020 presidential election and the 2022 midterms. For example, some accounts targeted posts

exaggerating inflation toward Latinx immigrants from countries with poor economic management (Hsu 2020). Misinformation also originated from ‘platform jumps,’ a phenomenon where unverified information published in English on fringe media sites resurfaces on mainstream platforms in different languages or with misleading translations. Meta claims that its improved Spanish misinformation prediction models are on par with its English models; however, multilingual fact-checkers report that they cannot keep up with the quantity of false information in foreign languages. In 2022, one watchdog group published a report of 40 Spanish-language YouTube videos with advanced misinformation about elections. USA Today likewise reported on Spanish COVID-19 rumors that created fear and vaccine hesitancy among Hispanic communities, despite moderation efforts by social media platforms (Guynn 2021). Watchdog groups say that social media platforms are less likely to flag misinformation in Spanish, a phenomenon referred to as the Spanish-language misinformation gap. They blame negligent enforcement, translation errors, and careless fact-checking on Spanish-language media sites.

These observations are consistent with recent scholarship on misinformation affecting immigrants. In a study on COVID-19 rumors, Madraki et al. (2021) found that false information on social media differs by the language, country, and culture of the user. To better understand the role of languages in the coronavirus ‘infodemic,’ Avaaz (2020) analyzed misinformation on Facebook in six different languages. The study found that Facebook failed to flag 70% of Spanish-language misinformation (compared to 29% in English) and that 20% of misinformation in Spanish was harmful content that Facebook had previously pledged to remove. For instance, the platform took 22 days to flag a Spanish-language video claiming that the coronavirus was intentionally made in a lab, at which point the video had 33 million views. Facebook took nine days to fact-check the video and another 13 to label it as misinformation.

In a study on immigrant access to online health information, Baines et al. (2022) conducted in-depth interviews with immigrants, finding that most interviewees encountered pandemic-related misinformation on social media, particularly on Facebook and WhatsApp. Beyond language difficulties, dozens of immigrants described stress from hateful comments towards immigrants on social media, and most participants said that they were hesitant to correct online misinformation because they were skeptical of the beliefs held by users on the platform. These unique cultural and linguistic challenges faced by immigrants help to explain the prevalence of misinformation surrounding the Public Charge Rule.

Welfare, Health, and Integration

There is considerable disagreement about the definition of “integration” among scholars; however, most agree that integration is a two-way relationship between newcomers and the receiving state. Klarenbeek (2019) argues that this two-way conceptualization is necessary to avoid the pitfalls of one-sided integration, namely, undesirability and infeasibility. Jiménez (2017) similarly contends that relational assimilation requires reciprocal adjustments by newcomers and established individuals. Writing about assimilation between white and Black populations in the United States, Anderson (2010) likewise suggests that integration requires change not only by disadvantaged communities but also by dominant groups. Scholarly consensus about this two-way conceptualization of integration places a positive responsibility on native individuals, dominant groups, and the receiving state to facilitate immigrant integration.

Efforts to define ‘successful’ integration indicate the nature of support that the receiving state should provide. Ager and Strang (2008) identify four overall themes that correspond to successful integration: achievement and access across the sectors of employment, housing, education, and health; assumptions and practice regarding citizenship and rights; processes of

social connection within and between groups within the community; and structural barriers to connection related to language, culture, and the local environment. The inclusion of health as a factor for successful integration is of particular interest to this paper, seeing that enrollment in health-related welfare programs saw the greatest decline after the announcement of the new Public Charge Rule. In their thematic and conceptual analysis of the term “integration,” Ager and Strang (2008) find that health was recurrently cited as a key integration issue. Further, they claim that health is of particular importance to integration because language barriers, lack of information about medical services, and differing cultural perceptions of health care compound difficulties in accessing care for refugees. While refugees are a distinct class of newcomers not subject to the Public Charge Rule, refugee integration is relevant to this paper because refugees face many of the same challenges as immigrants who are subject to the public charge test.

The United States has long demonstrated willingness to help newcomers integrate, with a particular focus on access to health care. The U.S. is a signatory to the New York Declaration for Refugees and Migrants, which was adopted in 2016. Health is referred to at several points in the Declaration, which encourages States to “promise measures to improve integration and inclusion with particular reference to access to health care” (United Nations 2016). Indeed, the United States automatically provides these services to a subset of newcomers. When refugees first arrive, they are eligible for TANF, Social Security Income (SSI), and Medicaid if they meet the income requirements (Refugee). Additionally, they are eligible to receive Refugee Cash Assistance (RCA) and Refugee Medical Assistance (RMA) during their first eight months in the United States. These programs are intended to help refugees obtain employment, achieve self-sufficiency, and adjust socially as quickly as possible.

However, these same support services are not available to most immigrants. The Public Charge Rule has made it even more difficult for immigrants to access health and nutrition services by imposing heavy immigration consequences on beneficiaries deemed to be a public charge. With 25% of children living with an immigrant parent and 45% of immigrant households enrolled in a food assistance program (Esterline 2022), any decline in nutritional assistance could have harmful long-term effects on the health of immigrant families. Reduced access to health care could likewise have detrimental effects on the health and well-being of noncitizens, seeing that 26% of lawfully present immigrants were uninsured in 2020, making this an already-vulnerable group. Artiga and Ubri (2017) contend that access to health care is especially important for this demographic because immigration fears negatively impact the health and well-being of immigrant children. They find that merely having fears about immigration status produces eating and sleeping problems, headaches, stomachaches, and mental health issues like anxiety and depression.

Research conducted by health care providers also identifies the ways in which health services, including care provided through public assistance programs, supports immigrant health. The Kaiser Commission on Medicaid and the Uninsured (2011) conducted four focus groups with outreach and enrollment workers to identify how Medicaid and CHIP support immigrant families. The report finds that Medicaid and CHIP provide immigrants with access to preventive and primary care, including prenatal support and care for chronic conditions. However, Marcelli et al. (2015) find evidence from Medi-Cal and Oregon's 2008 Medicaid expansion that increased access to health coverage has little effect on the "actual causes" of long-term health and mortality (e.g. poor diet, smoking, etc.). That said, they conclude that these services do improve

the “leading” causes of health and mortality (e.g. heart disease, cancer, etc.), reduce psychological distress, and increase use and continuity of health services.

Beyond these direct health benefits, Bernstein et al. (2017) find that immigrants report financial, emotional, and physical hardship as a result of avoiding benefits due to immigration concerns. The aforementioned focus groups conducted by Kaiser (2011) likewise indicate that a lack of health insurance for immigrants causes financial stress, economic insecurity, and makes one more likely to go bankrupt in the case of a medical emergency. Indeed, several participants explained that, without coverage, medical services would be too expensive, requiring them to choose between paying for food, rent, or health care. Participants also noted that immigrants enrolled in Medicare or CHIP are often connected to other social services, resulting in broad quality of life improvements.

However, some scholarship refutes the positive relationship between public assistance and integration. In a cross-national study of eight European countries, Koopman (2009) finds that generous welfare states are associated with low levels of labor market participation, high levels of segregation, and a propensity for criminal behavior among immigrants. Koopman hypothesizes that public assistance impedes integration because welfare-dependent immigrants have fewer incentives to improve their position in the labor market, learn the native language, invest in education, and develop ties with the host society. However, this Euro-centric study merely makes a correlational claim and does not disaggregate results by welfare type; it may be that health benefits are uniquely beneficial to immigrant integration. Furthermore, Koopman concedes that cross-national differences may be entirely or partially attributable to differing immigrant populations.

This body of scholarship suggests that public assistance, particularly health-related benefits, supports the financial, psychological, and physical well-being of immigrants, thereby facilitating their overall integration. These findings provide ample support for the claim that health care is a precursor to integration. Health-related public assistance programs like WIC, CHIP, and Medicaid are thus necessary to ensure that immigrants can experience ‘ease of life’ in their host country. This argument provides the main justification for the focus of this paper: the Public Charge Rule’s ‘chilling’ effects on welfare receipt are detrimental to the health, well-being, and integration of immigrants in the United States.

Data Analysis

This section includes a quantitative and qualitative analysis of misinformation about the 2019 Public Charge Rule and the subsequent drop in welfare usage among immigrants. Data on misinformation was collected from online news articles and two social media platforms, Facebook and Twitter, from 2018 to 2021. The data was analyzed using the statistical coding language R to determine the prevalence, most common sources, and characteristics of misinformation relating to the Public Charge Rule. Discontinuity analysis was employed to determine the extent to which immigrant welfare participation declined following waves of misinformation about the initial Public Charge Rule draft and subsequent high-profile announcements relating to its enforcement. The data provides clear evidence that misinformation consistently emerged after important announcements about the Public Charge Rule, followed by a ‘chilling’ drop in immigrant use of public assistance programs that were excluded from the public charge test. The following sections begin with an overview of research methods and

relevant datasets, followed by a summary of findings from qualitative and textual analysis of misinformation about the Public Charge Rule.

Data & Research Methods

Documenting Misinformation

To examine where, when, and by whom misinformation was spread, news articles and social media posts about the Public Charge Rule in English and Spanish were analyzed and compiled in a database, which can be found in the Appendix. Spanish was selected as a foreign-language case study due to familiarity with the language, the disproportionate welfare avoidance among Hispanic and Latinx communities (Bustamante et al. 2022), and data availability in regions with a high concentration of Spanish-speaking immigrants, namely, California. Facebook and Twitter were selected as platforms for misinformation dissemination because of their popularity (i.e. high number of online users) and flexible search features. Online news articles were also included in the database because of their widespread reach (i.e. high number of readers) and perceived credibility.

A streamlined protocol was developed to identify online misinformation on Facebook and Twitter. An initial broad search on both platforms yielded the *most relevant* posts, as determined by the platform search engines, from 2018 to 2021 that contain the term “public charge” (for English results) or “carga pública” (for Spanish results). Then, a more targeted search yielded *all* posts containing the phrase “public charge” and any of the following key terms: WIC, CHIP, energy assistance, LIHEAP, adoption, foster care, disaster relief, school lunch, and citizenship. The query was repeated with the phrase “carga pública” and the aforementioned key words in Spanish: WIC, CHIP, asistencia energética, LIHEAP, adopción, orfanato, socorro desastre,

almuerzo, and ciudadanía. Key terms were selected based on common misconceptions about the Public Charge Rule, such as the exclusion of certain programs from the public charge test and the categories of immigrants not subject to the rule, including those applying for citizenship or naturalization. Additionally, a Google search for the phrase “public charge rule fact check” yielded one Facebook post flagged as misinformation.

To identify news articles with false or misleading information, a Google search for articles with the term “public charge rule” or “carga pública” yielded the *most relevant* results, as determined by the search engine algorithm. The category of “news” was broadly defined to encompass all articles or blog posts written to educate readers on current affairs or events, including articles from law firms, like the Law Offices of Cheng, Cho, & Yee, PC, and health care organizations, such as the Northwest Regional Primary Care Association. Selected news sites were also searched for all articles with the term “public charge rule” or “carga pública.” These sites include Spanish language media companies and local news channels in regions with a high proportion of immigrants, such as Qué Pasa Media Network, Telemundo 62 (Filadelfia), El Diario NY, and the Arizona Daily Independent, among others. The search method used to find each example of misinformation was logged under the “Method” column in the database.

The aforementioned search procedure yielded thousands of social media posts and hundreds of news articles, most of which contained only correct information about the Public Charge Rule. A significant minority of content, however, included false information that was publicly posted, circulated, and boosted through user engagement, such as likes, comments, and shares. Each post and article was carefully read and logged in the database only if it contained rumors or misinformation about the Public Charge Rule. The platform, publication date, username, link, and textual content of each misinformed post was also documented.

In addition to patently false claims, extremely misleading statements and hyperbolic rhetoric were also coded in the database. For example, the statement that “immigrants are forced to choose between a green card and free school lunch for their kids” was included even though it does not explicitly claim that school lunch programs are included in the criteria for a public charge determination. Similarly, the normative claim that “food stamps should not be a measure for citizenship” was documented because it implies that the public charge test applied to naturalization applications. News articles that contained false information but were later corrected were also classified as misinformation if there was evidence that the false statements were read and circulated on social media.

It is also important to note that some statements coded in the database were not technically misinformation at the time that they were published. Between numerous leaked drafts and unofficial proposals, collective understanding of the Public Charge Rule was constantly evolving. For example, before the policy was finalized in August of 2019, claiming that “the Public Charge Rule could penalize immigrants for using WIC” was merely an assertion of potential future events and was therefore not categorically incorrect. In other words, this statement would have been a rumor, not misinformation, as the Trump administration could have chosen to include WIC in the final rule. Nevertheless, these types of claims were coded in the database because they were ultimately misleading, and given the permanence of online content, they could have been read and internalized by immigrants even after the final rule was published.

Conversely, posts and articles merely containing bad advice were not logged in the database, like the claim that “immigrants should withdraw from welfare programs to be safe.” Posts that referenced the “path to citizenship” but did not explicitly claim that naturalization applicants were subject to the public charge test were also excluded. The metaphorical “path” to

citizenship includes intermediate steps like green card and visa applications, which fall within the scope of the Public Charge Rule. Finally, speculative claims like “the Public Charge Rule is deterring immigrants from enrolling in WIC” or “children will lose CHIP because of the Public Charge Rule” were not classified as misinformation because the rule did have ‘chilling’ effects on WIC, CHIP, and other excluded programs, even if that was not the intention of the rule.

Analyzing Misinformation

After documenting roughly 300 instances of incorrect and misleading information, the language, account type, and numeric ‘engagement’ of each post and article was coded in the database. Each source was classified as English, Spanish, or “both,” referring to misinformation provided with Spanish and English translations. Users were categorized into six account types: (1) news, including media organizations, journalists, and reporters; (2) tax-exempt nonprofit organizations; (3) other community organizations, including coalitions and research centers; (4) legal actors, including law firms and immigration attorneys offering legal advice; (5) government actors, including agencies, representatives, diplomats, and public institutions like schools and libraries; and (6) personal users, referring to individuals not otherwise affiliated with a nonprofit, media organization, law firm, or governmental organization. Finally, engagement for Facebook posts was quantified by adding the total number of likes and other one-click emoticon-based reactions, comments, shares, and in the case of videos, views. For twitter, engagement was coded as the total sum of likes, comments, retweets, and quote tweets. Engagement for news articles was not quantifiable.

To create a ‘timeline’ of misinformation, each post and article was assigned a number from one to 48 corresponding to the month of publication from January of 2018 to December of

2021. These months were then classified based on whether they coincided with a major Public Charge Rule announcement. The months with major announcements are described in Table 1. To evaluate the relationship between news about the Public Charge Rule and misinformation, the number of misinformed posts in months with a major announcement was compared to months with no announcement. Each instance of misinformation was then categorized according to total engagement to quantify the impact or ‘reach’ of misinformed posts.

Table 1: Major Public Charge Rule Announcements

Month and Year	Month No.	Description of Announcement
February, 2018	2	An initial draft of the revised Public Charge Rule was leaked to the press and first publicized by Vox.
July, 2018	7	A leaked Notice of Proposed Rulemaking (NPRM) signaled plans by the Department of Homeland Security (DHS) to revise the Public Charge Rule.
September, 2018	9	DHS published a draft of the revised rule with a two-month comment period, which was later extended by thirty days after a change to the NPRM.
December, 2018	12	Last month to submit comments on the revised rule.
August, 2019	20	DHS published the Inadmissibility on Public Charge Grounds final rule (i.e. the final Public Charge Rule).
January, 2020	25	The Supreme Court voted to permit the revised Public Charge Rule after it was blocked by lower courts.
March, 2021	39	The Biden administration announced plans to reverse the 2019 Public Charge Rule, noting that it would no longer defend the policy in court.

Analyzing ‘Chilling’ Effects

Studies and statistics on public assistance participation were first reviewed to collect evidence that the Public Charge Rule did, in fact, have ‘chilling’ effects on immigrant welfare usage. These sources include surveys, focus groups, and interviews with immigrants and service

providers following the initial announcement of the 2019 Public Charge Rule, many of which were summarized earlier in this paper. Altogether, statements from beneficiaries and service providers suggest a causal relationship between immigrant welfare avoidance and misinformation about the Public Charge Rule. Statistics on welfare uptake confirm these trends at county, state, and national levels.

After establishing the temporality of misinformation relating to the Public Charge Rule, the frequency of misinformed posts and articles was compared to enrollment in public assistance programs in regions with a high concentration of noncitizens. Medi-Cal data on monthly renewals by county was sourced from the California Department of Health Care Services, and WIC data on monthly redemptions was provided by the California Department of Public Health. California was selected as a case study due to the state's immigrant-friendly attitude and data transparency. Additionally, California is the state with the largest number of immigrants in families receiving public benefits, making its population especially susceptible to the 'chilling' effects of the Public Charge Rule (Batalova 2018). Data was analyzed from three California counties—Santa Clara, San Mateo, and San Diego—regions with a disproportionately high proportion of immigrants and Latinx residents. In 2021, Santa Clara was 40% foreign-born and 25% Latinx, San Mateo was 35% foreign-born and 24% Latinx, and San Diego was 22% foreign-born and 34% Latinx (Alesi Perez, Cuellar Mejia, and Johnson 2023; California 2023). Since immigrants do not make up the majority of these counties, the data includes citizen welfare participation and is therefore expected to understate the 'chilling' effects' of the Public Charge Rule. Unfortunately, data for smaller geographies such as zip codes and cities was not available.

Of the ten types of welfare programs excluded from the Public Charge Rule, WIC and Medi-Cal were examined because they reflect individual-level decision making regarding

welfare participation. Furthermore, they are not dependent on extenuating circumstances, and lawfully present immigrants may qualify for both programs. WIC, in particular, is an excellent case study because it is completely blind to immigration status, as it does not ask applicants about their place of birth or citizenship status. By contrast, the LIHEAP energy assistance application requires a social security number, which may disincentivize mixed-status households from enrolling. Even more problematic, data on free or reduced-price school lunch programs reflect public schools (not individual actors) that opt-in, and disaster relief is dependent on unpredictable natural catastrophes. These programs, therefore, are ill-suited for analysis about welfare avoidance. While WIC is categorically excluded from the Public Charge Rule, California's Medi-Cal program encompasses Medicaid, which is included in the public charge test, as well as CHIP and Emergency Medicaid, which are excluded from the public charge criteria. Medi-Cal enrollment data, therefore, reflects individuals who correctly avoid welfare due to immigration concerns, as well as those who do so based on misconceptions about the Public Charge Rule. The data, unfortunately, does not distinguish between beneficiary types.

Evaluating Counterarguments

Three additional datasets were analyzed to evaluate the prevailing counterarguments regarding the drop in public assistance participation from 2018 to 2021. Some claim that improving macroeconomic conditions were responsible for reduced uptake of public benefits; as financial stability improved, eligibility and need for public assistance declined. Medi-Cal data already accounts for this counterhypothesis, as it indicates the proportion of beneficiaries who withdrew from the program because they surpassed the threshold for income eligibility. These beneficiaries were removed from the dataset prior to data analysis, leaving only participants with

continued eligibility or those who withdrew due to failure to respond or for “other reasons.”

Quarterly gross domestic product (GPD) data provided by the U.S. Bureau of Economic Analysis was analyzed to consider the impact of improving macroeconomic conditions on other welfare programs. Specifically, it was compared to monthly WIC redemptions from 2018 to 2021.

Other skeptics claim that reduced welfare participation is part of a broader phenomenon whereby immigrants removed their name from all government systems. They suggest that immigrants, fearful of the Trump administration’s general anti-immigration attitude, attempted to reduce visibility by avoiding all public programs and services. To evaluate this counterhypothesis, participation data from other non-welfare government programs was compared to welfare uptake in the same time frame. If immigrants wanted to reduce visibility altogether, one would expect a drop in participation across all government services. However, if motivated by confusion and fear surrounding the Public Charge Rule, one would expect a comparatively sharper decline in welfare participation.

To evaluate this counterhypothesis, annual data from the California DMV Forecasting Unit on outstanding (i.e. valid) drivers licenses by county was compared to relative changes in public assistance enrollment. Additionally, quarterly data from the California State Library on the number of registered library users (i.e. library cards) was analyzed. These two government programs were selected because they are relatively pandemic-resistant (compared to, for example, use of recreational facilities) and are available at the county-level. While one might expect a reduction in driver license and library card registration in this timeframe as a result of the COVID-19 pandemic, a disproportionate decline in welfare usage in counties with a high proportion of noncitizens would suggest that immigrants specifically avoided public assistance programs as a result of fears relating to the Public Charge Rule.

Summary of Findings

This section provides an overview of findings on three main topics. First, quantitative analysis reveals a ‘timeline’ of misinformation that coincides with major announcements about the Public Charge Rule. This timeline sheds light on which psychological factors affecting rumor transmission most strongly correlate with misinformation about the rule. Next, textual analysis of social media posts and news articles exposes frequent sources and characteristics of misinformation, like the most common language, platforms, and topics associated with transmission. Finally, discontinuity analysis demonstrates a positive correlation between misinformation about the Public Charge Rule and ‘chilled’ welfare participation among immigrants.

Timeline of Misinformation

As Difonzo (2007, 2011) explains, people turn to groups when information is unclear, resulting in a group sensemaking activity that often involves rumor discussion. Therefore, one would expect high rumor transmission when new, unfamiliar information emerges, such as major announcements about the Public Charge Rule. Consistent with this expectation, the data shows that misinformation was most common in months with major announcements about the policy, which are described in Table 1. Misinformed posts and articles in the seven months with major announcements account for 49.7% of all misinformation in the 48-month period. In months with major announcements, there were, on average, 21 instances of misinformation, compared to an average of 3.6 in months without a major announcement.

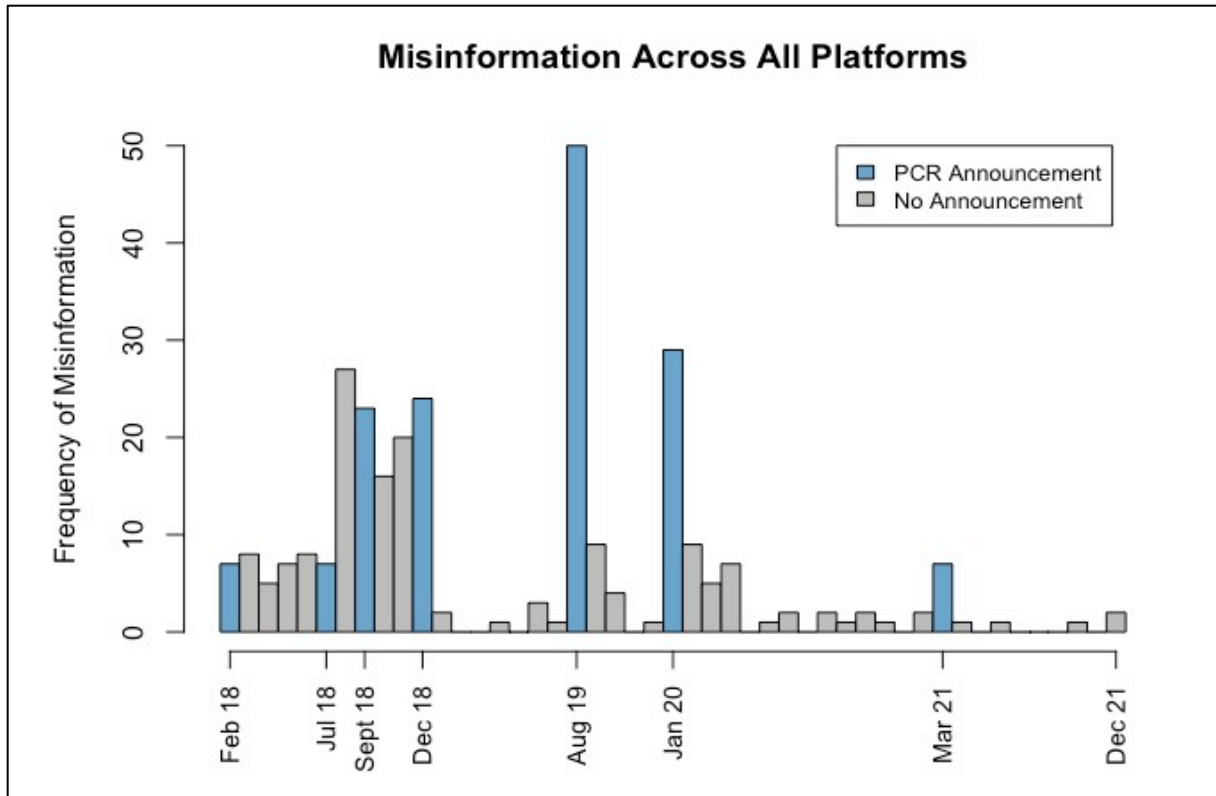


Figure 1

However, the number of misinformed posts alone does not quantify the impact of misinformation, as there is no guarantee that any given post will be read or internalized by other users. To account for the total spread or ‘reach’ of misinformed posts, the timeline of misinformation was categorized by total engagement, defined as the sum of total ‘reactions’ by users, including likes, comments, shares, re-tweets, quote tweets, and, for Facebook videos, also views. The data indicates that months with the greatest quantity of misinformation also had significantly higher engagement per post. In months with major announcements, misinformed posts had an average of 46.6 reactions. Months with no announcement had only 8.2 reactions per post on average. Thus, not only is the quantity of misinformation higher in months with major Public Charge Rule updates—there is also more consumption and circulation of misinformation.

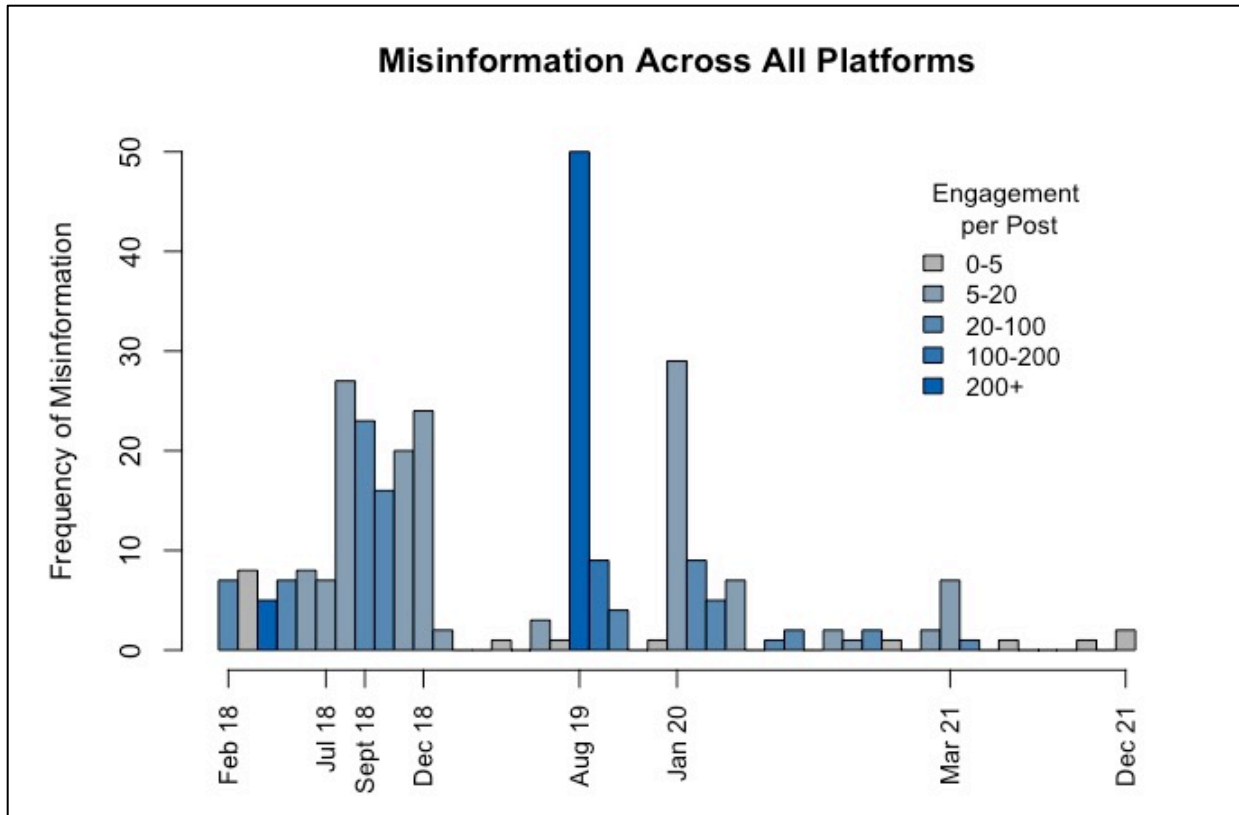


Figure 2

Psychological Factors Affecting Misinformation

Drawing from the field of rumor psychology, news about the Public Charge Rule was expected to generate more misinformation when associated with any of the individual-level mechanisms associated with rumor transmission: importance, uncertainty, anxiety, and belief (Rosnow 1991). As such, announcements that are more important to the individual involved in rumor discussion were expected to generate more misinformation. The data confirms this hypothesis, as concrete decisions regarding the public charge policy, as opposed to unofficial or leaked drafts, were associated with a greater quantity of misinformation. For example, in August of 2019, when DHS published the Inadmissibility on Public Charge Grounds final rule, there was over eight times more misinformation compared to the average across all 48 months. In January

of 2020, when the Supreme Court voted to uphold the Public Charge Rule, there was almost five times as much misinformation.

While all announcements about the Public Charge Rule carry some degree of uncertainty, like the impact of the rule on certain immigrant families, varying degrees of ambiguity between announcements indicate that uncertainty does not strongly correlate with rumor transmission. Announcements associated with greater uncertainty, like unofficial or leaked drafts, coincided with less misinformation than in months with official publications or definitive rulings. For example, in February of 2018, when a draft of the policy was leaked, and in July of 2018, when a draft Notice of Proposed Rulemaking was leaked, there were seven documented instances of misinformation—lower than the aforementioned high-importance months but still higher than the average across all months. This suggests an inverse relationship between importance and uncertainty with regards to the Public Charge Rule; when announcements are official, they are less uncertain but also more important, and they coincide with an overall increase in misinformation.

As expected, announcements that generate anxiety were also associated with more misinformation. It was hypothesized that announcements with ‘bad’ news about the Public Charge Rule would produce dread rumors involving anxiety about undesired consequences. Dread rumors, according to Bordia and Difonzo (2004), are more commonly associated with rumor transmission, especially on the internet. This phenomenon is evident in August of 2019 and January of 2020, the two months with the greatest amount of misinformation.

Announcements in these months were expected to invoke dread rumors among immigrants because they confirmed or upheld the Trump administration’s public charge policy. Months with announcements invoking wish rumors, or anxiety about desired consequences, had

comparatively less misinformation. For example, December of 2018 was the last month for public comments about the proposed rule, which critics hoped would persuade DHS to abandon the revision altogether. March of 2021, when Biden reversed the Trump-era policy, was also expected to generate wish rumors. These two months with announcements involving desired consequences had 24 and seven cases of misinformation, respectively, both lower than months with announcements involving dreaded consequences but still higher than the monthly average.

Related to both anxiety and belief, the institution responsible for an announcement about the Public Charge Rule also appears to affect rumor circulation. Difonzo (2007) finds that distrust in organizations and consistency with local superstitions increases rumor transmission. In December of 2018, August of 2019, and January of 2020, the Trump administration and the conservative-majority Supreme Court—both institutions generally distrusted by immigrants—made official announcements about the public charge policy. These months, on average, had five and a half times more misinformation. By contrast, when the more immigrant-friendly Biden administration reversed the public charge policy in March of 2021, there were seven instances of misinformation.

Many scholars have also found a positive relationship between credulity, or belief in a rumor, and transmission (e.g., Difonzo 2011; Rosnow 1991; Rosnow, Esposito, and Gibney 1998). Belief is impossible to quantify in the context of online misinformation; however, it is assumed that official announcements by government actors are more perceived to be more credible and would therefore generate more belief, another factor positively correlated with rumor transmission. The data is consistent with this hypothesis, as months with announcements by government actors had an average 27.3 instances of misinformation, compared to 12.7 cases in months with announcements from unofficial sources.

Differences Across Platforms

There are significant variations in the quantity of misinformation across all three platforms. Findings are consistent with previous research that identifies Facebook as the most common site for misinformation (Hopp, Ferrucci, and Vargo 2020). Of the 296 identified instances of misinformation about the Public Charge Rule, 179 were Facebook posts, 103 were Twitter posts, and 14 were news articles. Facebook, which accounts for 60% of all identified misinformation, had 2.27 billion active monthly users in 2018 (Snider 2023). With 326 million users in 2018 (Snider 2023), Twitter was only 15% the size of Facebook but still accounted for 35% of misinformation. Twitter, therefore, was the greatest contributor of misinformation proportional to its user base. News articles, on the other hand, accounted for only 5% of misinformation. This is consistent with expectations, as media organizations hire employees to vet content before publication, such as editors and fact-checkers. Further, given their large viewership and perceived credibility, news organizations face considerable consequences for publishing false information and thus have a strong incentive to fact-check their content.

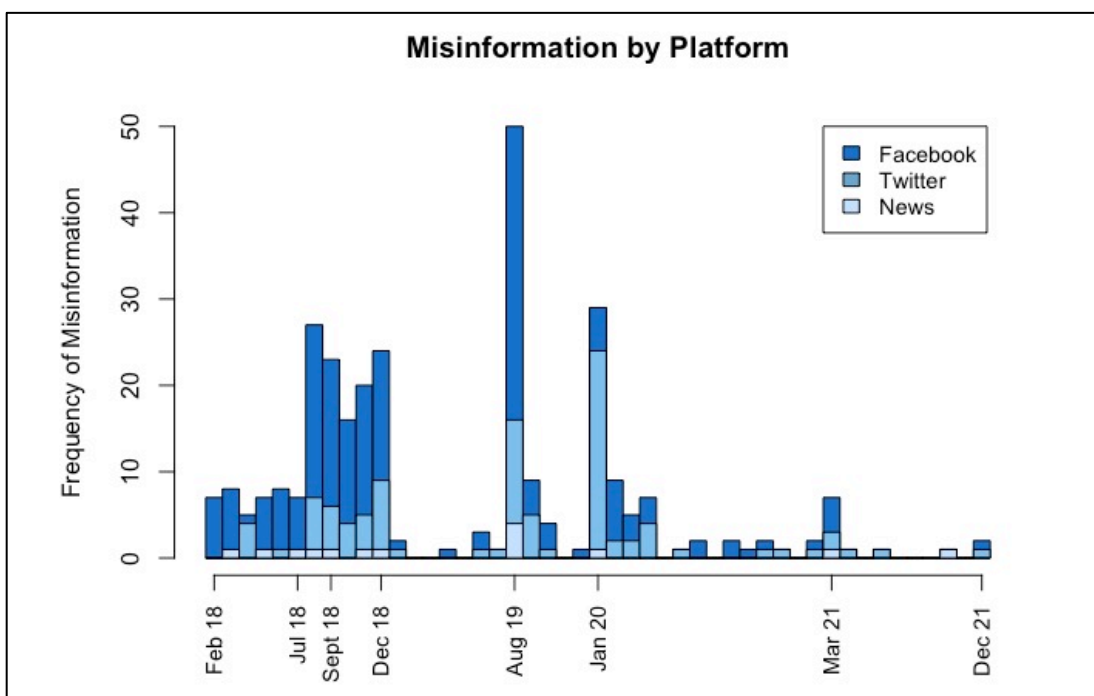


Figure 3

Furthermore, the data disaggregated by platform demonstrates that the timeline of misinformation differs between Facebook, Twitter, and news articles. On Facebook and Twitter, the distribution and frequency of misinformation largely conforms with the trends observed in the previous section. There are more misinformed posts in months with major announcements, especially high-importance or anxiety-inducing updates, like official publications by government actors or news that involves dreaded consequences. There are, however, a few exceptions to this trend. In January of 2020, when the Supreme Court voted to permit the 2019 public charge policy, Facebook accounted for only 13.7% of misinformation, compared to 60% of misinformation across the four-year period. Twitter, on the other hand, accounted for a surprising 82.8% of misinformed posts in this month, demonstrating that the Supreme Court decision coincided with significantly more misinformation spread by Twitter users.

Additionally, there was no misinformation identified on Twitter during the first two months in which there were major announcements. In fact, there was not a single misinformed tweet in 23 of the 48 months, indicating that misinformation on Twitter was more heavily concentrated in certain periods. The data confirms this theory— more than half of all misinformation on Twitter was concentrated in just four months, notably, months with a major Public Charge Rule announcement. Across all 14 misinformed news articles, nine were posted in months with a major announcement, and a quarter of all misinformed articles were published in August of 2019 when DHS published the Inadmissibility on Public Charge Grounds final rule. As anticipated, false information in news media was more common in months when there was a definitive or official announcement regarding the Public Charge Rule.

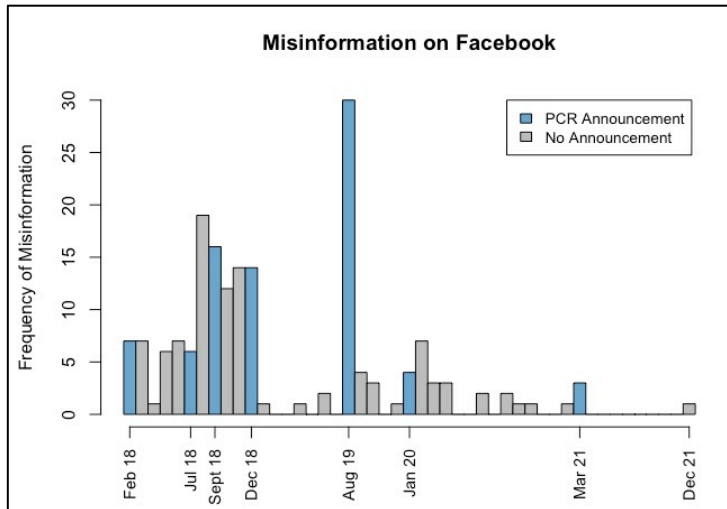


Figure 4

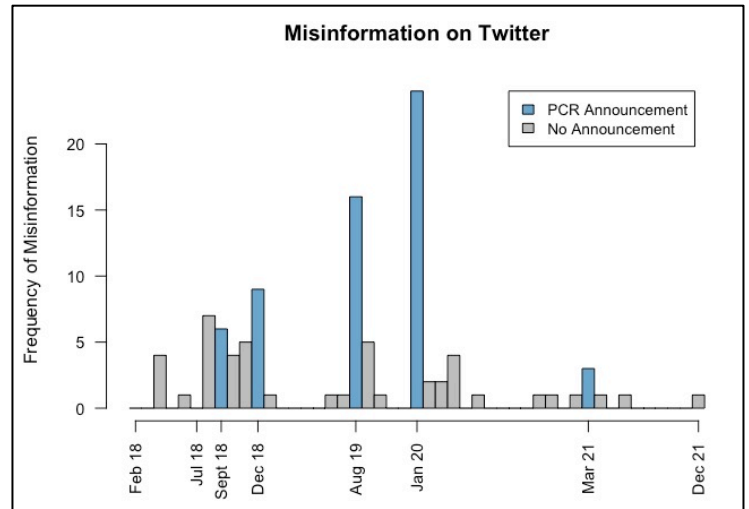


Figure 5

Characteristics of Misinformation

Data on the language and source of each misinformed post and article indicates several common characteristics of misinformation about the Public Charge Rule. As many scholars and journalists have noted, immigrants face unique cultural and language barriers that make them particularly susceptible to misinformation (e.g., Avaaz 2020; Baines et al, 2022; Guynn 2021; Hsu 2020). It was hypothesized that misinformation about the Public Charge Rule, therefore, would be disproportionately spread in Spanish. Of the 296 documented cases of misinformation, 58.4% were posted in English, 41.2% were posted in Spanish, and one was posted with both English and Spanish translations, indicating a slightly English-heavy distribution. News articles were split more evenly, with seven published in English and seven published in Spanish.

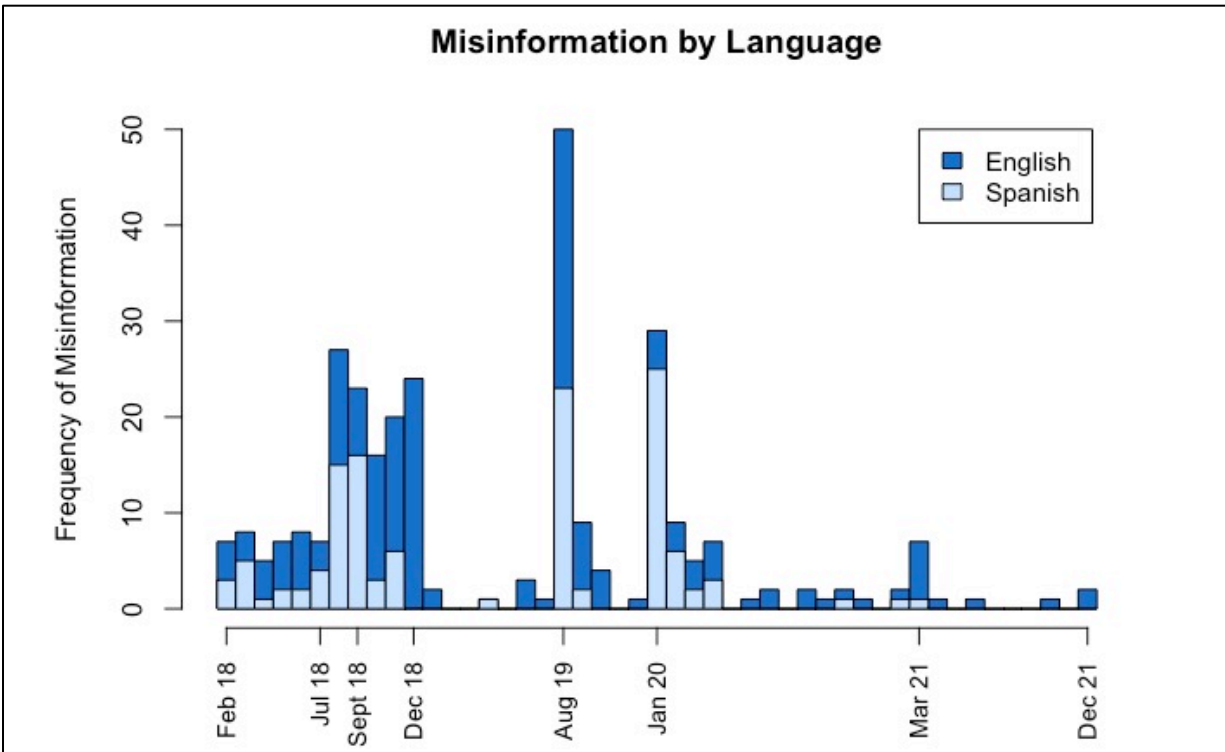


Figure 6

However, these figures change dramatically after accounting for the proportion of Spanish- and English-speaking users on each platform. In 2018, there were 58.9 million Hispanic people residing in the United States (U.S. Census Bureau 2021). According to Pew Research Center, 73% of Hispanic adults in the U.S. report using Facebook (Duggan et al. 2015), suggesting that there were approximately 43 million Hispanic Facebook users in the U.S. in 2018. Of that amount, 31% prefer online content in Spanish, 44% prefer English, and 25% are bilingual and indifferent between the two (Geoscape 2015). This suggests that roughly 24 million Facebook users in the U.S. prefer Spanish content—about 11% of the estimated 173 million U.S. Facebook users who speak English (Dietrich and Hernandez 2022; Statista 2023). Of the misinformation on Facebook, there were 111 posts in English, 67 in Spanish, and one in both languages. In proportion to the number of English- and Spanish- speaking users, however,

Spanish-language misinformation was more than five times more common than English-language misinformation on Facebook.

Using the same population estimates and data specific to Twitter, an estimated 8.2 million Twitter users in the U.S. prefer Spanish content, roughly 29% of the 28 million U.S. Twitter users who speak English (Duggan et al. 2015; Geoscape 2015; Statista 2023; U.S. Census Bureau 2021). There were 55 documented instances of misinformation in English and 48 in Spanish on Twitter—a much more equal distribution. Considering the proportion of English- and Spanish-speaking Twitter users, however, Spanish-language misinformation about the Public Charge Rule was over three times more prevalent than English-language misinformation. Data from both social media platforms, therefore, is consistent with the expectation that there would be disproportionately more misinformation in Spanish. However, engagement with English-language misinformation was higher across both platforms, with an average 69 reactions per post. Spanish-language misinformation had an average 48 reactions per post, suggesting a greater relative quantity of misinformation in Spanish but a more circulation of English-language misinformation.

Additionally, the data demonstrates that misinformation was most commonly spread by certain types of users. Of the 296 misinformed posts, 99 were posted by personal accounts, 82 by news organizations, 55 by nonprofits, 29 by legal accounts, 17 by community organizations, and 14 by government-affiliated accounts. Personal users, referring to individuals not otherwise associated with a nonprofit, media organization, law firm, or governmental organization, accounted for one third of all misinformed posts, making them the single most common source of misinformation.

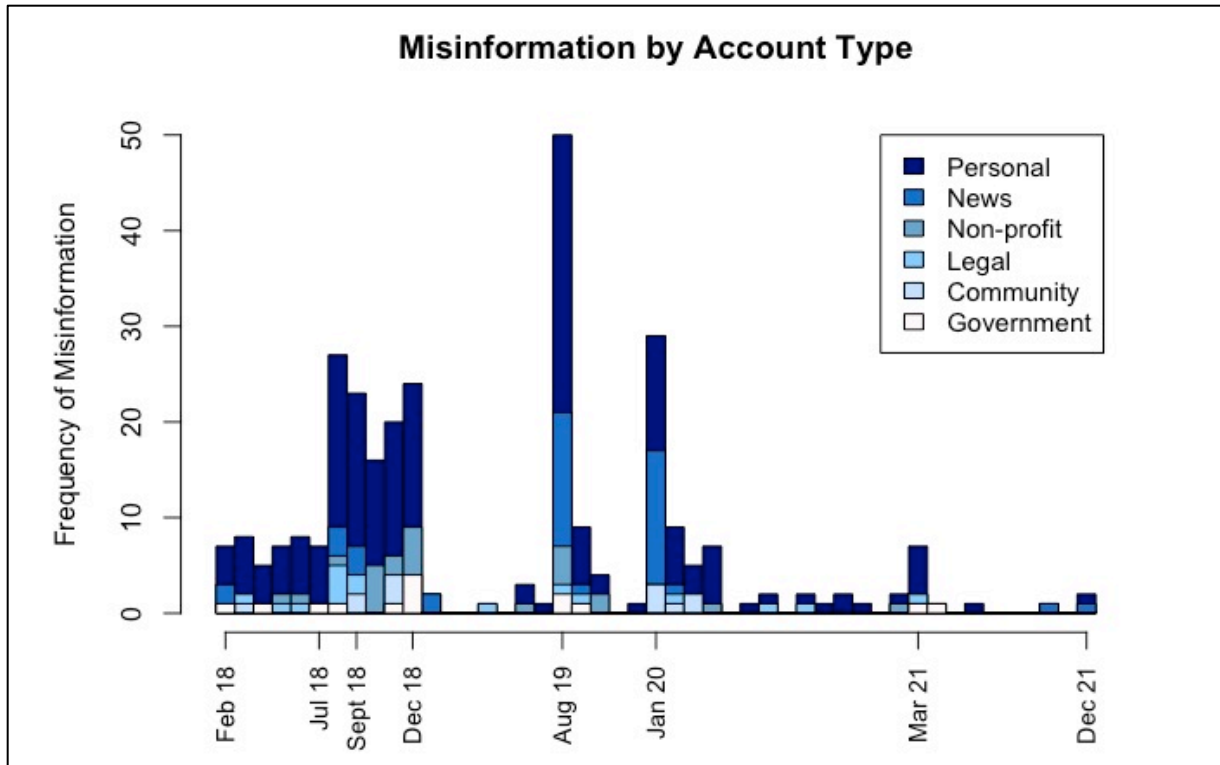


Figure 7

Importantly, many of these personal users appeared to repost misinformation that was initially included in a popular article or social media post published by a reputable media organization. Forty-five documented instances of misinformation—more than 15% of all 296 cases—were exact duplicates of another misinformed post or article. In one case, Univision published a news article claiming that "La Corte Suprema permite al gobierno aplicar la regla de 'carga pública' que facilita negar la residencia y ciudadanía a inmigrantes de bajos recursos" (The Supreme Court allows the government to apply the 'public charge' rule that makes it easier to deny residency and citizenship to low-income immigrants). This exact phrase was tweeted by nine users on the same day. In another case, Univision reported that "Nuevo reglamento sobre 'carga pública' amenaza con negar la residencia y la ciudadanía a miles de inmigrantes en EEUU" (New 'public charge' regulation threatens to deny residency and citizenship to thousands of immigrants in the US). This same sentence was posted on Facebook and Twitter by six users,

suggesting the misinformation posted by news organizations accounts for a notable portion of misinformed posts by individual users on social media.

Relatedly, the second-most common source of misinformation was news organizations, which includes 14 news articles and 82 social media posts by news outlets, radio stations, and individuals associated with media organizations like reporters and journalists. This is consistent with findings from interviews with immigrants who reported avoiding public benefits due to immigration concerns. Bernstein et al. (2019) found that interviewees relied on news media, television outlets, radio stations, and social networks for information about the Public Charge Rule. Many Spanish-speaking respondents got their information from the two major national Spanish-language networks, Univision and Telemundo, which account for 11 instances of identified misinformation. On Twitter, news accounts were the single greatest contributor to misinformation, accounting for 42.7% of all misinformed tweets.

The third-most common account type associated with misinformation was nonprofits, which includes organizations that serve immigrants, as well as not-for-profit think tanks, health organizations, food banks, and unions, among others. This category was the second-most common source of misinformation on Facebook, accounting for more than one fifth of all misinformed posts on the platform. The three categories of users with the least amount of misinformation were legal accounts, community organizations, and government actors. Interviews with immigrants who reported welfare avoidance due to public charge rule concerns reveal that they rarely consulted legal professionals, community organizations, or government agencies for information about the Public Charge Rule (Bernstein et al. 2019). This indicates that immigrants experiencing the ‘chilling’ effects of the policy did not consult the most reliable sources for information about the rule.

Common Misconceptions

Previous studies, surveys, and focus groups indicate two types of ‘chilling’ effects of the Public Charge Rule. First, they demonstrate that immigrants avoided welfare programs due to misconceptions about which public assistance programs could result in a public charge determination (Beier and Workie 2022; Bernstein et al. 2019, 2020, 2021; Food 2020; Tolbert et al. 2019). As such, it was hypothesized that online misinformation would exaggerate or overstate which public benefits were included in the public charge criteria. Textual analysis of misinformation about the Public Charge Rule confirms this hypothesis. Of the 296 documented cases of misinformation, 142 falsely claimed that certain public benefits were included in the public charge test, most commonly among them WIC, CHIP, and free or reduced-price school lunch programs. Another four posts claimed that using any type of aid could trigger a public charge determination, two asserted that simply having certain health conditions could disqualify immigrants from entering or staying in the United States, and one declared that Trump banned welfare for immigrants altogether.

The second type of ‘chilling’ effect established by previous research indicates that people not subject to the public charge test, like citizen children of immigrants and naturalization applicants, mistakenly avoided welfare due to immigration concerns (Bernstein et al. 2019, 2020, 2021). Based on this counterintuitive welfare avoidance, it was assumed that misinformation would contain false statements about which types of immigrants could become a public charge. Consistent with these expectations, this was the single most common topic of misinformation about the Public Charge Rule. In fact, more than half of the posts and articles—149 of the 296 cases—falsely claimed or insinuated that immigrants applying for citizenship or naturalization were subject to the public charge test and could therefore be penalized for participating in public

assistance programs. Altogether, this data demonstrates widespread misinformation that overstates the scope of the Public Charge Rule—both in terms of the welfare programs and the types of immigrants affected by the policy.

The misconceptions that underpin online misinformation also vary dramatically across platforms. On Facebook, for example, there was a wide variety of topics covered by misinformation. Of the 179 misinformed posts, 113 contained false statements about which public assistance programs were included in the public charge test. The majority of these posts focused on WIC, CHIP, and school lunch programs, though some falsely stated that using disaster relief, energy assistance, job training programs, educational assistance, foster care, adoption services, student loans, and subsidized health insurance through the Affordable Care Act (ACA) could result in a public charge determination. Conversely, one post understated the benefits affected by the rule, incorrectly claiming that participation in Medicaid would not be considered in the public charge test. Nonprofit organizations, which account for 22.3% of all identified misinformation on Facebook, also asserted that the Public Charge Rule could disqualify immigrants with certain conditions, like Down syndrome and leukemia, from receiving a green card simply on account of their diagnoses. Additionally, 61 Facebook posts falsely claimed or suggested that immigrants applying for citizenship were subject to the Public Charge Rule. One, for example, asserted that the revised rule would deny immigrants citizenship on the basis of income.

On Twitter, misinformation covered significantly fewer topics. A small minority of posts—18 tweets—overstated the benefits considered by the Public Charge Rule. Even then, most tweets only mentioned WIC, CHIP, school lunch programs, or ACA health insurance subsidies, whereas misinformation on Facebook covered a wider range of benefits. Most

surprisingly, 82 of the 103 misinformed tweets—nearly 80% of all misinformation on Twitter—suggested that citizenship applicants could become a public charge for participating in welfare programs. By far and in large, this was the most common misconception identified on Twitter, suggesting less diversity of misinformation compared to Facebook. News articles also more commonly perpetuated this misconception, with nine of the 14 articles asserting that citizenship applicants were affected by the Public Charge Rule. The other five articles contained false statements about the benefits considered by the rule, namely, WIC, CHIP, ACA health insurance subsidies, energy assistance, and education benefits like Head Start and public scholarships.

Topics of misinformation about the Public Charge Rule also varied slightly by language. Of the 113 misinformed Facebook posts about public assistance programs, 62% were in English and 46% in Spanish, a slightly higher proportion of posts in Spanish compared to 38% of misinformed Spanish-language posts on Facebook overall. Of the 61 Facebook posts falsely claiming that citizenship applicants were subject to the Public Charge Rule, 69% were posted in English and 39% in Spanish. This demonstrates that misinformation about the types of benefits considered by the rule was slightly more popular among Spanish-speaking users, while misinformation about the types of immigrants subject to the rule was more widely circulated by English-speaking users. News articles demonstrate a similar trend. Of the seven misinformed news articles in English, six suggest that the rule applied to citizenship applications, and one misstated the affected welfare programs. Of the seven articles in Spanish, four misinformed readers about the considered benefits and three falsely purported the inclusion of citizenship applications, again suggesting slightly more misinformation about benefits among Spanish-speaking readers and significantly more misinformation about the types of immigrants affected by the rule among English-speaking readers. On Twitter, the distribution was much more even,

with nine misinformed posts about benefits in both languages, and 40 and 42 posts about the effect on citizenship applications in English and Spanish, respectively.

Evidence of Chilled Welfare Participation

Surveys and focus groups with immigrants and service providers provide overwhelming anecdotal evidence of the Public Charge Rule's 'chilling' effects. In 2018, POLITICO interviewed over a dozen WIC providers across the country, most of whom reported seeing immigrant families drop out of WIC because of public charge concerns. One interviewee, a researcher who interviewed ten mixed-status farmworker families in California, said that immigrants made decisions about welfare "based off fear," and those who continued to use programs like WIC and Medicaid lived in a state of "constant anxiety" (Evich 2018).

Researchers from the Urban Institute conducted interviews with immigrants who reported welfare avoidance due to public charge concerns to better understand the mechanism behind these 'chilling' effects. One respondent said that his girlfriend avoided applying for WIC and the earned income tax credit, programs that are unaffected by the rule, because of immigration fears. Another interviewee reported hearing that ACA tax credits could jeopardize her green card application, even though these credits were not mentioned in the draft proposal. Green card holders, who were not subject to the public charge test, also expressed welfare avoidance due to concerns about future citizenship applications. One interviewee reported confusion due to conflicting information about the policy:

"Sometimes rumors contradict one another, because first you'll hear one source that says people seeking some type of permanent residency or American citizenship could be affected, and a different source will suddenly tell you that there are new laws, other proposals, out there to make it more difficult to obtain said citizenship and residency. So one source contradicts the other, and it is better to wait for the true information to surface and have the final say" (Bernstein et al. 2019, 12).

Interviews conducted by the Kaiser Family Foundation confirm that fear and confusion about the Public Charge Rule are responsible for welfare avoidance among many immigrants (Ranji 2019). One Hispanic interviewee said, “If I must, I will take my son out of Medicaid, even though they told me he was American and doesn’t affect me, but now that I am going to apply for citizenship it would be ideal to receive the least possible aids” (15). Another Hispanic mother said, “In my case I asked for the insurance for my kids, the ones that are born here, but later with the law of deportation, I stopped doing it” (16). Multiple service providers confirmed that immigrants avoided health benefits excluded from the rule, particularly WIC, due to unfounded beliefs about the Public Charge Rule.

Interviews conducted in 2022 demonstrate that the ‘chilling’ effects of the Public Charge Rule persisted even after its reversal in 2021. After interviewing former unaccompanied noncitizen children and more than 100 attorneys, government officials, and service providers, researchers from Migration Policy Institute found that many immigrant parents were hesitant to enroll their eligible children in Medicaid even though it was not considered under the public charge test. Service providers also reported that many immigrants dropped out midway through welfare enrollment when asked to provide documentation due to public charge concerns. Even immigrants correctly informed about the Public Charge Rule avoided public assistance programs due to fears that the policy could change in the future (Beier and Workie 2022). Likewise, focus groups conducted by the Food Research & Action Center (2022) demonstrate that immigrant families avoided federal food and nutrition programs for which they were eligible even though they had no impact on their legal status. Even after the reversal of the rule, 70% of service providers agreed that eligible immigrant families avoided federal nutrition programs because of public charge fears, even though these programs were not included in the public charge test.

Survey data from Urban Institute provides larger-scale statistical evidence of the Public Charge Rule’s ‘chilling’ effects. Bernstein et al. (2019) collected responses on the Well-Being and Basic Needs Survey from nearly two thousand adults who were foreign-born or living with foreign-born family members. One in seven respondents said that they or their family member avoided a noncash benefit program in 2018 due to green card concerns. Among families earning less than 200 percent of the federal poverty level, this figure was one in five. Figure 8 shows the types of programs avoided and findings disaggregated by income. Additionally, they found that people not subject to the Public Charge Rule, like citizens in immigrant families, also opted out of benefits. Bernstein et al. (2020) repeated this the following year and observed a statistically significant increase in the ‘chilling’ effects among adults in immigrant families (see Figure 9).

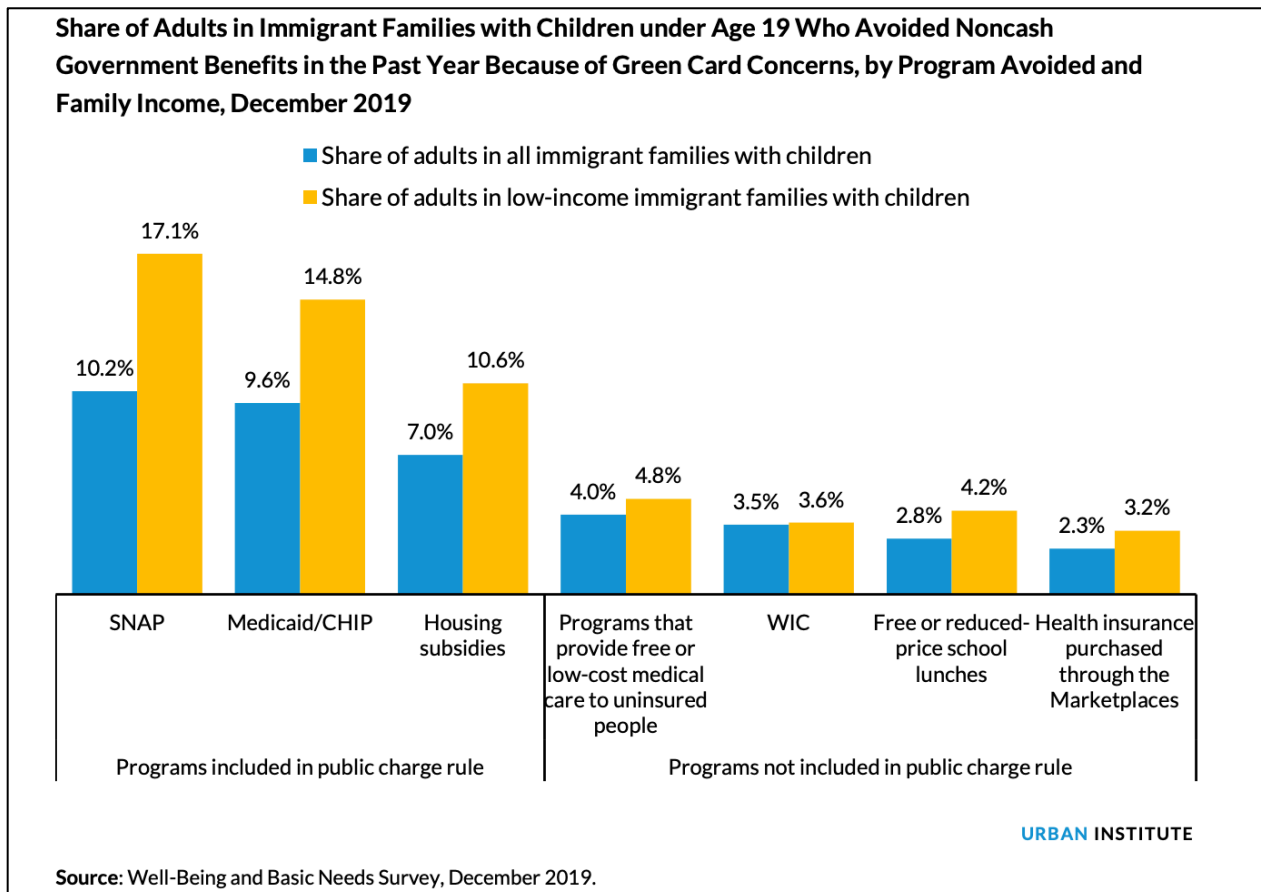


Figure 8. Hamutal Bernstein et al., Immigrant Families Continued Avoiding the Safety Net during the COVID-19 Crisis (Urban Institute, 2021), 6.

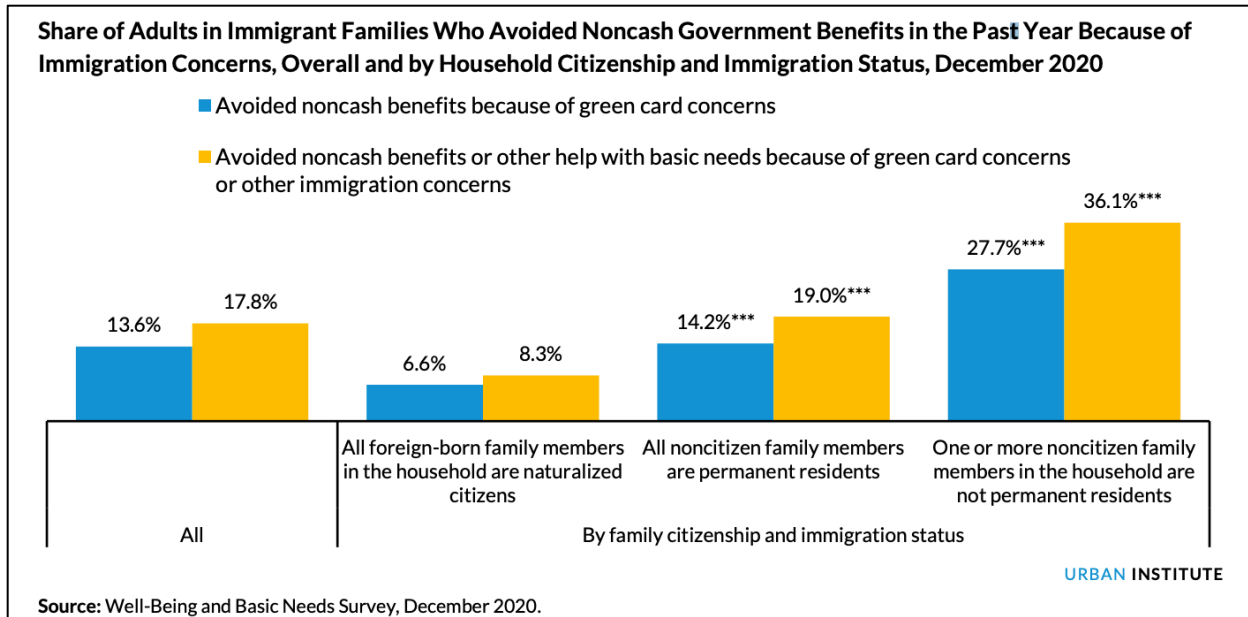


Figure 9. Jennifer M. Haley et al., One in Five Adults in Immigrant Families with Children Reported ‘chilling’ effects on Public Benefit Receipt in 2019 (Urban Institute, 2019), 2.

The ‘Chilling’ Effect of Misinformation

To examine the relationship between misinformation and chilled welfare receipt, the timeline of misinformation was compared to welfare participation data in three California counties with a high proportion of noncitizen and Latinx residents. First, monthly WIC data in San Diego, Santa Clara, and San Mateo was analyzed (California 2022a, 2022b, 2022c). Family WIC redemptions refer to the number of unique families who redeemed WIC benefits at retailers like grocery stores. Given the Public Charge Rule’s ‘chilling’ effect on WIC participation and the proportion of noncitizens in these three counties, a decline in redemptions was anticipated from 2018 to 2021, or at least until March of 2021 when Biden reversed the policy.

The data largely conforms with these expectations, as WIC redemptions steadily fell from 2018 to 2020. Across all three counties, 8,938 fewer families redeemed their WIC benefits from January to December of 2018, representing a 13.6% decline. In the following year, 11,276 fewer families redeemed their benefits, representing a 19.4% decline throughout 2019. However, WIC

usage began to rebound in January of 2020, the same month that the COVID-19 pandemic hit the United States, resulting in an overall 9.9% increase in redemptions throughout 2020. In 2021, redemptions fell again, though only by 2.2%.

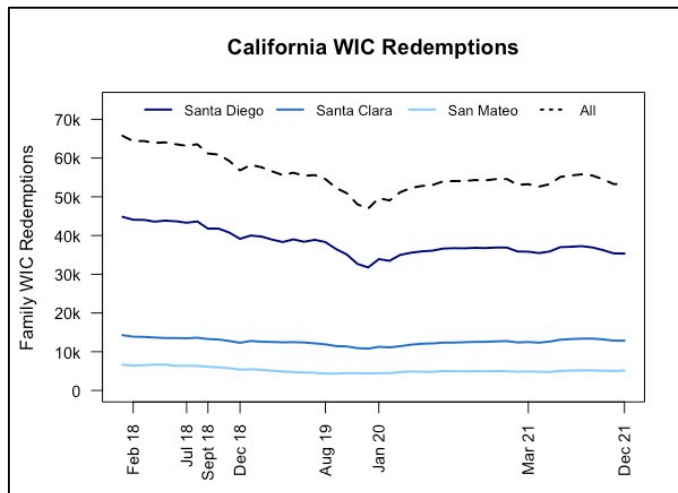


Figure 10

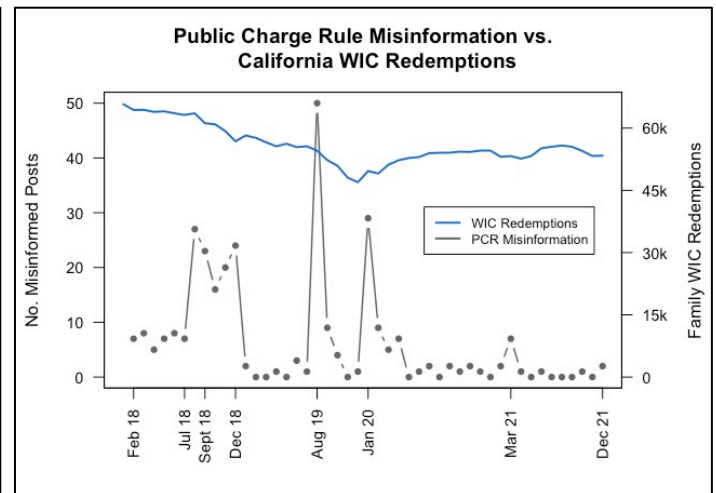


Figure 11

When compared to the timeline of misinformation about the Public Charge Rule, there appears to be a negative correlation between the quantity of misinformation and the number of family WIC redemptions. As seen in Figure 11, the first two major spikes in misinformation in July and December of 2018 coincide with a 10% decline in redemptions in that time frame. Likewise, the waves of misinformation in August of 2019 and January of 2020 coincide with a 9% drop in WIC redemptions. As misinformation subsides from February of 2020 to December of 2021, redemptions increase by 8.8%, suggesting a positive correlation between WIC avoidance and misinformation about the Public Charge Rule.

Monthly Medi-Cal data in these three counties was also examined, represented by the number of beneficiaries who discontinued their Medi-Cal eligibility due to a failure to respond or for “other reasons,” excluding those who lost eligibility because they surpassed the income threshold (Medi-Cal 2020). Again, given the ‘chilling’ effect of the Public Charge Rule and the

concentration of immigrants in these areas, Medi-Cal discontinuances were expected to increase over this four-year period. The data was only partially consistent with these expectations. In January of 2018, 14.4% of beneficiaries discontinued their Medi-Cal eligibility. By the end of this year, this figure rose to 17.9%, representing a 3.5% total increase in the percentage of beneficiaries who dropped out of Medi-Cal. Over the course of 2019, the percent of discontinuances rose from 17.5% to 31.6%. However, beginning in December of 2019, the percentage of beneficiaries who relinquished their Medi-Cal eligibility plummeted, resulting in a 23.7% drop in discontinuances throughout 2020. In April of 2020, discontinuances plateaued around 3.9% and remained relatively constant thereafter. In other words, from spring of 2020 until the end of 2021, an average 3.9% beneficiaries discontinued Medi-Cal each month. This still represents a net decrease in continued eligibility, meaning that beneficiaries continued to drop out of Medi-Cal. However, the dramatic decline in discontinuances is inconsistent with expectations, as the Public Charge Rule was not reversed until March of 2021, over a year after discontinuances began to decline.

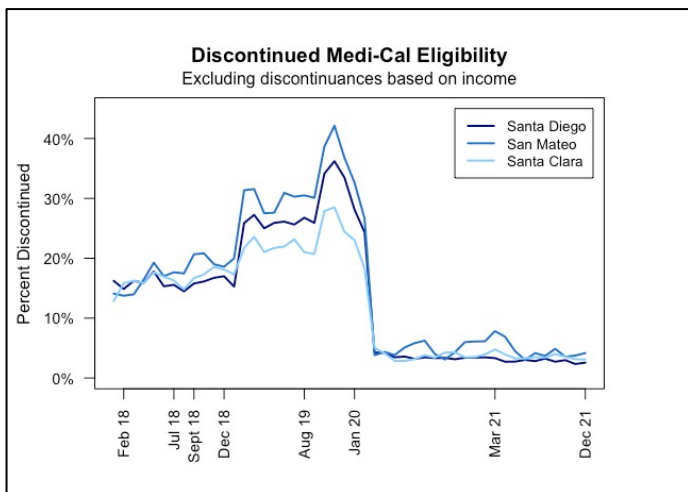


Figure 12

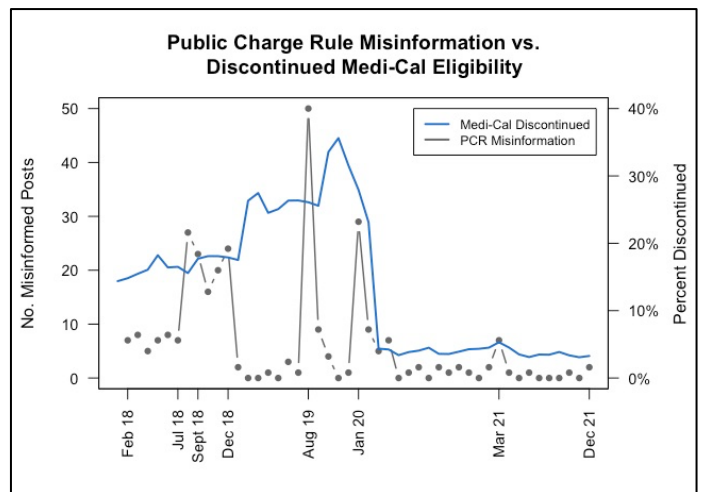


Figure 13

Nevertheless, when compared to misinformation about the Public Charge Rule, changes in Medi-Cal eligibility are largely consistent with expectations. It was hypothesized that misinformation would positively correlate with Medi-Cal discontinuances given the ‘chilling’ effects of the Public Charge Rule on welfare participation. As seen in Figure 13, misinformation was high from September to December of 2019. In the three months that followed, the percent of beneficiaries who dropped out of Medi-Cal increased by 11.9%. Similarly, in the three months after the wave of misinformation in August of 2019, discontinuances increased by 9.5%. However, due to the dramatic decline in discontinuances in the beginning of 2020, the percentage of beneficiaries who abandoned Medi-Cal fell by 23.7% after the fourth spike in misinformation in January of 2020. Throughout 2020 and 2021, when misinformation was consistently low, the percentage of beneficiaries who dropped out of Medi-Cal changed by less than one percent. Apart from the anomalous drop in discontinuances in the beginning of 2020, this data demonstrates high welfare avoidance in months directly following waves of misinformation about the Public Charge Rule.

Discussion of Findings

Important Insights

The preceding sections provide a few interesting insights. First, the timeline of misinformation indicates that misinformation is high in months with major announcements about the Public Charge Rule; however, misinformed posts and articles are also common in months following important announcements, especially in August, October, and November of 2018. This suggests that there is a ‘lag’ in reactions to Public Charge Rule updates, as conversations may spill over from month to month. This is particularly evident on Facebook, where misinformed

posts are more evenly distributed across the 48-month period. On Twitter, conversely, misinformation is largely concentrated in a few months with major announcements. This is perhaps attributable to the short, instantaneous nature of tweets. Given the 280-character limit that was in effect from 2018 to 2021, users appeared to post reactions to Public Charge Rule updates in real time. In contrast, Facebook posts and news articles were generally much longer, leaving more content that could potentially include false information.

While Facebook had the largest amount of misinformation overall, Twitter was the largest contributor proportional to its user base. While initially surprising, this disparity could also be explained by the fast, short, and frequent nature of tweets. With more than 500 million tweets per day, Twitter users simply post more frequently (Aslam 2023). Constrained by a short character limit, there is relatively less effort required to draft a Tweet of reasonable length. Additionally, the heavy concentration of misinformed tweets in certain months provides some insights. In January of 2020, when the Supreme Court affirmed the 2019 public charge policy, Twitter accounted for an astounding 82.3% of misinformation. This suggests that the Supreme Court decision prompted significantly more confusion, anxiety, and backlash among Twitter users, which is unsurprising given heavy political engagement on the platform. Moreover, the concentration of tweets indicates that Twitter may be more susceptible to the ‘echo chamber’ effect described by Muhammed T and Mathew (2022). This theory is further supported by the lack of rumor diversity on Twitter. Nearly 80% of all misinformation on Twitter falsely claimed or insinuated that citizenship applicants could become a public charge for participating in welfare programs, demonstrating considerable homogeneity of misinformation. Because users can repost tweets (i.e. retweet) in one click, the overall cost of reposting misinformation is relatively low. Further, because users can easily retweet, as opposed to creating original content, there is less

incentive to ensure that the information is correct. The infrastructure of Twitter, therefore, may make it especially susceptible to spreading misinformation.

Of the four psychological factors affecting rumor transmission, the role of belief and uncertainty is unclear in the context of misinformation about the Public Charge Rule. Belief, in particular, is impossible to quantify, and uncertainty is relatively consistent across all Public Charge Rule announcements. Even ‘official’ announcements about the rule carry high uncertainty regarding the effect of the rule on individual families and the longevity of the policy. The impact of anxiety and importance, on the other hand, was evident in the dataset. High-importance and high-anxiety rumors were abundant. For example, misinformation pertaining to the inclusion of certain benefits most commonly mentioned programs that serve infants, children, and mothers, namely, WIC, CHIP, and school lunch programs. This was predicted, as rumors conveying the potential loss of critical health and nutritional services for vulnerable populations are assumed to be highly important and anxiety-inducing, and thus, more widely circulated.

Given the two types of ‘chilling’ effects established in previous literature, the misconceptions contained within and perpetuated by misinformed posts and articles were unsurprising. Of the 296 documented cases of misinformation, 142 falsely purported that certain benefits were included in the Public Charge Rule. The prevalence of benefits-related rumors was expected, as many immigrants rely on public assistance programs to meet their basic needs. As such, it is assumed that misinformation involving the undesired consequence of forgoing benefits—or even worse, of deportation due to welfare receipt—would invoke dread rumors, which are more commonly circulated in online spaces (Bordia and Difonzo 2004). These dreaded consequences are presumed to increase importance and anxiety associated with misinformation, two factors that increase with transmission (e.g., Difonzo 2011; Rosnow 1991).

The most common misconception conveyed through misinformation about the Public Charge Rule was the belief that immigrants applying for citizenship or naturalization were affected by policy and could therefore be penalized for participating in public assistance programs. The prevalence of this rumor is perhaps explained by the number of green card holders who would be affected by and are therefore fearful of a public charge test for citizenship applications. In many cases, however, it appears that this rumor originated from imprecise language. One post, for example, claimed that “Our federal administration is considering a policy refusing citizenship to families who have used public assistance.” Many users, especially personal users who are assumed to have limited knowledge about immigration policy, did not distinguish between visa, green card, and citizenship applications in their statements and instead referenced a general threat that the government could deny “citizenship” as a result of the public charge policy. Even well-meaning users highly critical of the Public Charge Rule appeared to inadvertently perpetuate this rumor, a trend that highlights the need for precise language when publishing information about complex immigration laws.

The account types most commonly associated with misinformation also highlight important risk factors associated with transmission. Overall, personal users accounted for one third of all misinformation. Their contributions were, as the name would imply, personal in nature. They were not associated with a nonprofit, community organization, think tank, law firm, or governmental organization, and were therefore assumed to have less oversight, accountability, and access to accurate information about the Public Charge Rule. As mentioned in the preceding section; however, many of their posts were near or exact duplicates of text contained within social media posts and articles published by media organizations. Even when consulting reputable news sources for information, they inadvertently spread false statements. This

highlights the need for fact-checking by media companies, the second-largest contributor of misinformation overall. With high viewership and perceived credibility, it is clear that misinformation originating from news organizations has a wider reach than incorrect statements published by other online actors.

The third largest contributor of misinformation overall and second-largest on Facebook was nonprofits. Like personal users, they were often highly critical of the Public Charge Rule but appeared to inadvertently spread false beliefs due to imprecise language and a lack of specialization in immigration law. For example, the National Down Syndrome Congress Policy & Advocacy Team published a Facebook post imploring users to “OPPOSE THE ‘PUBLIC CHARGE RULE’ THAT WOULD EXCLUDE IMMIGRANTS WITH DOWN SYNDROME AND OTHER DISABILITIES FROM LEGALLY ENTERING OR STAYING IN THE UNITED STATES.” This post was shared with the organization’s 9,054 followers and accrued 166 reactions—a figure that represents only a fraction of the number of people who read this false statement. Similar to the risks created by uninformed personal users, this post highlights the dangers of well-meaning nonprofits that comment on immigration policy.

Another characteristic of misinformation—language—calls attention to the unique challenges faced by immigrants seeking accurate information online. Roughly 59% of the misinformed content was posted in English and 41% in Spanish. The greater quantity of English-language misinformation is unsurprising considering that U.S. news organizations, nonprofits, and government agencies are more likely to operate in English. After accounting for the proportion of users who prefer Spanish versus English, however, Spanish-language misinformation was five times more common on Facebook and three times more common on Twitter. Importantly, these figures do not account for misinformation in languages other than

English and Spanish, so the prevalence of foreign-language misinformation is likely understated. The widespread circulation of misinformation in Spanish can be partially explained by the “Spanish-language misinformation gap” described by researchers and journalists. According to this phenomenon, social media platforms are less likely to identify misinformation in Spanish, and when they do, it can take weeks for the posts to be flagged (Avaaz 2020; Guynn 2021; Hsu 2020). This highlights the need for better foreign-language fact checkers, especially given the diversity of people impacted by complex immigration laws.

Beyond language disparities, there were other cultural challenges at play. Baines et al. (2022) demonstrates that immigrants experience stress from hateful comments on social media, making them reluctant to correct false statements. It is possible that this dynamic contributed to the prevalence of misinformation about the Public Charge Rule, as posts, especially those published by pro-Trump users, conveyed judgment towards immigrants on welfare. For example, one user claimed that the “Trump team [is] yanking green cards from immigrants who abuse U.S. welfare system.” This oversimplification of the public charge policy is not only misleading—it also creates a hostile environment towards immigrants. These types of posts may have disincentivized immigrants from correcting misinformation or seeking accurate information about the Public Charge Rule in online spaces.

Moving on to the welfare participation data, WIC and Medi-Cal usage in San Diego, San Mateo, and Santa Clara is largely consistent with the ‘chilling’ effect theory, but there are a few questions that remain unanswered. It was hypothesized that enrollment in both programs would decline throughout the four-year period, or at least until the reversal of the rule in March of 2021. WIC redemptions consistently dropped throughout 2018 and 2019; however, they rebounded at the beginning of 2020. Research from the United States Department of Agriculture (2012)

establishes that participation in public nutrition programs expands during economic downturns and contracts during periods of economic growth. When the COVID-19 pandemic hit the United States in January of 2020, the country entered a period of economic decline known as the COVID-19 recession, resulting in widespread food insecurity, especially among children (Bauer 2022). Thus, demand for WIC, a nutrition program for women, infants, and children, likely increased throughout 2020 and 2021, thereby concealing the ‘chilling’ effects of the Public Charge Rule.

Similarly, the share of beneficiaries who discontinued their Medi-Cal benefits steadily increased throughout 2018 and 2019, but discontinuances plummeted in January of 2020 and remained relatively low thereafter. Recession-induced unemployment likely increased the demand for health care, which may account for some of this decline. More importantly, though, the federal government allowed states to pause Medicaid eligibility verification during the COVID-19 Public Health Emergency. As a result of this change, an estimated 13 million Medi-Cal recipients maintained coverage from 2020 to 2023 without taking any action to re-certify their eligibility (Health Net of California 2023). This change in Medi-Cal administration likely accounts for the dramatic reduction in discontinuances and, again, obscures the ‘chilling’ effects of the public charge policy.

Despite these particularities in WIC and Medi-Cal enrollment, the data is consistent with this paper’s primary hypothesis that misinformation about the Public Charge Rule would coincide with reduced welfare receipt. Rumors about the types of programs and immigrants affected by the rule correspond with declining participation in both WIC and Medi-Cal across all three counties. In other words, when misinformation was high, WIC and Medi-Cal usage declined. When misinformation was low, welfare participation rebounded. Granted, these trends

cannot prove a causal relationship between misinformation and ‘chilled’ benefits receipt.

Nevertheless, they do offer a plausible explanation for the counterintuitive welfare avoidance among immigrants following the announcement of the Public Charge Rule. Fear and confusion about the rule—created and exacerbated by misinformation—likely caused eligible immigrants to opt out of programs that had no bearing on their immigration status. Not only does the data support this theory—it is also consistent anecdotal evidence from surveys, interviews, and focus groups with service providers and immigrants who are directly affected by the rule.

The resulting loss of critical health and nutrition services has undoubtedly threatened the livelihood of immigrant families across the country. Existing scholarship demonstrates that increased access to health coverage mitigates the leading causes of health and mortality, reduces psychological distress, and improves continuity of health services for immigrants (Marcelli et al. 2015). Kaiser (2011) likewise finds that a lack of health insurance among immigrants causes financial stress and forces immigrant families to choose between paying for food, rent, and health care. This scholarship provides support for the theory that health care, and relatedly, health, is a precursor to integration. Even more, Bernstein et al. (2017) demonstrates that immigrants experience financial, emotional, and physical hardship as a result of avoiding benefits due to immigration concerns. The financial, emotional, and health-related challenges created by the ‘chilling’ effects of the Public Charge Rule have and will continue to undermine the well-being and integration of foreign-born communities across the United States.

Alternative Explanations

Improving macroeconomic conditions leading up to the COVID-19 recession is the primary competing explanation for the recent decline in national welfare participation. As people

experience improved economic well-being, one would expect a drop in income-based eligibility and need for public assistance. After a decline in benefit receipt following 1996 welfare reform, multiple scholars cast doubt on the “chilling” effect theory by evaluating improving macroeconomic conditions during that period (Haider et al. 2004; Lofstrom and Bean 2002). Medi-Cal data largely accounts for economic factors, as individuals who discontinued their benefits because they passed the income threshold were removed from the dataset prior to analysis. While this does not account for beneficiaries who still qualified for Medi-Cal but chose to disenroll due to reduced financial need, it does significantly mitigate the effect of economic conditions on Medi-Cal discontinuances.

To evaluate this counterargument in the context of other public assistance programs, like WIC, real GDP per capita in the United States was analyzed. This metric represents the value of national output per person, which is commonly accepted as an indicator of per capita income and, by extension, economic well-being. As seen in Figure 14, GDP per capita increased from the beginning of 2018 until the final quarter of 2019, one month before the COVID-19 pandemic hit the United States. Soon after, GDP plummeted due to the recession and rebounded in quarter two of 2020. In the following two years, as people adapted to the challenges of the pandemic, and Congress issued five trillion dollars in stimulus money (Parlapiano et al. 2022), GDP steadily rose. Overall, GDP increased throughout 2018 and 2019, suggesting that improving macroeconomic conditions cannot be ruled out as an alternative explanation for declining WIC redemptions during this time.

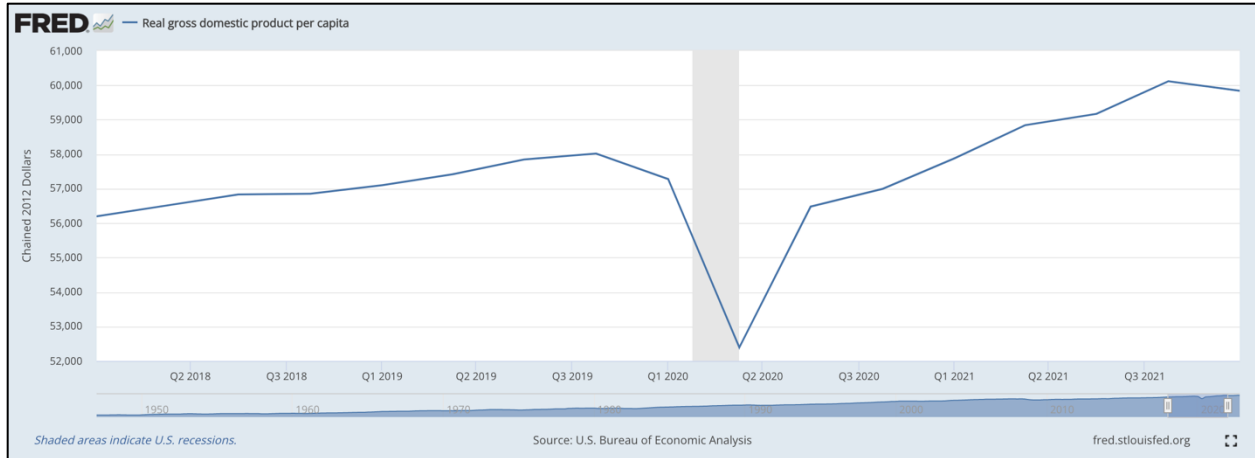


Figure 14. U.S. Bureau of Economic Analysis, Real Disposable Personal Income: Per Capita (A229RX0) (Federal Reserve Bank of St. Louis, 2023).

However, national GDP per capita does not account for the disproportionate decline in welfare receipt among noncitizens (Bernstein et al. 2019, 2020). Macroeconomic conditions have a similar effect on all beneficiaries regardless of immigration status, so national GDP cannot explain the relatively higher welfare avoidance by immigrants. In challenging the ‘chilling’ effects of 1996 welfare reform, Haider et al. (2004) contend that the disproportionate decline in benefit receipt by noncitizens was attributable to particularly strong macroeconomic conditions in areas with a high concentration of immigrants. To evaluate this argument, percent change in GDP per capita nationwide was compared to San Diego, San Mateo, and Santa Clara counties (U.S. Bureau of Economic Analysis 2022a, 2022b, 2022c). As Figure 15 demonstrates, GDP per capita in these three counties grew at a significantly slower rate than the national average from 2018 to 2020. From 2019 to 2020, the rate of growth in San Mateo fell by three percentage points, and GDP per capita actually decreased by 1.1% in San Diego. Quarterly data was not available for these three counties, so the month-by-month effects of the COVID-19 recession are less evident. Throughout 2018 and 2019, as WIC redemptions declined in San Diego, Santa Clara, and San Mateo, these three counties had relatively less economic growth than the nation

overall, and in one case even experienced economic decline. As such, relatively better macroeconomic conditions in areas with a high proportion of immigrants cannot explain the disproportionate decline in welfare participation among immigrants.

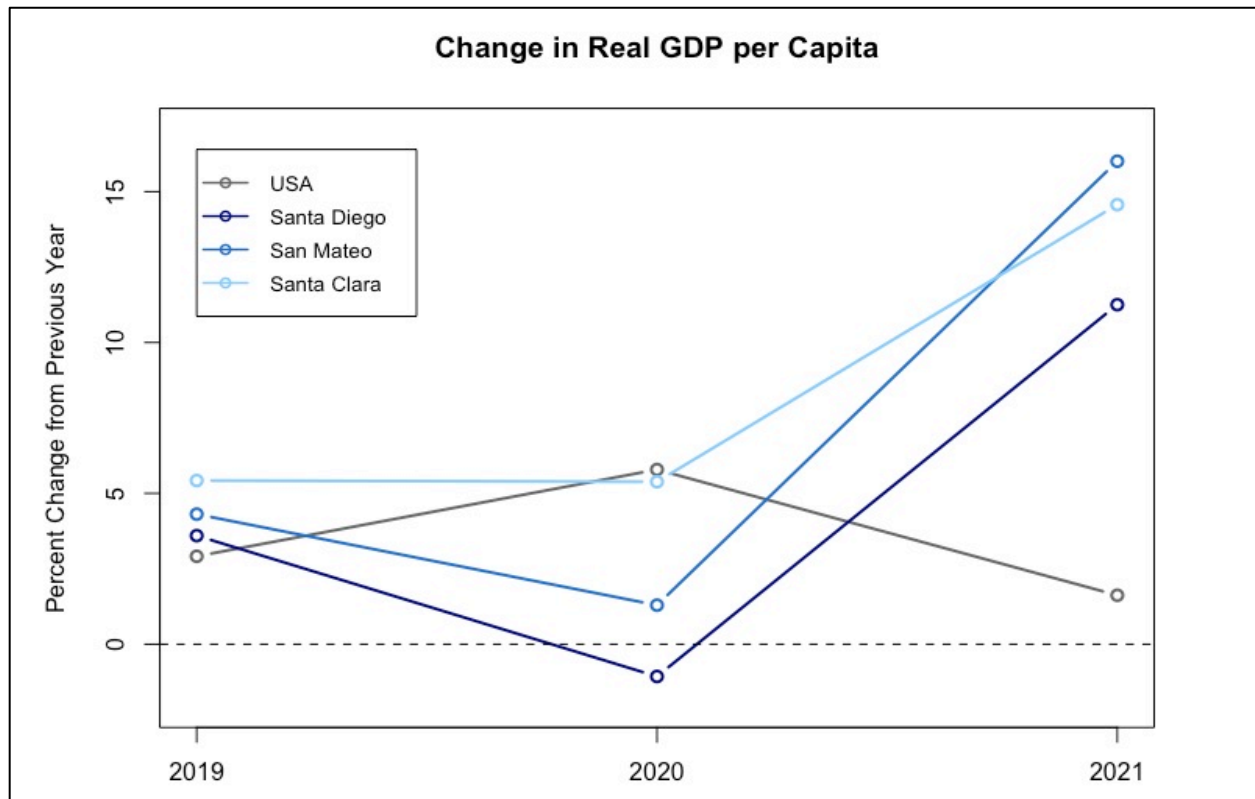


Figure 15

The second popular competing theory for reduced welfare participation among immigrants states that the Trump administration’s anti-immigrant attitude, not the Public Charge Rule itself, prompted immigrants to remove their name from all government systems, including public assistance programs. As a result of DACA attacks, ICE raids, and closing the border, some claim that a “climate of fear” caused immigrants to reduce public visibility altogether (Anderson 2020). To evaluate this counterargument, participation data from non-welfare government programs, namely, library cards and drivers licenses, was compared to benefits usage in the same time frame.

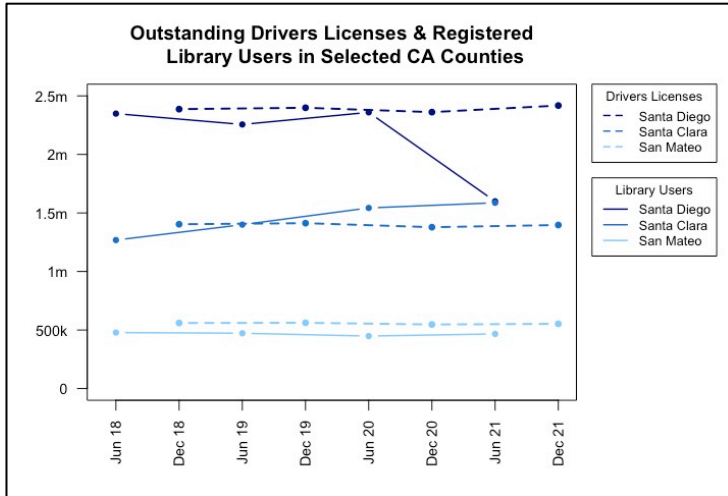


Figure 16

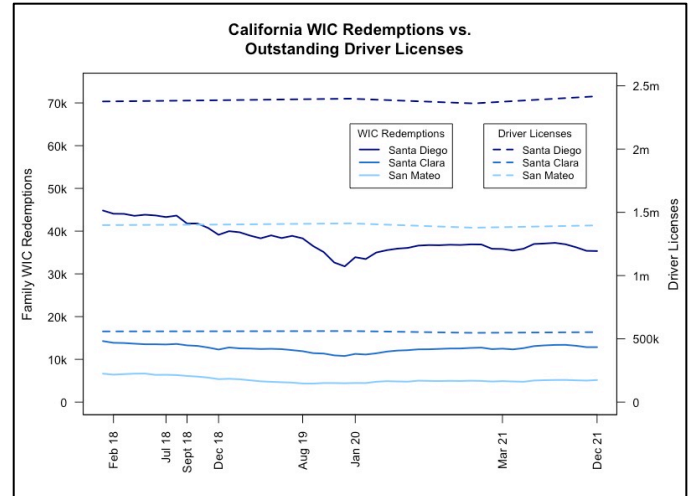


Figure 17

During January of 2018 to January of 2020, the number of outstanding drivers licenses in these three counties increased by 0.5 to 1.0%. Likewise, from June of 2018 to June of 2020, the number of registered library users increased by 0.5% and 21.6% in San Diego and Santa Clara, respectively. Library cards decreased by 6.3% in San Mateo; however, when averaged across all three counties, there was an overall 5.3% increase in registered library users. During this same time frame, WIC redemptions fell by 28.6%, and monthly Medi-Cal discontinuances more than doubled, increasing by 119.4%. This data clearly demonstrates that use of non-welfare government services in these three counties did not experience the same ‘chilling’ effects, and in fact increased, compared to declining welfare participation. Avoidance of public assistance programs, therefore, can be distinguished from use of other government services, suggesting that the ‘chilling’ effect on welfare receipt cannot be explained by a broader “climate of fear” created by the Trump administration.

Limitations

Given the sensitive nature of the topics at hand, immigration and welfare, the data for this project was inherently restricted. Hesitancy among immigrants to discuss their legal status likely

limited anecdotal evidence of the ‘chilling’ effects of the Public Charge Rule. For similar reasons, immigration information was excluded from the national and county-level data presented earlier in this paper. Additionally, the COVID-19 pandemic dramatically affected data on welfare receipt and macroeconomic conditions, which complicated and obscured findings. By increasing unemployment rates, amplifying demand for health care, and necessitating social isolation, the pandemic influenced statistics that could have otherwise been used. For example, data on unemployment benefits might have been compared to participation in welfare programs excluded by the public charge test; however, widespread unemployment during the pandemic would have skewed the data beyond viable use.

The welfare programs suitable for analysis were also not without flaws. Medi-Cal, for example, encompasses Medicaid, which was included in the public charge test, as well as Emergency Medicaid and CHIP, which were excluded. Enrollment data, therefore, likely overstates the ‘chilling’ effect of the Public Charge Rule. Additionally, many welfare programs do not collect information about immigration status (e.g. WIC), and others do not include that information in publicly available datasets (e.g. Medi-Cal). Immigrant welfare avoidance was therefore impossible to quantify. Benefit receipt in counties with a high proportion of immigrants was used as a proxy for immigrant behavior. Still, residents in these three counties are approximately one third non-citizens, so the participation data from these areas also reflects the behavior of citizens who were not subject to the Public Charge Rule. Without isolating immigrant beneficiaries, the data probably significantly understates the ‘chilling’ effects of the public charge policy.

Moreover, the selected case studies constrain the scope of findings to a certain subset of immigrants. First, the misinformation presented in this paper was likely only consumed by

Spanish- and English-speaking individuals, leading to an overrepresentation of Hispanic and Latinx immigrants in the data. Second, the welfare participation data is limited to California residents in three particular counties. Third, misinformation was only analyzed from Facebook, Twitter, and news articles and therefore does not reflect the impact of rumors spread via private communication channels (e.g. WhatsApp), instantaneous forms of media (e.g. radio and television news), and word of mouth. Nevertheless, these languages, geographies, and platforms were strategically chosen because of their generalizability. California was selected as a case study because of its immigrant-friendly attitude; if welfare avoidance was observed in California, it likely occurred in regions with a more hostile environment toward immigrants. Spanish was chosen as a foreign-language case study because Hispanic immigrants are most susceptible to the ‘chilling’ effects of the Public Charge Rule (Batalova 2018). Online platforms were studied because of the permanent, traceable nature of their content. As such, the findings presented in this paper, while limited in scope, are likely generalizable to immigrant communities across the United States.

Conclusion

When the Trump administration revised the Public Charge Rule, it drastically altered an immigration policy with more than 20 years of precedent. By expanding the public charge criteria to include noncash benefits, the new rule made it difficult for poor immigrants to enter or stay in the United States. Perhaps more alarmingly, it resulted in a loss of critical health and nutrition services for hundreds of thousands of immigrants across the nation. While previous literature documented the ‘chilling’ effects of the 2019 Public Charge Rule, there was limited scholarship on the mechanism behind this counterintuitive welfare avoidance. This thesis is the

first academic work to present an in-depth analysis of misinformation about the 2019 Public Charge Rule and the subsequent decline in welfare participation among immigrants.

To explore the effects of this policy, this paper first established the disproportionate decline in immigrant welfare receipt following the announcement of the revised Public Charge Rule. Using data from surveys, interviews, and focus groups, it presented anecdotal evidence that fear and confusion about the policy led eligible immigrants to opt out of assistance programs that had no immigration consequences. After identifying 296 cases of false and misleading Facebook posts, tweets, and news articles, this paper documented the widespread existence and circulation of misinformation about the Public Charge Rule. Quantitative and textual analysis revealed the common characteristics of misinformed content, such as the language, account types, platforms, and topics most commonly associated with misinformation. Two misconceptions were particularly prevalent across social media posts and news articles. Consistent with the two types of ‘chilling’ effects established in previous literature, users frequently exaggerated the scope of benefits and the types of immigrants affected by the rule.

To answer this paper’s primary research question—why immigrants avoided public assistance programs that were excluded from the public charge test—the distribution of misinformation was compared to the timing of the leaked Public Charge Rule draft and subsequent high-profile announcements about its enforcement. Misinformation was then compared to welfare participation data in three California counties with a high proportion of noncitizens. The data demonstrates that misinformation consistently emerged after important announcements about the Public Charge Rule, followed by a dramatic decline in use of public assistance programs that were excluded from the public charge test. These findings provide ample support for the theory that fear and confusion spread by misinformation about the Public

Charge Rule caused eligible immigrants to avoid welfare programs that had no bearing on their immigration status. The preceding discussion ruled out two alternative explanations and discussed the broader implications of reduced benefit receipt for immigrants. As established by previous literature on immigrant health, a loss of health and nutrition services has significant emotional, financial, and health-related consequences, which creates considerable challenges for immigrant integration.

While the Trump-era public charge policy was short lived, it will continue to have lasting consequences for well-being and integration of immigrant communities across the United States. Even though Biden reversed the policy in 2021, this topic is highly relevant because future administrations could revert to the Trump-era policy, and even a short-term reduction in health and nutritional assistance can have long-term consequences on immigrant health. As such, future research should study the lingering effects of the 2019 Public Charge Rule. Researchers should also investigate public charge-related misinformation in languages other than Spanish, as well as the impact of the rule on non-Hispanic immigrants. Finally, using insights from this paper and other literature, scholars should identify ways to mitigate the negative effects of misinformation for noncitizens. Given their unique linguistic and cultural challenges, accurate information about immigration and welfare policy is essential for the health, well-being, and integration of immigrant communities. American democracy is built on equal access to reliable information about law and policy. Without it, every part of society will suffer, but the greatest burden will fall on the marginalized, poor, and isolated communities on which this nation depends.

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Appendix

The database with misinformation about the Public Charge Rule is accessible at this link:

https://docs.google.com/spreadsheets/d/1QMutJH7wDM58_C2BnvVQ59v9mihYrZnmvqWWKjDLJ7Y/edit?usp=sharing.