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Los Angeles

Immigrant Health, Wealth, and Immigration Status: Three Essays Across the Life Course

A dissertation submitted in partial satisfaction of the

requirements for the degree of Doctor of

Philosophy in Sociology

by

Josefina Flores Morales

2022

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2022

ABSTRACT OF THE DISSERTATION

Immigrant Health, Wealth, Latinxs, and Immigration Status: Three Essays Across the Life Course

by

Josefina Flores Morales

Doctor of Philosophy in Sociology

University of California, Los Angeles, 2022

Professor Vilma Ortiz, Co-Chair

Professor Hiram Beltrán-Sánchez, Co-Chair

Immigrants' documentation status has become an important and rampant source of inequity in the United States. Prior studies show that lacking a lawful documentation status is correlated with negative mental health outcomes, lower socioeconomic status, and a plethora of other unfavorable social conditions. This dissertation offers three distinct, important studies that expand the knowledge base about the extent to which documentation status is associated with a variety of outcomes at different stages of the life course. My first study focuses on children. I examine the extent to which a policy that expanded healthcare access for undocumented children in California impacted the healthcare coverage and annual doctor visits of Latinx children. This chapter uses multiple cross sections of the California Health Interview Survey. I found that this policy reduced the probability of being uninsured and of having unstable healthcare among Latinx children. The second study focuses on middle and older adults and captures an often-overlooked aspect about immigrants' documentation status- the fact that it is a dynamic variable. I found that Latinx immigrants who recently gained their green card experienced quicker

declines in their self-reported health regardless of previous exposure to an unauthorized immigration status. The last chapter focuses on the wealth of middle and older adults across their life course to investigate the extent to which immigration status composition in groups can account for racial/ethnic wealth inequality. I found that immigrants' documentation status holds different explanatory power for wealth gaps depending on the racial ethnic group at hand. I also find that among immigrants in a precarious documentation status, the relationship between age and wealth is weaker. Together, these three studies build upon existing research about immigrant incorporation, race/ethnicity, and immigrant health. I provide three examples of how depending on the independent variable of interest immigrants' documentation status can be studied from different perspectives and with distinct operationalizations. My dissertation offers an important insight: that both race/ethnicity and documentation status need to be considered in tandem in future sociological studies. Population exposures to an undocumented status whether it is previous or contemporary will leave an important imprint on the experiences of inequality among the Latinx community in the United States.

The dissertation of Josefina Flores Morales is approved.

Ka Yuet Liu

Andrés Villarreal

Vilma Ortiz, Committee Co-Chair

Hiram Beltrán-Sánchez, Committee Co-Chair

University of California, Los Angeles

2022

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I began my journey as a doctoral student in sociology at the University of Wisconsin, Madison. There, I fell in love with social demography and sociology. I am indebted to many mentors at Wisconsin.

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I did not know what research really was until my junior year as an undergraduate at UCLA. It was through several cohort research projects that I began to learn what the research world entailed. These programs were instrumental in helping me decide to pursue my doctoral studies. They gave me the space, mentorship, and financial support to design, implement, and present my original, independent research. By the time I applied to graduate school, I had several solo-authored and co-authored research projects and presentations. Some of those projects have now been published at academic journals. My journey is a testament that these cohort programs can be transformative. The specific research programs at UCLA that helped me include Psychology Research Opportunity Programs (PROPS), the Fernald Intern Program, and the Community Development and Social Justice Program. In addition, The UCLA Center for Mental

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EDUCATION

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2022 **Flores Morales, J**., J. Kim (equal 1st co-authorship), and E. Fong. Peer effects on the educational outcomes of immigrant youth: heterogeneity by generation and school context. *Journal of Ethnic and Migration Studies*. Doi: 10.1080/1369183X.2022.2107498

2022 Gaudamuz, J. S., Durazo-Arvizu, R. **Flores Morales, J.** and Qato, D. M. Citizenship Status and Mortality Among Latino Young Adults in the United States, 1998-2015. ***American Journal of Preventive Medicine.***

2021 **Flores Morales, J.**, Diaz C., Nobles, J., and J. Fletcher. Network Closure and Educational Mobility in Mexican Families. ***Social Science Research***. https://doi.org/10.1016/j.ssresearch.2021.102694

2021 **Flores Morales, J.** Aging and undocumented: The sociology of aging meets immigration status. ***Sociology Compass*** 15(4): e12859.

2021 **Flores Morales, J.** and F. Farago*. "Of course we need to help the undocumented immigrants!": Twitter discourse of COVID19 and undocumented immigrants and its implications. ***Sociological Perspectives*** *64(5):* 765-785.

2021 **Flores Morales, J.** and Y. Garcia*. Beyond undocumented: Differences in the mental health of Latinx undocumented college students. ***Latino Studies*** 19, 374–399.

2021 **Flores Morales, J.** and M. Nkimbeng* (equal co-authorship). An Exploration of the Relationship between Diabetes and Depression among Immigrants in the United States. ***Journal of Immigrant and Minority Health****,* 23(3): 444-451.

2020 Beltrán-Sánchez, H., Goldman, N. Pebley, A. R., and **Flores Morales, J.** 2020. Calloused Hands, Shorter Life? Occupation and Older Age Survival in Mexico. ***Demographic Research***, 42(32).

Under review

Flores Morales, J., Enriquez, L.E., and Ayón, Cecilia. Do ties protect? Status privilege, economic insecurity and the mental health of undocumented students in mixed-status families. Under review at ***Family Relations***.

AWARDS, FELLOWSHIPS, & SCHOLARSHIPS

Graduate-level

2022-24 **Senior Policy Fellow,** UCLA Latino Policy and Politics Institute, $4,500

2022-23 **Charles E. & Sue K. Young Graduate Award,** UCLA $10,000
(Award given by the UCLA College Deans for exemplary academic achievement, research, and service)

2021-22 **Annuity Fellowship**, University of Wisconsin, Madison- Center for Financial Security, $7,500

2021 **Dean's Fund for the Study of Diversity and Racial Inequality**, UCLA, $5,000

2021-22 **Racial/Ethnic Minority Graduate Fellowship**, Society for the Study of Social Problems $15,000

2021-22 **Extramural Mentored Fellowship**, University of Wisconsin, Madison- Center for Financial Security, $40,000

2020-21 **Health Policy Research Scholars Dissertation Award**, $10,000

2016-20 **Health Policy Research Scholars program**, Robert Wood Johnson Foundation, $120,000

2020-21 **Graduate Student Fellowship**, UC Collaborative to Promote Immigrant and Student Equity, $7,000

2020-21 **Don Treiman Fellowship**, California Center for Population Research, UCLA, $6,000

INTRODUCTION

Social and demographic characteristics influence the lives, wellbeing, and financial situations of immigrants in the United States. One pernicious source of stratification that perpetuates inequity in these outcomes is the lack of a lawful documentation status. A lawful documentation status or the lack thereof can hinder the wellbeing of immigrants and their children. Documentation status (i.e., whether an immigrant is a U.S. citizen, is a lawful permanent resident, has a temporary visa, is in a liminal other documentation status, or is undocumented) reflects an individual's legal relationship to the state, but it holds impacts beyond the legal realm. It defines who the government recognizes as a citizen or denizen, who has permission to be in the country with authorization, who has the right to legally work, among other rights. The boundaries of who is or is not an authorized immigrant have changed throughout history and have been racialized throughout U.S. history (Ngai 2004). Individuals who are undocumented include persons who became undocumented because they overstayed a visa or another temporary status and individuals who entered the United States clandestinely and who have not adjusted their immigration status. However, the binary undocumented/documented categories are not as useful in a period in which there are more in-between, liminal, and precarious documentation statuses (Menjívar 2006).

The United States has a sizable undocumented population (about 11 million), comprising of individuals who have potentially spent decades in this precarious status as the last inclusive immigration amnesty took place in 1986. Due to increasing criminalization of undocumented immigrants as well as increased border enforcement, undocumented immigrants are spending more time in the U.S., and thus are spending

longer periods of time being undocumented than before (Parrado and Ocampo 2019). Moreover, the 11 million currently undocumented persons estimate underestimates the number of people who have been exposed to an undocumented status in the past.

Anti-immigrant laws and policies in the United States have made the lives of undocumented immigrants difficult. For example, the U.S. has criminalized undocumented migrants and has dedicated an increasing number of resources to migrant surveillance and detention (Golash-Boza 2009). Anti-immigrant policies exist at the federal and state levels. On top of the legal and political realm, there is also the social experience and the racialization of illegality (García 2017).

Immigrants' legal or documentation status is now well recognized as a salient source of inequality in the United States (Greenman and Hall 2013; Cheong and Massey 2019; Abrego 2006; Enriquez 2015; Ayón, Ramos Santiago, and López Torres 2020; Menjívar 2006). Whether someone has a documented immigration status influences social mobility, transitions to adulthood, occupation, access to healthcare, and many other realms of life (Gonzales 2016; Cervantes and Menjívar 2020). The lives of undocumented persons are also subject to heavy levels of surveillance. Many fear interacting with institutions that may pose a deportation risk. As recent research shows, fear of deportation is also present among individuals who are racialized as foreign and whose citizenship is in question in daily social life (Menjívar, Gómez Cervantes, and Alvord 2018).

Undocumented persons have unique characteristics compared with the overall immigrant population. Undocumented immigrants in the United States are largely from Latin American countries (51% are from Mexico), and a growing number are from

Asian countries (Migration Policy Institute n.d.; Budiman 2020) (Migration Policy Institute n.d.; Budiman 2020). Undocumented immigrants tend to have lower levels of education compared with documented immigrants, and 43% have less than a high school diploma (Migration Policy Institute n.d.).

The total estimate of immigrants in the United States is about 44.8 million persons. Estimates suggest that 77% of immigrants are authorized. Mexican immigrants account for 21% of the general immigrant population, and immigrants from Asian countries comprise 28% of the total immigrant population. Among all immigrants in the U.S., 27% have less than a high school education. However, the educational composition varies widely depending on country of origin (a higher percent of Mexican and Central American immigrants has less than a high school education compared with immigrants from other countries) (Migration Policy Institute n.d.; Budiman 2020). Despite increasing recognition about the social and economic status of undocumented immigrants in the United States, several research gaps remain.

First, we lack information about whether pro-immigrant policies have their full, intended effects. My first dissertation chapter addresses this research gap. By using unique data from the California Health Interview Survey, this chapter examines health insurance and annual doctor visits among Latinx children before and after a policy shift. This chapter joins an important scholarly conversation about the effect of pro-immigrant policies on Latinx children. Healthcare access has been a major policy lever that policymakers in California have used to express their pro-immigrant stance. My dissertation chapter captures the positive impact that the 2016 Medi-Cal expansion had

on the healthcare coverage of Latinx children. This expansion substantially reduced healthcare insurance disparities.

Second, we lack information about the lasting impact of an undocumented status on the health of individuals who have adjusted their immigration status. The second chapter of my dissertation addresses this research gap using the New Immigrant Survey, which contains information about immigrants' initial immigration status upon entry to the United States. This chapter offers a dynamic perspective on documentation status. There are only a few existing studies that have examined the role of previous immigration status. These have largely focused on economic outcomes. Thus, my study is novel because it contributes to both conversations about documentation status as well as to conversations about immigrant health. I find that previous exposure to an unauthorized immigration status matters for health but that this effect, in the long run, may be explained by socioeconomic factors. In addition, I find that the self-rated health of Latinx immigrants regardless of their previous exposure to an unauthorized status declines more rapidly than the self-rated health of white, non-Latinx immigrants.

Third, there is limited research about the wealth of immigrants in a precarious immigration status across the life course. In Chapter 3, I use data from the Survey of Income and Program Participation to assess the extent to which immigration status explains group-level racial ethnic wealth disparities. I found that immigrants' documentation status holds different explanatory power for wealth gaps depending on the racial ethnic group at hand. I also find that among immigrants in a precarious documentation status, the relationship between age and wealth is weaker. This chapter

increases our knowledge based on the financial security of households with members that are likely undocumented.

Throughout this dissertation I use different terminologies to describe immigrants' documentation status. Some scholars use the term legal status. Others use documentation status and yet others use immigration status when describing whether someone is undocumented, is in a temporary status, has lawful permanent residency, or is a US citizen. I use a variety of these terms interchangeably throughout this dissertation. Since the definitions and operationalizations I use vary by chapter, I contextualize each chapter's operationalization in the methods section. For instance, in Chapter 2 I use a measure of previous immigration status (ever precarious) to reflect a migrants' previous exposure to being undocumented.

Together, my three chapters assess the extent of differences in healthcare access, self-reported health, and wealth. My dissertation's focus is on the role of documentation status, but it inevitably is also a story about race/ethnicity. The Latinx community in the United States has disproportionate exposure to precarious immigration status categories. As I show in Chapter 2, time spent previously undocumented among green card holders is higher among Latinxs. This makes effects of an undocumented status difficult to disentangle empirically from other processes such as racialization and time spent in the United States. However, given how intertwined immigration laws and policies are with processes of racialization and discrimination, it also is not entirely possible to separate out the effects of illegality and racialization. Both processes occur in tandem, have occurred in tandem historically, and they continue to have consequences together.

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Chapter 1: The Kids are (not) alright: Latinx healthcare insurance and annual doctor visits before and after the 2016 Medi-Cal expansion

Abstract

Immigration status is a pernicious social force that stratifies socioeconomic status, health, and healthcare access. To promote the health of immigrants and their families, some states have expanded social healthcare safety net programs to undocumented children. California implemented such a policy in 2016. However, the fact that undocumented children may have undocumented parents who continue to fear social interactions with formal healthcare institutions may have hampered the success of this pro-immigrant policy. Using unique data from the California Health Interview Survey data, this study examines the effect of the Medi-Cal expansion on several healthcare related outcomes (insurance coverage rates, insurance coverage instability, and annual doctor visits) among Latinx children and youth. I find that the Medi-Cal expansion narrowed the gap in unstable insurance between Latinx and non-Latinx children. Latinx children and youth still have slightly lower annual doctor visits even after controlling for family poverty, parental education, urban status, age, and child health. Healthcare workers may need to revise strategies of communication eligibility in creative ways, and this study may provide foundational evidence for such interventions.

Introduction

In 2016, five million U.S.-born children had an undocumented parent (Passel, Cohn, and Gramlich 2018). Living with family members with uncertain immigration statuses restricts the family unit from benefiting from social safety net programs exclusive to persons with lawful immigration statuses. The structural consequences of living in mixed status families can dampen mental health and limit public program use (Massey and Bartley 2005). Thus, parents with

lawful residence in the United States may be better able to benefit from social safety net programs for their families if and when needed. They may be able to navigate institutions that promote child wellbeing with more ease and with fewer barriers compared with undocumented parents (Asch, Leake, and Gelberg 1994; Berk et al. 2000; Hagan Nestor Rodriguez et al. 2003). States such as California have implemented policies designed to reduce barriers undocumented families face in accessing healthcare for their children, but whether family-level immigration status hinders the potential of these policies remains an important question. This study examines how a pro-immigrant policy in California impacted the healthcare coverage and annual doctor visits of Latinx minors.

Latinx families are disproportionately represented in the undocumented population. Families in which some individuals have legal status and others do not are known as mixed-status families (Vargas, Sanchez, and Juárez 2017). Previous research finds that mixed-status families pool healthcare resources together to fill gaps in specific family members' care (Castañeda and Melo 2014). A majority of previous studies have focused on the individual-level consequences of immigration status (Asch, Leake, and Gelberg 1994; Berk et al. 2000; Hagan Nestor Rodriguez et al. 2003; Vargas Bustamante et al. 2012). Newer scholarship makes the case for examining family-level immigration status and outcomes because of the spillover effects of immigration status (Enriquez 2015; Vargas and Pirog 2016; Vargas, Sanchez, and Valdez 2017). For instance, Enriquez (2015) coins the term multigenerational punishment to describe how the children of undocumented immigrants may be unintended recipients of exclusionist immigration policies. The present study expands on these ideas by examining how Latinx minors are affected by the 2016 Medi-Cal expansion in 2016.

In this study, Latinx status is a proxy for potentially benefiting from this policy. This choice follows the example of some previous quasi-experimental studies, and it also is supported by previous research about the racialization of Latinx persons. Moreover, Latinx children are more likely than other children to have an undocumented parent. If Latinx families perceive health institutions as a setting that may increase the risk for deportation and/or jeopardize their legal status, then families may rely less on formal healthcare regardless of their child's own immigration status. This study improves our understanding about the effectiveness of policies that aim to promote the welfare of the children of immigrants. Specifically, it examines how the 2016 Medi-Cal policy expansion that increased access to healthcare insurance to undocumented children impacted the healthcare insurance rates and annual doctor visits of Latinx children in California.

Background

Documentation Status and Latinx Barriers to Healthcare Access

Latinx parents are disproportionately represented in the undocumented population. Undocumented family members may increase a family's vulnerable status because of their marginalized position in society. Undocumented adults in the United States earn lower wages, have lower educational returns, work longer hours, and have less earnings growth over time compared with their documented counterparts (Borjas 2017; Donato and Sisk 2012; Massey and Gentsch 2014; Rivera-Batiz and Staubhaar 1999; Villarreal and Tamborini 2018; Zhou and Lee 2013). Undocumented immigrants' jobs rarely provide employer-based health insurance and retirement benefits (Kalleberg, Reskin, and Hudson 2000). These conditions may influence the resources available to children in families with undocumented adults and may limit access to specific healthcare coverage channels for individuals and their families. Latinx children living in

families with undocumented family members may have lower levels of access to formal healthcare institutions.

Many previous studies about healthcare coverage and immigration status focus on how immigration status influences the healthcare access of Latinx adults. Individual-level studies show that undocumented adults have lower access to healthcare compared with their documented counterparts. For instance, Vargas Bustamante and colleagues (2012) analyzed the California Health Interview Survey and found that undocumented immigrants in California visit the doctor less and are less likely to have a usual source of care compared with documented immigrants and U.S. citizens.

Several factors influence individual-level healthcare outcomes of Latinx undocumented immigrants. For instance, the fear of deportation may cause undocumented individuals to avoid health care institutions (Asch, Leake, and Gelberg 1994; Berk et al. 2000; Hagan Nestor Rodriguez et al. 2003; Perreira, Yoshikawa, and Oberlander 2018). White et al. (2014) find that some immigrants delay prenatal care due to fear of deportation, as well as fear of driving to places. In anti-immigrant contexts, immigrants might be less likely to seek support services even in community organizations (LeBrón et al. 2018). Vargas (2015) analyzed the Fragile Families and Child Wellbeing Survey and found that living in a context with a high deportation risk is associated with a decrease in Medicaid use. Vargas documented that Mexican mixed-status families, defined as a foreign-born and non-citizen parent with a citizen child, are more likely to use Medicaid compared with other families, but deportation risks have offsetting effects. Using the same data set, Vargas and Pirog (2016) find evidence of a similar chilling effect of deportation risk on participation in the Women, Infants and Children program.

Latinx immigrants may perceive that they are unsafe when accessing formal healthcare institutions for themselves and their families. Maldonado and colleagues (2013) interviewed individuals in California emergency rooms and found that Latinx immigrants feared interactions with a variety of U.S. institutions. Other barriers to accessing healthcare include language differences, lack of transportation, confusion about eligibility, and low health literacy (Castañeda and Melo 2014; Sentell 2012). Undocumented immigrants may also avoid other institutions. For instance, undocumented individuals that fear deportation express a distrust toward local enforcement (Hacker et al. 2011). In moments of extreme duress and increased surveillance, immigrants may go into hiding and avoid help from social services (Capps et al. 2007).

Documented Latinx immigrants may also avoid healthcare institutions. For example, a study in the late 90s by Hagan, Rodriguez, Capps and Kabiri (2003) showed that anti-immigrant policies are associated with voluntary withdrawal from programs regardless of program eligibility. Another study in San Francisco, California surveyed a sample of over 700 Latina women who were undocumented, documented, or U.S. citizens (Fuentes Afflick and Hessol 2009). They found that undocumented Latinas had less healthcare access compared with U.S. citizen and documented Latinas. However, documented Latinas had less access compared with U.S. citizens Latinas. This suggests that an undocumented status is not the sole barrier for formal healthcare insurance coverage and access to the doctor. Although this study was conducted prior to the Affordable Care Act, it remains relevant because it shows potential gradients in healthcare access across the immigration status spectrum. At the same time, research since the Affordable Care Act continues to show that Latinxs are still disconnected from the formal healthcare system and that Latinx adults in general are more likely to be uninsured compared with other groups.

The Latinx population experience wide-ranging barriers to accessing formal healthcare institutions. In the case of Latinx children, Latinx parents who mistrust formal U.S. healthcare institutions may rely on alternative sources of care for their kids. Some of this avoidance may be more pronounced in mixed status families (Perreira and Pedroza 2019). I explore the possibility that the immigration status composition of co-resident family members, proxied by Latinx status, may matter for children's healthcare coverage, and may hinder the effectiveness of a pro-immigrant policy.

Latinx children's healthcare coverage

A recent analysis found that even after the Affordable Care Act, Latinx children have disproportionately low healthcare insurance rates. One potential explanation for this is that immigrant parents may avoid healthcare institutions even when their children may be eligible for health insurance (Ortega et al. 2017b). Chavez et al (2012) interviewed 40 Latin American families with at least one undocumented family member in Indiana and found that undocumented parents considered forgoing Medicaid for their children because of the documentation required of them (e.g., pay stubs or other proof of earnings).

Studies about the healthcare insurance and utilization of Latinx children has shown varied results. Stevens, West-Wright, and Tsai (2010) used the California Health Interview Survey 2001 and 2005 to examine child-parent dyads' immigration status composition and its association with physician visits, dental visits, and having a regular source of care. They focused on health insurance changes from 2001 and 2005 and found that undocumented children in dyads with undocumented parents gained the most in terms of physician access over time. However, this group of children had the most to gain as undocumented parent-child dyads had among the lowest levels of healthcare coverage. However, evidence about the association between

immigration status and healthcare coverage is mixed. For instance, Xu and Brabeck (2012) conducted qualitative interviews and a small survey of undocumented and documented Latinxs in Boston, and they found that lacking lawful presence in the United States did not deter service utilization because undocumented migrants leveraged their relationships to access food stamps and benefits from the Women, Infants, and Children program. This study suggests that migrants' efficacy may offset their fears of interfacing with state-based safety net programs and other organizations. However, this study used a small and non-random sample. Cohen and Schpero (2018) used the American Community Survey to further explore the relationship between a household's immigrant status composition and their healthcare insurance enrollment. They found that mixed-status households are not statistically significantly different from non-mixed-status households in terms of their Medicaid participation in states that expanded Medicaid enrollment because of the Affordable Care Act.

Other research on mixed-status families emphasizes the negative spillover effects of an undocumented status. These negative effects from parent to child are particularly strong when immigrant families are in anti-immigrant contexts (Torche and Sirois 2019). The influence of an undocumented status may influence documented individuals. Indeed, a recent study found that U.S.-born individuals are negatively impacted by anti-immigrant policies (Vargas, Sanchez, and Valdez 2017). Vargas, Sanchez and Juárez (2017) found that poor mental health is associated with worries about a family member's or a friend's deportation among immigrants and U.S.-born Latinxs.

The health of individuals connected to undocumented immigrants may also be impacted by immigration issues and anti-immigrant context regardless of one's documentation status. As noted by Vargas, Sanchez and Juárez (2017), perceptions of living in an anti-immigrant climate

are associated with poor self-rated health among Latinxs, irrespective of one's own citizenship status. Similarly, Pedraza, Nichols and LeBrón (2017) used the Latino National Health and Immigration Survey from 2015, a survey experiment, to prime participants on immigration issues. They found evidence of a "cautious citizenship," a term that describes the phenomenon that Latinx individuals who are U.S.-born may avoid bureaucracies. Individuals who were primed for immigration issues were more likely to respond aversively to service providers (e.g., police and health clinics).

The studies reviewed above invite researchers to consider how ties to immigrants with different immigration statuses, including through co-resident family members, and processes of racialization may create shared consequences and spillover effects of immigration status irrespective of one's own status. This may indicate that children and adolescents with legal presence in the United States or with citizenship may experience unique social contexts if they have close ties with undocumented individuals. If these ties are with undocumented parents, then immigration exclusion from mainstream society may negatively influence the resources families have for their children. Since Latinx families are disproportionately represented in the undocumented population, an analysis of the healthcare access of Latinx children is important and telling of family dynamics and household-level behaviors.

Child immigrant status may influence the context of the parent

Children and adults who live with an undocumented child, compared with people who do not reside with an undocumented child may face different economic, family, and social contexts. The immigration status of children in the family shapes the resources a family unit may have access to because of potentially increased access to the safety net. This argument is similar to the idea that children influence parental and family behavior (Hawkins, Amato, and King 2007). Not only

may parental immigration status influence whether a child gains access to health insurance, a child's immigration status may increase the chance that a parent seeks healthcare for said child and perhaps for parents themselves. For example, Castañeda and Melo (2014) interviewed 55 mixed-status families and found that families with children with different immigration statuses coordinate care for their children by going to different health providers. Castañeda and Melo (2014) found that a child covered by Medicaid may get faster and higher quality care than their non-eligible sibling, and that siblings share medication if one has limited healthcare access.

Previous research suggests that access to healthcare may not only be a function of one's own immigration status. It may be a function of the characteristics of family members with which one lives. Having a higher proportion of undocumented migrants in the household would decrease every household member's chance of accessing healthcare benefits because it might mean there are fewer adults who may be willing to interact with formal institutions. Given the disproportionate share of undocumented children in mixed status families, it is likely that one would observe the effects of a pro-immigrant policy much more pronounced among Latinx children and families. On the other hand, if Latinx families with disproportionate representation in the undocumented population have a substantial number of adults who are aversive to formal healthcare institutions, the positive effects of a Medi-Cal expansion on Latinx children's healthcare coverage and utilization may be lessened.

California healthcare context

California implemented a policy that expanded healthcare access for minors regardless of their own immigration status. California implemented this expansion, which I refer to as the Medi-Cal expansion, in May 2016. Families may respond to this expansion in several ways. For some families, lack of information, misinformation and/or a hostile and anti-immigrant context are

obstacles to seeking healthcare and other services for all family members. In these cases, the expansion of eligibility for all undocumented children of immigrants may not be as effective as policymakers hoped. Some families with undocumented children might take advantage of this expansion. This would cause population-level estimates of uninsured children in California to substantially reduce (Charles et al. 2017). One factor that might mediate whether families take up the Medi-Cal expansion is the extent to which they are exposed to and trust medical and healthcare institutions, which may hinge on co-resident family member's immigrant status composition. The focus of this study is how this policy change in 2016 impacted Latinx children's healthcare insurance coverage and annual doctor visits.

California is a unique context to study Latinx children's healthcare utilization outcomes. Not only does California have a large proportion of the Latinx undocumented population in the United States, but it is also a leader in policies and programs designed to improve the quality of life of immigrants and their families. In May 2016, California implemented an expansion of Medi-Cal to include undocumented minors. Thus, the number of uninsured individuals may have decreased substantially (Charles et al. 2017). Prior to this change, undocumented children and adolescents could gain access to limited scope Medi-Cal, which included emergency services. However, to the extent that undocumented family members avoid state-provided services and extensions of the state even if these programs are not federal, the policy expansion relies on the assumption that immigrants know about and feel comfortable accessing Medi-Cal services. A family's immigration status composition, experiences of racialization, trust in the medical system, and access to information may shape healthcare access and doctor annual visit behavior.

Latinx families are overrepresented in the U.S. undocumented population. Latinx families with undocumented adults may be less likely to benefit from Medi-Cal's expansion.

Alternatively, families with some children who are documented, and insured may be more open to seeking out services for their undocumented children. Regarding adult healthcare, many uninsured Californians rely on safety net clinics, free clinics, and hospital care. Safety net clinics are usually Federally Qualified Health Centers that are hubs of primary care. Access such as proximity to these centers may vary by geographic region (Lee, Hill, and Mcconville 2012). These clinics and social safety nets may be one possible reason why policy effects observed may be smaller than anticipated.

Research questions and hypotheses

This study builds on Stevens, West-Wright and Tsai's (2010) study by considering the healthcare insurance coverage of children before and after the 2016 Medi-Cal expansion. The main research question is: *What was the effect of the Medi-Cal expansion on the healthcare coverage, healthcare instability, and annual doctor visits of Latinx and non-Latinx children?* Although I expect the Medi-Cal expansion to have increased the healthcare coverage of Latinx children, I expect that the expansion's effects could be improved due to the proportion of Latinxs who are in mixed status families.

Methods

This study relies on data from the California Health Interview Survey (CHIS), a continuous cross-sectional telephone-based survey that randomly selects one adult per household to interview, and that started in 2001. If the randomly selected adult has children and/or adolescents (as the parent or legal guardian), one child (via a proxy interview) and/or one adolescent (via a direct interview) are also surveyed. The survey is offered in six different languages. It is designed to provide population-based estimates in California. Each household has up to three

respondents. Participating children and adolescents need to have the focal adult as their legal guardian or parent.

The data in this study come from the 2013-2017 California Health Interview Survey. Pooling is preferred and recommended by the CHIS team because of the smaller sample sizes of children in any given survey year. For instance, the 2015 CHIS includes a sample of 754 adolescents (aged 12-17) and a sample of 2,157 children (aged 0-11). These figures are 840 and 2,136 for 2016, and 448 and 1,600 for 2017. I use Latinx status as the main axis of analysis and as a proxy for mixed status families.

Three measures of healthcare insurance and access are used: 1) an indicator of insured status, 2) an indicator of whether the child/teen has seen the doctor in the past year, and 3) an indicator of whether the child/teen has had stable healthcare insurance in the past year. Parents answer several questions regarding the healthcare utilization of their children. The specific survey question used to make the indicator of insured status is as follows: "Was (CHILD) covered by health insurance at any time during the past 12 months?" The second measure regarding healthcare (seen a doctor in past year) was asked by the following question: "About how long has it been since {he/she} last saw a medical doctor?" Respondents could answer with one of the following: one year ago or less, more than 1 year up to 2 years, more than 2 years up to 3 years, more than 3 years ago, and never. I made a binary measure to indicate if the child has seen the doctor in the past year. I coded the variable of having seen a doctor in the past year as 1 if the child has seen the doctor one year ago or less and 0 if the child has seen the doctor one year or more ago. The last healthcare indicator (unstable insurance) was based on the following survey question: "During the past 12 months, was there any time when {he/she} had no health insurance at all?" If parents answered yes, I coded unstable insurance as 1, and 0 otherwise.

Control variables include parental education, an indicator of whether the parent who filled out the survey went to college or not, a categorical measure of family level poverty indicating where families lie in relation to the federal poverty line, metropolitan status, age, and a categorical measure of child health status.

Analytical strategy

This study analyzes changes in three outcome variables, healthcare insurance coverage of children, annual doctor visits, and healthcare insurance instability, before and after the 2016 Medi-Cal expansion. This is assessed with a difference-in-difference estimation based on the linear probability model below:

$$y_i = \alpha + \alpha_t + \beta Latinx * Post + X_f + \epsilon$$

The dependent variable y_i is a dummy indicator of whether the child is covered by insurance, whether the child had unstable healthcare insurance, or whether the child had an annual doctor visit. α_t represents a set of dummy variables for the year. Latinx is a categorical variable with values of 1 or 0 depending on the child's race/ethnicity background. X_f is a set of dummy variables including socioeconomic status, a geographic indicator, child age, and child health. ϵ is a disturbance term that picks up any variation not accounted for in covariates. The parameter of interest is β, the coefficient in the interaction between Latinx and Post.

Results

Table 1- 1 shows summary statistics of the sample of children and teens in the CHIS from 2013-2018. Two-year data files are grouped because CHIS surveys are collected continuously, over a two-year period. All estimates have adjusted weights. Table 1- 1 shows general demographics,

socioeconomic factors, and health outcomes. The mean age of the sample ranges from 7.35 to 8.67, depending on the survey period. The percent of Latinx children and teens is slightly over 51% each period. Less than 2% of children/teens live in a non-metropolitan area. In each survey period, the percent of children and teens insured is over 96%. The percent with unstable insurance varies, and is 6.49% in 2013-14, 3.9% in 2015-16, and 3.33% in 2017-18. The percent of children who have seen a doctor in the past year is 89.12% [confidence interval (C.I.): 87.78-90.47%], 87.5% [C.I.: 85.29-89.7%] and 86.83% [CI: 84.64-89.3%], in the 2013-14, 2015-16, and 2017-18 periods, respectively.

Table 1- 2 shows the main health-related outcomes of the study, organized by survey period and Latinx status. In 2013-14, 95.31% [C.I.: 93.94-96.69%] of Latinx children were insured compared with 97.53% [C.I.: 96.47- 98.59%] of non-Latinx children. Since the confidence intervals overlap, there were no statistically significant differences in the insurance status of Latinx and non-Latinx children. In this same period, 8.69% [C.I.: 6.62-10.76%] of Latinx children and teens had unstable health insurance. This figure was 4.16% [2.83-5.48%] among non-Latinx children. The difference in unstable health insurance is notable and statistically significant. Among Latinx children, 88.54% [C.I.: 86.66-90.41%] had seen the doctor in the past year compared with 89.74% [C.I.: 87.88-91.61%] of non-Latinx children. Again, this difference is not statistically significant. Figures 1- 1 to 1- 3 show the patterns in each of the three outcomes by Latinx status and by period.

Table 1- 3 shows summary statistics for the entire pooled sample (2013-2018) by Latinx status. This table shows differences in the socioeconomic and health variables in the two groups of interest. As shown in this table, 32.9% of Latinx children/teens live in families that are 0-99% within the Federal Poverty Line. This estimate is 10.89% among non-Latinx children and teens.

While 62.61% of non-Latinx children/teens live in households with incomes within 300% and above the Federal Poverty Line, 25.22% of Latinx children/teens do. Slightly over eighty percent of non-Latinx children/teens have parents with some college education. This figure is 40.81% among Latinx children/teens. Among non-Latinx children, slightly over 81% have excellent or great health. This figure is about 69% among Latinx children/teens.

Table 1- 4 shows results from difference in difference (DID) regression models. Panel A in Table 1- 4 includes results without any control variables. Models in Panel B control for: poverty status, parental education, metropolitan status, child/teen age, and child/teen health status. Models 1-3 show each of the three outcome variables (insured status, unstable health insurance, and whether the child/teen has seen the doctor in the past year). The coefficient called policy change represents changes in the outcome before and after 2016. Panel A in Table 1- 4 shows that the policy increased the probability of insurance by 0.013 percentage points (Model 1 Panel A) and decreased the probability of unstable health insurance by 0.0167 percentage points (Model 2 Panel A). The coefficient for having seen a doctor in the past year was not statistically significant at conventional statistical levels.

The coefficient of Latinx in Panel A Model 1 (Table 1- 4) shows that Latinx children are less likely to be insured compared with non-Latinx children and that they are more likely to be unstably insured. The DID coefficient represents the interaction between the Policy Change and Latinx variables. It represents the 'treatment effect' if we consider Latinx as a proxy for the intended treatment population of the 2016 healthcare expansion for undocumented minors in California. The DID coefficient is small and not statistically significant at conventional levels for the insured outcome (Model 1). The DID coefficient is negative and statistically significant for the unstable insurance outcome. The policy change decreased the probability of having unstable

insurance among Latinx children by about 0.026 percentage points. The DID coefficient is not statistically significant for having seen a doctor in the past year outcome.

Panel B of Table 1- 4 shows select coefficients for models that include a set of control variables. Compared with coefficients in Panel A, Panel B estimates are attenuated. The Latinx coefficient in Model 1, for example, decreased by 42.8% after controlling for socioeconomic, health, and demographic factors. Despite some attenuation, the Latinx coefficient remained statistically significant, suggesting that the control variables are insufficient to account for the lower probability of being insured among Latinx children/teens. In Model 2, the Latinx coefficient also attenuated and retained its statistical significance. The DID coefficient slightly increased. Model 3 coefficients estimating the effect of the policy change and Latinx status were not statistically significantly related to annual doctor visits.

Discussion

Latinx children in the United States are more likely than other children to have an undocumented parent. Moreover, the Latinx population regardless of documentation status are known to have healthcare coverage rates below that of other racial/ethnic groups. This study examines the effect of a pro-immigrant policy on three measures of Latinx children's healthcare access: health insurance coverage, unstable health insurance coverage, and annual doctor visits. This study finds that the 2016 Medi-Cal expansion reduced the probability of having unstable health insurance among Latinx children/teens. Second, there is evidence that although the policy change increased the probability of having health insurance across the board, it did not have increased effects on Latinx children and teens' access to the doctor.

This study expands our understanding about the extent to which families can access state provided safety net programs that provide nourishing resources for children. Parents who are

undocumented (proxied by Latinx status) may be limited to informal ways of caring for their families if they perceive formal institutions are risky for their own presence in the country. Therefore, migrant families with undocumented members or members in a precarious immigration status may have access to a fragmented safety net and may seek informal care for themselves and their families. If immigration status of parents limits and discourages social safety net program use in spite of eligibility, the social contexts of children of immigrant parents may be compromised. The safety net programs on which families rely, such as healthcare insurance among others, may shape child health and wellness. At the same time, the racialization of Latinx individuals may make it so that they have a vicarious status regardless of their own immigration status (García 2017). This may be one potential explanation for the association between being Latinx health insurance outcomes included in this study.

This study builds on previous research at the national level, which has found that Latinx children have relatively less access to healthcare compared with non-Latinx, white children even after the passage of the Affordable Care Act (Ortega et al. 2017a). The present study has two novel contributions. First, it assesses healthcare access using three distinct measures. The measure of healthcare instability, in particular, has been studied relatively less. It is important because it acknowledges that healthcare, too, is a dynamic social status that individuals move in and out of. Second, this study examines the issue of healthcare access from the lens of mixed status families and immigration status.

Drawing from the literature on of mixed status families and immigrant families, this study used Latinx status as a proxy for having an undocumented parent. If Latinx status is a valid proxy for parental immigration status, one might expect that the difference in difference estimator would be positive and statistically significant, as it would show that the treatment

group for which this policy is intended (children who may be undocumented and likely have an undocumented parent) was positively affected by the legislation. I find that this is the case for health insurance stability but not necessarily for insurance status and seeing the doctor. The probability of having health insurance across the board did increase post-policy change but it did not increase more for Latinx children/teens especially. Though, this effect should be interpreted with caution because insurance rates were already rather high before the Medi-Cal expansion.

Future researchers may wish to analyze detailed parent-child immigration status with restricted California Health Interview Survey data in order to examine whether the Latinx effect captured in my findings is driven by differences in immigration status composition. In addition, future researchers may wish to use data from other states to examine whether national-level events that also occurred at the same time as the Medi-Cal expansion had an overall chilling effect on the access to a doctor among Latinx children. A third future research avenue is to leverage within California variation in counties that had programs helping undocumented children even before 2016.

This study has limitations. First, the California Health Interview Survey does not offer the opportunity to examine individuals' full family roster with detailed health insurance coverage and immigration status for each co-resident family member. Ideally, the study would ask for a full family and household roster, as well. This type of information might provide more information about how resources may be pooled at the family- and household-levels. Estimates of immigration composition on health care access in California may be the conservative estimates because of measures such as AB60, which allows undocumented migrants to obtain state licenses. In other states, IDs are more restrictive. This may severely hamper the social services individuals seek out (LeBrón et al. 2018). The extent of mistrust towards and fear of

visiting healthcare institutions may be extreme in very anti-immigrant states such as Texas and Arizona. For example, Arizona passed SB1070 in 2010, a state law that targets immigrant groups by increasing the racial profiling of anyone who is suspected to look undocumented. This law allows police officers to stop and question people for proof of citizenship (Amuedo-Dorantes and Lozano 2015).

Texas recently took a similar step. For instance, SB4 was passed and signed in May 2017. This bill allows police to question individuals about their legal status regardless of whether they committed a crime. Such legislation, coupled with the previous presidential administration's increasing surveillance, holds consequences for many and thus may the healthcare access of undocumented immigrants in anti-immigrant states may be lower than it is in California. Last, the California Health Interview Survey misses key variables about resource pooling related to healthcare (e.g., sharing of medications across siblings) or about receiving care elsewhere (such as South of the U.S. border) or receiving informal care.

Conclusion

Immigrants will make up 82 % of the projected U.S. population growth (Passel and Cohn 2008). Over 11 million undocumented persons currently reside in the U.S. Over 17 million U.S. residents live with an undocumented migrant, including one in 20 children. This study builds on the literature on mixed-status families by formally testing the spillover effects on children using data from a healthcare policy expansion in California. This study uses Latinx status as a proxy, like the approach adopted by Torche and Sirois (2018). This study may inform policymakers in California about whether pro-immigrant policies are having their intended and most impactful effects. This has implications for healthcare education campaigns for Latinx, undocumented, and immigrant communities.

With the policy discussions and public discourse around public charge, a set of national policies that penalize immigrants in the legal process of gaining citizenship for using specific public benefits, knowledge about programs for immigrants regardless of a legal or undocumented status are becoming more complex. Healthcare workers may need to revise strategies of communication eligibility in creative ways, and this study may provide foundational evidence for such interventions.

Table 1- 1. Summary statistics, California Health Interview Survey 2013-18 children and teens sample.

Period	2013-14	2015-16	2017-18
Healthcare insurance and utilization outcomes			
Has healthcare insurance	96.39%	97.69%	98.27%
CI (confidence interval)	(95.49%-97.29%)	(96.80%-98.58%)	(97.49%-99.05%)
Unstable healthcare insurance	6.49%	3.90%	3.32%
CI	(5.23%-7.74%)	(2.78%-5.02%)	(2.33%-4.30%)
Seen doctor in past year	89.12%	87.50%	86.83%
CI	(87.78%-90.47%)	(85.29%-89.70%)	(84.64%-89.03%)
Demographics			
Age	8.56	7.35	8.67
Standard deviation	0.02	0.03	0.03
Latinx status	51.40%	51.24%	52.15%
Poverty			
0-99 % of FPL	23.54%	25.65%	20.28%
100-199 % of FPL	24.78%	21.43%	20.94%
200-299 of FPL	13.21%	12.31%	12.44%
300% + FPL	38.46%	40.60%	46.34%
Parental education			
Some college education	60.99%	60.18%	59.51%
Health status			
Excellent	42.73%	46.93%	45.04%
Great	31.37%	28.09%	30.49%
Good	20.59%	19.91%	19.14%
Fair	5.17%	5.00%	5.01%
Poor	0.15%	0.01%	0.32%
Urban status			
Lives in non-metro area	98.21%	98.19%	98.08%

Note: FPL=Federal Poverty Line. All estimates are weighted. Confidence intervals shown for the health outcomes.

Table 1- 2. Summary statistics of healthcare and health utilization of children and trends, California Health Interview Survey 2013-18 by period.

2013-14	Latinx children	Non-Latinx children
Has healthcare insurance	95.31%	97.53%
CI	(93.94%-96.69%)	(96.47%-98.59%)
Unstable healthcare insurance	8.69%	4.16%
CI	(6.62%-10.76%)	(2.83%-5.48%)
Seen doctor in past year	88.54%	89.74%
CI	(86.66%-90.41%)	(87.88%-91.61%)
2015-16	Latinx children	Non-Latinx children
Has healthcare insurance	96.97%	98.45%
CI	(95.65%-98.29%)	(97.47%-99.43%)
Unstable healthcare insurance	4.79%	2.97%
CI	(3.11%-6.46%)	(1.62%-4.32%)
Seen doctor in past year	85.90%	89.17%
CI	(82.98%-88.82%)	(85.75%-92.58%)
2017-18	Latinx children	Non-Latinx children
Has healthcare insurance	97.80%	98.78%
CI	(96.57%-99.03%)	(97.85%-99.71%)
Unstable healthcare insurance	3.86%	2.72%
CI	(2.39%-5.34%)	(1.35%-4.09%)
Seen doctor in past year	85.30%	88.51%
CI	(82.00%-88.60%)	(85.34%-91.67%)

Note: All estimated weighted. CI (confidence intervals) show in parentheses.

Table 1- 3. Summary statistics of the pooled survey years, California Health Interview Survey 2013-2018, children and trends pooled across years.

	ALL Mean or %	Latinx	Non-Latinx
Has healthcare insurance	97.66%	96.99%	98.38%
CI (confidence interval)	97.26-98.06%	96.42%-97.55%	97.91%-98.86%
Unstable healthcare insurance	4.25%	5.28%	3.14%
CI	3.71%-4.77%	4.6%-5.96%	2.48%-3.8%
Seen doctor in past year	87.57%	86.25%	88.98%
	86.7%-88.43%	84.88%-87.62%	87.62%-90.35%
Demographics			
Age	8.36	8.23	8.49
SD	0.14	0.04	0.4
Latinx	51.76%		
Poverty			
0-99 % of FPL	22.8%	32.9%	10.89%
100-199 % of FPL	22.04%	28.92%	14.66%
200-299 of FPL	12.61%	12.96%	12.24%
300% + FPL	43.06%	25.22%	62.61%
Parental education			
Some college education	60.04%	40.81%	80.67%
Health status			
Excellent	44.93%	41.2%	48.93%
Great	30.12%	28.13%	32.25%
Good	19.69%	23.52%	15.58%
Fair	5.05%	6.83%	3.14%
Poor	0.21%	0.32%	0.00%
Urban status			
Lives in a nonmetro area	1.86%	1.01%	1.02%
Survey year			
2013	23.26%		
2014	20.57%		
2015	16.43%		

2016	16.8%
2017	11.56%
2018	11.39%

Note: All estimates use survey weights.

Table 1- 4. Model results from difference in differences models, CHIS 2013-18.

	Model 1 Insurance	Model 2 Unstable insurance	Model 3 Seen doctor in past year
Panel A: Without controls			
Policy Change (2016 and on)	0.013***	-0.0167***	-0.0183
	0.004	0.006	0.012
Latinx	-0.021***	0.0378***	-0.0167
	0.004	0.006	0.01
DID	0.0111	-0.0258***	-0.0166
	0.007	0.008	0.0158
Panel B: With controls			
Policy Change (2016 and on)	0.011***	-0.0136**	-0.0176
	0.004	0.0061	0.013
Latinx	-0.012**	0.027***	0.005
	0.004	0.006	0.01
DID	0.013*	-0.028***	-0.015
	0.007	0.008	0.017

Note: Controls include poverty, parental college education, child general health, geographic region, and age. All models use survey weights.

Figure 1- 1. Insurance coverage by period and Latinx status.

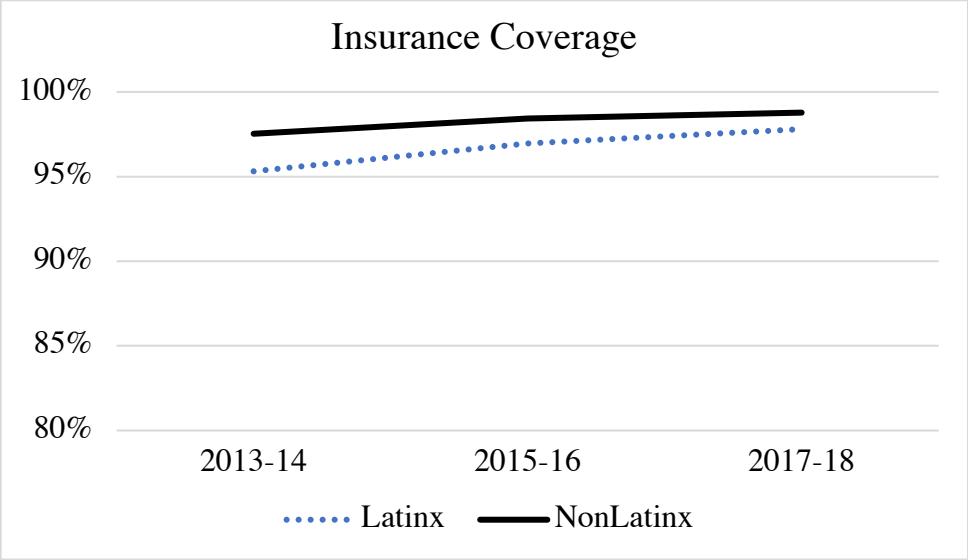


Figure 1- 2. Doctor annual visits by period and Latinx status.

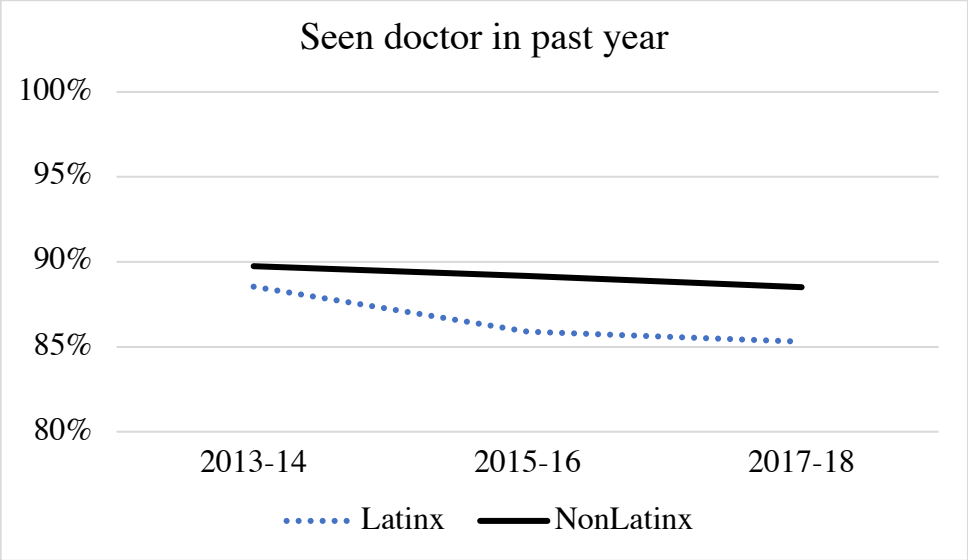
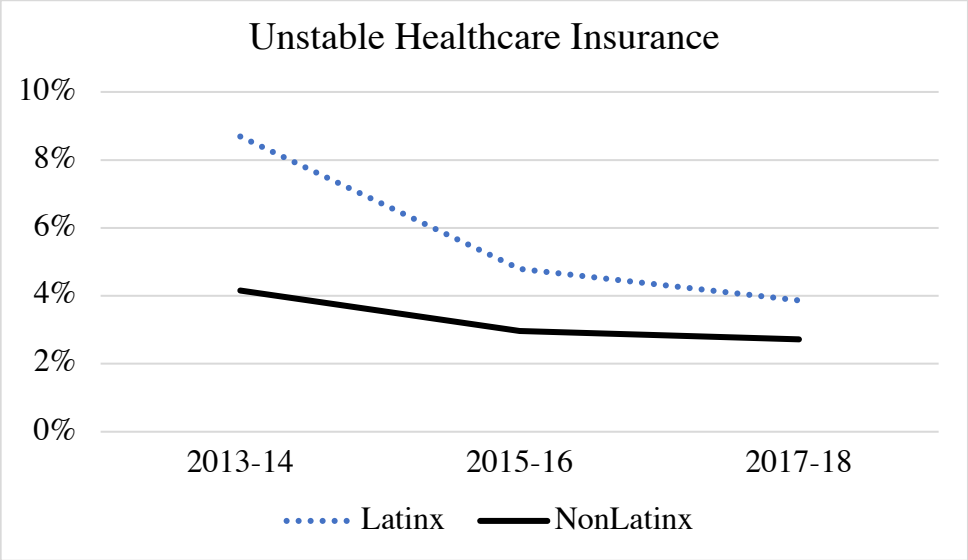


Figure 1- 3. Healthcare insurance instability by period and Latinx status.



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Chapter 2 The association between previous immigration status and self-reported health among new lawful permanent residents

Abstract

Despite a growing body of research about the negative impacts of an immigrant's documentation status on multiple social and wellbeing outcomes, few researchers have examined immigrants' documentation status from a dynamic perspective. Little is known about the extent to which previous exposure to this social status (an undocumented or precarious immigration status) influences health after individuals have become lawful permanent residents in the United States. This study uses a cumulative disadvantage framework and draws on two waves of data from the New Immigrant Survey to assess how having been exposed to a precarious immigration status is associated with self-rated health. In this study, precarious immigration status (which I call ever precarious for short) is defined as whether individuals reported entering the U.S. undocumented during their last entry to the United States. This study finds that being ever precarious is associated with poorer self-rated health at the Wave 1 baseline survey. When assessing health status in the follow up period, Wave 2, the relationship between previous exposure to a precarious documentation status and self-rated health attenuates and becomes statistically non-significant after controlling for demographic and socioeconomic factors.

Introduction

The consequences of experiencing the social conditions associated with different documentation statuses in the United States is a burgeoning and growing area of inquiry. This attention is well-placed. The United States has a sizable undocumented population (about 11 million), consisting of individuals who have spent decades in this precarious status as the last inclusive immigration amnesty took place in 1986. Due to increasing criminalization of undocumented immigrants and increased border enforcement, currently undocumented immigrants are spending more time in

the U.S. They are also spending longer periods of time being undocumented than was the case in the late 20th century(Parrado and Ocampo 2019). Being undocumented encompasses varying social experiences bound by inequality, discrimination, and racialization (Menjívar 2006; García 2017). Previous research documents that individuals' initial documentation status when they first enter the United States matters for immigrants' economic outcomes (Kreisberg 2019; Kreisberg and Jackson 2022). However, the link between previous documentation status and health is insufficiently understood.

Immigration status or documentation status (e.g., whether someone is undocumented, or not) is a well-recognized source of inequality in the United States (Greenman and Hall 2013; Cheong and Massey 2019; Abrego 2006; Menjívar 2006; Ayón, Ramos Santiago, and López Torres 2020). Qualitative research shows that undocumented persons as well as persons in more vague, ambiguous, and liminal immigration statuses face psychological, social, and socioeconomic conditions detrimental to wellbeing. However, some quantitative research about the health trends of individuals in different immigration statuses shows mixed results. An often-underappreciated dimension of an immigrant's documentation status is that it may change along the course of an individual's life. Many studies about immigrant health overlook this aspect due to data limitations and the fact that surveys that ask about immigration status often do so only at one point in time. If studies ignore individuals' previous experiences being undocumented, then the extent of health disparities based on immigration status may be underestimated. Estimates of the influence of immigration status on health will be underestimated in cross-sectional studies of immigration status and health because individuals who have been exposed to an undocumented status in the past and have adjusted their immigration status are classified as documented immigrants, making the average health status between currently undocumented and documented

immigrants more similar. Exposure to an undocumented status in the past may dampen health regardless of one's current immigration status.

Despite the heightened recognition of the health disparities brought on by an undocumented status, several gaps in immigrant health research remain. First, we lack information about the lasting impact of undocumented status on the health of individuals who have adjusted their immigration status. This study addresses this research gap using the New Immigrant Survey, which contains information about immigrants' initial immigration status upon entry into the United States. This study describes the self-reported health among legalized individuals with and without previous experience in a precarious immigration status. I use two waves of the New Immigrant Survey (NIS). The first wave was collected in 2003. The second wave was collected between 2007 and 2009. The NIS is a nationally representative survey of lawful permanent residents, and it includes variables about migration histories that allow for the calculation of two important variables: having been ever in an undocumented/precarious immigration status and time spent in such status prior to becoming a lawful permanent resident.

Background

Immigrants' documentation status and its influences on health

Immigrants' social and health outcomes have been studied extensively in the past decade. Immigration scholars have argued that the lack of a lawful documentation in the United States is a powerful force of stratification (Asad and Clair 2018; Menjívar 2006). Several mechanisms can explain the association between documentation status and health. First, exposure to an undocumented status may increase the risk of stress and mental health problems. Second, this status may increase exposure to socioeconomic conditions that threaten health such as high-risk

job environments, low wages, lower levels of wealth, and fewer options for state-based income support. Third, an undocumented status reduces healthcare access. These three mechanisms – higher levels of stress, increased exposure to lower socioeconomic status, and lower formal healthcare access reflect direct pathways connecting immigration status with health. In addition, there may be other factors that are related to both immigration status and health outcomes. For instance, if undocumented individuals are positively selected for physical health, then their health outcomes may be better as well. If so, the association between immigration status and health would be spurious.

The few nationally representative studies about immigration status and health rely on cross-sectional measures of immigration status. That is, they rely on measures that indicate an individual's legal status (whether they are citizens, legal permanent residents, temporary immigrants, or undocumented) at one point in their lives. Studies that rely on these measures are important. These studies have increased our understanding about mechanisms behind differences in population health and financial disadvantage. However, due to survey limitations, they are unable to fully capture the long-term relationship between immigration status and health.

Scholars have argued that immigration status does not merely encompass a binary social status. There are statuses that are in a gray area –neither fully legal nor completely undocumented, such as Temporary Protected Status (Menjívar 2006). Immigration status is a dynamic category. Individuals may move in and out of this status throughout their life course, and this complexity challenges binary notions of status (e.g., the undocumented/documented binary) (Villegas and Villegas 2019). For instance, an individual who entered the United States without authorization may become a lawful permanent resident via a family petition or if they benefited from the 1986 immigration amnesty. And vice versa, an individual who had a visa and

entered the United States lawfully may fall out of status if they lose the opportunity to re-apply for legal status or if they are ineligible to do so. An individual's undocumented status may change depending on policies, family-based opportunities to adjust status, and socioeconomic resources to adjust status. Some individuals, especially those without family options to petition and those who have been criminalized have few chances to transition to a lawful status. Moreover, among the select few who do have the opportunity to legalize their documentation status in the United States, they may experience decade-long wait times, further extending the time spent undocumented or in a precarious immigration status and increasing the exposure to the associated social conditions.

In this study, I use the term undocumented immigration status to refer to individuals who entered the United States without documentation. I also use the broader term precarious immigration status to refer to individuals who are not lawful permanent residents/green card holders and are also not U.S. citizens. This may include people with visas, or on other temporary statuses such as Temporary Protected Status (TPS). Time spent in a precarious immigration status often depends on year of arrival, country of origin, marital status, and children characteristics, and resources to access the legal system.

Although immigration status is not static, it has been treated as such in most analyses of immigration status and health. An exclusively cross-sectional analysis of immigration status and health may cause researchers to underestimate the effects of the undocumented experience as individuals who are currently lawful permanent residents (LPRs), or naturalized citizens may have spent some time undocumented. The cross-sectional approach is not well suited to test the mechanisms of exposure to an uncertain, precarious and/or immigration status. Using the cross-sectional static approach, researchers can only make statements about individuals' current status,

but the fact that some individuals change their status over the life course limits the interpretation of these studies. For example, comparisons of naturalized citizens and undocumented immigrants ignore the fact that the former group may have previous experience being in a precarious immigration status. The fact that immigrants who have become legalized may have spent prolonged periods of time in a precarious immigration status brings the question of how previous time in this status influences health even after legalization.

Despite their limitations, previous studies about the link between immigration status and health have achieved great strides in conceptualizing how person histories influence health. Asad and Claire (2018) highlight the theoretical significance of having a documented immigration status for health and frame immigration status as a fundamental cause of health disparities.

Cumulative disadvantage and immigration histories

Previous research has argued that immigration status is a fundamental cause of health and is a source of structural inequality.

Cumulative disadvantage is the process through which inequalities in health persist and are magnified or intensified over time (Crystal and Shea 1990). Long-term exposure to discrimination, disadvantage, and poor conditions such as heavy policing and living in low-income neighborhoods can slowly or rapidly deteriorate health (Gee, Walsemann, and Brondolo 2012). The mechanisms through which cumulative disadvantage occurs are varied. They include prolonged or chronic stress, which accelerates aging and inflammation due to stress and hampers the body's ability to fight disease (Geronimus et al. 2006). The cumulative disadvantage perspective suggests that long-term inequalities manifest into poor health. The main idea behind

this is that previous exposure to a liminal immigration status can influence health at a later point and manifest in the future.

This is not a surprising hypothesis. Several direct and indirect factors may be responsible for the poor health among individuals who have spent some time undocumented. Direct factors include having riskier jobs, working longer hours than U.S.-born individuals, and having low access to healthcare, which may mean that health conditions may go undiagnosed and untreated for prolonged periods of time (Orrenius and Zavodny 2009; Vargas Bustamante et al. 2012). Living without a lawful immigration status is also associated with high levels of uncertainty, anxiety, and fear, which in the short- and long-term may hamper individuals' mental health (Dreby 2012; Abrego and Lakhani 2014; Menjívar and Abrego 2012).

Economic factors also impact wellbeing. Undocumented individuals have reduced financial resources to tend to their health because they are subject to lower wages and wage theft (Donato and Sisk 2012). Moreover, research has shown that low levels of occupational prestige are associated with poor health, including cardiovascular irregularities (Kivimäki et al. 2002).

The cumulative disadvantage perspective acknowledges that an individual's health is a long-term outcome. Some social processes that influence health may act slower than others and may tax an individual's health even after the individual is no longer exposed to said condition(s). This is referred to as latent effects in the life course literature. The cumulative disadvantage perspective suggests that it is important (if not necessary) to examine individuals' time of exposure to unfavorable social conditions. Time spent in these conditions matters for health. Age at which individuals were exposed to poor conditions also matters.

In this study, cumulative disadvantage and social determinants of health are relevant frameworks because the accumulation of experiences and time spent in a precarious immigration status, regardless of an individual's current documentation status, may hold consequences for health status. Examining previously undocumented lawful permanent residents may shed new light on the relationship between immigration status and cumulative disadvantage.

Immigrants' documentation status and health differentials

Immigration status facilitates or obstructs the allocation and access to certain goods as well as rights. This has consequences for immigrant health (Massey and Bartley 2005). An individual's immigration history such as whether they have had previous exposure to a precarious immigration status matters for health because it directly affects access to basic resources such as health care and a dignified workplace (Villegas and Villegas 2019).

The odds of experiencing worsened health are greater for undocumented migrants compared with their documented counterparts. Massey and Cheong (2019) found that, in a sample of Mexican return migrants, as individuals accumulate more years in the United States, their health declines. Torche and Sirois (2019) found that the passage of an anti-immigrant law in Arizona was associated with poor birth outcomes among Latina immigrant women. These studies suggest that the precarity associated with an undocumented immigration status and its interconnectedness with racialization have direct consequences on the body. These processes tax the health of immigrant individuals in different ways.

Hamilton and colleagues (2019) analyzed a survey of farmworkers and found an unexpected health pattern. Their estimates showed that undocumented farmworkers had 19 percent lower odds of reporting chronic conditions and 34 percent lower odds of reporting pain

compared with their documented counterparts (Hamilton 2019). This finding is part of the studies with paradoxical findings about migrant health.

Some studies show that immigrants with undocumented experience health disparities. Others show the opposite trend, but few studies contain measures of immigration status that capture its complexity (Villegas and Villegas 2019). This may be one of the reasons why some evidence contradicts arguments about immigration status as a source of stratification and as a determinant of health (Asad and Clair 2018). An analysis of immigration status histories and previous exposure to a precarious immigration status is one way to unpack the complexity of immigration status. Such an analysis would render visible what cross-sectional approaches hide—the fact that foreign-born individuals may have non-negligible experience being undocumented even when their current immigration status may be described as "legal" (Villegas and Villegas 2019).

The immigrant health paradox

The immigrant health paradox is the trend that immigrants have lower mortality and better health relative to US-born counterparts from the same ethnic group (Zheng and Yu 2022; Bacong and Menjívar 2021). The reason why academics have termed this trend as puzzling is because of some immigrant groups' lower socioeconomic attainment (Bacong and Menjívar 2021). For example, in a study about California and Texas mortality, Eschbach and colleagues (2007) found that Latinx migrants had lower mortality rates than US-born Latinx individuals, who had higher levels of mortality. Several explanations for the immigrant health and mortality paradox have been proposed. However, it is important to note that immigrants experience health declines as they spend more time in the United States (Bacong and Menjívar 2021).

Some argue that return migration is a possible explanation behind the better health among foreign-born migrants because migrants who are sick may choose to return to their countries of birth (Palloni and Arias 2004). This is known as the salmon bias hypothesis. Others argue that return migration is not extensive enough to explain the relatively positive health outcomes among migrants in the United States.

Cheong and Massey (2019) studied a sample of Mexican return migrants and found no evidence of worse health among those migrants who returned to Mexico compared with those who remained in the United States. Although the present paper does not compare the health of U.S.-born and foreign-born migrants, it does explore the possibility of heterogeneity within the foreign-born population. Another aspect of the immigrant health paradox is that physical health outcomes of some foreign-born minorities are worse than their U.S. born counterparts.

A less recognized aspect of the immigrant health paradox trend is that the migrant population is composed of two very different populations: highly selected documented immigrants, and migrants who entered the United States without a documented status. The former group is larger in size, and therefore carries more weight in any analysis of health and mortality. If the health of documented immigrants is very high and that of migrants who entered undocumented is relatively poor, health trends of the former may obscure the health status of the latter group. If migrants with experience being undocumented have worse health outcomes, the current immigrant health paradox trends reflect an average of the extremely good health outcomes among documented immigrants and the (potentially extreme) negative health outcomes of undocumented migrants. Aggregating the health of migrants who entered undocumented and with the health of immigrants who entered the U.S. with documentation may underestimate the

documented immigrant health advantage and overestimate the health status of ever undocumented health status.

That documented immigrants are more advantaged in their health is intuitive because legal migrants are highly selected for education, health, and socioeconomic resources. At the same time, it is possible that physical demands associated with migrating to the United States without documentation could result in positive health selection among undocumented immigrants. However, if this is the case, there should be clear period effects on the immigrant health paradox as clandestine journeys to the US have become more dangerous and costly for undocumented migrants. This type of study to my knowledge has not yet been done. Distinct selection mechanisms do not render grouping foreign-born individuals into the same analytical category theoretically sound.

In the present study, I address this by describing the differences between ever and never undocumented legal permanent residents (LPRs). In my analyses, I disaggregate the migrant category to better discern health status. Next, I discuss a potential theoretical reason that predicts that individuals that have been undocumented may have poorer health than those without this experience.

This Study

This study compares the self-reported health of ever precarious and never precarious lawful permanent residents who gained their green card in 2003. This study uses logistic regression, multivariate regression, and inverse probability weighted models to assess differences in the health status between those with and without exposure to a precarious immigration status using

two waves of survey data from the New Immigrant Survey. The research questions and literature-informed hypotheses are below. Research questions and hypotheses are below.

Research Questions

1) What are the differences in self-reported health among ever precarious legal permanent residents (LPRs) and never precarious LPRs?
2) Does time spent in a precarious immigration status matter for self-reported health?
3) Do socioeconomic and demographic factors account for the association between precarious immigration status and self-rated health?

Hypotheses

1) Compared with lawful permanent residents (LPRs) without previous experience to a precarious immigration status, those with previous exposure to a precarious immigration status will report poorer health.
2) Among LPRs with exposure to a precarious immigration status, those with longer times in this social status will report poorer health.
3) Health differences between LPRs with and without previous exposure to a precarious immigration status will persist after controlling for socioeconomic and demographic factors.

Methods

The New Immigrant Survey (NIS) is a longitudinal nationally representative survey of individuals that became lawful permanent residents in 2003. The sampling frame for the NIS is directly from administrative data from the United States Citizenship and Immigration Services (USCIS). This study uses Wave 1 data (collected in 2003) and Wave 2 data (collected in 2007 to 2009). Of over 12,000 individuals who were sampled, 8,573 completed the survey at Wave 1, yielding a response rate of 68.6%. The survey sampled from four strata, each representing a

different group of immigrant adjustment groups (spouses of U.S. citizens, employment principals, diversity principals, and all other immigrants). These categories reflect the different pathways through which lawful immigrants were able to adjust their immigration status to become green card holders. Follow up interviews with Wave 1 respondents were conducted from June 2007 to 2009. In Wave 2, the response rate was 46.1%, as 3,902 of the initial adult sample responded in Wave 2. This attrition is sizable, and previous researchers have found that observed characteristics are not patterned by previous unauthorized status (Kreisberg and Jackson 2022). The NIS has been used extensively to investigate immigrant health (Akresh and Frank 2008; Frank and Akresh 2016).

Independent Variables

This study has two independent variables of interest: ever precarious immigration status and time spent in a precarious immigration status. When someone has been in a precarious or undocumented immigration status, indicated by having entered the US without documents, they are coded as having ever been in a precarious immigration status. The ever-precarious variable is based on a series of questions asking respondents about their trips to the United States and about their documentation upon entry to the United States. The specific research questions in the survey on which these variables are based are the following: "In what month and year did you arrive in the country in which you now live? For that trip, did you have a visa or other entry document? What kind of visa or entry document did you have (for example a tourist visa, a student visa, border crossing card or a stamp in your passport)?" Based on these questions, I created a binary variable that indicates whether individuals have ever spent any amount of time undocumented/in a precarious immigration status. If individuals did not have any kind of entry document, they were coded as ever precarious. The second independent variable is a continuous

measure indicating time spent undocumented (in years). This measure was created by subtracting the last year of entry into the United States from the year individuals gained a green card (2003) among individuals who have been in a precarious immigration status. A recent paper by Kreisberg and Jackson (2022) has used similar variables to assess unauthorized status in the US.

Dependent Variable

Self-rated health is measured at Waves 1 and 2 using a survey item asking individuals about how they perceive their health. Respondents were asked the following question: "Would you say your health is excellent, very good, good, fair or poor." I coded this variable as a binary indicator whose value is 1 when individuals report poor or fair health and as 0 otherwise. In addition to the binary measure of self-reported health, I also use a categorical measure of self-rated health as a robustness check in ordered logistic regression models. For the categorical version of the variable, I code self-rated health as a three-level categorical variable with the following categories: 1. Excellent or very good health, 2. Good health, or 3. poor/fair health. Creating binary self-reported health measures is common in prior studies (White et al. 2009).

Scholars of immigrant health have used self-reported health in the past to assess differences in health by documentation status (Cheong and Massey 2019). Doiron et al (2015) found that self-reported health is associated with health conditions and that it is more predictive of serious, chronic conditions than less serious health conditions. Au and Johnston (2014) found that self-reported health is strongly associated with vitality, as is physical functioning and bodily pain. Mental health and social functioning are also associated with self-reported health (Au and Johnston 2014). Some argue that self-reported health is a combination of latent health status and reporting behavior (Layes, Asada, and Kepart 2012). Self-rated health as a measure is not

without faults, as it is subject to measurement error (differences in self reporting behavior), and may be biased (Layes, Asada, and Kepart 2012). Nevertheless, self-rated health is often available in national surveys and thus allows for comparison across data sets.

Covariates

I control for age, education (whether respondent has a high school or less education), marital status (whether respondent is married), gender, occupational status, years in the United States, health insurance coverage, and Latinx status. Years in the United States was coded as a categorical variable with the following categories: 0-4 years, 5-10 years, and 10+ years in the U.S. Occupational status was categorized into the following groups: 1) construction, manufacturing, transportation/warehouse, 2) wholesale or retail trade 3) office, information, communication, finance, insurance, real estate, professional and public administration, 4) Education, health, and social services, 5) entertainment, accommodation, food and other services, 6) currently other or no job. Individuals with disabilities, who are homemakers, and who are retired are included in the last category. Health insurance was measured at Wave 1 and 2. Respondents were asked a series of questions that assessed the following: whether the individual was covered by Medicare, private insurance, or employment-based insurance. If they reported having any health insurance from any of these sources, the health insurance variable was coded as 1 and 0 otherwise. Extent of missingness of variables is in Figures 2- 1 and 2- 2 in the Appendix.

I begin with a set of ordinary least squares regression models to examine the association between previous immigration status and self-rated health at Wave 1 and then at Wave 2. Self-rated health, as I describe below, is coded as a binary variable. I model self-rated health with

linear probability models (LPM) because results from LPMs are more comparable across models. As a robustness check, I also test ordered logit models using the variable with multiple categories as an outcome (available in Online Supplement). I use inverted probability weights (using the *teffects* package in Stata) to account for observable differences in sociodemographic factors pre-migration. This approach is similar to a recent paper Kreisberg (2019).

Results

Table 2- 1 reports descriptive statistics of this study's sample, by previous immigration status. The total sample is roughly forty percent men. With respect to ethnicity, the sample is 38 percent Latinx. The racial composition is as follows: 48 percent white, 29 percent Asian, about 12 percent Black, and about 4 percent from an Alaskan Native/Pacific Islander or American Indian background. Regarding country of origin, 44 percent are Mexican, and 29 percent are from counties in Central or South American.

Some of these descriptive statistics show striking differences between those who entered undocumented and those who did not. For example, those who entered documented are older than those who entered without legal documentation (mean age: 39.23 vs. 36.75, respectively). In addition, among the ever-precarious group, a majority (over 80 percent) are Latinx whereas only a quarter of individuals who entered with documentation are Latinx. Over 80 percent of the ever-precarious group are Mexican. In addition, over three quarters of individuals who entered without documentation do not have higher education beyond high school. This group also has more individuals who have lived in the U.S. longer.

I next turn to analyses investigating associations between previous immigration status and self-reported health. Table 2- 2 reports a series of linear probability models which show

regressions with the outcome being a binary indicator of fair or poor self-rated health during Wave 1. Model 1 shows models including demographic variables. Model 2 adds the key variable of interest, called "Ever Precarious" for short. Net of other covariates in the model, namely age, gender, marital status and racial ethnic group, ever precarious is positively associated with reporting fair or poor health. The observed effect of ever precarious is non-negligible. This is larger than the effect of gender and marital status. Notably, compared with non-Latinx white immigrants, only Asian non-Latinx immigrants have a health advantage as they are less likely to report fair or poor health at Wave 1. Model 2 also shows that those with a racial identification as other have a higher probability of reporting fair or poor health

As shown in Model 3 in Table 2- 2, this relationship between ever precarious and self-reported health persists after controlling for years in the U.S. Model 4 controls for occupation. Model 5 controls for health insurance. Notably, the coefficient for the ever-precarious variable attenuates substantially, from a beta of 0.076 (Model 1) to 0.0271 (Model 5) after controlling for years in the US, occupation, and health insurance. The association between ever precarious and reporting fair or poor health at Wave 1 persists net of these controls. Instead of a linear probability model, I also report results of an ordinal logit model (see Table 2- 7 in Online Supplement). Results on the coefficient ever precarious are consistent with results from the linear probability models.

Next, I turn to analyses that investigate changes in health status from Wave 1 to Wave 2. This analysis is useful to assess any disproportionate health declines following legalization. Since effects of inequality on health can be at times latent, showing up well after exposure to inequality, assessing longer run health is important. Table 2- 3 reports five models similar to those in Table 2- 2. The only difference is that the outcome is reporting fair or poor health in

Wave 2 and that all models control for self-reported health at Wave 1. As can be seen throughout these models, being ever precarious does not seem to have a statistically significant association with reporting fair or poor health in wave 2 net of demographics, socioeconomic factors, and previous health status. One possible explanation for this is that the outcome in these models is a more conservative measure of health change. Since I control for self-reported health at Wave 1 and have the outcome as self-reported health at Wave 2, this is a more conservative test of health changes in a relatively short period. Other factors that are worth noting is that Latinx immigrants are more likely than non-Latinx, white immigrants to report fair or poor health in Wave 2 (*b: 0.0547; s.e.: 0.02*). Asian immigrants, relative to white immigrants, were also more likely to report fair/poor health in Wave 2. Individuals with lower levels of education were also more likely to report fair/poor health in Wave 2. As with Wave 1 results, I ran an ordinal logistic regression to ensure results were not sensitive to the modeling approach (available in Table 2- 8 in the Online Supplement).

The second independent variable of interest is time spent in a precarious immigration status. The Wave 1 results are presented in Table 2- 5 and the Wave 2 longitudinal results are in Table 2- 6. Models are organized in a similar fashion as those previously presented, with variables added iteratively. Every one-year increase spent in a precarious immigration status is associated with a less than 1 percent increase in the probability of reporting fair or poor health. Throughout Models 1 to 5, the association between time spent in a precarious immigration status and self-reported health attenuates but remains statistically significant.

Table 2- 6 shows results from the outcome self-reported health at Wave 2. In this model, the association between time spent in a precarious immigration status and health attenuates when controlling for race/ethnicity and occupation.

Inverse Probability Weights Regression Results

Inverse probability weighted models are a way to address differential selection into a social status or treatment group. This strategy emerges from the potential outcomes framework and results in a calculation of treatment effects. Coefficients from these models are weighted based on the inverse probability that an individual is in the treatment group (Stata n.d.).

Models from these results gauge the extent to which the associations between ever precarious and self-rated health persist or not when using inverted probability weights to balance out the observed characteristics of participants in the New Immigrant Survey sample. For brevity, I only show the coefficient showing the average treatment effects in the Wave 1 and 2 samples in Table 2- 4. These models include controls for age, marital status, gender, country of origin, Latinx status and educational level. These socio-demographic variables were chosen because they represent plausible pre-treatment characteristics. Like regression results without inverted probability weights, I find that Wave 1 results show a significant association between ever precarious and self-reported health (*b: 0.0299; s.e.: 0.0138*) and that Wave 2 results do not show a significant association (*b: -0.0283; s.e.: 0.0243*), suggesting that in the sample used in this survey, health declines were not evident among individuals in the ever-precarious category.

Discussion

Despite a burgeoning line of research about the relationship between immigrants' documentation status and health, limited studies have assessed the relevance of previous immigration status for self-reported health among individuals who have gained lawful permanent status in the United States. This study uses two waves of data from the New Immigrant Survey spanning the period 2003-2009. Using this dataset allows for the identification of persons who entered the United

States undocumented and thus the group of persons with previous unauthorized experience can be captured (Kreisberg and Jackson 2022). Findings indicate that having ever been in a precarious immigration status is associated with self-rated health net of demographic, socioeconomic, and healthcare covariates when I apply a cross-sectional approach. In longitudinal models, the association between having ever been in a precarious immigration status and self-reported health does not appear to be statistically significant. This may be because socioeconomic factors mediate and account for this relationship.

The findings of this study hold several implications for research about immigrant health. First, although individuals' current immigration status is most available in large scale survey data, these cross-sectional measures do not speak to the exposure to an undocumented or a precarious immigration status in general. Not only are these approaches limiting, but they may also warp and underestimate the effects of legal violence on health (Menjívar and Abrego 2012). As noted, several mechanisms have been hypothesized to channel the impact of immigration status on health, and some of these may be latent and show up even after individuals may have gained a legal status. For example, the combined effects of allostatic loads may wear and tear the body slowly, over time and may show up later in life. Thus, comparisons of individuals who are or are not lawful immigrants should not be assumed to capture absolute exposure to non-citizenship, precarious immigration statuses, and/or an undocumented status.

Nevertheless, concurrent immigration status on which many studies on immigration status and health rely typically assume that immigration status is static. The finding that previous immigration status is associated with poorer self-reported health at Wave 1, at minimum, suggests the need for additional attention to migrants' immigration status histories and previous exposures to precarious immigration statuses. By accounting for previous immigration status, as

opposed to only status at the survey interview, this study reflects an understanding that an immigrant's documentation status can change through a person's life. It is dynamic.

Findings of this study document that self-reported health is associated with being ever precarious at Wave 1. After sociodemographic controls are considered, this association persists. In supplemental results (not shown here; available upon request), I explored other health outcomes such as having a chronic condition. In these analyses, I find that reporting having a chronic condition does not appear to have a statistically significant relationship with previous immigration status. One of the potential explanations for this trend is that chronic conditions are closely tied with medical diagnoses. Individuals who have never been undocumented may have more trust in the medical system and may have had a higher likelihood of having continuous medical care. In contrast, individuals with exposure to being undocumented may have relatively less experience with institutionalized medical care. The lack of relationship between immigration status and chronic conditions, also found by Hamilton and colleagues (2019), may be a result of under-diagnosing. I controlled for health insurance at the time of surveys, but this may be an imperfect way to assess overall access to healthcare because it does not capture healthcare status before individuals became legal permanent residents. Thus, if ever precarious immigrants have experienced lower access to health as previous literature shows, chronic conditions may go under-diagnosed. In this respect, self-reported health may be a preferable health measure to doctor-diagnosed chronic conditions.

Aside from testing within-group variation in the health status of immigrants who become lawful permanent residents, the primary theoretical contribution of this study is testing the notion that previous migration histories may matter for health. In doing so, I build on the recent work

about the importance of looking into the starting points of immigrants who have become lawful permanent residents (Kreisberg 2019).

In longitudinal models, although previous immigration status was not associated with health in Wave 2, I found other important correlates of health. Latinx immigrants, compared with non-Latinx immigrants, reported worsened health in Wave 2. Compared with white persons, Asians were also disadvantaged in their health status in Wave 2. These racial/ethnic differences persisted and did not attenuate substantially after controlling for occupation, education, and years in the United States.

Generally, these findings point to racialization experiences among immigrant groups perceived as foreign despite their gained legalization experiences. The fact that I control for self-rated health status at Wave 1 means that the longitudinal data models capture change in self-rated health status from Wave 1 to Wave 2. The health declines of specific subgroups of Latinx and Asian immigrants since becoming lawful permanent residents are important to interrogate in future research. In sum, my findings suggest the importance of better testing theories and concepts about documentation status in a non-static manner. This study also identifies important racial ethnic differences in self-rated health after gaining a green card.

Future Research Directions and Conclusions

The factors that influence immigrant health are varied, multidimensional, and, at times, invisible. People who enter the United States without authorization are likely different from those who enter with status in several characteristics (age, education, country of origin, family structure, familial wealth, context growing up, family/social support in the US). In this study, I analyze a longitudinal sample of individuals who gained legal status in 2003 and use inverse probability

weights to help control for some observed confounders that may explain the relationship between previous immigration status and self-reported health.

Direct and indirect factors point to the material conditions that illegality produces, and these social conditions may materialize into health outcomes. Having ever been undocumented likely bear the evidence on their bodies and in their health status. On the other hand, perspectives of community self-reliance suggest that in the absence of state-based sustenance, communities create their own ecosystems of care and survival (Cervantes and Menjívar 2020). Migrants have agency, they negotiate, and create strategies of health survival (Villegas and Villegas 2019). Both may be true. In this study, people who entered the US documented may have been ever undocumented so in this case the effect of being ever undocumented or precarious would be underestimated.

Several aspects of this study are novel. First, few quantitative studies that rely on cross-sectional survey data have taken into consideration that immigration statuses change in an individuals' lifetime. This study addresses this gap by recognizing and modeling the fact that legal permanent residents may have spent time in precarious and undocumented immigration statuses in the past. Second, studies that have examined the relationship between immigration status and health often rely on one approach (cross-sectional models or longitudinal). This study includes both types of models.

This study has limitations. Relying on self-reported health means relying on subjective perceptions of health. Some questions' answers may vary depending on who migrants compare their health to. To partly address this, I run a robustness check on a self-reported health measure that refers to respondents' hometown as the reference category for their health. In addition, this

paper may not fully capture the consequences of an ever-precarious status on health because health conditions exist in a family context, which means that family members often support each other with medications, time, labor, and care. I recommend future researchers further explore this avenue. Last, this study only includes legal permanent residents and thus excludes individuals who have become U.S. citizens (by the study date) and who also may have been previously undocumented. Similarly, this study excludes currently undocumented individuals, who may have spent several decades in this status. Thus, readers should consider these findings a conservative test of the influence of immigration status. Moreover, future studies should investigate how different time periods and policy context shape the size and proportion of migrants with experience being undocumented. Unobserved confounders may be an issue in this study. In addition, the effect of being Mexican and precarious immigration status may be difficult to disentangle. However, other studies specifically comparing Mexicans who never migrated compared with Mexicans with undocumented experience captures a unique undocumented migrant effect (Cheong and Massey 2019).

Another limitation is that the sample is based on one period. The sample of legal permanent residents legalized during this time may reflect a population with lower levels of exposure to an undocumented status compared to undocumented persons who have been exposed to this social condition and who have recently legalized their status.

Despite its limitations, this study is an important step to understanding the health trends of foreign-born individuals with previous exposure to a precarious immigration status. The findings presented here are partially in agreement with theoretical and qualitative research about the harm of exclusion from legal status in everyday life and in the long-run, and they suggest that different dimensions of health may be distinctly impacted. Given that previous quantitative

studies that use survey data have found mixed results, this study prompts researchers to consider the complexity of immigration status and to go beyond fixed and static notions of (il)legality when possible.

Although quantitative research has found mixed evidence of the association between immigration status and health, quantitative research has generally grouped individuals who have previous exposure to a precarious immigration status and no exposure to legal status together. In this study, I examine the association between previous exposure to a precarious immigration status and self-reported health. Future research should adopt a dynamic understanding of immigration status. Future researchers may wish to examine how socioeconomic mechanisms come to influence previously undocumented immigrants from a qualitative lens. Regardless of the mechanisms at work, the negative effects of previous immigration status are troubling given the fact that currently undocumented individuals are spending more time in this status than ever before. This study raises questions about the structural and legal violence implications of long-term exposure to immigration statuses.

Table 2- 1. Descriptive Statistics for the Analytic Sample (~ for Wave 1 Sample & ~ for Wave 2 Sample), New Immigrant Survey

	Entered without documentation/Ever precarious	Entered with documentation	All
Fair or poor reported health (%), W1	14.48%	8.35%	9.69%
Fair or poor reported health (%), W2			
Age (mean in years)	36.75	39.24	38.70
s.d.	0.32	0.19	0.16
Latinx (%)	82.97%	25.51%	38.07%
Men (%)	49.63%	42.07%	43.73%
Married (%)	68.95%	75.44%	74.02%
High school or less	77.90%	45.13%	52.29%
Health Insurance, W1	34.78%	35.90%	35.65%
Years in the US			
0-5 years	15.64%	72.62%	60.17%
5-10 years	22.97%	18.33%	19.35%
10+ years	61.39%	9.05%	20.49%
Occupation			
construction	25.49%	11.19%	14.32%
wholesale	8.69%	8.34%	8.42%
office	12.01%	11.23%	11.40%
education	6.21%	9.38%	8.69%
entertainment	16.59%	11.75%	12.81%
Other	31.00%	48.10%	44.37%
Race/ethnicity			
White	68.22%	42.88%	48.42%

Asian	5.05%	35.76%	29.05%
Back	4.51%	13.50%	11.54%
Alaskan native /American Indian	7.70%	2.79%	3.86%
other	14.52%	5.06%	7.13%
Country of origin			
Mexico	88.32%	31.70%	44.06%
Africa	1.11%	7.86%	6.39%
South and Central America	5.67%	36.12%	29.47%
Europe and	2.19%	17.07%	13.82%
Middle East	0.97%	5.42%	4.45%
Other	1.75%	1.83%	1.81%
Sample size (N)	1,451	6,320	7,771

Table 2- 2. Linear Probability Models Predicting Fair or Poor Self-Reported Health, Wave 1, New Immigrant Survey

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Age	0.00570**	0.00576**	0.00576**	0.00515**	0.00511**
	(0.000340)	(0.000340)	(0.000342)	(0.000336)	(0.000337)
Men	-0.0288**	-0.0291**	-0.0303**	-0.0191*	-0.0197*
	(0.00723)	(0.00726)	(0.00728)	(0.00794)	(0.00799)
Married	-0.0252**	-0.0221**	-0.0225**	-0.0173*	-0.0157
	(0.00826)	(0.00836)	(0.00840)	(0.00844)	(0.00852)
Ever Precarious	0.0760**	0.0544**	0.0427**	0.0274*	0.0271*
	(0.0103)	(0.0113)	(0.0125)	(0.0125)	(0.0125)
Race/ethnicity					
Latinx (rel. to non-Latinx white)		0.0177	0.0153	-0.000570	-0.00184
		(0.0110)	(0.0110)	(0.0112)	(0.0112)
non-Latinx Black		-0.0139	-0.0142	-0.0257*	-0.0265*
		(0.0120)	(0.0120)	(0.0121)	(0.0121)
Asian non-Latinx		-0.0247*	-0.0244*	-0.0310**	-0.0314**
		(0.00966)	(0.00966)	(0.00963)	(0.00960)
Alaskan Indian, Pacific Islander, Native/Indigenous		0.0220	0.0205	0.00440	0.00351
		(0.0222)	(0.0221)	(0.0222)	(0.0222)
Other		0.0483*	0.0464*	0.0307	0.0299
		(0.0194)	(0.0194)	(0.0195)	(0.0195)
Less than high school education				0.0574**	0.0555**
				(0.00752)	(0.00771)
Occupation					
(rel. to construction) Wholesale or retail trade				0.00871	0.00851
				(0.0147)	(0.0147)
Office, information, communication, finance, insurance, real estate, professional and public admin				0.00846	0.00968

				(0.0134)	(0.0135)
Education health and social services				0.0151	0.0160
				(0.0156)	(0.0156)
Entertainment, accommodation, food services or other services				-0.000397	-0.00137
				(0.0136)	(0.0136)
Currently other or no job				0.0351**	0.0338**
				(0.0121)	(0.0121)
Years in the US					
(rel. to <5 years) 5-10 years			0.0136	0.0255*	0.0277**
			(0.00969)	(0.0101)	(0.0102)
10+ years			0.0239*	0.0360**	0.0382**
			(0.0121)	(0.0123)	(0.0125)
Has health insurance					-0.0124
					(0.00799)
Constant	-0.109**	-0.110**	-0.113**	-0.138**	-0.132**
	(0.0134)	(0.0147)	(0.0146)	(0.0184)	(0.0188)
Observations	8,573	8,573	8,573	8,573	8,573
R-squared	0.080	0.084	0.085	0.096	0.096

Standard errors in parentheses
** p<0.01, * p<0.05

Table 2- 3. Linear Probability Models Predicting Fair or Poor Self-Reported Health, Wave 2, New Immigrant Survey

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Reported fair or poor health, Wave 1	0.323**	0.322**	0.325**	0.306**	0.305**
	(0.0312)	(0.0313)	(0.0313)	(0.0321)	(0.0322)
Age	0.00946**	0.00914**	0.00910**	0.00815**	0.00802**
	(0.000666)	(0.000670)	(0.000668)	(0.000674)	(0.000674)
Men	-0.0408**	-0.0322*	-0.0310*	-0.0240	-0.0264
	(0.0146)	(0.0147)	(0.0147)	(0.0152)	(0.0152)
Married	-0.00846	-0.0128	-0.0108	-0.00308	0.00353
	(0.0168)	(0.0172)	(0.0172)	(0.0172)	(0.0174)
Ever Precarious	0.0440*	0.0152	0.0383	0.00209	0.00278
	(0.0178)	(0.0210)	(0.0219)	(0.0221)	(0.0220)
Race/ethnicity					
Latinx (rel. to non-Latinx white)		0.0898**	0.0950**	0.0607**	0.0547*
		(0.0219)	(0.0223)	(0.0222)	(0.0220)
non-Latinx Black		0.000887	-0.00148	-0.0196	-0.0246
		(0.0222)	(0.0225)	(0.0232)	(0.0235)
Asian non-Latinx		0.0733**	0.0704**	0.0578**	0.0564**
		(0.0198)	(0.0200)	(0.0199)	(0.0197)
Alaskan Indian, Pacific Islander, Native/Indigenous		0.0405	0.0427	0.00784	0.00453
		(0.0340)	(0.0342)	(0.0337)	(0.0332)
Other		0.0873**	0.0919**	0.0624	0.0570
		(0.0331)	(0.0336)	(0.0355)	(0.0351)
Less than high school education				0.111**	0.103**
				(0.0160)	(0.0162)
Occupation					
(rel. to construction) Wholesale or retail trade				-0.0521	-0.0555
				(0.0336)	(0.0335)
Office, information, communication, finance,				-0.0486	-0.0434

insurance, real estate, professional and public admin					
				(0.0280)	(0.0277)
Education health and social services				-0.0531	-0.0480
				(0.0310)	(0.0308)
Entertainment, accommodation, food services or other services				-0.0619*	-0.0667*
				(0.0286)	(0.0288)
Currently other or no job				0.00148	-0.00410
				(0.0258)	(0.0257)
Years in the US					
(rel. to <5 years) 5-10 years			-0.0293	-0.0149	-0.00726
			(0.0183)	(0.0183)	(0.0185)
10+ years			-0.0613**	-0.0302	-0.0180
			(0.0207)	(0.0218)	(0.0219)
Has health insurance					-0.0544**
					(0.0158)
Constant	-0.203**	-0.239**	-0.213**	-0.205**	-0.181**
	(0.0285)	(0.0307)	(0.0331)	(0.0397)	(0.0407)
Observations	8,573	8,573	8,573	8,573	8,573
R-squared	0.193	0.201	0.203	0.224	0.227

Standard errors in parentheses
** p<0.01, * p<0.05

Table 2- 4. Inverted Probability Weights Regression Models, Wave 1 and 2 Samples, New Immigrant Survey

	Wave 1 sample	Wave 2 sample
Ever precarious immigration status	0.0299*	-0.0283
stand. error	0.0138	0.0243
Demographic controls	Yes	Yes

Note: Controls included age, marital status, gender, country of origin, race, Latinx status, and education.

Table 2- 5. Time spent precarious Wave 1

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Age	0.00558**	0.00567**	0.00571**	0.00513**	0.00510**
	(0.000341)	(0.000341)	(0.000342)	(0.000337)	(0.000338)
Men	-0.0295**	-0.0298**	-0.0304**	-0.0193*	-0.0199*
	(0.00724)	(0.00727)	(0.00728)	(0.00794)	(0.00799)
Married	-0.0248**	-0.0218**	-0.0228**	-0.0176*	-0.0159
	(0.00825)	(0.00835)	(0.00838)	(0.00843)	(0.00852)
Time spent in precarious status	0.00587**	0.00450**	0.00434**	0.00317**	0.00314**
	(0.000842)	(0.000941)	(0.00120)	(0.00122)	(0.00122)
Race/ethnicity					
Latinx (rel. to non-Latinx white)		0.0151	0.0142	-0.00189	-0.00318
		(0.0113)	(0.0113)	(0.0114)	(0.0114)
non-Latinx Black		-0.0141	-0.0143	-0.0255*	-0.0264*
		(0.0120)	(0.0120)	(0.0121)	(0.0121)
Asian non-Latinx		-0.0247*	-0.0246*	-0.0311**	-0.0315**
		(0.00966)	(0.00966)	(0.00962)	(0.00960)
Alaskan Indian, Pacific Islander, Native/Indigenous		0.0212	0.0204	0.00371	0.00281
		(0.0220)	(0.0220)	(0.0221)	(0.0221)
Other		0.0469*	0.0463*	0.0301	0.0293
		(0.0194)	(0.0195)	(0.0195)	(0.0195)
Less than high school education				0.0563**	0.0544**
				(0.00757)	(0.00776)
Occupation					
(rel. to construction) Wholesale or retail trade				0.00871	0.00853
				(0.0146)	(0.0147)
Office, information, communication, finance, insurance, real estate, professional and public admin				0.00908	0.0103
				(0.0134)	(0.0135)

Education health and social services				0.0152	0.0162
				(0.0156)	(0.0156)
Entertainment, accommodation, food services or other services				-4.75e-05	-0.00101
				(0.0136)	(0.0136)
Currently other or no job				0.0350**	0.0338**
				(0.0121)	(0.0121)
Years in the US					
(rel. to <5 years) 5-10 years			0.0140	0.0251*	0.0272**
			(0.00973)	(0.0101)	(0.0103)
10+ years			0.00514	0.0205	0.0226
			(0.0140)	(0.0142)	(0.0144)
Has health insurance					-0.0124
					(0.00799)
Constant	-0.103**	-0.105**	-0.108**	-0.135**	-0.129**
	(0.0134)	(0.0146)	(0.0146)	(0.0183)	(0.0187)
Observations	8,573	8,573	8,573	8,573	8,573
R-squared	0.082	0.086	0.086	0.096	0.097

Standard errors in parentheses
** p<0.01, * p<0.05

Table 2- 6. Time spent precarious Wave 2.

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5
Reported fair or poor health, Wave 1	0.322**	0.313**	0.324**	0.304**	0.303**
	(0.0311)	(0.0313)	(0.0313)	(0.0321)	(0.0321)
Age	0.00940**	0.00908**	0.00904**	0.00801**	0.00788**
	(0.000664)	(0.000671)	(0.000664)	(0.000670)	(0.000670)
Men	-0.0420**	-0.0349*	-0.0326*	-0.0269	-0.0291
	(0.0146)	(0.0147)	(0.0147)	(0.0152)	(0.0152)
Married	-0.00689	-0.0127	-0.00909	-0.00220	0.00450
	(0.0168)	(0.0173)	(0.0172)	(0.0172)	(0.0173)
Time spent in precarious status	0.00409**	0.00261	0.00485**	0.00210	0.00206
	(0.00136)	(0.00163)	(0.00176)	(0.00179)	(0.00180)
Race/ethnicity					
Latinx (rel. to non-Latinx white)		0.0789**	0.0885**	0.0541*	0.0479*
		(0.0214)	(0.0222)	(0.0221)	(0.0218)
non-Latinx Black		0.197*	-0.00146	-0.0167	-0.0221
		(0.0934)	(0.0225)	(0.0231)	(0.0234)
Asian non-Latinx		-4.02e-05	0.0696**	0.0580**	0.0565**
		(0.0221)	(0.0200)	(0.0198)	(0.0197)
Alaskan Indian, Pacific Islander, Native/Indigenous		0.0730**	0.0387	0.00324	-0.000229
		(0.0197)	(0.0343)	(0.0337)	(0.0332)
Other		0.0348	0.0869**	0.0593	0.0536
		(0.0339)	(0.0334)	(0.0350)	(0.0347)
Years in the US					
(rel. to <5 years) 5-10 years			-0.0284	-0.0158	-0.00801
			(0.0183)	(0.0182)	(0.0184)
10+ years			-0.0756**	-0.0450*	-0.0321

			(0.0213)	(0.0223)	(0.0226)
Less than high school education				0.118**	0.111**
				(0.0163)	(0.0164)
Occupation					
(rel. to construction) Wholesale or retail trade				-0.0464	-0.0499
				(0.0334)	(0.0333)
Office, information, communication, finance, insurance, real estate, professional and public admin				-0.0419	-0.0366
				(0.0280)	(0.0277)
Education health and social services				-0.0484	-0.0431
				(0.0309)	(0.0308)
Entertainment, accommodation, food services or other services				-0.0574*	-0.0623*
				(0.0286)	(0.0288)
Currently other or no job				0.00626	0.000495
				(0.0258)	(0.0257)
Has health insurance					-0.0545**
					(0.0157)
Constant	-0.202**	-0.234**	-0.208**	-0.199**	-0.176**
	(0.0281)	(0.0306)	(0.0331)	(0.0393)	(0.0403)
Observations	8,573	8,514	8,573	8,573	8,573
R-squared	0.194	0.197	0.205	0.227	0.231

Standard errors in parentheses
** p<0.01, * p<0.05

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Table 2- 7. Ordinal logistic regression, Wave 1 sample.

VARIABLES	(1) Model 1
Age	0.0432**
	(0.00215)
Men	-0.393**
	(0.0629)
Married	-0.0122
	(0.0624)
Racial group (rel. to white)	
Asian	0.0890
	(0.0800)
Black	-0.310**
	(0.105)
Alaskan Indian, Pacific Islander, Native/Indigenous	0.0784
	(0.151)
Other	0.283*
	(0.112)
Latinx status (rel. to non-Latinx)	0.0874
	(0.0828)
Ever precarious	0.479**
	(0.0902)
<High school education	0.596**
	(0.0635)
Occupation (rel. to construction)	

Wholesale or retail trade	-0.104
	(0.131)
Office, information, communication, finance, insurance, real estate, professional and public admin	-0.233
	(0.122)
Education health and social services	-0.130
	(0.132)
Entertainment, accommodation, food services or other services	-0.0683
	(0.111)
Currently other or no job	0.0410
	(0.0963)
Years in the US (rel. to <5 years)	
5-10 years	0.0751
	(0.0847)
10+ years	0.101
	(0.0922)
Has health insurance	-0.135*
	(0.0666)
/cut1	2.489**
	(0.146)
/cut2	4.417**
	(0.155)
Observations	8,572

Standard errors in parentheses
** p<0.01, * p<0.05

Table 2- 8. Ordinal logistic regression, Wave 2.

VARIABLES	Model 1
Reported fair or poor health, W1	55.32**
	-1.134
Age, W2	0.0317**
	-0.00456
Men	-0.185
	-0.109
Married, W2	0.183
	-0.114
Racial group (rel. to white)	
Asian	0.256
	-0.138
Black	-0.360*
	-0.171
Alaskan Indian, Pacific Islander, Native/Indigenous	-0.546*
	-0.272
Other	-0.18
	-0.204
Latinx status (rel. to non-Latinx)	0.393**
	-0.143
Ever precarious	0.238
	-0.155
<High school education	0.460**
	-0.108
Occupation (rel. to construction)	

Wholesale or retail trade	-0.284
	-0.206
Office, information, communication, finance, insurance, real estate, professional and public admin	-0.364*
	-0.169
Education health and social services	0.0596
	-0.179
Entertainment, accommodation, food services or other services	0.106
	-0.177
Currently other or no job	0.0643
	-0.162
disabled or retired	-16.94**
	-1.025
homemaker	-0.417
	-0.516
Years in the US (rel. to <5 years)	
5-10 years	-0.0492
	-0.128
10+ years	-0.0712
	-0.155
Has health insurance	-0.515**
	-0.11
/cut1	1.851**
	-0.268
/cut2	22.49**
	-0.285
Observations	8,546
Standard errors in parentheses	

** p<0.01, * p<0.05

Appendix

Figure 2- 1. Missingness description of Wave 1 sample, New Immigrant Survey 2003.

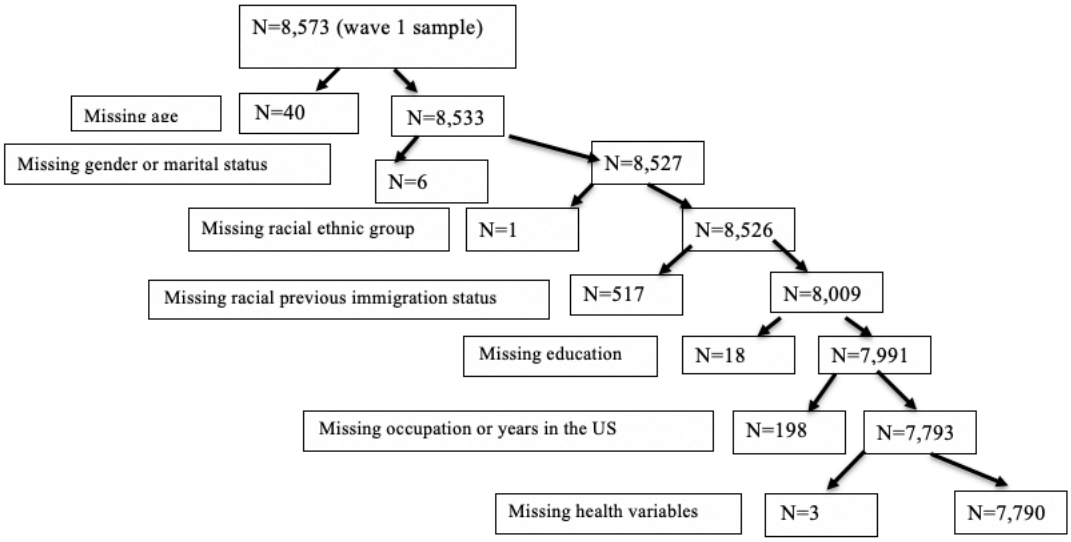

Figure 2- 2. Missingness description of Wave 2 sample, New Immigrant Survey 2003.

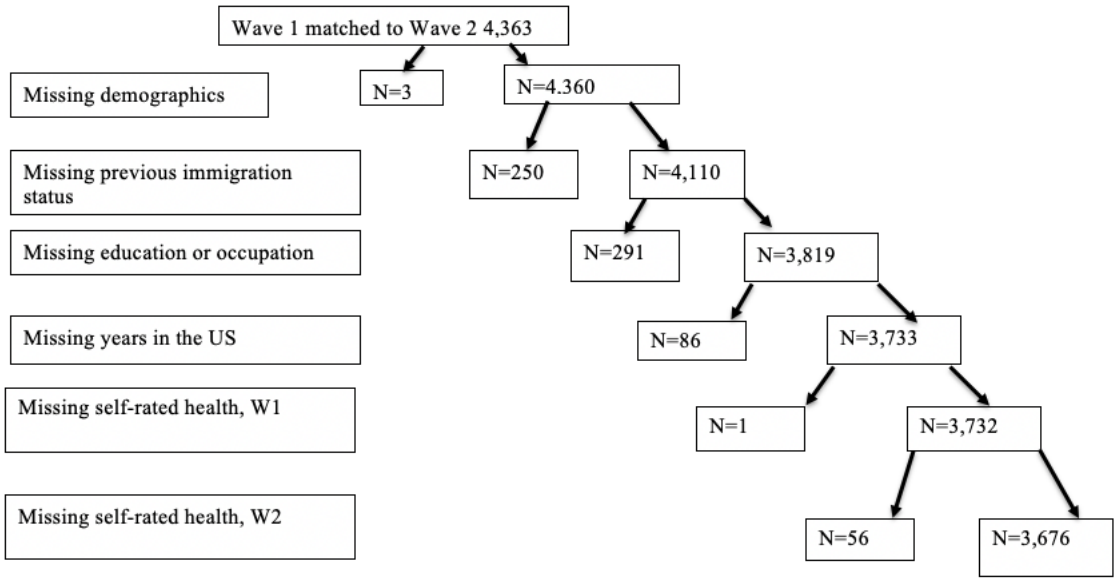

Table 2- 9. Table of survey questions used in study, New Immigrant Survey Wave 1 and Wave 2.

Variable	
Self-rated health	Would you say your health is excellent, very good, good, fair, or poor
Chronic conditions	D4 Has a doctor ever told you that you have high blood pressure or hypertension? D8 Has a doctor ever told you that you have diabetes or high blood sugar? D13 Has a doctor ever told you that you have cancer or a malignant tumor, excluding minor skin cancers? D19 Has a doctor ever told you that you have chronic lung disease such as chronic bronchitis or emphysema? D24 Has a doctor ever told you that you had a heart attack, coronary heart disease, angina, congestive heart failure, or D43 Has a doctor ever told you that you had a stroke?

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Chapter 3 Financial Security and Documentation Status: An Analysis of Net Worth in the United States Across Different Racial Ethnic Groups

Abstract

An immigrant's documentation status bears heavily on aspects of everyday life many citizens take for granted, such as the ability to build financial security, including wealth. Using the Survey of Income and Program Participation waves for 1996, 2001, 2004, and 2008, this study provides novel insights regarding immigrant wealth in the United States. First, this study provides national descriptive statistics about differences in net worth between individuals who have different immigration status. Second, this study examines the extent to which immigrants' legal immigration status contributes to wealth inequality between racial-ethnic groups. I assess the extent to which having an undocumented or precarious immigration status accounts for differences in household wealth between the white and the Black, Asian, and Latinx populations. Because of the strong association between age and wealth, this study also shows differences in the relationship between age and wealth by immigration status. Findings show that immigration status accounts for different proportions of the wealth gap within each racial-ethnic group. For instance, immigration status accounts for a substantial portion of the wealth gap in Latinx and Asian communities. Lastly, this study finds that while age and wealth tend to be correlated for individuals with a legal immigration status, this trend is weaker among immigrants who are undocumented or have precarious legal status. Implications for policy and future research are discussed.

Introduction

The economic status of immigrants usually improves throughout their life course. A longer period of time in the United States is associated with increases in wages, for example (Villarreal and Tamborini 2018). However, while some factors, such as time in the United States, have a

positive relationship with immigrants' socioeconomic status, other factors, such as race/ethnicity and immigration status, may obstruct the economic progress of immigrants (Asad and Clair 2018; García 2017; Salgado and Ortiz 2019). Having an undocumented or precarious immigration status is an important source of inequality. Yet, extremely little is known about how different legal or immigration statuses are associated with population-level wealth disparities between racial/ethnic groups in the U.S. We also lack information about whether the relationship between age and wealth remains positive among those without a legal immigration status (referred to as undocumented/precarious migrants).

Precarious immigration statuses include immigration statuses that are irregular, insecure, and fickle (Goldring, Berinstein, and Bernhard 2009). In the United States, they represent statuses such as Temporary Protected Status (TPS), Deferred Action for Childhood Arrivals (DACA), other work permits, and an undocumented status. A precarious immigration status impacts individuals' everyday lives through exclusion from social programs, risk of deportation, employment discrimination, and limited healthcare access (Menjívar and Abrego 2012). Immigration status is likely associated with wealth-building through several direct mechanisms. For instance, low wages, low access to credit and bank accounts, responsibilities to send remittances to their home countries, limits on their occupational mobility, risks associated with establishing long-term financial security in the United States, uncertainty, and lack of information all threaten wealth-building processes (Flippen 2019). The effects of a precarious immigration status on wealth may be long-lasting, continuing even after individuals are no longer in a precarious status category (Goldring and Landolt 2011; Kreisberg 2019). Furthermore, some groups of immigrants may choose to not establish assets in the United States because of uncertainty and deportation risk (Villegas 2014). Given the fact that the composition

of immigration status across racial/ethnic groups is not randomly distributed, whether and the extent to which immigration status drives racial/ethnic inequalities is an important albeit understudied question (Author 2021).

Wealth is an important socioeconomic outcome to study alongside immigration status for several reasons. Wealth is not only more stable than income, but also more unevenly distributed between racial/ethnic groups *(*Brulé and Suter 2019). Previous research has documented steep wealth inequality between white and racialized minorities such as Black persons and Latinx person. And these racialized wealth patterns persist among US-born and immigrant populations (Painter and Qian 2016). Key structural explanations for this include racist historical and contemporary events, policies, economic and otherwise, educational opportunities, among many others. One underexamined explanation undergirding uneven population-level wealth between whites and minority racial/ethnic groups is the immigration status composition of these groups. The wealth of the immigrant adult population holds implications for the intergenerational transmission of inequality because access to familial wealth shapes young adults' economic outcomes and social mobility (Conley 2007; Pfeffer and Hällsten 2012; Braga et al 2017). Second, immigrants who grow old in the United States have developed deep connections to their communities and families in the United States, and thus a substantial portion may choose to remain in the country (Wampler, Chávez, and Pedraza 2009) and/or engage in transnational aging (Montes de Oca, García, and Sáenz 2013). If immigrants in precarious immigration statuses have lower wealth throughout their life course, their future socioeconomic wellbeing in older age may be at risk due to the fact that they will have limited access to social government programs aimed to support low-income older Americans (e.g., income assistance programs from the Social Security Administration). Population-level accounts that examine the wealth of

different racial/ethnic groups alongside emerging sources of inequality across immigrations statuses are limited. The present study uses pooled cross-sections from the Survey of Income and Program Participation (1996-2008) to examine the extent to which immigration status composition explains population-level racial/ethnic differences in wealth. In addition to a decomposition of wealth and because of the importance of wealth building throughout the life course, this study also explores the association between age and wealth and how it differs across different immigration status categories. Age patterns matter because undocumented immigrants and other immigrants with less stable immigration statuses may be ineligible for low-income assistance programs designed to support older and poor Americans (Flores Morales 2021).

Background

Theories of Immigrant Incorporation and Race/Ethnicity

Two distinct literatures informed this study regarding the anticipated relationship between lawful immigration status, race/ethnicity, and wealth. The first is on theoretical contributions related to immigrant incorporation, which offers broad arguments related to the importance of being an immigrant and considering race/ethnicity. The second strand of literature is on wealth patterns and mechanisms undergirding wealth disparities.

Theories of incorporation explain processes of adaptation that immigrants undergo when they are new residents in a society. These theories aim to explain eventual social outcomes of immigrants who spend periods of time in a new place. Since the early and mid-20th century, researchers have developed theories of incorporation or assimilation to make sense of how immigrant groups (at the time mainly white, European immigrants) interact with other people, institutions, and each other and how those interactions lead to social outcomes (e.g., socioeconomic outcomes) similar or dissimilar to those of U.S.-born individuals. Incorporation

refers both to intergenerational assimilation and to the process by which individual immigrants 'assimilate' within their lifetime. Among the earliest iterations of assimilation theory is classical or straight-line assimilation theory. Classical assimilation theory posits that assimilation can be measured by several dimensions: cultural assimilation, structural assimilation, marital assimilation, identification assimilation, attitude assimilation, behavioral assimilation, and civic assimilation (Gordon 1964). According to Gordon (1964), assimilation will have taken place when the immigrant is no longer met with discrimination and prejudiced attitudes. In other words when the immigrant has assimilated into whiteness.

Alba and Nee (1997), critiquing classical assimilation theory for assuming that immigrants would easily and/or eventually assimilate into mainstream society, offered a revised assimilation theory. Assimilation or incorporation, they argued, presents the question of who has full membership in American society, and thus any attempts to understand it must address the social forces that facilitate or obstruct incorporation (Drouhot and Nee 2019). Alba and Nee (1997) acknowledged the possibility of uneven experiences of assimilation based on ethnic stratification but argue for the possibility of an eventual assimilation of groups perceived to be assimilable, in their view lighter skinned Latinxs and Asians in the United States. It is important to note that the core tenets of these theories were developed before the contemporary context of heightened criminalization of undocumented immigrants, and in a time before sizable portions of the undocumented population began to stay in the United States for longer periods of time.

In this study, someone's lawful immigration status or the lack thereof is understood as a force that may disrupt immigrant incorporation. Incorporation theories are relevant to this study because immigration status is a force that limits wealth-building and hampers economic incorporation within and across generations. A recent reinterpretation of assimilation theory

prompts us to consider it as follows: “a relational process whereby the boundary between unequal groups and between inside and outside blurs, disappears, or paradoxically, is reinforced” (Ramírez 2020, pg. 50). Ramírez (2020) argues that assimilation is a process not only experienced by immigrants, as U.S.-based minority groups are also othered and precluded from being treated as American. In addition, Ramírez (2020) exposes a paradox of inclusion by arguing that a clear example of this concept is the economic position of undocumented immigrants, perceived as needed workers in the economy, but excluded in countless ways.

This reinterpretation is in line with segmented assimilation theory, which offers the idea that immigrants are subject to existing racial structures, and that immigrants’ contexts of reception and racialization influence incorporation (Ortiz and Telles 2012; Portes and Hao 2004; Portes and Rumbaut 2001). Race and ethnicity are important to study in relation to immigration status because access to legal status in the United States has been racialized throughout history (García 2017; Ngai 2004). Recent scholarship on incorporation has also emphasized the importance of two facets related to immigrants’ lives: where they start off (starting points) and where they live (contexts of reception). Starting points can include form of entry, immigration status upon entering a country, socioeconomic status, and educational attainment upon migration (Kreisberg 2019). Contexts of reception include immediate communities, social networks, and state and national policies (Grosfoguel 2003, pg. 130).

The aforementioned developments in incorporation theories lead to two main ideas. The first is the idea that minoritized groups within the United States (immigrant or otherwise) do not reap equal socioeconomic and social benefits of citizenship. The second is that lack of a lawful immigration status means exclusion and presents a stringent barrier to incorporation. Racial/ethnic groups who have relatively more access to a legal immigration status may be more

incorporated economically, and their social experiences may diverge from others within their racial ethnic group. At the same time, racial/ethnic groups such as white persons may also gain the most from their whiteness. Since wealth in the United States is stratified on the basis of race/ethnicity, this study focuses on the extent to which immigration status explains population-level racial-ethnic disparities in wealth. Although the body of empirical research on immigration status is growing, few studies have examined the nexus of immigration status and race/ethnicity in relation to wealth at the population-level. Such an analysis is warranted as immigrants from Latin America, the Caribbean, and Asian countries are disproportionately represented in the undocumented population in the United States (Pew Research Center 2018).

Wealth gaps by racial ethnic and immigrant groups

There are substantial wealth differences between racial-ethnic groups in the United States. For example, one-quarter of Black and Latinx individuals in the United States report having no financial assets other than a vehicle; just 6 percent of white individuals fall into this category (Pew Research Center 2011). Studies in geographic regions with high proportions of immigrants show a similar trend, even though these regions have historically been places where immigrant communities have lived. For instance, an analysis of Miami's population found that the likelihood of having a retirement account was higher among white individuals (39 percent) than among Black (22.7 percent), Black Caribbean (16 percent), and non-Cuban Latinx (20 percent) individuals (Aja et al. 2019). Researchers found a similar trend in Los Angeles (De la Cruz-Viesca et al. 2016). Similar racial divides in wealth exist within immigrant groups. Cobb-Clark and Hildebrand (2006) found that Latin American immigrants have lower levels of wealth compared with Asian and European immigrants. The role of immigration status in these wealth

gaps, especially in racial-ethnic groups with higher proportions of undocumented or precarious immigrants, remains understudied.

Wealth levels are heterogeneous within pan ethnic groups. For instance, within Asian immigrants in the United States, Hong Kong and Taiwanese immigrants have higher levels of wealth than immigrants from mainland China (Keister, Vallejo, Aronson 2016). This work also finds unique age patterns: an inverted U shape between age and wealth (Keister, Vallejo, Aronson 2016). In addition, there are generational differences. Third generation Mexicans have lower wealth than non-Latinx white persons, but the gap is smaller than the homeownership gap between first- and second-generation Mexican Americans and non-Latinx white persons (Keister, Vallejo, Borelli 2015). Authors argue their evidence shows delayed assimilation as third generation Mexican Americans do not reach homeownership levels commensurate with those of white non-Latinx persons (Keister, Vallejo, Borelli 2015). One reason undergirding this trend could be lower intergenerational wealth transfers between parents and children of Mexican descent, which means the starting points for wealth accumulation during adulthood differ between racial-ethnic groups (Salgado and Ortiz 2020). Qualitative work about Mexican entrepreneurs documents that entrepreneurs reported starting their businesses with limited or no inherited wealth from parents (Valdez 2020). Other mechanisms that may limit the development of U.S.-based wealth include remittance behavior and discrimination (Akresh 2011). Mechanisms driving the relationship between wealth gaps and precarious immigration status.

Research about immigrants in the United States has explored various indicators of wealth using different measures of wealth, such as homeownership (Emeka 2019; Rugh 2019), wealth abroad as well as in the United States (Flippen 2019), and net worth (Hao 2004). These studies have increased our understanding of the mechanisms that drive the relationship between

precarious immigration status and wealth. Although this study does not test specific mechanisms, it does describe population trends relevant to these mechanisms. Previous research has identified the individual-level covariates shaping wealth patterns. This study, in turn, addresses population-level wealth patterns in distinct racial ethnic groups to better understand how the composition of immigration status shapes groups' wealth levels.

One mechanism that may drive the wealth gaps between racial ethnic groups is that groups with a higher proportion of immigrants with a precarious or undocumented immigration status may have more members of the population engaging in strategies that limit their development of formal financial profiles. In a study in Durham, North Carolina, for instance, Flippen (2019) found that undocumented Latinx immigrants had non-negligible assets and wealth in their home countries and few assets in the United States compared with their documented counterparts. This work suggests that establishing U.S.-based assets may not be a priority for immigrants with a precarious immigration status. In addition, immigrants who have precarious status might be dissuaded from engaging in building wealth in the United States because their deportability means they cannot be sure they will be able to reap the benefits of their wealth-building activities. The conditions associated with precarity may also hinder their ability to see their future and therefore to plan for it (Villegas 2014). These are possible underlying mechanisms undergirding the population-level patterns of lower wealth in racial ethnic groups with a higher proportion of immigrants in undocumented and other precarious statuses.

Another important factor shaping the wealth of racial/ethnic minorities is ties to others in economically precarious situations (Toney and Hamilton 2021). In addition, immigrants in precarious status do not gain returns on their educational and social capital to the extent that their

more secure counterparts do. Hao (2003), using the Survey of Income and Program Participation to examine wealth among immigrants, found that inequality among immigrants' socioeconomic status was primarily driven not by their sociodemographic characteristics but by uneven returns to human capital characteristics. Given the deep-seated associations that people have about undocumented immigrants being Latinx (Menjívar 2021), the racialization of illegality might contribute to group-level wealth gaps between white and Latinx persons. Differential returns to being a U.S. citizen may exist for racialized groups in the United States (Flores and Schachter 2018), and part of the Latinx-white wealth gap may be explained by these dynamics.

Previous studies have substantially improved our understanding about wealth and the financial status of immigrants. They document non-negligible differences in wealth between racial-ethnic minorities and white persons in the United States. If some racial/ethnic groups are more likely to have members in a precarious immigration status, then this composition could create population-level differences in income and wealth building across their life course, which may increase racial/ethnic inequality between some groups.

Age effects in wealth gaps

Documented immigrants may have access to relatively better wages, more rights in the workplace, and more access to credit building relative to undocumented or precarious immigrants; as a result, they may be able to make some economic progress as they age. On the other hand, a lack of wealth in the United States combined with limited eligibility for governmental social programs may mean that a precarious immigration status perpetuates stratification in older age. Granted, because of racialization, opportunities to accumulate substantial levels of wealth may continue to be limited among racialized groups, regardless of their immigration status (Salgado and Ortiz 2019). Nevertheless, compared with individuals who

have a precarious immigration status, those with a more permanent status may have relatively more opportunities to build wealth.

Research on the life course has long documented the fact that socioeconomic resources tend to grow over time (Mirer 1979). Because racial/ethnic group membership and country of origin delimit the extent of growth in economic resources an individual may accumulate, racial wealth gaps increase over the life course (Thomas et al. 2020). In fact, wealth gaps between racial groups have worsened in recent decades (Thomas et al. 2020). This trend suggests that if some groups of individuals have a higher ability to create and maintain (or inherit) wealth and others experience structural limitations to wealth building, differences will also increase over the life course.

The relationship between age and wealth also varies by race/ethnicity. Brown (2016) found that the relationship between net worth and age is stronger for white individuals than for Black or Mexican American individuals. Latinx individuals over the age of 65 have less wealth and are poorer than white individuals (Gubernskaya and Tang 2017; Sandoval, Rank, and Hirschl 2009). While 70 percent of white households own their homes, just 49 percent of Latinx households do. Even among home-owning households, the value of home equity (the difference between a home's market value and the outstanding mortgage balance) is lower for Latinx and Black households compared to white and Asian households (Krivo and Kaufman 2004). For individuals who reach older age in an precarious immigration status, economic stagnation is likely to have been present along their life course. Thus, the relationship between age and wealth is likely to be weaker among individuals who do not have a secure immigration status.

Research Questions and Hypotheses

This paper addresses three research questions: 1) How does wealth vary by immigration status among adults within racial-ethnic groups (ages 25+)? 2) To what extent does a group's legal immigration status composition explain differences in wealth between white and minority groups (Asian, Black, and Latinx)? 3) Does the relationship between age and wealth differ on the basis of immigration status? In line with previous research that shows evidence of the racial/ethnic wealth divide and inequality stemming from differences in immigrants' legal status (Flippen 2019; Hao 2004), I hypothesize that, immigrants in a precarious immigration status will have lower levels of wealth compared to legal permanent residents, naturalized citizens, and U.S.-born citizens. The second hypothesis relates to population-level trends. Given the compositional characteristics and disproportionate representation of some racial/ethnic groups in the undocumented status category (Pew Research Center 2018), I hypothesize that immigration status will shape the wealth of Latinx and Asian groups. However, given arguments posited by theories of segmented assimilation (Ortiz and Telles 2012; Portes and Hao 2004; Portes and Rumbaut 2001; Ramírez 2020), I expect that wealth gaps will not be completely explained by immigration status. I expect Black individuals will have differential returns to their legal immigration statuses, as a smaller share of Black immigrants are undocumented in the United States. Finally, the relationship between age and wealth will be weaker among undocumented and immigrants in a precarious immigration status compared to immigrants who have a more stable immigration status. This hypothesis is driven by previous research on differential age/wealth links in racialized immigrant groups (*Keister, Vallejo, Aronson 2016)*.

Methods

I draw my analytic sample from multiple cross sections of the Survey of Income and Program Participation (SIPP) from 1994 to 2008. The SIPP is a rotating-panel household survey that has been conducted by the U.S. Census Bureau since 1984. The SIPP contains detailed immigration

variables that I use to impute immigration status. I combine a cross section of multiple survey waves (1994, 1996, 2004, 2008) to increase the sample size of respondents who are neither citizens nor legal permanent residents and limit the sample to individuals over 25 because only respondents older than 25 were asked about retirement/pension accounts.

Independent variable

The immigration status measure is based on a series of survey questions. Respondents are asked several sequential questions about their immigration status. Immigration status was defined through a series of the following questionnaire items: "Are you a citizen of the US?", "Do you currently have a green card?", "Were you granted asylum?", "Do you have a visa to stay in the US?", and "Is the visa still valid or expired?". If the answer to each of these questions is no, then the respondent is coded as having a precarious immigration status. A categorical variable of immigration status includes the following four categories: U.S. citizen, naturalized citizen, lawful permanent resident, and precarious status. Similar measures have been used by other scholars to calculate a variable that indicates immigration status (Greenman and Hall 2013; Hall, Greenman, and Farkas 2010).

Dependent variable

I construct a measure of household net wealth, total assets minus total liabilities, using data from respondents' reports about their assets, including having Individual Retirement Accounts (IRAs) and the value of checking accounts, other accounts, bonds, savings bonds, stocks and mutual funds, business equity, other assets, 401k accounts, vehicles, other retirement accounts, primary residence, and other properties, and liabilities, including mortgages, rental property debt, credit cards, vehicle debt, and residual debt. To address the skewness of the wealth distribution, I use a hyperbolic sine transformation, which allows wealth values to be

defined at negative and zero values. Importantly, the SIPP does not specify the location of most components of respondents' wealth, although it is likely that offshore wealth is underreported (Cobb-Clark and Hildebrand 2006).

Covariates

To isolate the relationship between immigration status and wealth, I include in my analysis several covariates that have been shown to be associated with wealth accumulation: race/ethnic group, education, marital status, family size, gender, and survey year. In supplemental results, I also control for years in the United States and results are similar.

Analytical strategy

First, I show descriptively how levels of wealth as measured in the SIPP differ between U.S. citizens (U.S.-born and naturalized), lawful permanent residents, and immigrants in a precarious immigration status. These trends are cross sectional and capture individuals at one point in time. Because the key aim of this paper is to assess the extent to which population-level differences in the composition of immigration status in specific groups explained racial/ethnic wealth disparities, I use an Oaxaca-Blinder decomposition model, which estimates the extent to which independent variables influence the difference in a given outcome between two groups. This approach identifies an important counterfactual by answering the question of how much the wealth gap between any two groups would reduce if that group had similar levels of a given variable. This method permits me to explore multiple comparisons, including wealth differences between white and Latinx respondents, white and Asian respondents, and white and Black respondents. The general decomposition model yields the magnitude of the mean differences in wealth, which is decomposed into observed and unobserved components. Such a decomposition yields an apportioning of the mean differences across groups, represented in the model below:

$$\bar{Y}_W - \bar{Y}_L = \bar{X}_L(\hat{\beta}_L - \hat{\beta}_W) + (\bar{X}_L - \bar{X}_W)\hat{\beta}_W$$

Where W and L signify racial-ethnic groups (for instance white and Latinx). On the left side of the equation is the difference in mean wealth. On the right side of the equation, the first term, $\bar{X}_L(\hat{\beta}_L - \hat{\beta}_W)$, represents the coefficient component, the amount the wealth difference would shrink if Latinx and white individuals had the same *returns* on the independent variables of interest (e.g., immigration status, education). The coefficients component is often referred to as the unexplained component because it includes both unobserved variables and differences in returns to the independent variables. The second term, $(\bar{X}_L - \bar{X}_W)\hat{\beta}_W$, represents the portion of the gap in mean wealth that is due to compositional differences—that is, the amount by which wealth would change if the *levels* or distributions of the independent variables of interest were the same across the two comparison groups. The compositional component is often called the explained component. An Oaxaca-Blinder decomposition is useful in this study because it approximates the extent to which the gap in wealth would be closed if two racial-ethnic groups had a similar proportion of persons in each immigration status category. However, the traditional Oaxaca Blinder decomposition, shown above, is sensitive to the reference group of categorical variables. To resolve this limitation, this study reports normalized coefficients of the decomposition model using the *mvdcmp* command in Stata (Powers, Yoshioka, and Tun 2011). Decomposition is a common method for analyzing gender and racial disparities in wage, wealth, and health; it was used in a previous article to explain health utilization differences across legal immigration statuses (Bustamante et al. 2012) and wealth differentials by race (Nam 2021).

Results

This section provides descriptive patterns by race/ethnicity, foreign-born status, and immigration status and a decomposition of wealth. Table 3-1 reports sample characteristics for all adults over

the age of 25 in the combined SIPP waves. Table 3-1 also presents the distribution of immigration statuses in the full sample and in each racial-ethnic group. The Asian and Latinx groups have a higher proportion of members in a precarious and potentially undocumented status than other groups. While less than 3 percent of white or Black respondents are in the precarious immigration status category, about 12 percent and 18 percent of Asian and Latinx respondents, respectively, fall into this category. The average age of Latinx respondents is lower than the other groups; Latinx respondents are also the group with the lowest percentage of college-educated individuals.

Are there differences in wealth by immigration status within racial ethnic groups?

Table 3-2 presents summary statistics for adults 25 years old and older in the SIPP across the years of the study, including the mean and standard deviation of net worth, the percent of individuals with property in the United States, and property value for those who have property. These statistics are provided for each ethnic group and for each immigration status within racial-ethnic groups. For simplicity, both the net worth (in dollars) and the log of net worth are shown. Among Black individuals, those who had a precarious immigration status had the lowest mean net worth. This trend persists in all racial-ethnic groups: individuals in precarious immigration statuses tended to have the lowest levels of reported net worth in the United States.

Importantly, stratification patterns for net worth vary within racial-ethnic groups across different immigration statuses. For example, among Black individuals, U.S.-born persons had the second lowest levels of net worth and foreign-born naturalized citizens had the highest levels of net worth. Among Latinx respondents, net worth levels follow a more linear pattern; as individuals' immigration status becomes more stable, their reported net worth increases. For white individuals, the relationship between immigration status and net worth seems to be similar

to that among Latinx individuals. Among Asian individuals, those in a precarious immigration status have the lowest levels of reported net worth; U.S.-born individuals are next, then legal permanent residents. Naturalized U.S. citizens have the highest reported net worth among Asians.

Next, I present differences in net worth within each racial/ethnic group by foreign-born status. Table 3- 3 shows net worth means, the differences in mean net worth on the basis of U.S.-born status, and *t*-tests to assess differences in net worth. The second to last column of Table 3- 3 includes the inverse hyperbolic sine transformation of wealth, which is the outcome variable on which the decompositions are based. In terms of dollar value of net worth, among white, Latinx, and Asian respondents, foreign-born individuals have lower levels of net worth compared to U.S.-born individuals. The trend is the opposite among Black individuals. However, when negative values and values of zero are accounted for, U.S.-born individuals have higher levels of net worth than foreign-born individuals for all groups except Asians.

Decomposition analysis

Table 3- 4 shows the decomposition of the inverse hyperbolic sine transformed wealth between white respondents and Asian, Black, and Latinx respondents, respectively. Table 3- 4 shows three distinct regressions. Panel A summarizes the decomposition estimates and Panel B contains the detailed decomposition estimates. The interpretation of positive values in the detailed decomposition estimates is as follows: a positive value represents the amount by which the wealth gap between two groups would decrease; a negative value represents the amount by which the wealth gap between two groups would increase. Given the hyperbolic sine transformation, these results can be best interpreted as the percent by which the transformed wealth gaps would be reduced by.

For brevity, only the decomposition estimates for immigration status are discussed in the results section, as these are the focus of this study. First, as shown in Panel A, the decomposition of the wealth gap between white individuals and Asian individuals shows that endowment or compositional factors contribute a substantial amount of the wealth gap explained (0.95551/1.2355), over three-fourths of the gap. Asian individuals have slightly lower wealth than white individuals, on average. The detailed decomposition results (in Panel B) of the first model can be interpreted as the expected reduction in the gap if white and Asian respondents had similar distributions of the variable. If white and Asian individuals had similar levels of immigrants with a precarious immigration status, the wealth gap between these two groups would be reduced by 5 percent (0.066/1.2355). Equalizing naturalized citizenship status levels would increase the gap by 7 percent (-0.095/1.2355) and equalizing the levels of immigrants with a lawful permanent status would increase the white–Asian gap by 27 percent (-0.334/1.2355). Equalizing the distribution of U.S.-born citizens between the white and Asian groups would reduce the gap by 96 percent (1.191/1.2355). In terms of the coefficient estimates, if Asian and white groups had similar returns to being a U.S.-born citizen, the wealth gap would be reduced by about 31 percent (0.380/1.2355). These scenarios of increases or decreases in the wealth gap are counterfactuals.

Next, I discuss the Latinx decomposition in the last column of Table 3- 4; those results are somewhat similar to those of Asian individuals. Equalizing the precarious immigration status distribution between white and Latinx groups accounts for about 4 percent (0.115/2.8011) of the wealth gap decomposed. Equalizing the naturalized citizenship distribution would increase the gap by about 4 percent (0.107/2.8011). Equalizing the distribution of lawful permanent residents would increase the gap by 8 percent (–0.231/2.8011). Equalizing the distribution of U.S.-born

citizens would decrease the gap by 22 percent (0.637/2.8011). To place these results in context, equalizing the high school education distribution between these two groups would decrease the wealth gap by about 17 percent (0.467/2.8011).

Among Black individuals, immigration status is not as salient to wealth building as it is for Asian and Latinx individuals. In terms of compositional effects among Black individuals, the estimates for precarious immigration status, naturalized citizenship, and lawful permanent resident variables were relatively small. Results showed that if white and Black groups in the analysis had a similar composition of U.S.-born citizens, the wealth gap would increase by less than 1 percent (-0.016/2.9436). In terms of the coefficient estimates, if Black and white individuals had similar returns to being U.S.-born citizens, the wealth gap would be reduced by about 29 percent (0.850/2.9436). These results indicate that the extent to which immigration status variables matter for wealth depends on which racial-ethnic group is the focus.[1]

Age Effects and Wealth

Beyond group-level differences, it is important to gain knowledge of how the aging process is related to wealth building, especially because of the important fact that it takes time to build wealth for many immigrants. To gain insights about whether age trends in wealth differ on the basis of a person's immigration status, I predicted wealth levels (the hyperbolic sine transformed wealth) using age, race/ethnicity, and immigration status. Figure 3-1 displays predicted values by

[1] In addition to the main analyses reported in the paper, I run supplemental analyses with quintile regressions, and using the two-part model approach, a two-step model used in previous studies with outcome variables with zero values (Baldwin et al. 2016; Boulton and Williford 2018). The first step consists of a logit regression model to estimate the probability of having any wealth. The second step is a linear model conditional on having any wealth. In general, supplemental analyses generate results similar to those reported in the analyses (estimates available upon request).

age for precarious and undocumented migrants, naturalized U.S. citizens, legal permanent residents, and U.S.-born individuals, respectively, with age categories on the x-axis and predicted wealth on the y-axis. These figures, while descriptive in nature, tell an important story. The relationship between age and wealth is weakest for precarious and undocumented migrants, as hypothesized. The relationship between age and wealth is strikingly similar among those who have stable immigration statuses. Unsurprisingly, the relationship between age and wealth is the sharpest among U.S.-born individuals. In supplementary analyses, I test whether these age patterns remain after adjusting for education, marital status, gender, and family size. Results are consistent across specifications (results available upon request).

Discussion and Conclusion

This study describes wealth patterns among individuals of different immigration statuses in the United States and provides estimates of the extent to which immigration status accounts for wealth gaps between white and Asian, white and Black, and white and Latinx individuals. Additionally, I examine whether the relationship between age and wealth is similar across individuals with different immigration statuses. Results indicate that immigration status holds a different explanatory power for wealth gaps in distinct racial-ethnic groups, adding an important dimension to existing scholarship about deep racial divides in wealth (Oliver and Shapiro 2016; Shapiro 2006). I also find that the relationship between wealth and age is stronger among those with a more stable immigration status. This study supports previous research on the role of legal status as a racialized force of inequality (Asad and Clair 2018) and adds novel insights about one of the potential mechanisms behind wealth inequality.

Previous studies about immigrants who have undocumented and precarious immigration statuses have largely focused on differences in income, education, and occupational status (Steigleder and Sparber 2017; Takei, Sáenz, and Li 2009). These socioeconomic indicators are

important. However, throughout the life course, wealth is a substantively important socioeconomic outcome because it provides information about financial security and the resources an individual can access in retirement or disability. Moreover, racial-ethnic differences in wealth are larger and more pervasive than income differences. The relationship between immigration status and wealth has been examined previously in studies of specific regions within the United States (Flippen 2019). I find similar results at the national level.

Findings in this study build on previous research in important ways. First, given that immigration status is a product of a racialized immigration system based on exclusion of unwanted minorities (Ngai 2004), an analysis of the function of immigration status within groups is valuable. Moreover, the dimension of age and increasing inequality among those who reach older ages while having a precarious immigration status is often overlooked in studies that focus on working-age immigrants and economic inequality.

Theories of immigrant incorporation have identified the social forces that shape the adjustment of immigrants and their descendants in a new society. These theories aim to explain differential adjustment processes of immigrants by examining how immigrants' social outcomes such as socioeconomic outcomes, including wealth, compare to those of U.S.-born persons. Several theories have been proposed: classical assimilation theory, segmented assimilation theory, and newer interpretations of assimilation theories. The current study undertook an analysis of the extent to which immigration status compositions within racial/ethnic groups explain racial/ethnic wealth gaps. In doing so, results lend support for ideas put forth by Ramirez (2021), who argues that undocumented immigrants experience a paradox of inclusion- they are participants in U.S. society, economy, and social life- but are excluded explicitly from basic protections and social programs. At the population-level, exposure to exclusion vis a vis a

precarious immigration status helps explain a non-negligible amount of the Latinx-white wealth gap. Counterfactual decomposition analyses show that if non-Latinx white and Latinx groups had similar levels of persons with a precarious immigration status, the Latinx-white wealth gap would reduce by 4 percent, and if the proportion of U.S. citizens were similar in these two groups, the wealth gap would reduce by about 22 percent. At the same time, the returns to the benefits of citizenship remain unequal, as shown by decomposition results of Black individuals which show that if Black individuals held similar returns to being a U.S.-born citizen, the Black-white wealth gap would reduce by 29 percent. These results echo arguments that citizenship is racialized (Valle 2019).

While recent studies about immigration status have begun to examine wealth (Flippen 2019), a focus on the life course and on group-level analyses of national estimates remain scarce. This study describes the extent to which immigration status matters for wealth gaps within and across racial-ethnic groups. This study holds implications for immigrant incorporation, because it points to the range of consequences of long-term exclusion from a stable immigration status. If immigrants with a stable permanent status acquire resources across their life course that are unavailable to residents who are undocumented or have a precarious immigration status, then differences in inequality might widen in older age. Instead of time in the U.S. correlating with a better socioeconomic position, it might correlate with increasing economic disparities for a subset of immigrants. In supplementary results (available upon request), I included years in the U.S. as a covariate in models estimating wealth percentiles. In general, immigrants who have been in the U.S. for a longer period have wealth levels more similar to U.S.-born persons. Future researchers may wish to consider whether the association between U.S. tenure and wealth varies by immigration status.

This study contributes novel information that can push future scholarship forward. Future researchers may wish to explore variation by migration-year cohort because the last immigration reforms that included an amnesty occurred in 1986. Foreign-born immigrants who arrived undocumented to the United States after 1986 may be most impacted by the consequences of immigration status for wealth. Since migration patterns and undocumented status are intertwined with country of origin due to immigration laws, countries of origin are important aspects of this wealth story. However, the data in the SIPP are limited because of the unavailability of specific countries of birth in recent years of the survey. Moreover, barriers to wealth building for immigrants who do not have a legal status not only prevents their own economic incorporation and financial security; it may also have consequences for the economic status of their children.

Scholars may also wish to examine the consequences of having relatively lower levels of financial security in older age. A recent study of older undocumented adults in Southern California found that this population may experience high out-of-pocket costs for chronic conditions (Ayón, Ramos Santiago, and López Torres 2020). Another fruitful research direction is to pursue analyses of how time/period changes in racial/ethnic wealth disparities may be explained by changes in the composition of immigration status within racial/ethnic groups.

This study holds implications for policymakers and practitioners. Because most older adults rely on state-based programs such as social security for retirement, and because individuals who have a precarious immigration status are less likely to access these programs, the lack of financial security throughout the life course may have devastating effects in older age. Retirement options in older age have increasingly put the onus on individuals to accumulate sufficient resources; in the absence of state-based supports, immigrants who have a precarious immigration status may have to rely on their own resources to survive. Given the role of family

in the lives of older individuals, the wealth of family members of these individuals may also be implicated in their long-term and life course economic circumstances (Gubernskaya and Tang 2017). Interventions (at the national, state, and local levels) that support economic wellbeing of immigrants regardless of their immigration status will be needed in the near future (Ro, Van Hook, Walsemann 2021).

This study has several notable limitations. One important limitation is endogeneity. Individuals who have a permanent legal status may also have characteristics associated with stronger financial profiles. Future researchers may wish to use longitudinal data to pursue a more causal estimation of the effects of immigration status. Second, immigration status compositions of groups are not static (Goldring and Landolt 2011). Immigrants may move through several legal statuses in their life course. This understanding of immigration status complicates the simple dichotomy that reduces immigrants into those who are legal and those who are not (Goldring and Landolt 2011). This simplification is a concern for my analysis because it may make differences in wealth appear more extreme than they are. Another source of change in the composition of immigrant groups is the voluntary or involuntary departure of immigrants. Deportations shift the compositional characteristics of immigrants in the United States. Since deportations likely occur among the most marginalized of the undocumented community, potentially those working in occupations where there are many raids and living in communities that are highly surveilled, individuals who are deported may represent those with more informal work and less economic and political resources to fight their deportation. To the extent that this is the case, this would shift the composition of immigrants in the United States, and it would likely cause the socioeconomic characteristics of immigrants with a precarious immigration status seem better off, meaning that it would make changes between those who are

undocumented versus not more difficult to detect. At the same time, deportations and raids may have indirect effects that might dampen the socioeconomic resources of immigrant communities by causing fear of going to work and/or by increasing uncertainty and therefore likelihood of creating long-term investments in the United States (e.g., purchasing a home). If voluntary migrants (immigrants in a precarious or undocumented immigration status) who have saved up wealth and resources in their home countries have a higher probability of leaving the United States, then this would mean that those who remain in older ages are negatively selected for.

Despite its limitations, this study contributes important insights to the study of immigration, inequality, and race/ethnicity This study presents an important descriptive portrait of how wealth building in the United States is conditioned by race/ethnicity and immigration status and identifies important ways forward.

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Table 3- 1. Summary statistics from SIPP, significance tests relative to white individuals

		Full Sample	Black	White	Asian	Latinx
Precarious immigration status		3.02%	1.98% ***	2.68%	11.82% ***	18.17% ***
Naturalized citizen		3.26%	2.11% ***	2.88%	13.18% ***	11.80% ***
Lawful permanent resident		7.44%	6.08% *	5.69%	43.74% ***	27.40% ***
U.S.-born citizen		86.28%	89.83% ***	88.75%	31.26% ***	42.62% ***
Gender (women=1)		53.67%	59.65% ***	52.82%	54.30% *	52.77%
Age		49.49 (15.79)	48.42 (15.27) ***	49.88 (15.91)	46.34 (14.58) ***	43.31 (14.04) ***
Over age 65		27.34%	17.57% ***	20.72%	13.17% ***	10.34% ***
College-educated		56.16%	46.72% ***	57.11%	64.02% ***	32.41% ***
Lives with close kin		66.15%	64.24% ***	73.95%	77.67% ***	78.46% ***
Married		60.13%	42.31% ***	66.02%	70.40% ***	64.16% ***
Survey year	1996	22.76%	25.56%	25.51%	10.20%	24.32%
	2001	18.20%	20.90%	20.16%	9.35%	22.41%
	2004	25.98%	28.31%	28.45%	37.16%	25.10%
	2008	27.03%	25.23%	25.88%	43.29%	28.16%

Note: Calculations are based on SIPP 1996, 2001, 2004, and 2008 cross sections. Significance levels are represented by the following: *p<.10, ** p<.05, ***p<.01.

Table 3- 2. Racial-ethnic differences in wealth indicators by immigration status, significance tests relative to precarious immigration status category

	Precarious/ Undocumented		Lawful Permanent Resident		U.S. Citizen, Naturalized		U.S.-Born Citizen	
Black individuals	Mean or %	SD	Mean or %	SD	Mean or %	SD	Mean or %	SD
Total household net worth	39,963	111,713	70,383 ***	155,009	107,624 ***	319,284	63,425 ***	139,310
Log of net worth	8.08	3.88	8.86 ***	4.00	9.37 ***	3.92	8.98 ***	3.84
Has property	31%		48% ***		55% ***		54% ***	
Property value	52,720	108,457	96496 ***	142,236	117,998 ***	163,420	68184 *	105,500
White individuals								
Total household net worth	58,841	168,922	169,414 ***	1,441,353	171,342 ***	392,529	225,610 ***	920,831
Log of net worth	8.58	3.70	10.10 ***	3.27	10.49 ***	3.10	11.26 ***	2.25
Has property	37%		59% ***		64% ***		74% ***	
Property value	71,824	128,917	125456 ***	166,193	134,401 ***	158,484	142101 ***	154,606
Latinx individuals								
Total household net worth	37,881	132,787	65,779 ***	152,881	78,990 ***	161,008	91,258 ***	217,078
Log of net worth	8.03	3.78	9.13 ***	3.43	9.26 ***	3.67	9.77 ***	3.25
Has property	33%		50%		53%		58%	

			***		***		***	
Property value	54,634	105,532	83,334	129,425	95,125	131617	98,592	140,028
			***		***		***	
Asian individuals								
Total household net worth	110,456	188,115	218,927	343,910	280,599	376,725	239,704	2,103,888
			***		***			
Log of net worth	9.77	3.36	10.92	2.94	11.45	2.64	10.55	3.03
			***		***		***	
Has property	39%		64%		74%		62%	
			***		***		***	
Property value	129,605	198,813	212,031	218,404	249,919	228,975	146,847	197,487
			***		***			

Note: Significance levels are represented by the following: *p<.10, ** p<.05, ***p<.01.

Table 3- 3. Differences in household net worth by foreign-born status and race/ethnicity

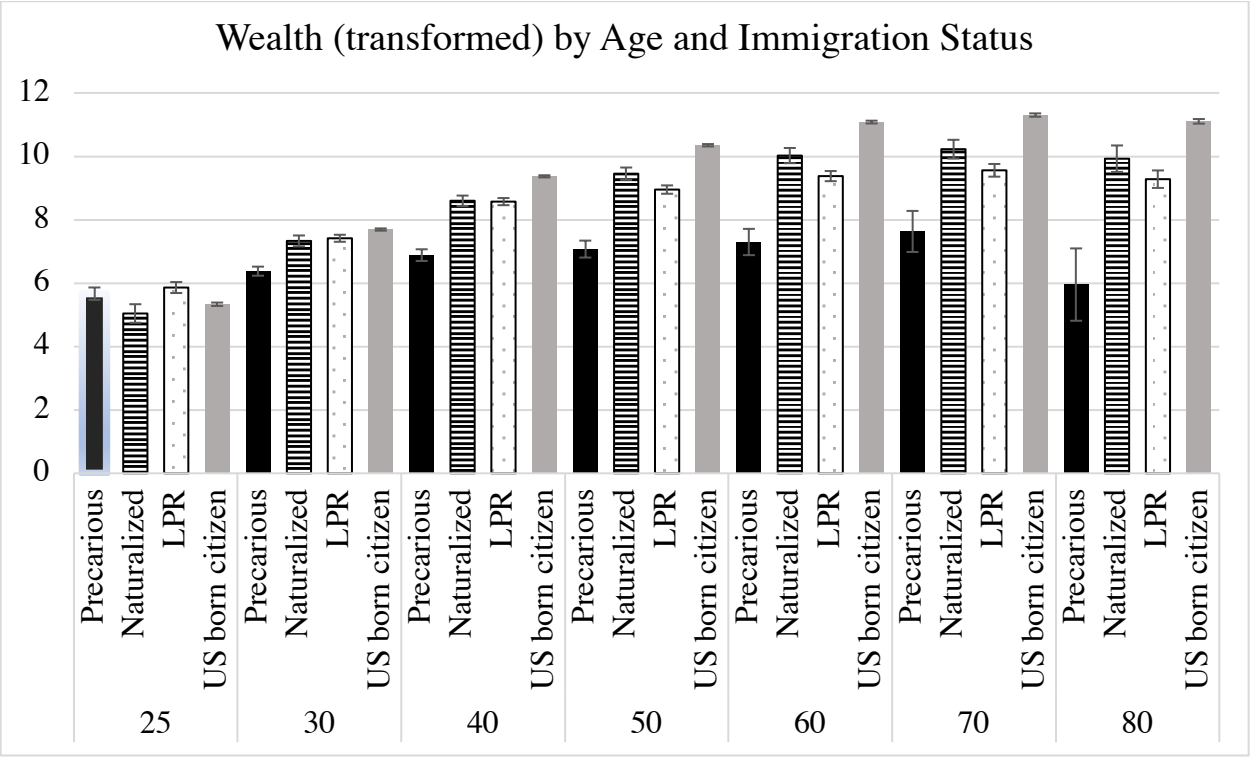
	Net Worth (dollars)		Inverse Hyperbolic Sine transformed wealth	
	Mean	SD	Mean	p-value
Black				
U.S.-born	63,425	139,310	6.39	0.001
Foreign-born	71,730	195,074	5.819	
white				
US born	225,610	920,831	9.79	0.000
Foreign-born	142,815	1,044,471	7.85	
Latinx				
US born	91,258	217,078	6.95	0.000
Foreign-born	59,664	149,402	6.42	
Asian				
US born	239,704	2,103,888	8.87	0.005
Foreign-born	211,959	333,329	9.2	

Table 3- 4. Decomposition of the inverse hyperbolic sine transformed wealth between white and racial ethnic minorities

Panel A: Basic Decomposition Values						
	White-Asian		White-Black		White-Latinx	
Endowments	0.96		0.68		1.27	
Coefficients	0.28		2.27		1.53	
Gap decomposed	1.24		2.94		2.80	
Panel B: Detailed Decomposition Values	Beta (Standard Errors)	p-value	Beta (Standard Errors)	p-value	Beta (Standard Errors)	p-value
Endowments Component						
Precarious/undocumented	0.066	0.000	–0.006	0.000	0.115	0.000
	0.004		0.000		0.012	
Naturalized citizen	–0.095	0.000	0.008	0.000	–0.107	0.000
	0.013		0.001		0.020	
Lawful Permanent Resident	–0.334	0.000	–0.007	0.000	–0.231	0.000
	0.042		0.001		0.044	
U.S.-born citizen	1.191	0.000	–0.016	0.000	0.637	0.000
	0.051		0.001		0.084	
High school or less	–0.151	0.000	0.162	0.000	0.467	0.000
	0.004		0.004		0.021	
Woman	0.012	0.000	0.036	0.000	–0.017	0.000
	0.001		0.002		0.002	
Married	–0.061	0.000	0.324	0.000	0.041	0.000
	0.003		0.013		0.002	
Survey year 2001	–0.082	0.000	–0.002	0.000	–0.008	0.000
	0.008		0.000		0.001	
Survey year 2004	0.032	0.000	0.001	0.000	0.004	0.004

	0.006		0.000		0.001	
Survey year 2008	0.184	0.000	0.007	0.000	0.048	0.000
	0.010		0.000		0.005	
Over 65 years old	0.197	0.000	0.166	0.000	0.321	0.000
	0.002		0.002		0.004	
Coefficients Component						
Precarious/undocumented	0.030	0.14	–0.004	0.243	–0.048	0.008
	0.021		0.004		0.018	
Naturalized citizen	0.167	0.002	0.013	0.717	0.069	0.046
	0.054		0.013		0.035	
Legal Permanent Resident	0.460	0.001	0.006	0.828	0.092	0.157
	0.141		0.029		0.065	
US born citizen	0.380	0.000	0.850	0.007	0.246	0.01
	0.104		0.317		0.095	
High school or less	0.171	0.056	–0.332	0.001	–0.392	0
	0.090		0.098		0.104	
Woman	0.135	0.35	0.215	0.056	–0.120	0.122
	0.145		0.113		0.078	
Married	0.198	0.338	–0.063	0.454	0.075	0.459
	0.206		0.084		0.102	
Survey year 2001	–0.024	0.611	–0.001	0.986	0.021	0.601
	0.047		0.052		0.041	
Survey year 2004	–0.969	0.000	–0.079	0.135	–0.238	0
	0.124		0.053		0.045	
Survey year 2008	–0.874	0.000	0.018	0.758	0.094	0.082
	0.150		0.058		0.054	
Over 65 years old	0.208	0.000	–0.017	0.355	0.041	0.022
	0.041		0.019		0.018	

Figure 3- 1. Predicted wealth by age and immigration status, SIPP.



Note: Y-axis shows hyperbolic sine transformed wealth. Predictions are based on a parsimonious regression analysis with the following controls/predictor variables: age, immigration status, and an immigration status*age interaction, and race/ethnicity. LPR=lawful permanent resident; Naturalized=U.S. naturalized citizen, foreign-born.

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CONCLUSION

Immigrants in the United States are diverse in terms of country of origin, race/ethnicity, socioeconomic status, and documentation status. The complexity of the undocumented immigrant experience requires that we problematize traditional approaches to examining the harmful impacts of exclusion from obtaining a lawful documentation status. A cross-sectional perspective has been the dominant approach to studying the association between documentation status and inequality. Many studies have documented unequal, diverging outcomes but others have found mixed, unexpected results. Given the complexity of documentation status, its

possibility to change across the life course, and its effects on families, this dissertation offers three distinct chapters, each of which focuses on a different dimension of documentation status.

Each of my chapters operationalizes immigration status in a distinct manner. In Chapter 1, I examine the effect of the Medi-Cal expansion in 2016 on Latinx children's healthcare-related outcomes. This policy expanded full scope Medi-Cal to undocumented children who met eligibility. I focus on three outcomes variables: healthcare insurance coverage, stability of healthcare insurance coverage, and annual doctor visits. In Chapter 2, I examine the association of immigrants' previous exposure to an unauthorized documentation status and self-reported health. This chapter uniquely examines documentation status from a dynamic perspective. In Chapter 3, I investigate the extent to which immigration status explains racial and ethnic differences in wealth. Together, these chapters capture distinct stages of the life course, and capture distinct levels and operationalizations of immigrants' documentation status.

Chapter 1 examines the effect of the 2016 Medi-Cal expansion, which expanded coverage to undocumented children in California, on the healthcare coverage and doctor visits of children. I use cross-sectional pooled data from the California Health Interview Survey. The survey periods that I pool include data from before and after the policy's implementation. This chapter shows the sizable impact a pro-immigrant policy had on Latinx children's wellbeing. However, it also showed that there are still barriers to accessing formal healthcare in this population. Latinx families may still have other reasons for lower engagement in preventive annual doctor visits. For example, Latinx families may rely on other healing strategies. In addition, Latinx families may have inflexible occupations that do not allow for many missed days to take family members to see the doctor. A third possibility is that mixed status Latinx families may still have qualms about accessing formal healthcare. Given that the policy that I

examined was implemented in 2016, which coincided with Trump's election, it is possible that the perceived national level anti-immigrant climate may have had cooling effects on migrants' behaviors accessing formal health care. Last, misunderstandings and misinformation about public charge, a set of policies that state that immigrants accessing some social safety net services will have lower chances of adjusting to a permanent lawful immigration status in the future, may affect migrant health care behavior as well.

Chapter 2 investigates the association between being previously undocumented and self-reported health in a sample of newly lawful/legalized permanent residents. I use longitudinal data from the New Immigrant Survey. This survey's baseline panel was originally collected in 2003. This analysis of a high-quality dataset is instructive, as the survey captures migration histories and migrants' previous documentation status before they become green card holders. The uniqueness of the data set helps social scientists better understand immigrants' documentation status as a life-changing, dynamic variable. From this data, I created an indicator for migrants' previous exposure to a precarious immigration status, which I define as any undocumented or temporary status before migrants obtained their green card if they entered the U.S. without documentation.

In addition, I created a second variable that calculates the time spent in this precarious immigration status. The findings reveal stark differences in exposure to a precarious immigration status. While this may not be surprising, given the racial and ethnic composition of the undocumented immigrant population in the United States, the descriptive differences in the distribution of time spent in a precarious immigration status are extreme. Findings reveal that Latinx immigrants have accumulated more time spent in a precarious immigration status compared with all other racial/ethnic groups. Moreover, the self-reported health of Latinx

immigrants deteriorated at a quicker pace compared with white, non-Latinx immigrants regardless of previous documentation status. These results are consistent with previous research about how time spent in the United States is associated with the health declines of the immigrant population. Chapter 2 illuminates the role of previous immigration status on self-reported health. My research is policy relevant. A sizable portion of the New Immigrant Survey respondents included persons who benefitted from the 1987 immigration reforms. Since then, there has not been massive immigration amnesty. This means that undocumented immigrants are spending longer times in this status and are also aging in the United States. The estimate of time spent in an undocumented or a precarious immigration status is likely reaching extremely high levels, but contemporary survey data often misses this exposure. What the effects of this exposure will be remains an open question.

In Chapter 3, I analyze data from the Survey of Income and Program Participation to assess group-level wealth inequality in different racial/ethnic groups. I investigate the extent to which a group's documentation status composition explains racial/ethnic wealth gaps. I also investigate whether immigrants in precarious immigration statuses have lower economic returns as they age. I find striking wealth inequities. I also find that the extent to which a group's documentation status composition explains wealth inequities varies by racial/ethnic group. My last key finding in this chapter is that the association between age and wealth is weaker among immigrants in a precarious documentation status.

Overall, my dissertation demonstrates the importance of examining documentation status at different levels, with varied measures, and across the life course. A dynamic perspective yields unique results, as shown in the results I presented in Chapter 2.

Although my dissertation focused on disentangling diverging health and wealth outcomes by documentation status, race/ethnicity also matters. Throughout the dissertation, Latinxs displayed unfavorable outcomes relative to other groups. In Ch. 1 Latinx children had the most to gain in their health utilization and insurance outcomes. In Ch. 2 Latinx green card holders had quicker health declines in the years following their transition to lawful permanent residents.

These results showcase the importance of studying both documentation status and race/ethnicity. Within a given race/ethnic group, documentation status can create within group inequities. However, processes of racialization and discrimination as well as the disproportionate community and family ties to undocumented persons among the Latinx community may be a driver of between group racial inequality. Both within group and between group inequities are important to study, document, and address with public policy.

LIMITATIONS

The analyses in this dissertation have some limitations. Here, I briefly highlight overarching limitations. In each chapter's discussion section, I mention chapter-specific limitations in more detail. First, two of my chapters rely on cross-sectional data. Thus, causal claims and directionality of associations are concerning. Second, the longitudinal data I use in the chapter on previous immigration status relies on data collected over a decade ago (the New Immigrant Survey (NIS)). Even though the NIS is longitudinal, there are not many older migrants in the sample and the follow up period is limited to one follow up survey, six years after the baseline survey. Another concern is that of measurement of health. Other measures of health such as biomarkers or administrative health data may offer more reliable measures of health. Finally, I do not compare immigrants in the United States with immigrants' counterparts who did not migrate and who reside outside of the United States. There are different perspectives about what the appropriate comparison group is. Some argue that the correct counterfactual population for

immigrants is the population in immigrants' home country that did not migrate. Although this comparison might be useful, the purpose of my dissertation was to identify where the health burdens are and to identify health disparities within the United States.

FUTURE WORK

Despite its limitations, my dissertation offers important avenues for future research. One area of future research includes estimating exposure time to being undocumented or in a precarious immigration status. Another is to examine the healthcare access of Latinx children in states that have not passed progressive healthcare reforms. It is important to understand how families navigate healthcare after the Affordable Care Act, and to examine how families make use of informal remedies and care.

Finally, the undocumented population is aging. Many aging-related issues will arise and become important to people, families, and communities across the United States. There will come a time in which undocumented older adults will need geriatric care. Fortunately, some states such as California and Illinois have passed groundbreaking healthcare laws. California's recent undocu-aging-friendly law, implemented in May 2022, includes full scope Medi-Cal, caregiving access, and other supports besides health insurance for eligible older undocumented adults 50 years and older. Future research can examine whether people are accessing correct information about the extent of services now available to undocumented older adults. Undocumented older adults are unfortunately going to be one of the most economically vulnerable populations due to exclusion from social security. My research results from Chapter 3 show important warnings about the associations between age and an important indicator of financial security- wealth. Private sector retirement programs and similar financial institutions may need to reconsider how to cater to aging undocumented adults without valid social security numbers but with valid ITIN numbers. Media stories have already begun to cover the lived

experiences of older undocumented persons. Stories like these will only become more common in the decades to come.

Another important future research direction is the estimation of the probability of having been previously undocumented. It has been a challenge to estimate immigrants' legal status using survey data. However, I would argue that an equally if not more important endeavor is to examine previous exposure to an undocumented and precarious immigration statuses/es. The fact that immigrants' legality is dynamic over the life course cannot be ignored. As such, novel approaches to studying the relationship between immigration status and health are needed. Such approaches would limit the likelihood of underestimating the association between immigrants' legality and health. Ignoring the dynamic transitions from undocumented to documented and potentially vice versa downplays the impact of exclusion due to a person's legality.

In addition, it is important to examine state-level contexts and their impact on health across the life course. State policies differ widely. Some states have passed groundbreaking legislation that makes the lives of immigrants easier. These states include California, Illinois, and New York. These are contexts that are known to be traditional immigrant destinations. Emerging research documents the fact that there are growing numbers of immigrants in new contexts, and these are termed new immigrant destinations. Many new immigrant destinations lack pro-immigrant policies and that could make a difference for immigrant well-being. In fact, many of these states have anti-immigrant policies which threaten immigrants' quality of life and well-being. Future researchers may wish to examine how these policies shape the health trajectories of immigrants who are not citizens and who do not have a lawful immigration status. If immigrants have been exposed to not only long periods of time being undocumented but also long periods of

time being in states that are blatantly anti-immigrant, these persons may have experienced some of the most extreme forms of structural inequality.

I would be remiss to not speak about the implications of the global coronavirus pandemic for undocumented persons. As captured by recent studies, the burdens of the pandemic fell disproportionately on people of color, who work in occupations with higher exposures to coronaviruses. Their excess mortality shows clear patterns of disadvantage. It will be up to future researchers to examine the effects of the pandemic on the mortality rates of the immigrant population in general. Moreover, the multigenerational effects of COVID-19 related deaths of undocumented family members warrant the attention of future scholars.

CONCLUDING REMARKS

There are over 11 million undocumented immigrants in the United States. Of all U.S. immigrants, about one quarter are undocumented. Documentation status affects not only individuals who lack a lawful documentation status, it also affects their family members. Lacking a lawful documentation status threatens wellbeing in different ways. The pernicious consequences of the lack of a lawful documentation status are extensive and wide-ranging. However, there have been some underappreciated nuances in the immigrant health and immigrant inequality literatures. This dissertation fills some of these gaps. In this dissertation, I have examined the associations between immigrants' previous documentation status, health policy changes, and race/ethnicity and health-related as well as wealth outcomes.

To the scholarship on immigrant health, this dissertation offers important ideas and arguments. First, pro-immigrant state level policies are having extremely positive effects on Latinx persons. However, some parts of these policies are not as effective as they can be. More research needs to examine what barriers exist that cause Latinx children to still be more removed

from formal annual doctor visits compared with other children. One possibility is that parents might rely on home-based remedies. Some of my future qualitative research projects explore this possibility. Second, I argue that immigration status needs to be examined from a dynamic perspective. Third, I argue for more attention to aging undocumented persons. People who reach older age undocumented are highly selected for. I suspect they are negatively selected for certain characteristics. Older undocumented persons may represent persons with less connections to immediate family members that could adjust their status for them. This population also likely includes people with lower socioeconomic status and could represent persons who have aged within the United States, meaning they have accumulated many years of exposure to being undocumented. It will be critical to understand the health status of older aged undocumented adults. The health burdens they have and the economic inequality they experience may be unprecedented. Moreover, their health burdens will be unevenly addressed depending on the state of residence. States such as California and Illinois have passed legislation to include older undocumented adults in healthcare insurance programs. However, most states do not have such policies.