Access to the Health Care Safety Net for Hispanic Immigrants in Established Gateways and New Destinations

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Abstract: Although immigrants are excluded from many federal welfare policies and major health care institutions such as Medicaid, Federally Qualified Health Centers (FQHCs) are one program that immigrants are able to use regardless of financial resources, health insurance, or legal status. Despite serving 28 million patients and receiving substantial funding from the federal government to serve low-income populations, little is known about the reach of FQHCs into immigrant communities. Using historical administrative datasets joined with Decennial Census data from 1970-2010, this study documents how Hispanics are differentially exposed to FQHCs depending on where they live. I use spatial demographic techniques to examine the evolution of FQHCs in relation to Hispanic migration patterns. I then explore variation in the proximity and exposure to FQHCs at the tract-level for Hispanics relative to the non-Hispanic white population by urban residence, Hispanic destination type, and region. Findings show that Hispanics have historically had greater exposure to FQHCs than whites. However, Hispanics settling in New Destinations have had less access to FQHCs than those in Established Gateways during the major Hispanic migration waves of the 1990s and 2000s. This study contends that proximity to FQHCs – the primary care safety net serving many immigrant communities – is a crucial yet underexplored mechanism in understanding spatial inequalities in access to health care.

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Background

Immigrants lag behind in most measures of health care access. Relative to US-born populations, immigrants have lower rates of health insurance, use less health care, and receive lower quality of care (Derose, Escarce, and Lurie 2007). Non-citizen immigrants and their children (even if they are US-born) are significantly less likely to be insured or have access to a usual source of primary health care (Ku and Matani 2001). Disparities in access to health care among immigrants are largely due to exclusionary policies for undocumented or recent immigrants who are restricted from applying for public health insurance. Even immigrants who are eligible for Medicaid avoid enrolling out of fear of it jeopardizing residency status (Derose et al. 2007). Additionally, most immigrants working in low-wage labor markets do not have access to employer-sponsored health insurance. Since immigrants are disproportionately uninsured, physical proximity to the primary care safety net is imperative.

While immigrants are excluded from most federal public assistance and major health care institutions like Medicaid, Federally Qualified Health Centers (FQHCs) are one program that immigrants are able to use regardless of financial resources, health insurance, or legal status. Although the passage of the Affordable Care Act classified health insurance eligibility using legal status, FQHCs remain as one of the only enduring medical institutions available to undocumented immigrants (Marrow and Joseph 2015). In fact, the federal government requires FQHCs to serve anyone – including undocumented immigrants – as a stipulation of their funding.[1] Being federally administered and funded, FQHCs have more immunity from state fragmentation of Medicaid and other policies, such that health centers can be relied upon as a stable community resource. Because

[1] Section 330 of the Public Health Service Act (Title 42 of United States Code (U.S.C.) Section 254b) provides funding for FQHCs and as a condition for receipt of this funding, FQHCs must ensure that "services shall be available to all residents…without regard to method of payment or health status" (42 C.F.R. § 51c.303 (v)(3)) and cannot disclose information without consent or as required by law (42 C.F.R. § 56.111). http://www.astho.org/Public-Policy/Public-Health-Law/Access-to-Care-for-Immigrant-Populations-Overview/

FQHCs are one of few nationwide, immigrant-inclusive medical institutions, this study seeks to understand to what extent immigrants have currently and historically had access to culturally competent and affordable health services upon arrival to their new homes in the U.S.

Since Hispanics have comprised the majority of the foreign-born population since the late 1980s, this study focuses on access to FQHCs among Hispanics. The geography of Hispanic immigration to the U.S. has dispersed in recent decades: rather than settling in "Established Gateways," more Hispanic immigrants are migrating to what scholars call "New Destinations" (Lichter and Johnson 2009; Massey 2008). Established Gateways are typically densely populated places and are defined as counties comprised of at least 10% Hispanic populations in 1990. In contrast, New Destinations tend to be less densely populated places and they are characterized by rapid growth in the Hispanic population in 2000 and 2010. New Destinations differ from established gateways in terms of resources, employment opportunities, and policy differences in safety-net program eligibility (Monnat 2017).

Although there is evidence of some socioeconomic advantages for immigrants settling in new destinations (Ludwig-Dehm and Iceland 2017), other evidence points to health disadvantages for those who settle in new destinations relative to Established Gateways (Gresenz et al. 2012). For example, Mexican immigrants living in non-metropolitan areas (i.e. New Destinations) are less likely to report a usual source of medical care than those living in metropolitan areas, most of which are established gateways (Berdahl, Kirby, and Stone 2007). Recent research has documented the spatial variation of health insurance and mortality depending on the destinations where Hispanic immigrants settle (Brazil 2017; Monnat 2017). While the Hispanic mortality advantage is smaller in Established Destinations (Brazil 2017), emerging New Destinations have the lowest rate of health insurance coverage (Monnat 2017). The present study extends this emerging literature by examining the geographic variation in the U.S. primary care safety-net

infrastructure in relation to Hispanic migration patterns. It shows how access to free or affordable health care for Hispanics varies by urban residence, across New and Established Destinations, and by region. I assert that availability and proximity to FQHCs is a crucial yet underexplored mechanism in understanding immigrant health.

Federally Qualified Health Centers and Immigration

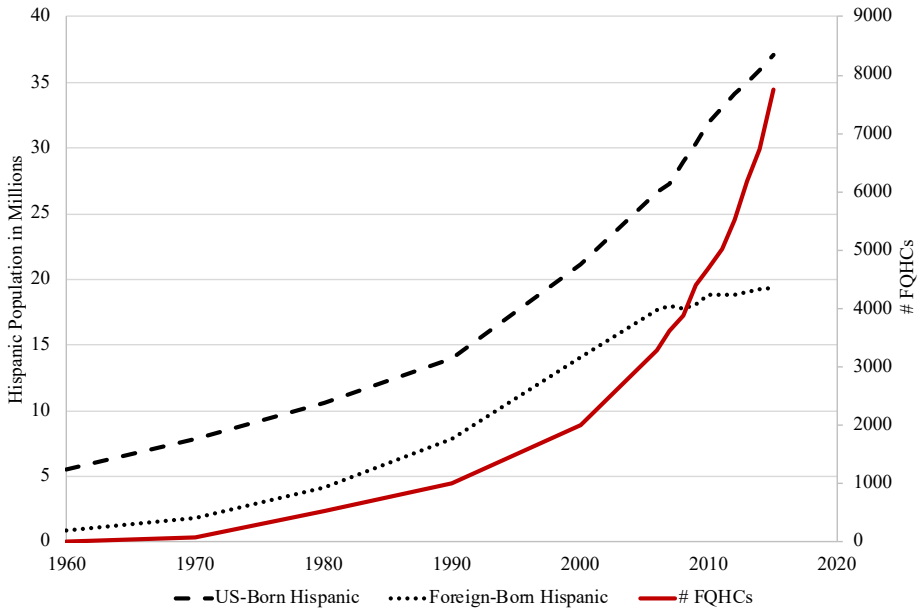
FQHCs form an expansive network of non-profit, community-based primary care providers that offer comprehensive, preventative medical services, regardless of ability to pay. With bipartisan political support, the program has expanded tremendously since the turn of the century, growing nearly five times in size from 2,000 sites in 2000 to now almost 10,000 sites. This rapid growth has coincided with the increase in the overall Hispanic population during the same time period [see Figure 1]. FQHCs currently serve a patient population of over 28 million Americans, almost all of whom are below 200% of the federal poverty line (HRSA Factsheet 2017). In 2017 alone, FQHCs received more than $8.5 billion in federal funding. Despite the size and scale of the program, little is known about immigrant's access to FQHCs and how this varies in relation to demographic changes in residential location.

The modern-day FQHC safety net grew out of the establishment of the Migrant Health Center (MHC) program in 1962, which provided basic health services to migrant agricultural workers for little or no cost. This little-known program to benefit migrant workers was framed by policymakers as necessary for economic, public health, as well as humanitarian purposes. Three years later, President Johnson's War on Poverty initiated the nationwide health center program to provide free services to medically underserved communities. In the early 1970s, the small Migrant Health Center program was subsumed by the much larger nationwide health center program. Today, accredited FQHCs can receive additional funding and status as MHCs if they serve a

sizable population of migrant and seasonal farmworkers. Thus, the historical roots of the contemporary FQHC program were concerned with the health issues faced by migrant workers, which continues to inform its institutional practices and treatment of immigrants to this day.

Prior research suggests that FQHCs are an important resource for immigrant communities, especially Hispanics. In all, Hispanics comprise more than one-third of FQHC patients nationwide, which translates to 9.4 million Hispanic patients served annually (HRSA Factsheet 2017). In some densely populated states, Hispanics account for the majority of FQHC patients (Ortega, Rodriguez, and Vargas Bustamante 2015). The federal government requires that all FQHCs provide "meaningful access to their services for limited-English proficient individuals, which often involves Spanish-speaking staff, translators, and bi-lingual materials" (Cunningham et al. 2006). In fact, more than 6.4 million patients—or roughly 23%— attending FQHCs in 2017 were best served in another language, which can be used as a rough proxy for the foreign-born population.[2]

Figure 1. Nativity of U.S. Hispanic Population and Cumulative Number of FQHC Delivery Sites, 1960-2015



Source: Pew Research Center analysis of U.S. decennial census data, American Community Survey: https://www.pewhispanic.org/chart/hispanic-population-by-nativity/. Author's own calculations of FQHC delivery sites using Health Resources and Service Administration data.

[2] https://bphc.hrsa.gov/uds/datacenter.aspx

FQHCs are especially important for undocumented and migratory workers, who generally face precarity in access to health care. Because FQHCs receive funding from the federal government to care for any patient, regardless of insurance status or ability to pay, they serve a large number of undocumented immigrants (Ortega et al. 2015). Although national estimates are not available, one survey in California found that undocumented Latino immigrants were especially reliant upon FQHCs as the primary medical entity from which they sought care (Chavez 2012). In addition, the majority of migrant and seasonal workers report FQHCs as their usual source of care (Hu et al. 2016). FQHCs that are also certified as MHCs provide services to over 800,000 agricultural workers annually, or roughly one third of all migrant and seasonal farmworkers (National Center for Farmworker Health 2014). Thus, there is ample evidence that FQHCs are a central health care institution for migrant workers, the undocumented, and Hispanic immigrants at large. However, the impact and significance of FQHCs are conditional on spatial proximity to a health center, which may vary greatly depending on where one lives.

The Health Care Safety Net and Deservingness of Immigrants

At the federal level, FQHCs were initially framed by policymakers as "legitimate", "professional", and "charitable" entities that serve our neediest populations (Sardell 1988). The health center movement also applied moral—and sometimes religious—frames to make their case at the federal level. In 1975, Senator Ted Kennedy successfully persuaded others in Congress that, "It wasn't socialism, it wasn't socialized medicine, it was just the good old American process of trying to give some people who didn't have something, something" (Sardell 1988:67). Although conservatives were initially skeptical of FQHCs and viewed them as a tactic for liberals to establish a national health insurance program, Republicans now wholeheartedly embrace FQHCs. One policy expert noted that FQHCs "bridged the gap between liberals and conservatives due to the

aspirational, value-driven, and community-based nature of the program" (Lefkowitz 2007:23). Thus, FQHCs remain politically popular and are a rare federal program that has yet to officially codify social or symbolic boundaries between those deserving and undeserving of health care (Willen 2012). Because FQHCs are funded, monitored, and regulated by the federal government, this research is guided by the notion that political and institutional forces have had a powerful impact in constructing deservingness frames surrounding immigrant access to the primary care safety net. Thus, further inquiry is needed about the programmatic reach of FQHCs into immigrant communities and any existing obstacles impeding the provision of affordable health care.

Since health care in the U.S. is prohibitively expensive and many immigrants are uninsured, physical access to affordable, culturally competent health care is imperative. With welfare reform's restrictions on immigrants' access to benefits such as Medicaid and TANF in 1996 (Warner 2012), place-based programs like FQHCs are increasingly important for immigrants who no longer have cash-based assistance or public health insurance to rely upon. Regardless of eligibility, immigrants are also hesitant to engage with government assisted programs. With the Trump administration's recently proposed "public charge" regulation, which would take into account any use of public benefits in decisions about immigration status, many immigrants remain wary of becoming involved in governmental programs. Although this regulation has not been passed, policy discussions like the "public charge" regulation—which have been recurring for decades—continue to stoke fear and avoidance of health care institutions among immigrants (Castañeda and Melo 2014). Heightened border security and enforcement (Bohn and Pugatch 2015) represents another reason why immigrants lack access to health care. Return migration for health care reasons has become less tenable for Hispanics in recent decades (Heyman, Núñez, and Talavera 2009). Mixed-status families who would once have returned home to their native country for health care are now forced to forego non-emergency preventive medical care (Castañeda and

Melo 2014), unless they have access to FQHCs. With stricter border enforcement, undocumented Mexican immigrants face severe political barriers to health care (Torres and Waldinger 2015) and physical proximity to health care is crucial for undocumented immigrants—and mixed documentation families—who have reduced mobility due to fear of immigration enforcement (Heyman et al. 2009).

The Present Study

This study contends that FQHCs—a primary source of care for many migrant communities—are a critical part of understanding immigrant inequalities in access to health care institutions. Because FQHCs provide free or affordable health care in places that are medically underserved, having access to an FQHC represents a clear advantage. Especially for immigrants who have historically been discouraged or restricted from using public assistance like Medicaid, FQHCs are a vital source of medical care for immigrants. Yet, this benefit is unevenly distributed across places. By examining where FQHCs are located, we can discover who has been exposed to the primary care safety net and how exposure has evolved over time along with population change dynamics.

Therefore, this study provides insight into the programmatic reach of FQHCs into Hispanic communities relative to the non-Hispanic white population. It shows how exposure to FQHCs varies by urban residence, established and new destinations, and by region for Hispanics and non-Hispanic whites, and how this differs based on poverty status. Using novel, historical data on FQHCs merged with Census data from 1970-2010, this study is the first to systematically document how immigrants are differentially exposed to the health care safety net depending on where they live. Through mapping, I begin by examining how the areas served by FQHCs have changed over time in relation to New and Established destinations. I explore tract-level variation

in the spatial and temporal exposure to FQHCs for Hispanics relative to the non-Hispanic white population. FQHCs are a unique entity in the US health care system because of their mission-driven approach to providing community-based primary care, their mandate to address social determinants of health, and their unifying belief in health care as a human right, not a privilege. Thus, FQHCs are an important institution to shed light on the spatial inequalities in how the U.S. organizes access to the health care safety net for Hispanic immigrants.

Data and Methods

Data

This study relies on a historical dataset containing the exact geographic coordinates and the corresponding year that each FQHC site was established in every state dating back to 1963. Historical records were obtained from the Health Resources and Service Administration (HRSA) but were largely incomplete or inaccurate. Through archival research, internet queries, and personal communication with FQHCs, I collected missing information and verified the year that each FQHC site was opened and the year it first received FQHC funding. In total, there are 9,756 FQHC sites reported by HRSA. For this analysis, I excluded 718 administrative-only sites because they are not directly serving patients, and 456 mobile sites because their service area continually changes. Thus, the final analytic sample is comprised of 8,582 FQHC sites. These data sources are used to map the temporal and spatial distribution of FQHCs across the nation.

This historical data was then linked with decennial Census data on population demographics including race, ethnicity, nativity, and socioeconomic status for the years of 1970-2010.[3] Because the 1960 Census did not include many of the key variables of interest and has

[3] Downloaded from the Longitudinal Tract Database with synchronized 2010 geographic boundaries (Logan, Xu, and Stults 2014).

discrepant geographic boundaries, I start with 1970 Census data and treat each FQHC that began in the 1960s as existing prior to the start time of the analysis. Two levels of geography are used from the Census with synchronized 2010 boundaries. First, county-level data are used to classify Hispanic destination types, as this is the level of geography typically used to capture aggregate migration trends (Monnat 2017). Second, tract-level data are used to measure fine-grained population-level exposure to FQHCs, an original contribution of this paper.

Measures

Population Measures: Tract-level measures include population size, racial and ethnic demographics, and socioeconomic status. Specifically, the analyses rely upon the Census counts of non-Hispanic white, Hispanic, foreign-born, and Mexican populations. Hispanic was not collected in the 1970 Census and is therefore extrapolated using subsequent Censuses. Finally, I use counts of persons living under the federal poverty line from the sample-based data at every decennial Census, as well as the counts of non-Hispanic white and Hispanic persons in poverty. Again, counts of Hispanics living under the poverty line was not ascertained in the 1970 Census and is thus extrapolated. All intercensal years are linearly interpolated for each of these key variables, in order to leverage the temporal variation in yearly data on FQHC exposure.

Urban Residence: Because the meaning of access differs theoretically based on population size, I split some of the analysis between urban and non-urban tract. The 2010 Metropolitan Division code for each census tract is used to determine status in an urban or non-urban area. Metropolitan Division codes include Core Based Statistical Areas with over 2.5 million in the population center. I specifically do not use Metropolitan Statistical Areas to split by population density because these areas require a core population of only 50,000 and thus include many areas that would be considered more suburban. In large cities, close proximity to medical care is much more theoretically meaningful, whereas in small cities or suburban areas close proximity—while

still desirable—is less important for access due to greater use of cars. Thus, in the analyses urban areas indicate densely populated, large cities.

Census Region: I follow the regional designation defined by the Census,[4] with a few exceptions. Because Hispanic immigration has been greatest in the Southwestern states, I split the following states into their own region: Texas, California, New Mexico, Arizona, Utah, and Colorado. The remaining western states are designated as the Northwest, with the addition of Alaska and Hawaii.

Hispanic Destinations Classification: I follow the destination classification approach outlined by Monnat (2017) in a recent study on immigrant health insurance disparities, classified into four destination types: Established Destinations, New Destinations of the 1990s, New Destinations of the 2000s, and Non-Destinations. Like other scholars (Crowley and Lichter 2010) have recommended, I consider "Established Destinations" to be counties that are comprised of at least 10% Hispanics in the 1990 census. "New Destinations of the 1990s" consist of counties that had a Hispanic population below 10% in 1990 but experienced substantial growth in the 2000 census: specifically, the counties must have grown by 150% and added 1,000 Hispanics in that ten-year interval.[5] A similar methodology extends to "New Destinations of the 2000s," which also grew by 150% and by 1,000 Hispanics but for a twenty-year interval between 1990-2010 censuses. Those counties not meeting the above criteria are considered to be "Non-Destinations."[6]

Exposure Measures. Using census tract centroid coordinates, I calculated the Euclidean distance (in miles) from every census tract to its nearest FQHC for every year between 1970 and

[4] https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf
[5] Monnat (2017) proposes a correction for small counties below 20,000 people that experienced 150% growth but did not increase by over 1,000 Hispanics. For these counties, if they exceeded the national average of percent Hispanic by county in 2000 (12.5%) or in 2010 (16.3%), they are considered to also be New Destinations.
[6] Following Monnat (2017), the analyses exclude Alaska and Hawaii, since these non-continental states have not experienced large Hispanic immigration flows.

2017. I then constructed variables indicating distance thresholds: less than one mile, two miles, five miles, 10 miles, and 25 miles (similar to Gresenz et al. 2009; Hadley and Cunningham 2004). The theoretical meaning of health care access differs based on population density, since close proximity is more important (and feasible) in large cities whereas non-urban residents are more likely to travel longer distances for their care. Thus, the first two distance thresholds (less than one or two miles) are more relevant for urban residents and the latter two thresholds (more than five or ten miles) are more relevant for non-urban residents. For the analyses, I will therefore use the under two-mile threshold for urban areas and the under ten-mile threshold for non-urban areas.[7] For the destination analyses, I use the classification of under five miles from an FQHC to measure exposure in both Established and New Destination areas.[8]

Analytic Strategy

Once counties were classified into one of the four types of destinations—i.e., Established Destinations, New Destinations of the 1990s, New Destinations of the 2000s, and Non-Destination—I spatially joined destination types at the county-level with the geocoded FQHC data using QGIS. I then collapsed the FQHC site-level data by county, resulting in summed variables of FQHCs and MHCs per county and per decade (pre-1980, 1980s, 1990s, 2000s, and 2010s).[9]

To ascertain population-level exposure to FQHCs over time, the data is transformed to be in tract-year-distance format (n=22 million). For every census tract-year, I calculate whether that tract was within each distance interval from an FQHC at that year. To calculate summary statistics, I apply the total counts of each population group in the tract as a frequency weight. The resulting

[7] Results are substantively similar when using the under one-mile threshold for cities and the under-25 miles threshold for non-urban areas.
[8] Results are substantively similar when using a ten-mile distance threshold.
[9] Established Destinations, at every decennial census considered here (1990-2010) contain the largest population size of all the destination types. The two types of New Destination counties are roughly equal in size, with early 1990s counties containing slightly more people, on average, than the more recent 2000 emerging destinations. Non-Destination counties have the lowest average population size.

summary statistics represent the proportion of each population group that was exposed to an FQHC at every time point at different distance thresholds. I then split these populations by urban residence, by the Hispanic Destination type determined at the county level, and by the region of residence in the U.S. Because historical tract-level census data does not include the nationality of immigrant groups, the results compare the Hispanic population with non-Hispanic whites to assess how immigrants are differentially exposed to the primary care safety net. Time trends look similar for Hispanics, immigrants, and Mexican-origin populations relative to the white population.

Results

Spatial and Temporal Distribution of FQHCs

There has been extensive growth in the coverage of FQHCs in the past three decades coinciding with the influx of Hispanic immigration. In Figures 2 and 3, I present maps that depict the geographic landscape of FQHCs in the 1990s and 2010s. Color gradation indicates the decade that the FQHC was funded and grayscale gradation indicates the Hispanic destination type for each county.

Leading up to 1990s, most Hispanic immigrants lived in Established Destination counties (light grey), many of which are not in close proximity to FQHCs [see Figure 2]. Many Established Destination counties near the Mexican border in Texas, Arizona, and New Mexico did not yet have access to an FQHC leading up to the 1990s. Nevada's access to FQHCs was especially stark at this time. California was one exception; traditionally California has been a progressive leader in health care and is a high-immigration state, so it is perhaps unsurprising that the state created a large health care infrastructure for medically underserved populations. For the counties that would experience increasing flows of Hispanic immigrants in the coming decades and fit the criteria for New Destinations, FQHCs were largely absent. In particular, many counties in the Pacific Northwest and Southern states were without FQHCs pre-1990s.

Figure 2. Distribution of Federally Qualified Health Centers in the 1990s

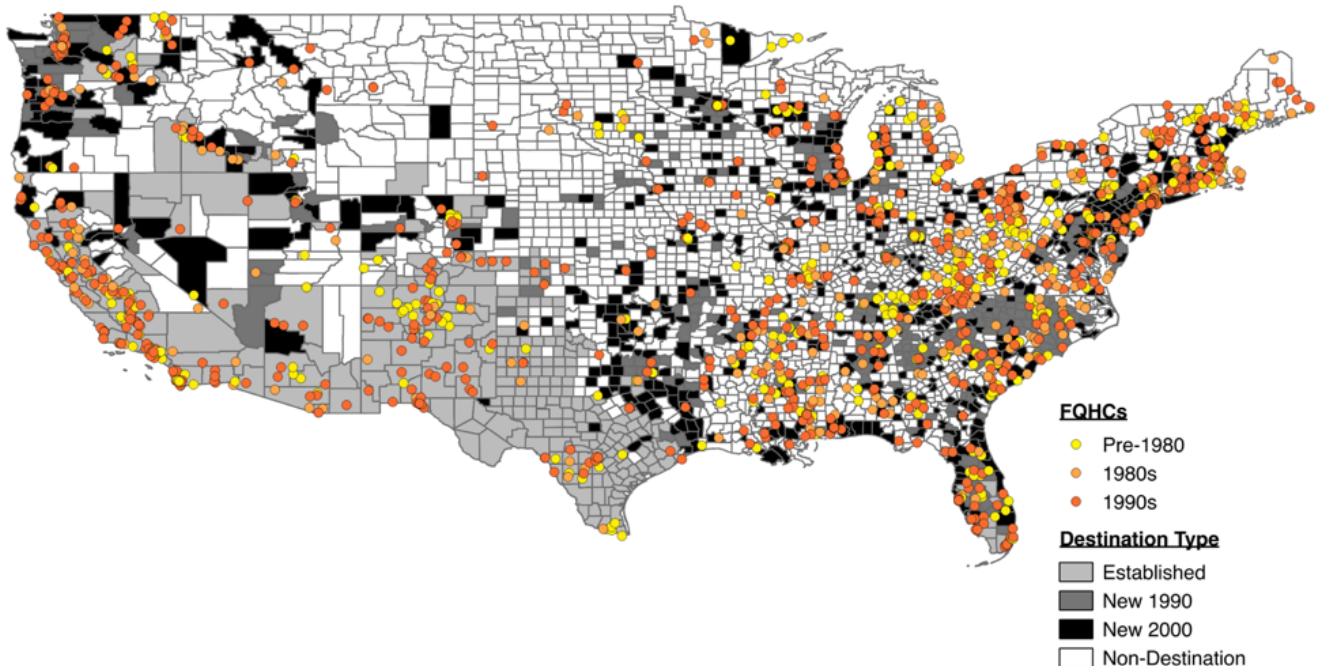
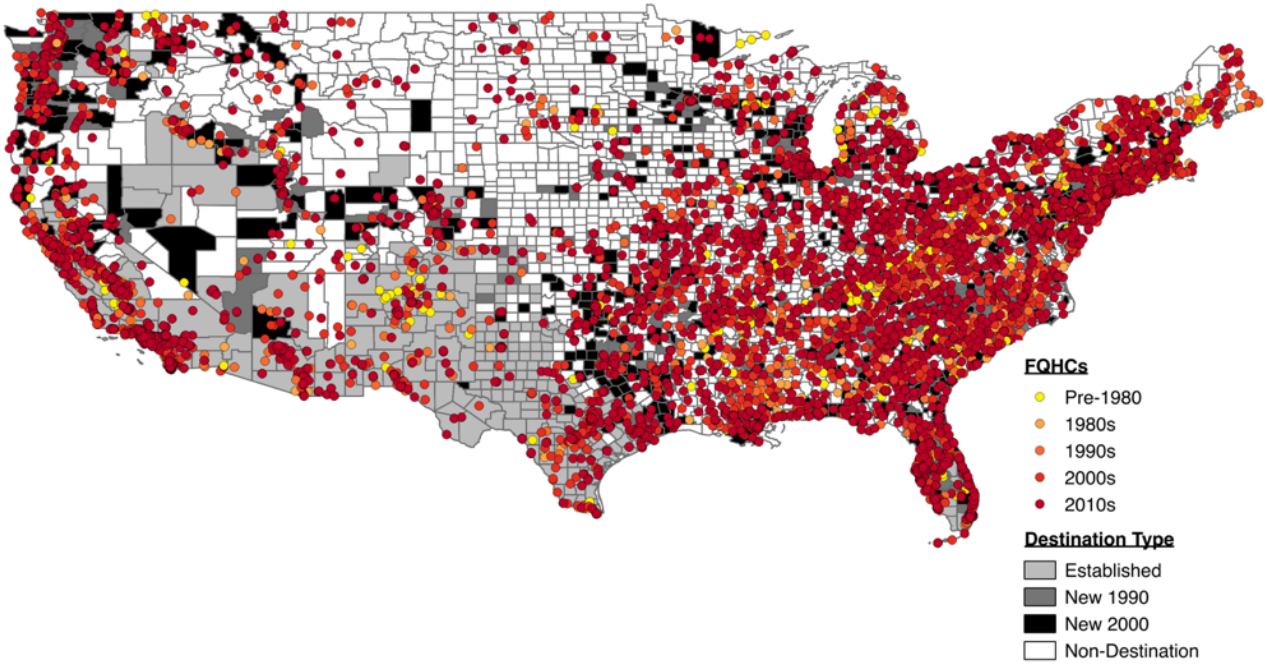


Figure 3. Distribution of Federally Qualified Health Centers in the 2010s



Source: Author's own calculations using HRSA administrative records and Decennial Census data, 1980-2010.

Although lack of FQHC access did not bode well for the Hispanic immigrants moving to New Destinations in the 1990s, bi-partisan political support led the program to flourish. The

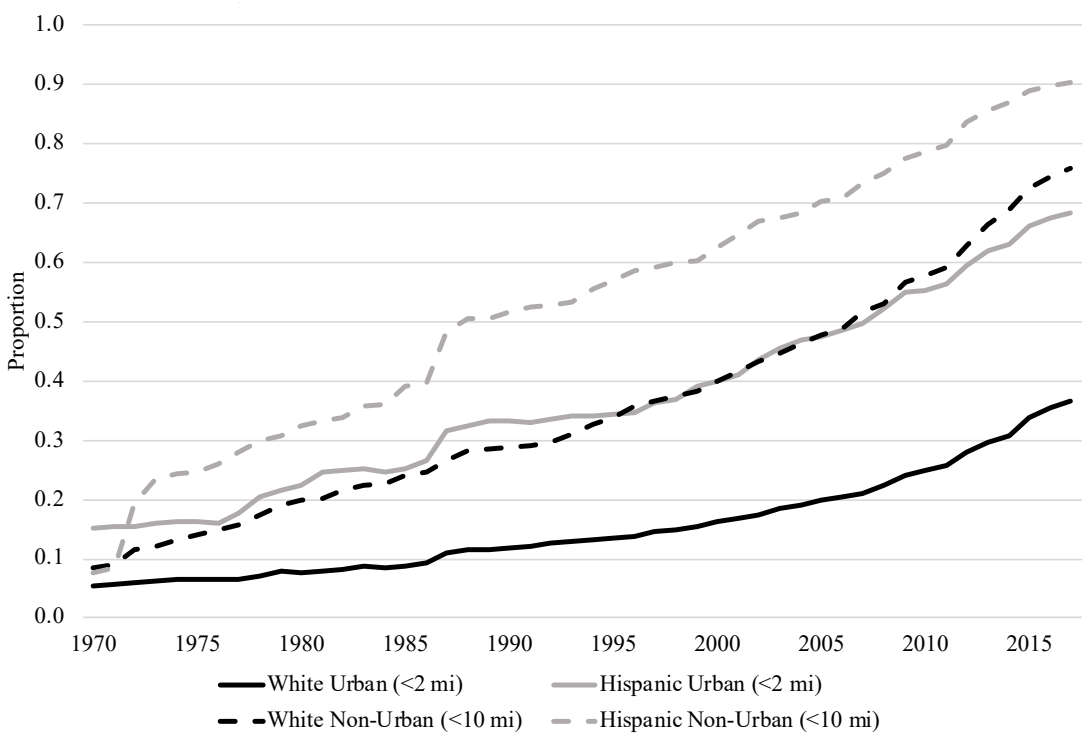
expansion began in earnest during the administration of President George W. Bush and carried over through the Obama administration's growth via ACA funding. The present-day map of FQHCs is strikingly different from the 1990s [see Figure 3]. It shows that Hispanic immigrants arriving to the U.S. today have much improved access to the health care safety net than those who journeyed to the U.S. in prior decades. Although proximity to FQHCs has increased for most parts of the country, there are still considerable swaths of the Upper Midwest, the Plains, and the Southwest regions of the country that are without access to the primary care safety net. For immigrants living in some parts of rural Texas and most parts of Nevada, access appears particularly bleak. Certain clusters in counties by the Mexican border have sufficient access to FQHCs, but large stretches are lacking access. The dearth of FQHCs in the Southwest is particularly problematic for Hispanic immigrant communities. Though these maps are useful for visualizing the spatial and temporal evolution of FQHCs, descriptive statistics will provide more insight into the geographic distribution of FQHCs in relation to Hispanic migration.

Exposure to FQHCs in Urban and Non-Urban Settings

To ascertain fine-grained population exposure to FQHCs, I turn to tract-level analysis comparing relative group exposure between Hispanics and non-Hispanic whites living in urban and non-urban areas. The distance thresholds differ such that urban residential exposure is assessed by closer distances (less than two miles) and non-urban residential exposure is examined by further distances (less than ten miles). I find that Hispanics living in non-urban settings have greater exposure to the health care safety net than do whites in both non-urban and urban areas [see Figure 4]. Non-urban Hispanics have greater exposure to FQHCs than do Hispanics living in urban areas. Over time, urban Hispanics and non-urban whites have had substantively similar exposure to FQHCs. Across every time point, urban whites have the least amount of exposure to

FQHCs. In the present day, fully 90% of non-urban Hispanics and 76% of non-urban whites live within ten miles of an FQHC, whereas 68% of urban Hispanics and just 37% of urban whites live within two miles of an FQHC. While overall access to FQHCs in non-urban areas is greater, the Hispanic-white gap in exposure to FQHCs is wider within urban areas (32 percentage point difference compared with 14 in non-urban areas). Thus, Hispanics have a robust advantage in access to the primary care safety net in both urban and non-urban settings.

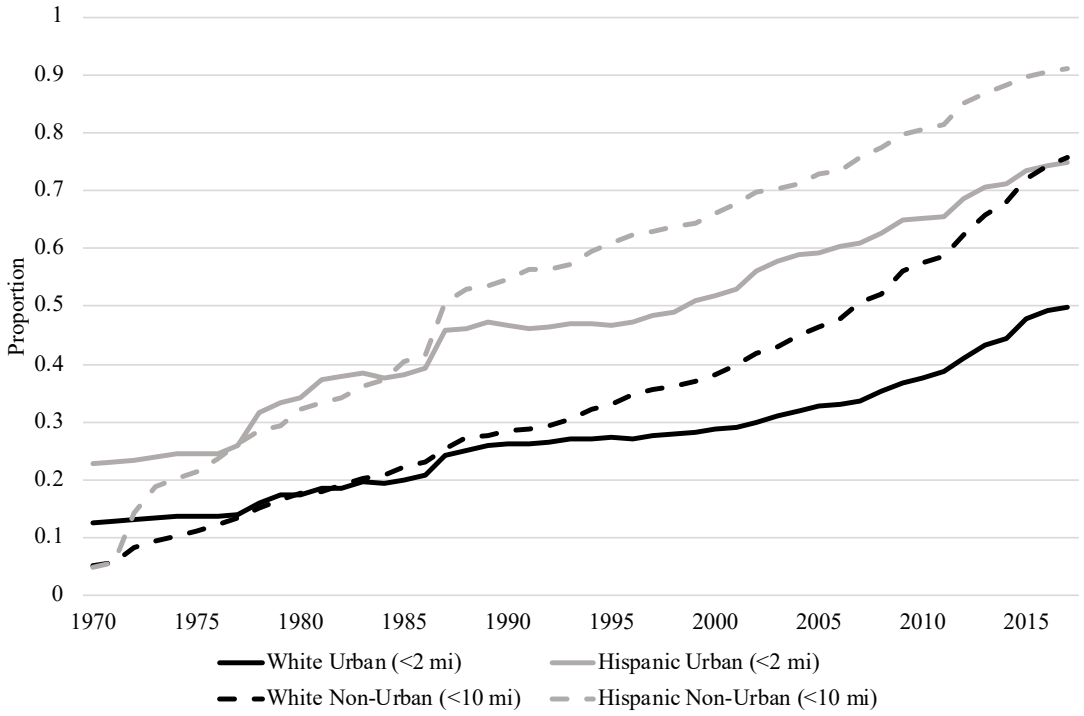
Figure 4. Proportion Hispanic and White Exposed to FQHCs, by Urban Residence (<2 and <10 miles)



Because FQHCs are targeted to medically underserved areas, the next results examine whether poverty conditions the Hispanic-white gap in access to FQHCs. In Figure 5, I show the exposure to FQHCs for Hispanics and whites living in poverty both in urban and non-urban areas. Similar to the overall population findings from Figure 4, I find that poor Hispanics living in non-urban areas have the greatest exposure to FQHCs, with just over 90% of the population currently living within ten miles of an FQHC compared with 76% of the poor, non-urban white population. Poor Hispanics living in urban settings have less exposure than in non-urban areas, with around 76%

of the population currently living within two miles of an FQHC. Prior to the late 1980s, more poor urban Hispanics had exposure than the non-urban population. Until 2015, poor urban Hispanics had consistently greater access to FQHCs than did poor urban whites, yet this has converged in recent years and now both populations have roughly the same exposure. Poor urban whites have substantially less exposure to FQHCs than all other groups, with just under 50% living within two miles of an FQHC, compared to the 37% overall urban white population. Again, the Hispanic-white gap in exposure to FQHCs is widest in cities (26 percentage point difference compared with 15 in non-urban areas). In sum, the proportion of poor Hispanics with access to FQHCs has historically been greater than the proportion of poor whites, especially in non-urban settings. Until recent years, the urban Hispanic poor had greater access than the non-urban white poor, which contrasts with the overall population finding that these groups had roughly the same amount of exposure over time.

Figure 5. Proportion <u>Poor</u> Hispanic and White Exposed to FQHCs, by Urban Residence (<2 and <10 miles)



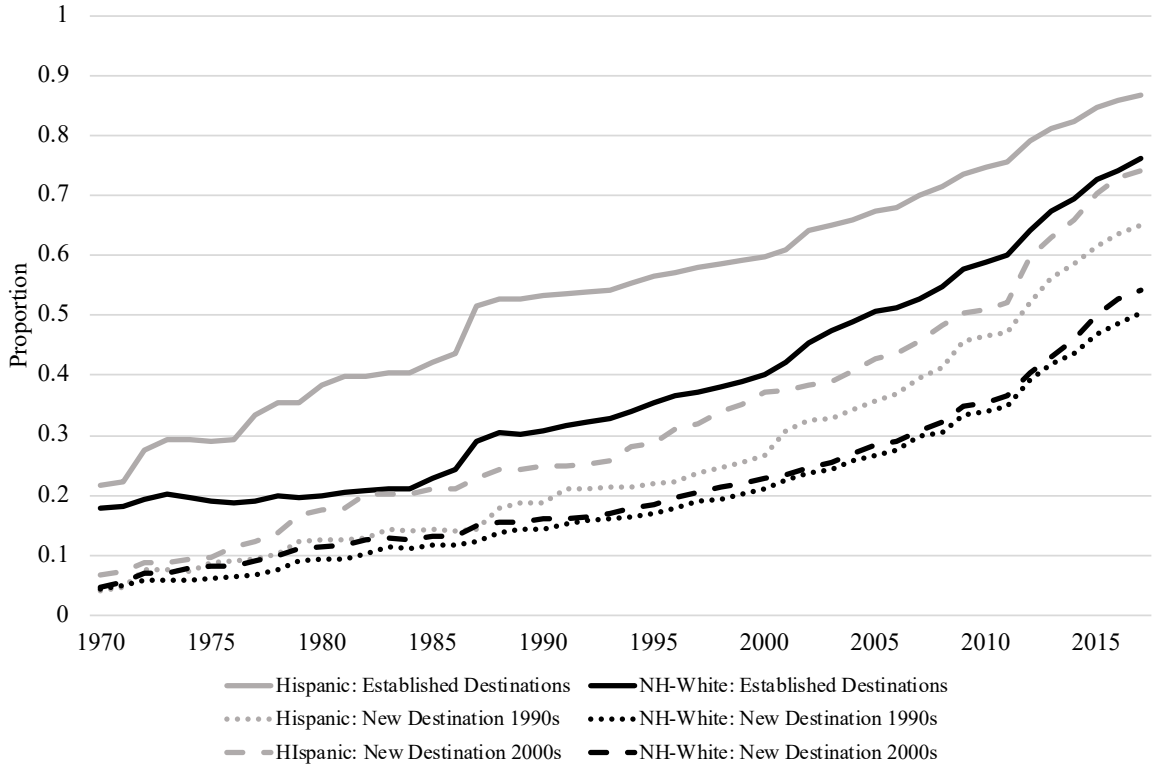
Exposure to FQHCs in Established and New Destinations

Knowing that non-urban Hispanics have greater access to FQHCs than those living in urban areas, I now turn to comparisons between Established Gateways and New Destinations to further shed light on the uneven spatial distribution of FQHCs in relation to Hispanic migration patterns. Figure 6 depicts the proportion of Hispanics and non-Hispanic whites exposed to an FQHC within each destination type, using a five-mile distance threshold. I find that that, over time, Hispanics settling in Established Destinations have historically had greater access to the primary care safety net than those settling in New Destinations. This gap was at its peak in the 1990s when more than half of Hispanics residing in Established Destinations lived within five miles of an FQHC and less than a quarter of Hispanics living in New Destinations had similar access to an FQHC. The gap between Established and New Destinations has narrowed since 2010, but less so for New Destinations of the 1990s, suggesting the infrastructure required to establish FQHCs is still lagging in these areas. Again, relative to non-Hispanic whites, Hispanics across all destination types have greater exposure to FQHCs.

Whites living in Established Destinations have greater access to FQHCs than those living in New Destinations, and have similar access as Hispanics living in New Destinations of the 2000s. Currently, the Hispanic-white gap is greater in New Destinations of the 2000s (19 percentage point difference) than in New Destinations of the 1990s (13 percentage point difference) or Established Destinations (11 percentage point difference). In sum, both Hispanics and whites living in Established Destinations have benefitted from greater exposure to FQHCs over time than those living in New Destinations. The early New Destinations of the 1990s have historically had the least amount of access to FQHCs for Hispanics, and at present 46% of Hispanics living in these areas do not live within five miles of an FQHC, compared with 27% in

New Destinations of the 2000s, and only 13% without access in Established Destinations. Thus, the safety net infrastructure in some New Destination areas have grown faster than in others.

Figure 6. Proportion Hispanic and White Exposed to FQHCs, by Destination Type (<5 miles)

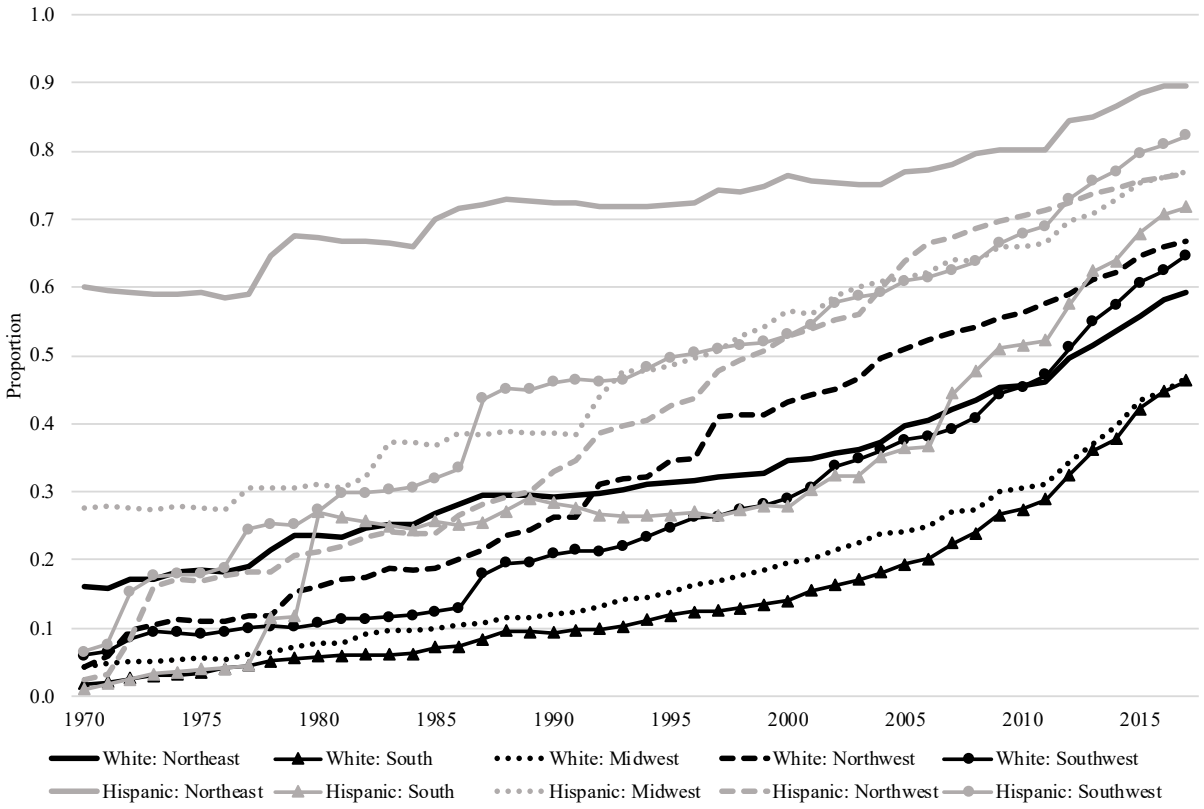


Regional Variation in Exposure to FQHCs

The final set of results split the population between Census regions to see if Hispanics are differentially exposed to FQHCs based on the region where they settle. I first show the overall proportions of Hispanic and white Populations exposed to FQHCs in each region [Figure 7] and then show the difference in these proportions by region [Figure 8]. The overall trend in Figure 7 shows that, across most regions, Hispanics have had greater access to FQHCs than whites. In particular, Hispanics living in the northeast have consistently had the greatest access to FQHCs, beginning at nearly 60% in 1970 and now at almost 90%. This is likely driven by the relatively small population of Hispanics in the northeast, as well as the concentration of Hispanic residence in the northeast nearby agricultural industries where Migrant Health Centers have long been

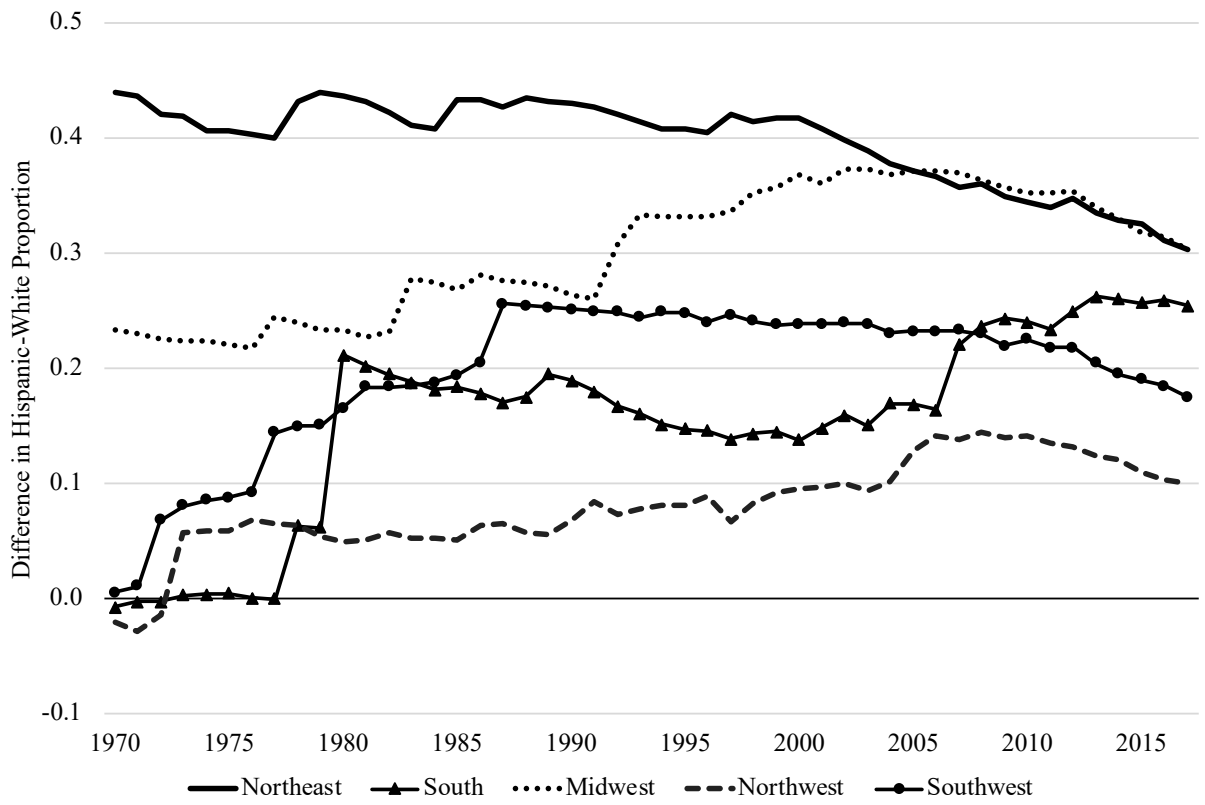
available. Hispanics in the Southwest, Northwest, and Midwest have historically had similarly high exposure to FQHCs, which is most significant for the Southwest region where a large population of Hispanics live. Currently, more than 80% of Hispanics living in the Southwest live within five miles of an FQHC. The one exception to this trend has been in the regional South, where Hispanics have had substantially lower exposure to FQHCs than other regions up until 2010 when this gap began to close. Notably, the whites living in the Northwest had greater access to FQHCs than did Hispanics in the South from 1990 until 2010. Substantially fewer whites living in the regional South and Midwest have historically had access to FQHCs, and still under 50% of the white Southern and Midwestern population live within five miles of an FQHC.

Figure 7. Proportion Hispanic and White Exposed to FQHCs, by Region (<5 miles)



For ease of interpretation, Figure 8 shows the Hispanic-white gap in access to FQHCs. The first thing to notice is that, at almost every time point, Hispanics have had greater access to FQHCs than whites in every region of the U.S., with the exception of the South and Northwest in the early 1970s. The gap has been highest in the Northeast and Midwest. Today, Hispanics in these regions have a 30-percentage point advantage over whites in exposure to FQHCs. The Hispanic-white gap was fairly stable in the Southwest since the late 1980s, although it has dropped below a 20-percentage point difference since 2010. The gap has been narrowing in all other regions as well, with the exception of the South where Hispanics have had increasingly greater exposure to FQHCs than whites since 2007. These regional analyses provide further insight into how the distribution of FQHCs relates to the migration patterns of Hispanics, and again demonstrate an advantage in access for Hispanics living in every region of the country.

Figure 8. Difference of Proportion Hispanic-Proportion White Exposed to FQHCs, by Region (<5 miles)



Conclusion

This research extends existing literatures on spatial inequalities in access to health care and provides the first systematic empirical evidence on the reach of FQHCs into Hispanic communities. Across every spatial measure considered, I find that more Hispanics have had exposure to FQHCs than whites over time. Both urban and non-urban Hispanics have had greater access than whites, Hispanics in both Established and New Destinations have had greater access than whites, and Hispanics in every region of the U.S. have had greater exposure than whites with the exception of the early 1970s in the South and Northwest. Within the Hispanic population, I find that non-urban Hispanics have greater access than their urban counterparts. Hispanics settling in New Destination counties in the 1990s and 2000s have had less access to FQHCs than their counterparts in Established Destination counties, and Hispanics settling in the regional South have had less exposure to the safety net than all other regions of the county. Although Hispanics settling in certain places—such as Established Destinations, non-urban areas, and the regional Northeast—have better access to FQHCs, I find that regardless of where Hispanics settle their exposure to FQHCs relative to the white population has been historically greater.

Although the results show an uneven distribution of the health care safety net, they also suggest that FQHCs could be an important mechanism in understanding the Hispanic health paradox, which has puzzled social scientists for years. Many scholars have documented that foreign-born Hispanics have a mortality advantage over the non-Hispanic white population (Hummer et al. 2007; Palloni and Arias 2004). There are four main arguments for this paradoxical finding: that it is an illusion produced by data artifacts, that it can be attributed to healthy immigrant selection, that return migration explains why most Hispanics who remain in the U.S. are healthy, or that there are sociocultural buffering effects within Hispanic immigrant communities. With greater access to free, culturally-competent, preventive health services, FQHCs could be a key reason explaining

why Hispanics tend to have better health outcomes than do non-Hispanic whites. Given the FQHCs have been proven to reduce mortality (Bailey and Goodman-Bacon 2015), further research is needed to explore the link between access to FQHCs and Hispanic health outcomes.

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