Assessing the Legacies of Historical Redlining

Correlations with Measures of Modern Housing Instability

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"Redlining" of neighborhoods, one of a number of explicitly racist United States federal housing policies in the mid–twentieth century, blocked Black households and other communities of color from accessing home mortgages—and as a result homeownership—for decades. The practice has been linked to present day racialized neighborhood poverty and ongoing negative impacts on formerly redlined neighborhoods. In an attempt to address or mitigate decades of racist housing policies, some policymakers and jurisdictions are considering reparative policies and otherwise prioritizing Black households and others disenfranchised by past racist housing policies. Given the prominence of redlining maps and analyses that find associations between redlining and negative impacts on neighborhoods, some policy makers have focused on redlined areas as a criteria for qualifying for direct assistance.

In this brief, we explore the extent to which historical redlining patterns correlate with current risk of housing instability. Using redlining maps for more than 200 cities digitized by the University of Richmond as a base and a number of instability indicators including the Urban Institute's Emergency Rental Assistance Priority (ERA Priority) Index, eviction filing data from the Eviction Lab, and Affirmatively Furthering Fair Housing (AFFH) data, we examine the extent to which redlined areas correlate with concentrations of people who are most at risk of housing instability. It is important to note that the overall practice of restricting access to housing based on race still happens today, but for

the purposes of this brief, when we talk about redlining, we mean the legacy of the Federal Housing Administration (FHA).

We find that the relationship between historical redlining and current risk of housing instability is limited and nuanced. Nationally, redlining was not consistently associated with risk of housing instability as measured by the ERA Priority Index and eviction filings. This trend varies across cities, as some have stronger positive correlations and others have stronger negative correlations between redlining and housing instability as we measure it. Consistent with other prior research, our findings suggest that redlining does seem to correlate more strongly with measures of neighborhood opportunity and the built environment. Given the prominent attention redlining has received in academic literature and in local policy debates, it is important to understand the nuances of these relationships.

Based on this analysis, we draw a number of conclusions and policy implications:

- Redlining has inconsistent and low to moderate correlation with many measures of current housing instability, including eviction filings and housing instability as measured by the ERA Priority Index.
- Intentionally targeting redlined areas with emergency rental assistance or other emergency housing assistance would be an ineffective way of reaching the people most in need. Instead, efforts to geographically target emergency rent assistance and other emergency housing assistance would be better targeted using data on current need.

Background

Throughout the history of the United States, explicitly racist federal, state, and local policies have disenfranchised, segregated, and marginalized Black, Indigenous, and other people of color. There are long-standing negative impacts from these policies on both people and places. One of the policies that has garnered significant attention in both the academic and the political space is redlining. On the most basic level, redlining excluded Black communities and other communities of color from homeownership during a period of history when homeownership for white households was directly facilitated and subsidized by the federal government.

In the wake of the Great Depression, the Federal Housing Administration (FHA) was established as a way to stimulate the economy through homebuying and home construction. The FHA facilitated home financing by standardizing lending standards, standardizing underwriting, and insuring mortgage loans. The FHA was successful in many ways, encouraging a boom in homeownership and housing construction for purchase, but these benefits were not distributed equally, with Black households excluded from these opportunities.

The racist policies employed by the FHA and the broader housing industry during the mid–twentieth century barred Black households from accessing the same housing opportunities that were opening up for white households. The FHA refused to insure mortgages in and near majority-Black

neighborhoods, a policy termed redlining. The term *redlining* stems from the development of maps of every major metropolitan area first developed by the Home Owners Loan Corp (HOLC) and then adopted by the FHA and the Veterans Administration. The maps were designed to determine the riskiness of mortgages and were color coded based on risk (Rothstein 2017; Mitchell and Franco 2018).

HOLC agents assigned four grades to residential neighborhoods. The highest grade of A indicated minimal risk for banks and other mortgage lenders. The lower grades of C ("definitely declining"; assigned the color yellow on the redlining maps) and D ("hazardous"; assigned the color red on the redlining maps) were deemed of higher risk to lenders. Race played a large role in the development of the maps, with areas of high Black population were assigned the color red. The FHA justified these policies by arguing that if Black households purchased houses, the property values of the homes they were insuring would fall, putting the properties at risk (Rothstein 2017; Mitchell and Franco 2018).

These maps were augmented by a series of policies that actively encouraged racial segregation in multiple ways. The Underwriting Manual of the FHA stated that "incompatible racial groups should not be permitted to live in the same communities." Segregation was reinforced by allowing, and in some cases requiring, the use of restrictive covenants that barred the sale of homes to Black households. Similarly, the Underwriting Manual recommended that barriers, including highways and cement walls, be used to separate and exclude Black neighborhoods from white neighborhoods (Rothstein 2017; Flournoy 1985).

These policies and practices were designed to enrich white households while excluding and disenfranchising Black households and other households of color. They limited homeownership—and the subsequent wealth-building opportunities—to white households and exacerbated neighborhood-based segregation. Redlining, combined with a slew of other racist housing policies and practices including racially restrictive covenants, the suburbanization of housing development, and racial steering by realtors, allowed white households to purchase houses in the expanding suburbs, creating a wave of white flight (Frey 1979). Black households, unable to relocate, were often stuck in central cities as population declined, the tax base hollowed out, and public assistance shifted out of cities (Wilson 1987; Massey and Denton 1990). This led to a long-standing disinvestment in public goods such as schools. The outcomes created starkly different neighborhoods structured by public and private investment. The Kerner Commission Report, published in 1968, acknowledged this segregation and indicated that our nation was moving toward two societies: one black, one white—separate and unequal.[1]

The long-standing impact of these policies can be seen in many facets of American neighborhoods (Aaronson et al. 2021). Recent research points to the persistence of present-day economic disadvantage in formerly redlined neighborhoods among multiple dimensions. Racial segregation has persisted in many of the redlined areas; a majority of the areas deemed "risky" are still populated by Black households while the "less risky" areas are still majority white (Mitchell and Franco 2018). While redlining is most frequently associated with Black households, its long-term impacts have been broadly impactful for Latin and Asian households as well. A recent analysis found nearly all formerly redlined zones in the country are still disproportionately Black, Latin, or Asian compared with their surrounding metropolitan area, while two-thirds of greenlined zones—neighborhoods graded "best"—are still

overwhelmingly white.[2] During the early twentieth century, in some cities—such as many cities in California where there were higher percentages of Latin and Asian households—government officials directly targeted non-white households through redlining. Additionally, the consistent lack of investment in formerly redlined areas has continued to cause disproportionate harm to Latin communities.[3]

Redlined areas appear to retain the physical scars from disinvestment that occurred in the early to mid-twentieth century . Regions that were previously graded B, C, and D compared to areas graded A have darker roofs, low or no mature tree canopy, and fewer street trees, which affect street cover and heat vulnerability (Schinasi et al. 2022; Nowack, Ellis, and Greenfield 2022). In part due to these environmental characteristics, redlined areas are correlated with higher average temperatures and heat-related emergency department visits (Wilson 2020; Li et al. 2021). Redlining also has been associated with increased exposure to harmful emissions and worse asthma-related outcomes, with a disproportionate effect on Black residents of redlined neighborhoods (Schulyer and Wenzel 2022; Hrycyna et al. 2022).

Studies have found links between redlined areas and certain health outcomes (Swope, Hernandez, and Cushing 2020), including decreased life expectancy (Huang and Sehgal 2022) and a higher risk for COVID-19 infections (Li and Yuan 2022). Redlining is linked to negative preterm birth outcomes (Nardone et al. 2020; Krieger et al. 2020; Hollenbach et al. 2021) as well as activities that are harmful to health outcomes, such as a higher incidence of gun violence (Benns et al. 2020) and higher exposure to lead within homes (Sampson and Winter 2016).

Similarly, economic divisions still can be seen between high- and low-risk graded areas; these include higher poverty, vacancy rates, risk of loan denials, subprime lending, and mortgage default and lower economic mobility, homeownership rates, and home values (Appel and Nickerson 2016). Studying homeownership rates, racial segregation, and discriminatory mortgage lending, Xu (2021) found that the tracts rated most risky in HOLC maps had a more significant impact on these outcomes during discriminatory mortgage lending.

BOX 1

The Value of Examining Redlining in Order to Understand Current Inequities

While the impacts of racist lending and homeownership practices are clearly documented, recent work by Fishback et al. (2021), among others, complicates the specific role that redlining alone has played in producing today's segregated and unequal landscape. Fishback et al. (2021) show that the FHA's lending practices between 1933 and 1940 were discriminatory, such that the HOLC maps codified the discrimination already taking place; the maps themselves did not alter the geographic reach or racist practice of the FHA's mortgage activity. The HOLC maps are just one example of the FHA's racist housing policies, including shifting.

In addition, studies of redlining are focused on only one racist policy although many complex and interwoven discriminatory practices and policies—including zoning, restrictive covenants, private lending practices, and racial steering—led to the ongoing patterns of segregation, disinvestment, and

inequality that we see today. Similarly, it does not highlight the critical role that private actors, such as private lenders, the real estate industry, and real estate boards, played in this process prior to the 1930s in constructing property ownership in ways that disadvantaged Black households in many ways before and after the creation of the HOLC maps (Freund 2007; Goltzer 2020; Winling and Michney 2021).[4] For example, the racialization of property markets made it easier for privilege to accrue to white neighborhoods over time, while Black neighborhoods were more likely to be subjected to urban renewal projects, highway placement, and disinvestment.

Likewise, redlining as a practice was technically barred with the passage of the Fair Housing Act and Housing and Urban Development Acts of 1968. Yet even after redlining was made illegal, policies such as residential zoning laws and the development of a credit score continued inequality in housing markets.

This does not diminish the critical role that redlining played in home lending but suggests that redlining should not be viewed as the sole determinant of modern patterns of racial inequality and sole target of reparative policies. Rather, redlining should be recognized as one critical component of a complex and interconnected racist housing system that has maintained segregation and inequality through multiple channels, which often entail how capital is shifted and housing is valued in racialized ways. This brief focuses on this question to better understand how historical redlining maps correlate with current indicators of housing instability.

Research Questions

In this brief, we explore the extent to which historical redlining patterns predict current risk of housing instability. Specifically, we consider the following research questions.

- How does historical redlining correlate with current risk of housing instability as measured by indicators that correlate with eviction filings and homelessness?
- Were people who live in areas that were historically scored as high risk in redlining maps at greater risk of housing instability and homelessness throughout the pandemic?

Given the ongoing attention paid to the legacy of redlining and the identified correlations between redlining and a number of negative outcomes for neighborhoods and households, we hypothesized that historical redlining would contribute to heightened housing instability and risk of homelessness as well as the high need for housing assistance during and before the COVID-19 crisis. Legacies of limited financial investment and opportunities to purchase housing could have created neighborhoods with fewer opportunities to purchase housing, forcing households to continuously rent (and not own) while also denying them the opportunity to build wealth through homeownership, leaving residents in those areas today at higher risk of residential instability and eviction than residents who do not live in redlined areas.

Data and Methods

Our analysis relies on four data sources—historical redlining maps made available by the University of Richmond through the Mapping Inequality project, the Urban Institute's ERA Priority Index, eviction filings data from the Eviction Lab, and AFFH data. For each neighborhood in our analysis, we determine the share of that neighborhood that experienced historical redlining and correlate that share against the other data sources to understand the relationship between redlining and current and past risk of housing instability.

HISTORICAL REDLINING MAPS

Redlining maps are sourced from the Mapping Inequality project—a collaboration of three teams at four universities, housed at the University of Richmond—which has made available descriptions created by agents of the federal HOLC in the 1930s for more than 200 cities.[5] HOLC agents assigned four grades to residential neighborhoods. The highest grade of A was considered the best and indicated minimal risk for banks and other mortgage lenders. The lower grades of C ("definitely declining"; colored yellow on the redlining maps) and D ("hazardous"; colored red on the redlining maps) indicated higher-risk neighborhoods. The Mapping Inequality project provides spatial data for more than 200 cities—representing more than one-fifth of all census tracts in the country—detailing the neighborhoods that HOLC agents graded and their assigned grades.

ERA PRIORITY INDEX DATA

The Urban Institute developed the ERA Priority Index to help communities target emergency rental assistance during the COVID-19 pandemic to neighborhoods facing the greatest risk of housing instability and homelessness. The ERA Priority Index was constructed from three subindexes: a Housing Instability Risk subindex, a COVID-19 Impact subindex, and an Equity subindex. Each subindex aggregated indicators from the American Community Survey that included household economic and demographic information. These indicators were selected based on a review of the literature, data available on homelessness and eviction filings, and COVID-19 impacts. The Housing Instability Risk subindex included indicators that are empirically tied to rates of homelessness and eviction. The COVID-19 Impact subindex included indicators that were specific to COVID-era risks, such as job loss or health insurance coverage. And the Equity subindex included indicators that captured populations that are overrepresented among those evicted and experiencing homelessness. The ERA Priority Index was standardized at the state level to make statewide comparisons easier. More detail about the construction of the ERA Priority Index can be found in the ERA Priority Index Technical Appendix (Batko et al. 2021).

Urban created two versions of the ERA Priority Index—an original 2020 version and a subsequent 2021 update that incorporates more recent data. The analysis in this brief uses the 2021 ERA Priority Index. Data for the 2021 ERA Priority Index were sourced from the 2015–2019 American Community Survey five-year estimates, the 2013–2017 US Department of Housing and Urban Development's Comprehensive Housing Affordability Strategy data, and the March 2021 update to the Urban Institute's Where Low-Income Jobs Are Being Lost to COVID-19 data tool (Batko et al. 2021). A

previous analysis of the 2020 ERA Priority Index found that it and its composite indicators correlated moderately to strongly to evictions in most states at the census tract level (Batko et al. 2020).

EVICTION FILING DATA

We sourced current eviction filings data from Eviction Lab's Eviction Tracking System, which tracks real-time eviction filings for select cities and provides baseline eviction filings for those cities based on averages of varying time periods before the start of the COVID-19 pandemic. We used the Eviction Lab's baseline data.[6] We include in our analysis the 27 cities that Eviction Lab tracks at the census tract level: Albuquerque, New Mexico; Boston, Massachusetts; Bridgeport, Connecticut; Charleston, South Carolina; Cincinnati, Ohio; Cleveland, Ohio; Columbus, Ohio; Dallas, Texas; Fort Worth, Texas; Gainesville, Florida; Greenville, South Carolina; Hartford, Connecticut; Houston, Texas; Indianapolis, Indiana; Jacksonville, Florida; Kansas City, Missouri; Las Vegas, Nevada; Memphis, Tennessee; Milwaukee, Wisconsin; Minneapolis–Saint Paul, Minnesota; New Orleans, Louisiana; Philadelphia, Pennsylvania; Phoenix, Arizona; South Bend, Indiana; St. Louis, Missouri; Tampa, Florida; and Wilmington, Delaware.

We calculated six measures from the Eviction Tracking System data for all 27 cities. These include three measures using recent data: total eviction filings in calendar year 2020, total eviction filings in calendar year 2021, and total evictions during the COVID-19 pandemic (week starting March 22, 2020, through the end of 2021). For each of these three measures, we also include a baseline measure that is calculated by Eviction Lab.[7] Eviction Lab built a comparable baseline for each of the 27 cities using valid and reliable eviction data from years prior to 2020. For example, Eviction Lab uses a baseline for Cincinnati, Ohio, that represents average eviction filings between 2012 and 2016, but for Richmond, Virginia, it uses 2016 only for the baseline comparison. For each city, Eviction Lab reports total eviction filings alongside that baseline comparison by week for each week in 2020 and 2021. Calendar year 2020 baseline eviction filings are then total baseline eviction filings from the week starting December 29, 2019, through the week starting December 27, 2020. Calendar year 2021 baseline eviction filings are total baseline eviction filings from the week starting January 3, 2021, through the week starting December 26, 2021. COVID-19 baseline eviction filings are total baseline eviction filings from the week starting March 22, 2020, through the week starting December 26, 2021.

AFFH DATA

The US Department of Housing and Urban Development issued a final rule in July 2015 interpreting and implementing a requirement in the Fair Housing Act (Title VIII of the Civil Rights Act of 1968) known as affirmatively furthering fair housing (AFFH). As part of that issuance in 2015, the US Department of Housing and Urban Development shared data to help state and local governments navigate fair housing planning. We source July 2020 AFFH data from the Urban Institute Data Catalog.[8] Among other data, AFFH includes five measures of opportunity:

- **Low poverty index:** Measures poverty levels in a given neighborhood (A higher score means less exposure to poverty.)

- **Labor market index:** Measures labor market engagement and human capital engagement in a neighborhood, informed by levels of employment, labor force participation, and educational attainment (A higher score means higher levels of labor force participation and human capital.)
- **Environmental health index:** Measures exposure to harmful toxins in the environment (A higher score means better environmental quality.)
- **Low transportation cost index:** Measures transportation costs for a three-person single-parent family with income at 50 percent of the region's median income among renters (A higher score means lower transportation costs.)
- **Transit trips index:** Measures the number of transit trips taken by a three-person single-parent family with income at 50 percent of the region's median income among renters (A higher score means higher utilization of public transit.)

We used these data both to understand consistency across similar measures captured in the ERA Priority Index (low poverty and labor market) and to capture information about the built environment (environmental health, low transportation, and transit trips), which may be more consistent with prior findings on redlining's correlation with inequities in the built environment today.

Methods

For each city included in the analysis, we correlate[9] the redlining measure (see below for a description of how we created the redlining measure at the census tract level) with the ERA Priority Index—the total index, the subindexes, and the indicators that individually create the index—with the six eviction filings measures, and with the five AFFH measures of neighborhood opportunity. We then display those city-level correlations using histograms to visually show trends—whether cities exhibit primarily a positive relationship, a negative relationship, or a mix of both for each measure. For the ERA Priority Index indicators, we show an overall correlation across cities rather than showing city-level correlations.

To check the robustness of these relationships by different geographies, we also replicated the census tract analysis at the level of the Zip Code Tabulation Area and found similar findings. We focus our discussion on the census tract analysis as it is a smaller and more detailed geography, but we include more information about our Zip Code Tabulation Area analysis in the appendix.

CREATING THE CENSUS TRACT–LEVEL REDLINING MEASURE

To create the redlining measure we used in our analysis, we downloaded spatial redlining maps representing more than 200 cities and intersected them with 2019 census tract boundaries. For each census tract, we used this intersection to create our primary analytic measure by dividing the area that had been redlined by total area.

- Redlining measure = $\frac{Redlined\ area}{Total\ neighborhood\ area}$

We defined the numerator of that fraction—the area that had been redlined—as the area assigned a grade of either C ("definitely declining") or D ("hazardous") by HOLC agents. We define the denominator

of that fraction—the neighborhood's total area—as the area represented in the redlining maps, including only those areas that received a grade of A ("best"), B ("still desirable"), C ("definitely declining"), or D ("hazardous").

- **HOLC grade of C or D (numerator):** Redlined area is the sum of both the area that had been assigned a grade of D ("hazardous") and the area that had been assigned a grade of C ("definitely declining") by HOLC agents.
- **Only the area represented in redlining maps (denominator):** HOLC agents assigned grades to residential areas. When we intersected the redlining maps with census tract boundaries, not all of each census tract may be represented by those maps—nonresidential parts of the census tract, for example, may not have been assigned HOLC grades. Total neighborhood area is the area represented in the redlining maps themselves—those areas that were given a grade of A ("best"), B ("still desirable"), C ("definitely declining"), or D ("hazardous") by HOLC agents.

The literature surrounding the legacies of redlining refers to HOLC grades C and D, supporting our measure of redlining area. By focusing total neighborhood area on only those areas that the HOLC agents assessed, we are also more likely to focus our analysis on the residential areas that we hypothesized are facing the lingering impacts of redlining today (and not on areas that were omitted by HOLC agents).

We considered three additional measures of redlining, detailed in appendix A, that operationalize the numerator and denominator in different ways. Our findings are consistent across all four redlining measures, so we focus the discussion on our primary redlining measure only.

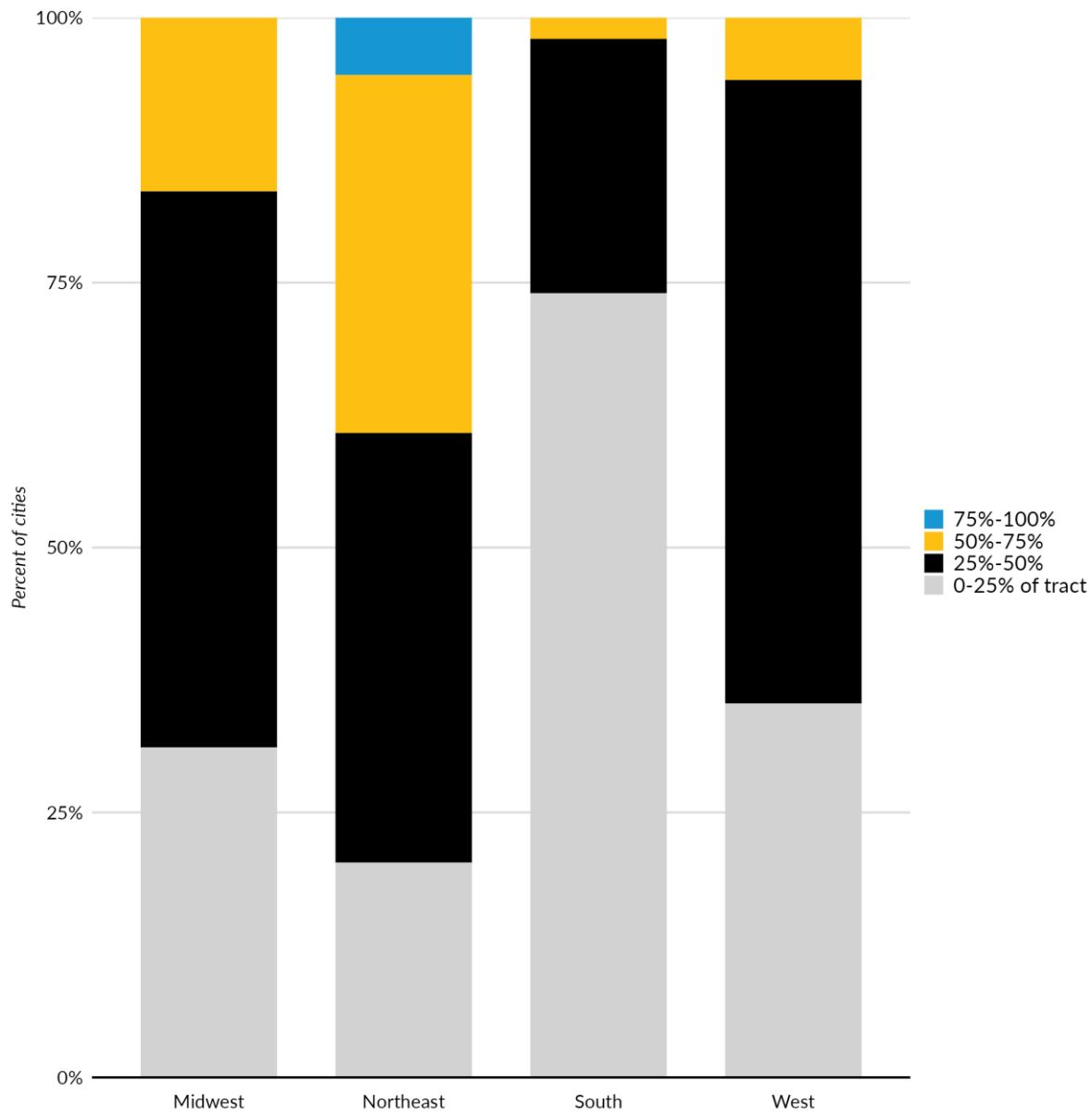
Findings

Redlining Touches All Regions and Large Portions of Neighborhoods

Across the more than 200 cities represented in the Mapping Inequality project, we find that redlining was widespread. We used present-day city boundaries and, by city, determined the average extent of redlining across all of each city's neighborhoods. We bring in both those neighborhoods graded by HOLC and those that had not been graded by HOLC (essentially assigning a redlining measure value of 0) to show the city-level impacts of redlining. We found that for the majority of cities, the extent of redlining for the average neighborhood was either less than a quarter or between a quarter and a half (figure 1). The Northeast had the greatest share of cities where the extent of redlining for the average neighborhood was greater than 50 percent. This is in part influenced by the inclusion in the Mapping Inequality project of smaller cities in the Northeast relative to cities in other Census regions (for example, the neighborhoods of Boston are included as separate cities in this analysis).

FIGURE 1

Average Extent of Redlining across City Neighborhoods



URBAN INSTITUTE

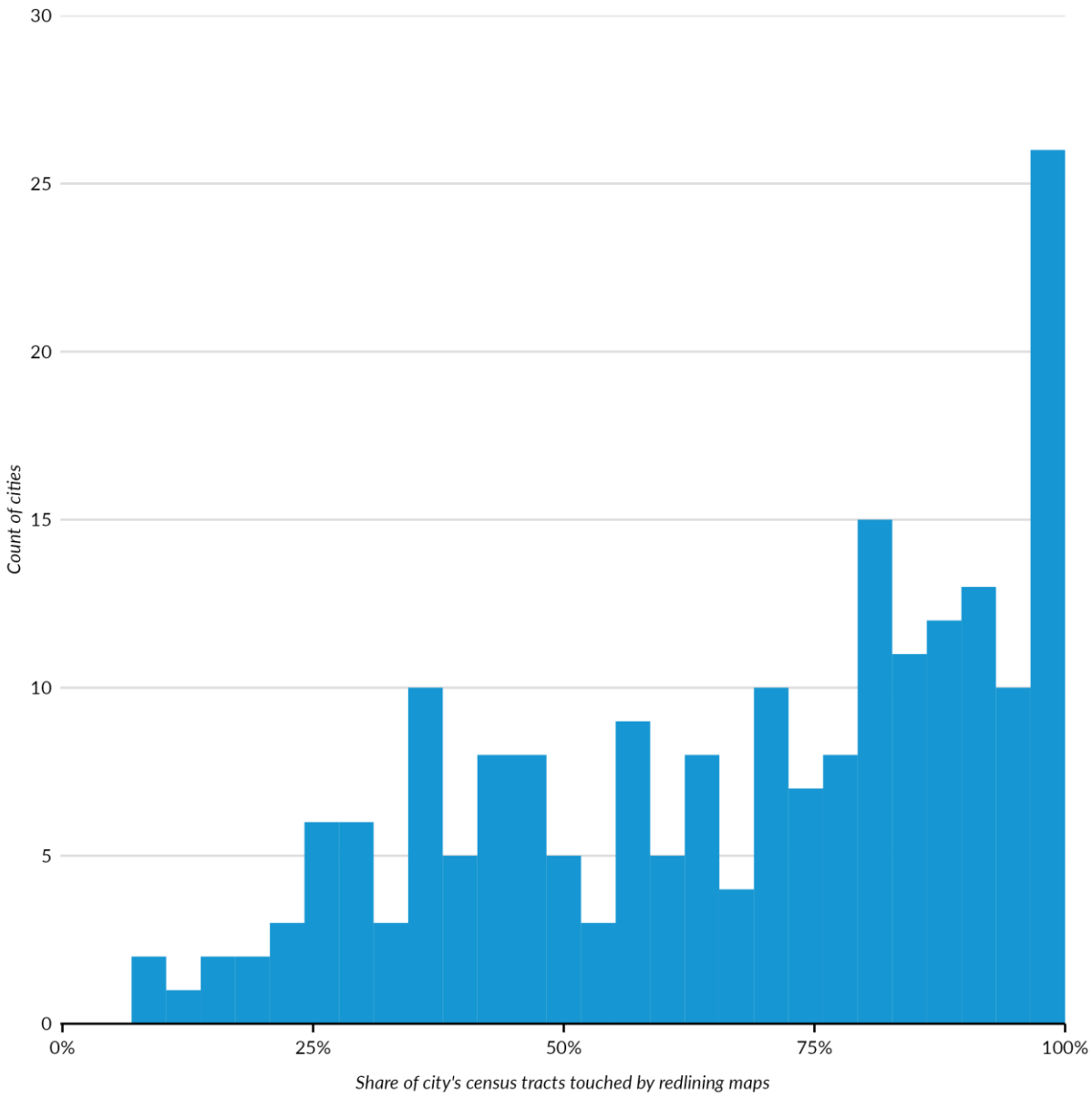
Sources: University of Richmond redlining maps (accessed May 30, 2022); Missouri Census Data Center Geocorr 2022, https://mcdc.missouri.edu/applications/geocorr.html.

Note: Uses present-day city boundaries rather than city boundaries at the time when Home Owners Loan Corp assessed neighborhoods.

For some cities, redlining maps touched only a few neighborhoods, whereas in other cities, redlining was more pervasive (figure 2).

FIGURE 2

Share of City Neighborhoods Touched by Redlining



URBAN INSTITUTE

Sources: University of Richmond redlining maps (accessed May 30, 2022); Missouri Census Data Center Geocorr 2022, https://mcdc.missouri.edu/applications/geocorr.html.
Note: Uses present-day city boundaries rather than city boundaries at the time when Home Owners Loan Corp assessed neighborhoods.

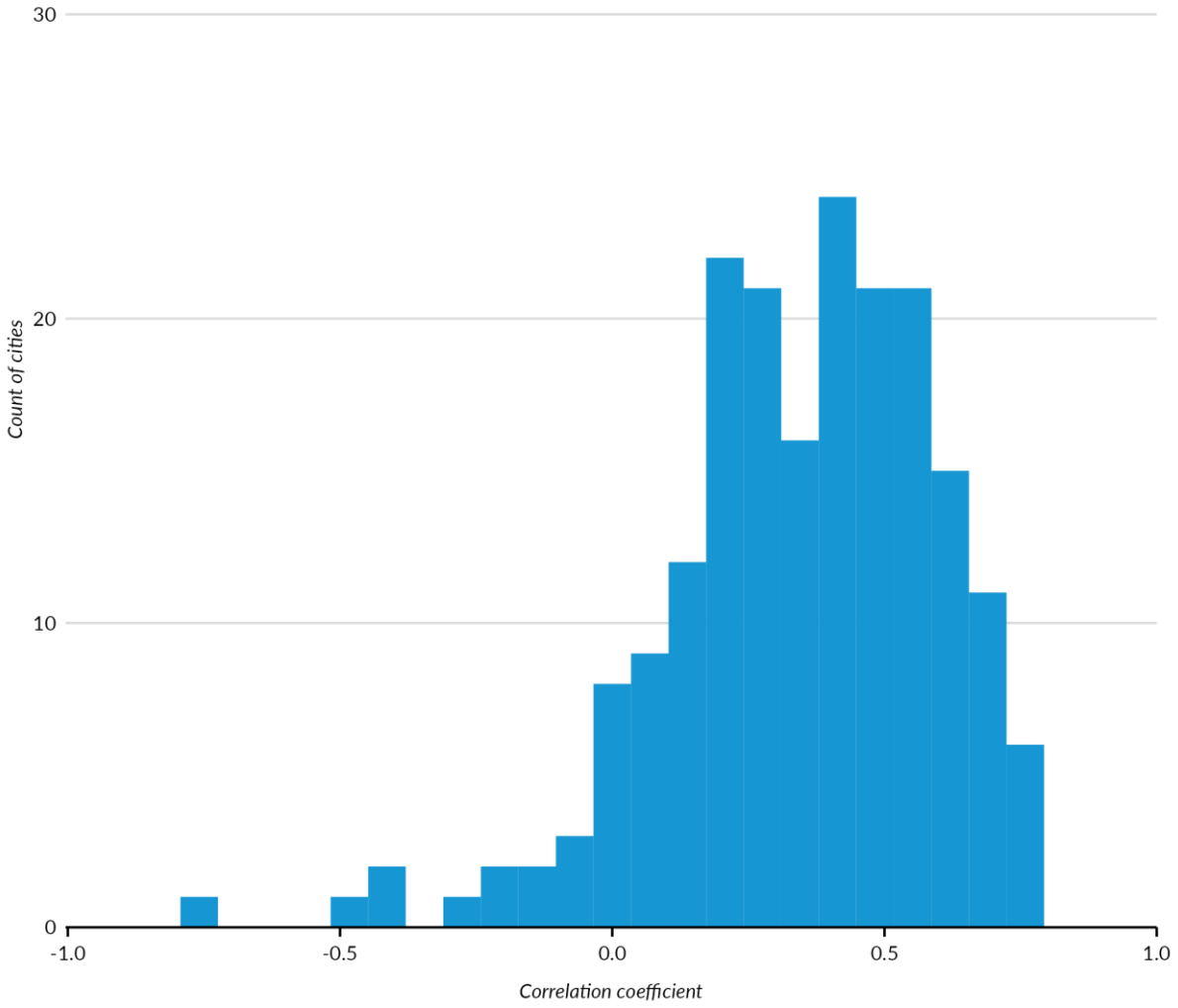
Few Strong Correlations between Redlining and Housing Instability Indicators

Very few cities showed strong positive correlations between redlining and the ERA Priority Index. For most cities, we find that redlining had a weak to moderate positive correlation with the ERA Priority

Index and its subindexes, such that the higher the share of redlined tracts, the higher the pre-pandemic housing instability risk factors, economic inequities experienced by communities that have been historically and systemically marginalized, and anticipated health and economic impacts of COVID-19 (figure 3). It should be noted that several cities had a moderately strong negative correlation—that is, redlining and risk factors for housing instability and homelessness according to the ERA Priority Index did not align.

FIGURE 3

City-Level Correlations between Redlining and Emergency Rental Assistance Priority Index



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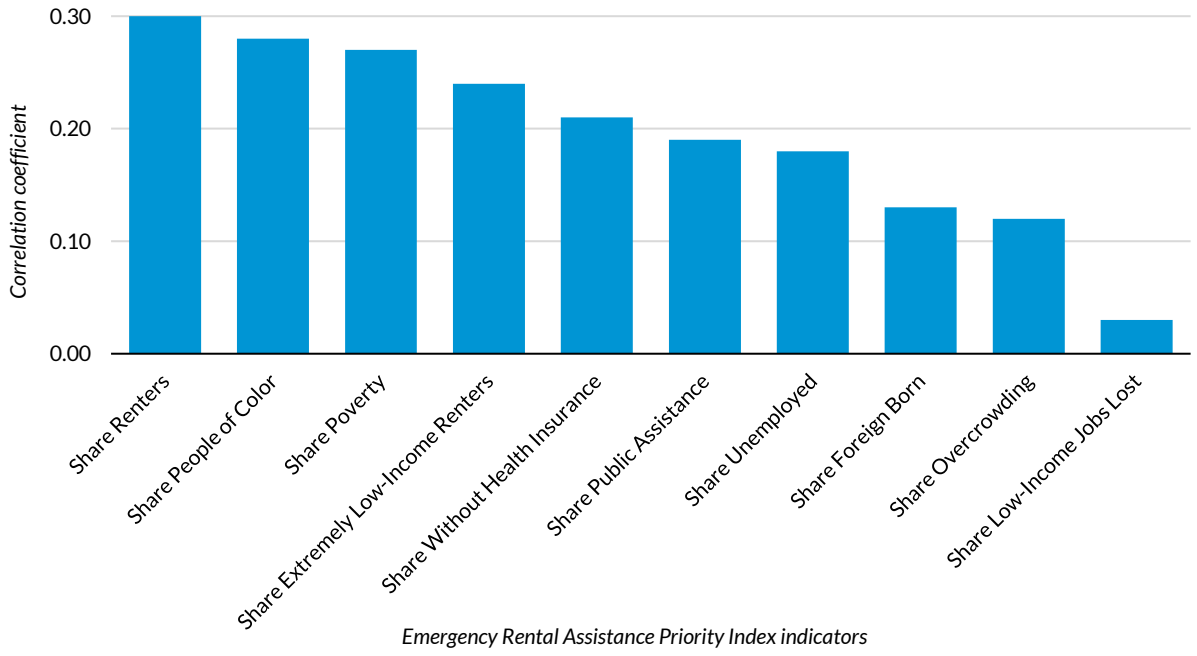
Sources: University of Richmond redlining maps (accessed May 30, 2022); Urban Institute "Where to Prioritize Emergency Rental Assistance to Keep Renters in Their Homes," https://www.urban.org/features/where-prioritize-emergency-rental-assistance-keep-renters-their-homes.
Note: Includes cities with both redlining and ERA Priority Index data.

We did not find strong correlations between the individual ERA Priority Index indicators and redlining. We did find that nationally, redlining correlated moderately positively with measures that have legacies in historical housing discrimination—share of housing units that are renter occupied, share

of people of color, share of people living in poverty, and share who are extremely low-income renters (figure 4). These ERA Priority Index indicators correlated more strongly, although still only moderately, with redlining than with indicators less rooted in historical housing discrimination, such as overcrowding and unemployment.

FIGURE 4

Overall Correlation between Redlining and Emergency Rental Assistance Priority Index Indicators Showing a Moderate Relationship with Measures That Have a Legacy in Past Housing Discrimination



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Sources: University of Richmond redlining maps (accessed May 30, 2022); Urban Institute "Where to Prioritize Emergency Rental Assistance to Keep Renters in Their Homes," https://www.urban.org/features/where-prioritize-emergency-rental-assistance-keep-renters-their-homes.
Note: Includes cities with both redlining and ERA Priority Index data.

Inconsistent Correlations between Redlining and both Pre-Pandemic and Current Evictions

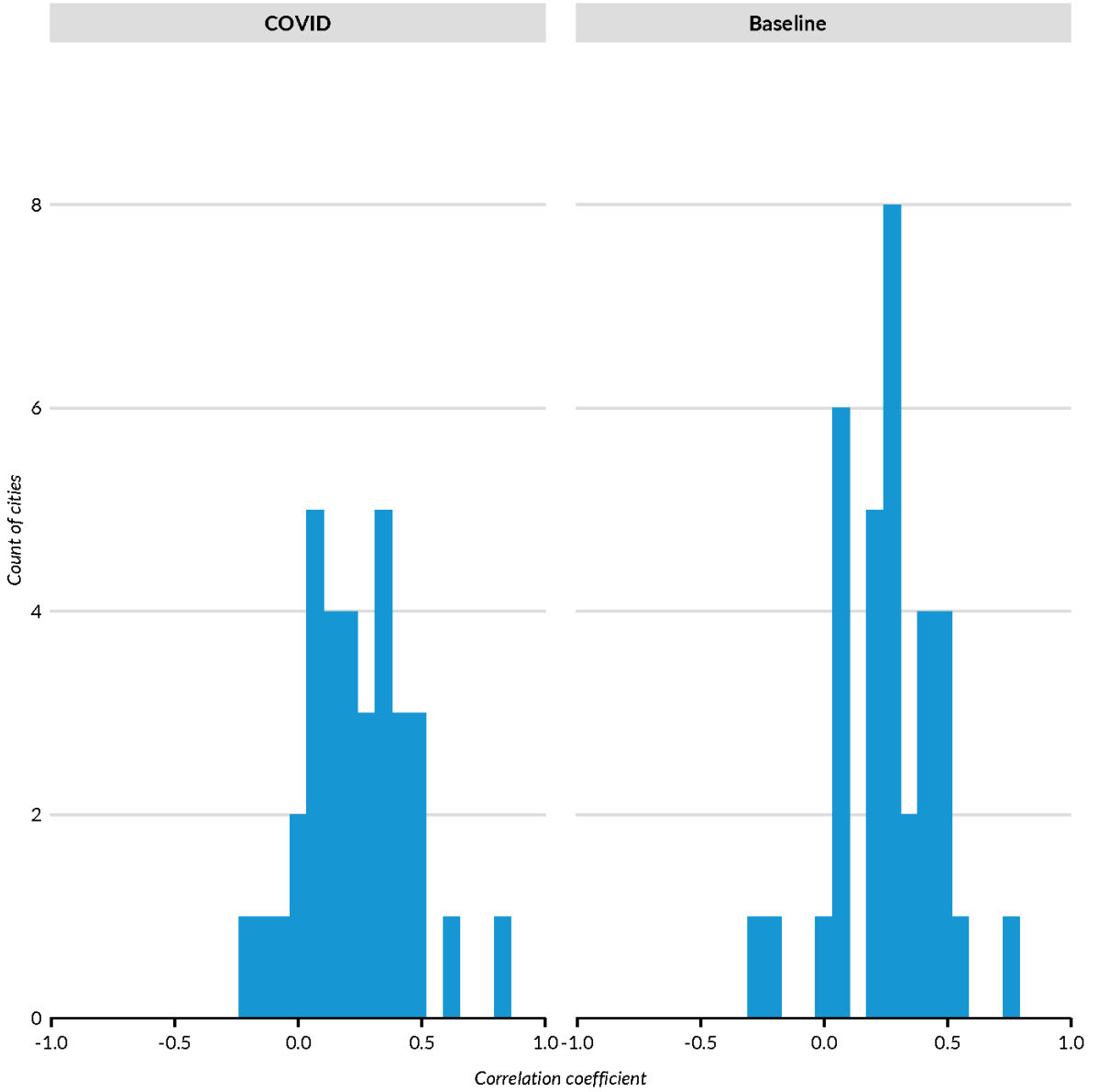
Very few cities showed strong positive correlations between evictions before or during the pandemic. For most cities, redlining is moderately positively correlated with eviction filings, but for some cities, the correlation is moderately to strongly negative (figure 5). In examining each eviction measure with its baseline equivalent, we find that the correlation patterns are similar.

Our analysis suggests that the neighborhoods that were most likely to experience evictions before the pandemic were also the neighborhoods that were most likely to experience evictions during the

pandemic. This is consistent with findings from comparisons of the ERA Priority Index and eviction filings in the early part of the pandemic (Batko et al. 2020).

FIGURE 5

City-Level Correlations between Redlining and Evictions



Sources: University of Richmond redlining maps (accessed May 30, 2022); Eviction Lab Eviction Tracking System (December 29, 2019, through January 1, 2022) https://evictionlab.org/eviction-tracking/.
Note: Includes cities with both redlining and current eviction filings data available at the census tract level.

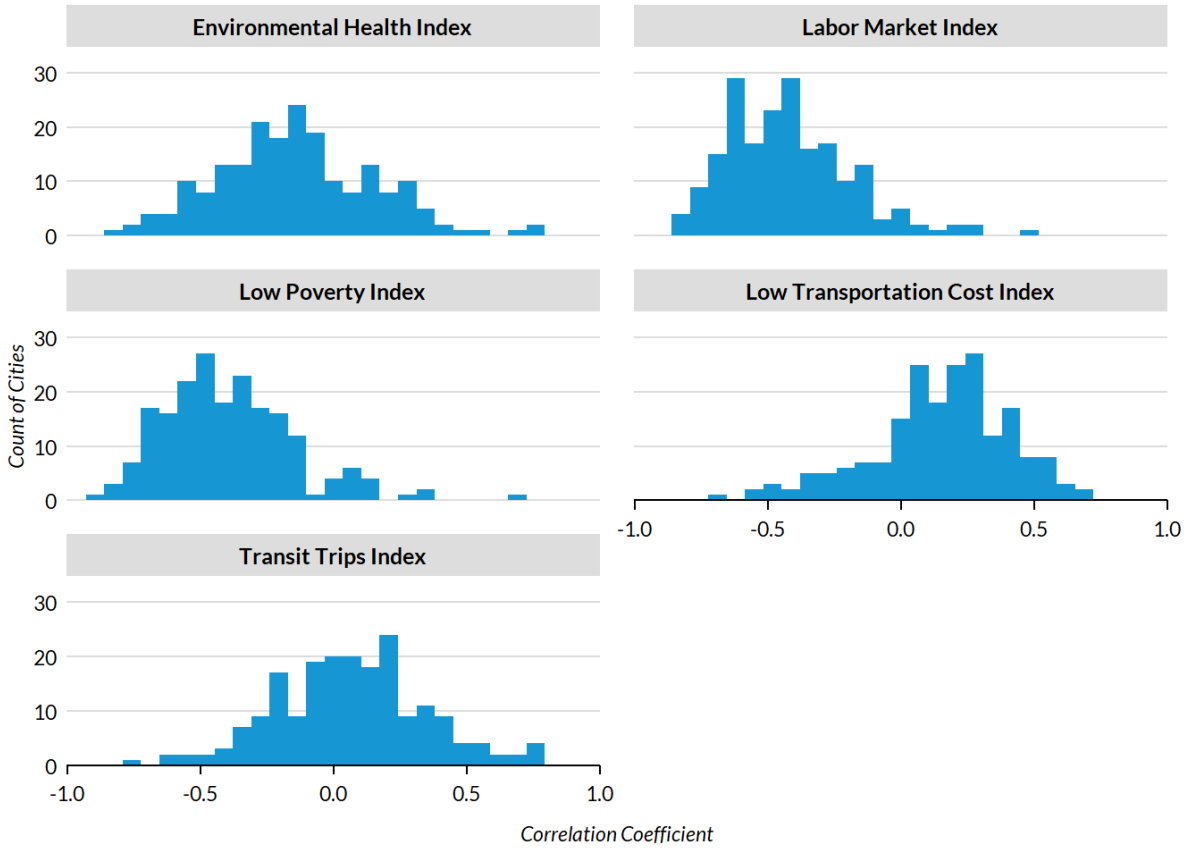
Redlining Is Associated with Lower Levels of AFFH Neighborhood Opportunity

Consistent with our analyses described above and with prior research, we found that redlining is associated with greater neighborhood poverty levels, lower labor market engagement, and higher environmental hazards (figure 6). We also found that it correlates to lower transportation costs and higher utilization of public transit in most cities (figure 6). The correlation between redlining and poverty levels aligns with the moderate positive relationship we found between redlining and the share of people living in poverty (ERA Priority Index indicator).

These findings are unsurprising given their consistency with the above analyses and past studies that have found redlining is associated with current environmental inequalities, including heat islands, air quality, and local emissions; they also have been correlated with lower tree density and less green space, which likely contribute to and exacerbate any environmental conditions. The relationship between redlining and both lower transportation costs and higher utilization of public transit are less straightforward and require additional analysis not conducted as part of this study.

FIGURE 6

City-Level Correlations between Redlining and Affirmatively Furthering Fair Housing



URBAN INSTITUTE

Sources: University of Richmond redlining maps (accessed May 30, 2022); AFFH data, accessed at Urban Institute, "Data and Tools for Fair Housing Planning," https://datacatalog.urban.org/dataset/data-and-tools-fair-housing-planning.
Note: Includes cities with both redlining and AFFH data.

Conclusions and Policy Implications

We find that the connection between historical redlining and current and past risk of housing instability is nuanced and without predictable pattern. Nationally, redlining does not consistently correlate with current and past risk of housing instability or eviction filings. Redlining does seem to correlate more strongly with measures of neighborhood opportunity and the built environment. Although those relationships are often positive—they often vary within cities, and a greater extent of redlining aligned with greater risk of current and past housing instability—for some cities, the opposite is true. Overall, few cities showed clear and consistent trends of strong weak or positive correlations between indicators and historical redlining boundaries.

These national and local findings point to important policy takeaways. First, efforts to target emergency rental and housing assistance should use current data to understand needs in geographic

areas. Tools like the ERA Priority Index combined with additional local data likely provide the best method for geographically targeting emergency housing resources.

Second, redlining is only one of many institutionalized racist policies that have affected people. Racialized housing markets have been created and reinforced through decades of policies and practices at the federal, state, and local policy levels. While redlining provides one avenue to explore modern-day inequalities and segregation, to focus exclusively on redlining is limiting the ways we understand those interconnected and multifaceted components of the housing landscape. As such, reparative policies related to housing stability should be designed more broadly than addressing redlining alone. This does not mean that reparative actions should not be implemented or that reparative policies would not improve the built environment or ramifications of redlining that could be geographically targeted. However, the geographic targeting should be more expansive than simply focusing on redlining.

Finally, efforts to target reparative policies to people and the descendants of people who have been negatively affected by redlining and other policies should consider ways to target those resources without relying on redlining maps as it seems neighborhood composition has been changed by a variety of forces. Given that redlining was one of a series of policies that systemically blocked Black households from opportunities related to housing and subsequent access to wealth, targeting should focus on households that were affected by policies broadly rather than households that lived in certain neighborhoods.

The findings from these analyses raise other research questions and support the notion that local context influences the effects that historical redlining has on neighborhoods today. These questions include the following:

- Which forces moved people out of redlined areas, and in which instances were those positive moves and in which instances negative moves?
- What are the best ways to target reparative policies if people are no longer located in the same places without placing the burden of proof on the harmed individuals or their descendants?
- What evidence is there of ways to reverse poor outcomes in areas impacted by redlining? In areas that have remained primarily inhabited by people of color, what has worked to attract investment to the area?

In an attempt to address or mitigate decades of racist housing policies, some cities are beginning to pass legislation that gives Black residents and households a more equitable place vis-à-vis housing and homeownership. Given the prominent impact of the redlining maps, some policymakers have focused on redlined areas as a way to qualify for direct assistance. Our analysis suggests that this approach should be considered carefully and grounded in local knowledge about what happened to the households that were excluded from housing and economic opportunity by these policies.

Appendix A: Alternative Redlining Measures

We describe alternative redlining measures as well as the analysis we conducted at the ZIP Code Tabulation Area (ZCTA) level.

Alternative Redlining Measures

In this brief, we calculated a redlining measure that divides total redlined area by total neighborhood area.

- Redlining measure = $\frac{Redlined\ area}{Total\ neighborhood\ area}$

We used two methods to define the numerator—one using just Home Owners Loan Corp (HOLC) grade D ("hazardous") and a second using both HOLC grades C ("definitely declining") and D.

- **HOLC grade of D:** This first method sums only the area that was assigned a grade of D—what is traditionally associated with "redlining."
- **HOLC grade of C or D:** This second method sums both the area that was assigned a grade of C and the area that was assigned a grade of D.

We also used two methods to define the denominator—one using total neighborhood area and one using only the area represented in the redlining maps.

- **Using total neighborhood area:** The first method considers the total neighborhood area using Census boundaries—regardless of whether some parts of the neighborhood were assigned a HOLC grade (a grade of A, B, C, or D) while other parts of the neighborhood were not assigned a HOLC grade.
- **Using area represented in redlining maps:** The second method sums the area of those parts of the neighborhood that were assigned a HOLC grade—that is, including only the portions of a neighborhood that received a HOLC grade of A, B, C, or D.

The two methods for defining the numerator and the two methods for defining the denominator create four unique ways of measuring redlining. The correlation analyses in this brief display the results of the redlining measure using the second numerator method (HOLC grade C or D) and the second denominator method (area represented in the redlining maps). Although we display the results for this one redlining measure only, those results were consistent with the findings of the other three redlining measures.

ZCTA Analysis

In this brief, we discuss neighborhoods as census tracts. As a robustness check, we considered a second conception of neighborhoods using ZCTAs.

We first re-created the census tract–level Urban Institute ERA Priority Index at the ZCTA level—downloading the underlying American Community Survey data using ZCTA geographies instead of census tracts and converting the Comprehensive Housing Affordability Strategy (CHAS) data and COVID-19 job loss data (both available only at the census tract level) to ZCTAs using a geographic crosswalk sourced from the Missouri Data Center. For several states, there were multistate ZCTAs—ZCTAs that crossed boundaries with neighboring states. We duplicated these ZCTAs so they would be represented in each of the two states. We then finalized the ZCTA-level ERA Priority Index by indexing within each state, as was done with the census tract–level ERA Priority Index (Batko et al. 2021).

For the Eviction Lab eviction data, data are available at the census tract level for some cities and at the ZIP code level for other cities. We converted the geographies from census tract to ZCTA for the census tract cities using a geographic crosswalk sourced from the Missouri Data Center. We converted the geographies from ZIP code to ZCTA for the ZIP code cities using the Uniform Data System (UDS) Mapper crosswalk.

For the redlining data, we followed a process very similar to the census tract–level analysis. We intersected the spatial redlining maps with 2019 ZCTA geographies and then created the four redlining measures using the two methods for defining the numerator and the two methods for defining the denominator.

Last, we converted the census tract–level AFFH data to ZCTAs using the geographic crosswalk sourced from the Missouri Data Center.

Our ZCTA-level analysis findings were consistent with our findings at the census tract level.

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Notes

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[7] For more information about the Eviction Lab calculated baselines, see https://evictionlab.org/eviction-tracking/methods/.

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[9] Correlations were considered strongly positive if they fell between 0.6 and 1; moderately positive 0.4 to 0.6; weakly positive is 0 to 0.4; weakly negative -0.4 to 0; moderately negative -0.6 to -0.4; and strongly positive -1 to -0.6.

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