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#### Before the Senate Committee on Banking, Housing, and Urban Affairs

### "Separate and Unequal: The Legacy of Racial Discrimination in Housing"

### April 13<sup>th</sup> 2021

Chairman Brown, Ranking Member Toomey, and members of the Committee, thank you for the opportunity to testify today on the legacy of racial discrimination in Housing. I commend you for hosting a hearing on this important topic and elevating the issue of housing equality as a top priority of this committee during the 117<sup>th</sup> Congress. I am an Assistant Professor of City & Regional Planning in the Knowlton School at The Ohio State University. I was the former Associate Director and Director of Research for the Kirwan Institute for the Study of Race & Ethnicity. My teaching, research and scholarship are focused on land use, housing and community development policy. More specifically my research has sought to understand the history and consequences of discrimination in housing and development. Scholars have long recognized the role of city & regional planning history in understanding contemporary civil rights issues in housing, particularly for the African American community.<sup>1</sup> My testimony is focused on the following topics. The historical and contemporary public and private sector actions and policies that fostered segregation in housing, the consequences on historical and contemporary discrimination on individuals and communities and the potential policy solutions which could remedy this ongoing societal challenge.

# The rise of racial and ethnic segregation and isolation into unhealthy and resource deprived neighborhoods.

Racial and ethnic residential segregation would increase substantially in the early and mid-20<sup>th</sup> century. Rates of residential racial segregation for the African American community would nearly double between 1880 and 1940.<sup>2</sup> Increased residential segregation would also occur for certain immigrant populations and other racial and ethnic groups during this time. In contrast to the African American community, segregation among many "white ethnic" populations and other racial groups began to decline after 1920.<sup>3</sup> Segregation in the African American community would continue to increase before peaking in 1970.<sup>4</sup> Since 1970 African American segregation has gradually declined as civil rights reforms enabled greater access in the housing market.<sup>5</sup>

The decline in African American segregation demonstrates progress stemming from the civil

<sup>&</sup>lt;sup>1</sup> Thomas, June Manning. "Planning history and the black urban experience: Linkages and contemporary implications." *Journal of Planning Education and Research* 14, no. 1 (1994): 1-11.

<sup>&</sup>lt;sup>2</sup> Logan, Trevon D., and John M. Parman. "The National Rise in Residential Segregation." *The Journal of Economic History* 77, no. 1 (2017): 127–70. doi:10.1017/S0022050717000079.

 <sup>&</sup>lt;sup>3</sup> Eriksson, Katherine, and Zachary Ward. "The Residential Segregation of Immigrants in the United States from 1850 to 1940." *The Journal of Economic History* 79, no. 4 (2019): 989–1026. doi:10.1017/S0022050719000536.
<sup>4</sup> Logan, John R. "The Persistence of Segregation in the 21st Century Metropolis." *City & Community* 12, no. 2

<sup>(2013): 160–168.</sup> 

<sup>&</sup>lt;sup>5</sup> Logan, John R, and Brian J Stults. "The Persistence of Segregation in the Metropolis: New Findings from the 2010 Census." Census Brief Prepared for Project US2010 24 (2011).

rights movement toward an integrated housing market.<sup>6</sup> Unfortunately the slow pace of declining segregation (the dissimilarity index for African American/White segregation is declining at a rate of 7% per decade) will require decades to reach comparable rates of segregation for other racial and ethnic groups. For example, if African American/White segregation continues declining at its current pace, it would not reach the current degree of segregation (as measured by the dissimilarity index) experienced by the Latinx community until 2030. Reaching the current degree of segregation experienced by the Asian community (as measured by the dissimilarity index) would not occur until after 2050.

Declining dissimilarity rates also mask the persistent segregation facing lower income racial and ethnic households. Racial and economic segregation are intertwined in the contemporary housing market and measures of economic segregation, such as the number of Americans living in extremely high poverty census tracts (those with at least a 40% poverty rate) has doubled between 2000 and 2014.<sup>7</sup>

Declining dissimilarity rates also do not necessarily indicate that racial and ethnic groups are living in better neighborhood environments. <sup>8</sup> Segregation for lower income racial and ethnic populations often correlates with isolation into neighborhoods that lack critical opportunity structures, such as strong schools, safe or healthy environments and economic resources.<sup>9</sup> Research by the Diversity Data Kids initiative at Brandeis University has found African American and Latinx children are disproportionately isolated into "very low opportunity" neighborhoods (**Figures 1 & 2**).<sup>10</sup>

Their analysis of the 100 largest metropolitan areas finds that when ranking neighborhoods based on 29 indicators of neighborhood wellbeing, the lowest ranking neighborhoods (representing 20% of all neighborhoods) contain 46% of all African American children and 33% of all Latinx children. African American (66%) and Latinx (50%) children in poverty are even more likely to be isolated into the lowest opportunity neighborhoods. In comparison, fewer than 10% of White children and 20% of White children in poverty are in "very low" opportunity neighborhoods.

# Residential segregation is the result of both societal and government actions that have evolved over the course of the 20<sup>th</sup> century.

The historian Carl Nightingale at the University of Buffalo has described the phenomena of residential segregation as requiring "institutionally organized human intentionality."<sup>11</sup> Historians and scholars have documented a systemic arrangement of policies and practices

<sup>&</sup>lt;sup>6</sup> Frey, William. "Black-White segregation edges downward since 2000, Census shows." *The Brookings Institute: The Avenue*. December 18, 2018, <u>https://www.brookings.edu/blog/the-avenue/2018/12/17/black-white-segregation-edges-downward-since-2000-census-shows/</u>

<sup>&</sup>lt;sup>7</sup> Kneebone, Elizabeth, and N Holmes. "Concentrated Poverty in the Wake of the Great Recession." Brookings. Available at: Https://www. Brookings. Edu/research/us-Concentrated-Poverty-in-Thewake-of-the-Great-Recession, 2016.

<sup>&</sup>lt;sup>8</sup> Acevedo-Garcia, Dolores, Nancy McArdle, Erin F. Hardy, Unda Ioana Crisan, Bethany Romano, David Norris, Mikyung Baek, and Jason Reece. "The Child Opportunity Index: Improving Collaboration between Community Development and Public Health." *Health Affairs (Project Hope)* 33, no. 11 (November 2014): 1948–57. https://doi.org/10.1377/hlthaff.2014.0679.

<sup>&</sup>lt;sup>9</sup> Massey, Douglas S. "Residential segregation and neighborhood conditions in US metropolitan areas." *America becoming: Racial trends and their consequences* 1, no. 1 (2001): 391-434.

<sup>&</sup>lt;sup>10</sup> Acevedo-Garcia, Dolores, Clemens Noelke, Nancy McArdle, Nomi Sofer, Erin F. Hardy, Michelle Weiner, Mikyung Baek, Nick Huntington, Rebecca Huber, and Jason Reece. "Racial And Ethnic Inequities In Children's

Neighborhoods: Evidence From The New Child Opportunity Index 2.0." *Health Affairs* 39, no. 10 (2020): 1693-1701. <sup>11</sup> Nightingale, Carl H. *Segregation: A Global History of Divided Cities*. University of Chicago Press, 2012. Pg. 7.

throughout the 20<sup>th</sup> century, by both the private and public sector, that enforced segregation upon housing markets, particularly in metropolitan areas (**Figure 3**). Public sector policies enforced and encouraged segregation at both the local and federal level. As Richard Rothstein has documented in *The Color of Law*, the interwoven and reinforcing nature of private sector and public sector segregation is a manifestation of structural racism in our 20<sup>th</sup> century housing markets and cities, that has never truly been remedied.<sup>12</sup>

#### Race and Early Zoning-

Leland Ware, professor of law and public policy at the University of Delaware, has traced the expansion of the "separate but equal" doctrine in *Plessy v. Ferguson* to many facets of society. Ware finds that although *Plessy* did not directly apply to housing policy it did "legitimize the laws, customs, and practices that established" residential separation.<sup>13</sup> Zoning would be one of the primary tools in the early 20<sup>th</sup> century to racially segregate housing and neighborhoods. Zoning was a critical development for regulating density, land use mix and potential nuisances. Zoning was effective and beneficial in remedying many of the significant health risks associated with early 20<sup>th</sup> century urbanization.<sup>14</sup> Zoning was first implemented in Germany before migrating to the United States in the early 1900's. Unlike its European implementation, in its translation into the American land use regulatory system, zoning would become focused on social control.<sup>15,16</sup>

Racial zoning expanded spatial planning to encompass the racial makeup of neighborhoods. Racial zoning was motivated by racist beliefs that racial integration within neighborhoods was a threat to public health, safety and welfare. The practice was also justified on the grounds of preventing the spread of disease, interracial marriage and miscegenation.<sup>17</sup> Racial zoning was first implemented in Baltimore in 1910 and would quickly spread to other cities throughout the United States, particularly in the Mid-Atlantic and South.<sup>18</sup> The practice would be struck down by the U.S. Supreme Court as unconstitutional in the 1917 *Buchanan v. Warley* decision but policies and practices would evolve to utilize facially race neutral zoning, comprehensive planning and restrictive covenants to enforce segregation.<sup>19</sup>

### From Racial Zoning to Restrictive Covenants-

Without the ability to utilize racial zoning, local city governments and the real estate sector would embrace racially restrictive covenants to racially segregate neighborhoods. Restrictive covenants are a form of deed restriction which prohibited the sale of property to, or occupancy of property by, a number of racial and ethnic groups. These restrictions either required

<sup>&</sup>lt;sup>12</sup> Rothstein, Richard. *The Color of Law: A Forgotten History of How Our Government Segregated America*. Liveright Publishing, 2017.

<sup>&</sup>lt;sup>13</sup> Ware, Leland. "Plessy's Legacy: The Government's Role in the Development and Perpetuation of Segregated Neighborhoods." RSF: The Russell Sage Foundation Journal of the Social Sciences 7, no. 1 (2021): 92-109. Accessed April 7, 2021. doi:10.7758/rsf.2021.7.1.06. Quoting page 92.

<sup>&</sup>lt;sup>14</sup> Peterson, Jon A., and Jon A. Peterson. The birth of city planning in the United States, 1840–1917. JHU Press, 2003.

<sup>&</sup>lt;sup>15</sup> Richards, J. Gregory. "Zoning for direct social control." *Duke LJ* (1982): 761.

<sup>&</sup>lt;sup>16</sup> Von Hoffman, Alexander. "Housing and planning: A century of social reform and local power." *Journal of the American Planning Association* 75, no. 2 (2009): 231-244.

<sup>&</sup>lt;sup>17</sup> Nightingale, Carl H. "The Transnational Contexts of Early Twentieth-Century American Urban Segregation." *Journal of Social History* 39, no. 3 (2006): 667-702. http://www.jstor.org/stable/3790284.

<sup>&</sup>lt;sup>18</sup> Silver, Christopher. "The racial origins of zoning: Southern cities from 1910–40." *Planning Perspective* 6, no. 2 (1991): 189-205.

<sup>&</sup>lt;sup>19</sup> Bernstein, David E. "Philip Sober Controlling Philip Drunk: Buchanan v. Warley in Historical Perspective." *Vand. L. Rev.* 51 (1998): 797.

occupancy by or sale to the "Caucasian" or "White race" or specifically prohibited sales to or occupancy by African Americans, Asian or Latinx Americans, Jewish Americans and some ethnic immigrants. Deed restrictions were often placed on new residential subdivisions that would emerge as early suburbs in U.S. urban areas. It is estimated that half of all new subdivisions platted before 1948 had racially restrictive covenants.<sup>20</sup> For example, in the City of Columbus, OH two-thirds of all new subdivisions platted between 1920 and the second World War were racially restricted.<sup>21</sup>

Covenants were upheld, propagated and enforced by both the public and private sector. The U.S. Supreme Court had an opportunity to strike down restrictive covenants as unconstitutional in the 1926 *Corrigan v Buckley* decision. The court interpreted covenants as private contracts and therefore not under the jurisdiction of the court.<sup>22</sup> Scholars have identified the case as critical to the rapid growth and expansion of covenants across the nation.<sup>23</sup>

The private sector contributed to the proliferation of covenants through the actions of real estate developers who attached covenants to new subdivisions and utilized covenants as a real estate marketing tool to assure buyers properties would remain segregated.<sup>24,25</sup> The relatively young National Association of Realtors (referred to as the National Association of Real Estate Boards at the time) would integrate pro segregation language into realtor training materials and the organization's code of ethics. The association's 1924 code of ethics stated *"A Realtor should never be instrumental in introducing into a neighborhood a character of property or occupancy, members of any race or nationality, or any individuals whose presence will clearly be detrimental to property values in that neighborhood."<sup>26</sup> More predatory real estate practices, such as manipulative blockbusting, would further heighten the pace of segregation in urban areas.<sup>27</sup>* 

### The Emergence of Exclusionary and Expulsive Zoning-

Although racial zoning was struck down by the U.S. Supreme Court, facially race neutral zoning would still be used to heighten patterns of segregation and to harm racial and ethnic neighborhoods.<sup>28</sup> Zoning could still exclude by class by placing restrictions on higher density housing, multi-family housing or rental housing. Expulsive zoning practices would target the placement of noxious land uses into lower income and racially segregated neighborhoods.

<sup>&</sup>lt;sup>20</sup> Gotham, Kevin Fox. "Urban space, restrictive covenants and the origins of racial residential segregation in a US city, 1900–50." *International Journal of Urban and Regional Research* 24, no. 3 (2000): 616-633.

<sup>&</sup>lt;sup>21</sup> Burgess, Patricia. *Planning for the private interest: Land use controls and residential patterns in Columbus, Ohio, 1900-1970*. Ohio State University Press, 1994.

<sup>&</sup>lt;sup>22</sup> Corrigan v. Buckley, 271 U.S. 323 (1926)

<sup>&</sup>lt;sup>23</sup> Jones-Correa, Michael. "The Origins and Diffusion of Racial Restrictive Covenants." *Political Science Quarterly* 115, no. 4 (2000): 541-68. doi:10.2307/2657609.

<sup>&</sup>lt;sup>24</sup> Burgess, Patricia. *Planning for the private interest: Land use controls and residential patterns in Columbus, Ohio, 1900-1970*. Ohio State University Press, 1994.

 <sup>&</sup>lt;sup>25</sup> Glotzer, Paige. "Exclusion in Arcadia: How Suburban Developers Circulated Ideas about Discrimination, 1890–1950." *Journal of Urban History* 41, no. 3 (May 2015): 479–94. <u>https://doi.org/10.1177/0096144214566964</u>.
<sup>26</sup> National Association of Real Estate Boards. 1924 Code of Ethics. Accessed from the National Association of Realtors: <u>https://www.nar.realtor/about-nar/history/1924-code-of-ethics</u>. Quoting article 34, page 7.

<sup>&</sup>lt;sup>27</sup> Gotham, Kevin Fox. "Beyond Invasion and Succession: School Segregation, Real Estate Blockbusting, and the Political Economy of Neighborhood Racial Transition." *City & Community* 1, no. 1 (March 2002): 83–111. https://doi.org/10.1111/1540-6040.00009.

<sup>&</sup>lt;sup>28</sup> Whittemore, Andrew H. "The experience of racial and ethnic minorities with zoning in the United States." *Journal of Planning Literature* 32, no. 1 (2017): 16-27.

This practice would deteriorate neighborhood conditions, create environmental hazards and lower property values for homeowners.<sup>29</sup> Expulsive zoning practice has been identified as a primary driver of contemporary environmental justice challenges in racially segregated urban neighborhoods.<sup>30</sup>

#### Real Estate Assessment and Racism – The Era of Redlining Emerges

The existing patterns of segregation created by covenants, real estate practices and zoning restrictions would be reinforced by redlining practices and housing policies emerging from the New Deal. The Home Owners Loan Corporation (HOLC) was created in response to escalating foreclosures during the depression, the agency played a critical role in the early 1930's in refinancing loans and by 1935 HOLC held nearly one fifth of all mortgage debt for 1 to 4 family homes.<sup>31</sup>

HOLC played a larger role in city planning history in the establishment of real estate risk assessment maps created by the agency throughout the 1930's. These risk assessment maps created four tiers of ratings, with grades A and B, generally deemed safe for investment. Grades C and D rated unsafe or hazardous for investment. The red color pallet utilized to demonstrate "hazardous" conditions in D rated neighborhoods is the origin of the term redlining. Although the origin of the term redlining relates to HOLC's original maps, redlining is commonly utilized to refer to the practice of strategic disinvestment targeted to racially segregated neighborhoods.

HOLC ratings were clearly driven by racial animus and influenced the FHA's chief economist Homer Hoyt's theories of racial hierarchy in real estate valuation. Hoyt created a ten-level ranking of racial and ethnic groups, placing southern Italians, African Americans and Mexican Americans at the bottom of his hierarchy, identifying them as most detrimental to real estate values.<sup>32</sup> The influence of theories of white supremacy in real estate are evident in the structure of the assessment notes. Assessment documents allocated fields for identifying threats of "infiltration" of detrimental populations and assessor notes are riddled with references to racial animus.

For example, my content analysis of all available assessment documents for Ohio's cities found references to social, racial and ethnic populations to be the dominant text content within the assessments. Assessment statements across Ohio's various cities demonstrate the depth of racism, anti-Semitism and xenophobia in assessment documents. Additionally, assessments also were tied to previous patterns of racially restrictive covenants. The highest rated (A) neighborhoods often emphasized the residency "restrictions" as a positive factor in neighborhoods privileged by the assessors.<sup>33</sup>

From Redlining to Urban Renewal and Segregated Suburbs-

Although HOLC was a relatively short-lived entity, the maps were influential in influencing

 <sup>&</sup>lt;sup>29</sup> Whittemore, Andrew H. "Racial and class bias in zoning: Rezonings involving heavy commercial and industrial land use in Durham (NC), 1945–2014." *Journal of the American Planning Association* 83, no. 3 (2017): 235-248.
<sup>30</sup> Wilson, Sacoby, Malo Hutson, and Mahasin Mujahid. "How planning and zoning contribute to inequitable development, neighborhood health, and environmental injustice." *Environmental Justice* 1, no. 4 (2008): 211-216.
<sup>31</sup> Faber, Jacob W. "We Built This: Consequences of New Deal Era Intervention in America's Racial Geography." American Sociological Review 85, no. 5 (2020): 739-775. Quoting page 4.

<sup>&</sup>lt;sup>32</sup> Squires, Gregory D., ed. *The fight for fair housing: Causes, consequences, and future implications of the 1968 Federal Fair Housing Act.* Routledge, 2017.

<sup>&</sup>lt;sup>33</sup> Reece, J.W. Defining Space, Defining the Other, Constructing Structural Racism:

Content Analysis of HOLC Assessor Documents in 12 Ohio Cities. Society of American City & Regional Planning History Conference. Lecture conducted from Washington, D.C. USA. (2019).

other federal programs. As described by NYU Professor of Public Policy Jacob Faber "*the historical record documents that HOLC's practices of racial exclusion were adopted by subsequent federal programs (the Federal Housing Administration & GI Bill), which were larger and more durable.*"<sup>34</sup> HOLC maps were not officially published, but they were shared with the FHA and were likely used to influence local lenders, local governments and planners. As described by Faber "*Thus, what HOLC ostensibly intended to be a short-term intervention may have resulted in quite a "strong" institutional mechanism due to its diffusion through and adoption by long term programs, with dramatic implications for segregation over subsequent decades.*"<sup>35</sup>

Redlining of urban neighborhoods would produce decades of divestment, while FHA guidelines mandated racial separation of ""inharmonious racial or nationality groups" in the rapidly growing post WWII suburbs.<sup>36</sup> FHA guidelines would also influence exclusionary zoning by placing emphasis on the land use characteristics of single family suburban development in the agency's site standards.<sup>37</sup> African American veterans were also less likely to be able to benefit from the GI bill, limiting another potential pathway to homeownership.<sup>38</sup>

Barred from access to the nation's rapidly expanding suburbs, communities of color were isolated to redlined neighborhoods, experiencing substantial disinvestment.<sup>39</sup> Post war policies such as urban renewal and the federal highway act would further damage redlined urban neighborhoods, causing widespread disruption and displacement.<sup>40</sup> Urban renewal programs would disproportionately displace African American and Latinx families.<sup>41</sup> Urban highway construction would create further displacement and highway projects were often sited in or through formerly redlined neighborhoods.<sup>42</sup> Segregation in Post WWII public housing policies created a more intense form of segregation and unprecedented concentrated poverty. Many high-rise public housing sites never managed to sustainably finance their operations, resulting in challenging and unsafe housing conditions.<sup>43</sup>

Landmark Civil rights legislation, such as the Civil Rights Act of 1968, also known as the Fair Housing Act, have helped open housing markets, but segregation persists due to evolving

<sup>&</sup>lt;sup>34</sup> Faber, Jacob W. "We Built This: Consequences of New Deal Era Intervention in America's Racial Geography." American Sociological Review 85, no. 5 (2020): 739-775. Quoting page 4.

<sup>&</sup>lt;sup>35</sup> Faber, Jacob W. "We Built This: Consequences of New Deal Era Intervention in America's Racial Geography." American Sociological Review 85, no. 5 (2020): 739-775. Quoting page 4.

<sup>&</sup>lt;sup>36</sup> Tillotson, Amanda. "Race, risk and real estate: The federal housing administration and black homeownership in the post World War II home ownership state." *DePaul J. Soc. Just.* 8 (2014): 25.

<sup>&</sup>lt;sup>37</sup> Whittemore, Andrew H. "How the Federal Government Zoned America: The Federal Housing Administration and Zoning." *Journal of Urban History* 39, no. 4 (July 2013): 620–42. <u>https://doi.org/10.1177/0096144212470245</u>.

<sup>&</sup>lt;sup>38</sup> Louis Lee Woods II. "ALMOST "NO NEGRO VETERAN ... COULD GET A LOAN": AFRICAN AMERICANS, THE GI BILL, AND THE NAACP CAMPAIGN AGAINST RESIDENTIAL SEGREGATION, 1917–1960." *The Journal of African American History* 98, no. 3 (2013): 392-417. Accessed April 9, 2021. doi:10.5323/jafriamerhist.98.3.0392.

<sup>&</sup>lt;sup>39</sup> Reece, J. W. (2018). In pursuit of a twenty-first century just city: The evolution of equity planning theory and practice. *Journal of Planning Literature*, *33*(3), 299-309.

<sup>&</sup>lt;sup>40</sup> Bullard, Robert Doyle, Glenn Steve Johnson, and Angel O. Torres, eds. *Highway robbery: Transportation racism & new routes to equity*. South End Press, 2004.

<sup>&</sup>lt;sup>41</sup> Digital Scholarship Lab, "Renewing Inequality," *American Panorama*, ed. Robert K. Nelson and Edward L. Ayers, accessed April 9, 2021, https://dsl.richmond.edu/panorama/renewal/#view=0/0/1&viz=scatterplot.

<sup>&</sup>lt;sup>42</sup> Thompson, E. "How highways destroyed Black neighborhoods in the 60's, as told by elders who were there." The Columbus Dispatch. December 3, 2020. Accessible at: <u>https://www.dispatch.com/in-</u>

depth/lifestyle/2020/12/03/black-columbus-ohio-homes-impact-highways-east-side/3629685001/

<sup>&</sup>lt;sup>43</sup> Bristol, K. G. (1991). The pruitt-igoe myth. *Journal of Architectural Education*, *44*(3), 163-171.

policies and practices that continue to reinforce discrimination.<sup>44</sup> Although racially restrictive covenants were no longer enforceable after the 1948 *Shelley v. Kramer* U.S. Supreme Court decision, the real estate industry and neighborhood associations resisted efforts of integration until the passage of the 1968 fair housing act.<sup>45</sup> The federal Fair Housing Act has been effective at reducing private discrimination in the market but has been unable to counter exclusionary zoning practices. Exclusionary housing and land use policies impede the supply of affordable- and sometimes moderate-income housing in affluent metropolitan suburbs and exurbs. <sup>46</sup> Source of income discrimination, where landlords refuse to rent to housing voucher holders, creates barriers to housing access for renters who utilize federal housing assistance.<sup>47</sup> Market driven urban redevelopment, which has grown substantially in the past two decades, is dominated by higher priced or luxury housing and in some cases is spurring displacement of long term residents.<sup>48</sup> Stagnation in wages for low to middle income workers has created tremendous vulnerability to displacement in the real estate market.<sup>49</sup>

The legacy of discrimination identified in the abbreviated history above has a direct impact on challenges facing the housing sector, cities and our society today. Racial equity has been a prominent issue from the past year, seen in the disparate impacts of COVID-19 in communities of color, and fears of rising evictions, as well as 2020's summer of urban unrest. The role of historic housing discrimination in perpetuating racial inequality is fundamental to these contemporary challenges.

# A growing body of research has documented a variety of damaging long-term consequences of structural racism in the housing market and the built environment.

The legacy of structural racism in the housing market and built environment has been linked to depressed wealth, health and housing outcomes for marginalized communities. Scholarship has long recognized the influence of housing discrimination on wealth building for marginalized racial and ethnic groups. Recent advances in digitizing former HOLC redlining maps have allowed spatial analysis of the long-term impacts of redlining and other forms of discrimination in housing on current neighborhood conditions.<sup>50</sup> HOLC maps are a window into which communities faced the most intense forms of discrimination in housing and development. Thus, redlining maps present a coherent view of the geography of spatial and racial discrimination in the 20<sup>th</sup> century.

### Wealth Impacts:

Housing discrimination and redlining is responsible for the racial wealth gap.<sup>51</sup> Home equity is a primary source of wealth for Americans. The Census Bureau reports that home equity

<sup>&</sup>lt;sup>44</sup> Cashin, Sheryll. *The Failures of Integration: How Race and Class Are Undermining the American Dream*. Vol. 3. 24. PublicAffairs New York, NY, 2004.

<sup>&</sup>lt;sup>45</sup> Shelley v. Kraemer, 334 U.S. 1 (1948).

<sup>&</sup>lt;sup>46</sup> Greene, S., & Ellen, I. G. Breaking Barriers, Boosting Supply. Urban Institute, 23. (2020).

<sup>&</sup>lt;sup>47</sup> Tighe, J. Rosie, Megan E. Hatch, and Joseph Mead. "Source of income discrimination and fair housing policy." *Journal of Planning Literature* 32, no. 1 (2017): 3-15.

<sup>&</sup>lt;sup>48</sup> Immergluck, Dan, and Tharunya Balan. "Sustainable for whom? Green urban development, environmental gentrification, and the Atlanta Beltline." *Urban Geography* 39, no. 4 (2018): 546-562.

<sup>&</sup>lt;sup>49</sup> Chapple, Karen. "Income inequality and urban displacement: the new gentrification." In *New Labor Forum*, vol. 26, no. 1, pp. 84-93. Sage CA: Los Angeles, CA: SAGE Publications, 2017.

<sup>&</sup>lt;sup>50</sup> The University of Richmond's *Mapping Inequality* interactive data archive of digital HOLC maps and assessor notes was instrumental in expanding geospatial research on the geographies of HOLC assessments. For more information: <u>https://dsl.richmond.edu/panorama/redlining</u>

<sup>&</sup>lt;sup>51</sup> Conley, Dalton. *Being Black, Living in the Red: Race, Wealth, and Social Policy in America*. Univ of California Press, 2010.

constitutes 29% of all household wealth in the US.<sup>52</sup> Home equity is an even more important source of wealth for low- and middle-income households. The Pew Research Center reports that low- and middle-income households have nearly half of their assets tied to home equity.<sup>53</sup> The barriers to homeownership in growing suburban areas and the disinvestment spurred by redlining are direct contributors to the racial wealth gap.<sup>54</sup> Federal policies to expand homeownership after the New Deal and second World War were critical to wealth building for the White middle class.<sup>55,56</sup> Communities of color were not able to benefit from expanded homeownership and were more likely be isolated into neighborhoods where home values were suppressed from redlining practices. As a result, in 2016 the median net worth of White households (\$171,000) was more than 900% higher than the median net worth of African American (\$17,600) and Latinx households (\$20,700).<sup>57</sup>

### The Geography of Redlining and Contemporary Neighborhood Disparities:

Research by the National Community Reinvestment Coalition finds that formerly redlined neighborhoods are predominately low income today. Their analysis found that 74% of formerly "D" rated neighborhoods were still low to moderate income in 2016.<sup>58</sup> Analysis by Aaronson et al. measuring the long-run effects of HOLC designations on contemporary socioeconomic outcomes finds 1930's HOLC ratings to have a large and statistically significant causal effect, particularly on children who grew up in formerly redlined areas in the 1980's and 1990's.<sup>59</sup> Their analysis indicates that children who grew up in redlined areas had an 11 percent probability of reaching the top quintile of household incomes as adults. In comparison, the probability of children growing up in green lined areas reaching the top quintile of household incomes was 23%. Contemporary Equifax credit scores were 10% higher in "green lined" communities compared to redlined areas, and the probability of borrowers having subprime credit scores (lower than 650) was nearly 3 times as likely as contemporary borrowers in green lined areas.

Studies have demonstrated the long-term impacts of redlining on many contemporary housing and built environment conditions.<sup>60</sup> Historic patterns of redlining have been associated with

https://doi.org/10.17016/2380-7172.2083.

<sup>&</sup>lt;sup>52</sup> Eggleston, J., Hays, D., Munk, R. and Sullican, B. "The Wealth of Households: 2017." The U.S. Census Bureau: Current Population Reports. August 2020.

<sup>&</sup>lt;sup>53</sup> Pew Research Center. "Fewer, Poorer, Gloomier: The Lost Decade of the Middle Class." Pew Social and Demographic Trends. August 2012.

<sup>&</sup>lt;sup>54</sup> Shapiro, Thomas M, and others. *The Hidden Cost of Being African American: How Wealth Perpetuates Inequality*. Oxford University Press, USA, 2004.

<sup>&</sup>lt;sup>55</sup> McIntosh, Kriston, Emily Moss, Ryan Nunn, and Jay Shambaugh. "Examining the Black-white wealth gap." *Washington DC: Brooking Institutes* (2020).

<sup>&</sup>lt;sup>56</sup> Katznelson, Ira. *When affirmative action was white: An untold history of racial inequality in twentieth-century America*. WW Norton & Company, 2005.

<sup>&</sup>lt;sup>57</sup> Dettling, Lisa J., Joanne W. Hsu, Lindsay Jacobs, Kevin B. Moore, and Jeffrey P. Thompson (2017). "Recent Trends in Wealth-Holding by Race and Ethnicity: Evidence from the Survey of Consumer Finances," FEDS Notes. Washington: Board of Governors of the Federal Reserve System, September 27, 2017,

<sup>&</sup>lt;sup>58</sup> Mitchell, B. & Franco, J. "HOLC Redlining Maps: The Persistent Structure of Segregation And Economic Inequality." National Community Reinvestment Coalition. (2018). Accessible at: <u>https://ncrc.org/holc/</u>

<sup>&</sup>lt;sup>59</sup> Aaronson, Daniel, Jacob Faber, Daniel Hartley, Bhashkar Mazumder, and Patrick Sharkey. "The long-run effects of the 1930s HOLC "redlining" maps on place-based measures of economic opportunity and socioeconomic success." *Regional Science and Urban Economics* 86 (2021): 103622.

<sup>&</sup>lt;sup>60</sup> An, Brian, Anthony W. Orlando, and Seva Rodnyansky. "The physical legacy of racism: How redlining cemented the modern built environment." *Available at SSRN 3500612* (2019).

increased risk for predatory lending and foreclosure during the 2008 housing crisis.<sup>61</sup> Redlining is identified as contributing to the growth of slum lords, predatory creditors and increased crime in historically redlined areas.<sup>62</sup> Studies have documented the relationship between historic redlining, contemporary social vulnerability and gun violence.<sup>63</sup> New studies emerging from public health indicates historic redlining can be linked to contemporary health outcomes<sup>64</sup>, elevated unhealthy heat events<sup>65</sup> and inequities in access to green space.<sup>66</sup> Redlining has been empirically linked to contemporary poor health outcomes such as preterm birth<sup>67</sup>, cancer<sup>68</sup>, and infant mortality.<sup>69</sup>

#### Visualizing the Impact of Historical Discrimination: Cleveland, OH as a Case

As I document in a special issue of the Russell Sage Foundation's Journal of the Social Sciences "Confronting the Legacy of Separate but Equal", a planning process led by Cuyahoga County's public health agency identified a number of long term correlations between formerly redlined areas and contemporary social, environmental and health challenges in the Cleveland area (Figures 4-9).<sup>70</sup> As described in my publication:

"In Cleveland, formerly redlined areas were still highly segregated; two in three African Americans in Cuyahoga County lived in these communities versus only one in four Whites. The segregative effects of the HOLC assessment have also had implications for housing and health outcomes. One of the more startling findings was that foreclosures and subprime lending activities were heavily concentrated in neighborhoods that were redlined in the 1940 HOLC map. In fact, between 2004 and 2007, the high-cost loan rate was 54.1 percent in formerly redlined areas versus only 15.4 percent in A-rated areas. Similar disparities existed in rates of vacant property found. Critical environmental and public health concerns, such as

<sup>&</sup>lt;sup>61</sup> Hernandez, Jesus. "Redlining revisited: mortgage lending patterns in Sacramento 1930–2004." *International Journal of Urban and Regional Research* 33, no. 2 (2009): 291-313.

<sup>&</sup>lt;sup>62</sup> Aalbers, Manuel B. "When the banks withdraw, slum landlords take over': The structuration of neighbourhood decline through redlining, drug dealing, speculation and immigrant exploitation." *Urban Studies* 43, no. 7 (2006): 1061-1086

<sup>&</sup>lt;sup>63</sup> Benns, Matthew, Matthew Ruther, Nicholas Nash, Matthew Bozeman, Brian Harbrecht, and Keith Miller. "The impact of historical racism on modern gun violence: Redlining in the city of Louisville, KY." *Injury* 51, no. 10 (2020): 2192-2198.

<sup>&</sup>lt;sup>64</sup> McClure, Elizabeth, Lydia Feinstein, Evette Cordoba, Christian Douglas, Michael Emch, Whitney Robinson, Sandro Galea, and Allison E. Aiello. "The legacy of redlining in the effect of foreclosures on Detroit residents' self-rated health." *Health & place* 55 (2019): 9-19.

<sup>&</sup>lt;sup>65</sup> Wilson, Bev. "Urban Heat Management and the Legacy of Redlining." *Journal of the American Planning Association* 86, no. 4 (2020): 443-457.

<sup>&</sup>lt;sup>66</sup> Nardone, Anthony, Kara E. Rudolph, Rachel Morello-Frosch, and Joan A. Casey. "Redlines and greenspace: the relationship between historical redlining and 2010 greenspace across the United States." *Environmental health perspectives* 129, no. 1 (2021): 017006.

<sup>&</sup>lt;sup>67</sup> Krieger, Nancy, Gretchen Van Wye, Mary Huynh, Pamela D. Waterman, Gil Maduro, Wenhui Li, R. Charon Gwynn, Oxiris Barbot, and Mary T. Bassett. "Structural racism, historical redlining, and risk of preterm birth in New York City, 2013–2017." *American journal of public health* 110, no. 7 (2020): 1046-1053.

 <sup>&</sup>lt;sup>68</sup> Krieger, Nancy, Emily Wright, Jarvis T. Chen, Pamela D. Waterman, Eric R. Huntley, and Mariana Arcaya. "Cancer Stage at diagnosis, historical redlining, and current neighborhood characteristics: Breast, cervical, lung, and colorectal cancers, Massachusetts, 2001–2015." *American journal of epidemiology* 189, no. 10 (2020): 1065-1075.
<sup>69</sup> Reece, Jason. "More Than Shelter: Housing for Urban Maternal and Infant Health." *International Journal of Environmental Research and Public Health* 18, no. 7 (2021): 3331.

<sup>&</sup>lt;sup>70</sup> Reece, Jason. "Confronting the Legacy of "Separate but Equal": Can the History of Race, Real Estate, and Discrimination Engage and Inform Contemporary Policy?." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 7, no. 1 (2021): 110-133.

the distribution of toxic release sites, rates of infant mortality, and occurrences of diabetes reflect the historic imprint left by redlining. Infant mortality rates were 800 percent higher in redlined areas than in non-redlined communities. Additionally, the highest incidents of lead paint exposure occur in traditionally redlined areas, which is consistent with theories that suggest lack of capital can inhibit housing renovations critical to reducing exposure to lead paint. Life expectancy differences also reflects the same general patterns of these other critical health measures. Analysis found a thirteen- to fifteen-year gap between life expectancy in former green (A-rated) neighborhoods and those that were redlined."<sup>71</sup>

#### Fair Housing and Children's Outcomes:

Segregation and isolation into resource deprived communities is an ongoing challenge that is particularly harmful to children. The quality of and resources within neighborhood environments are profoundly important for child development.<sup>72</sup> A large number of case studies and longitudinal studies have explored the outcomes for adults and youth from housing mobility programs. Fair housing mobility programs impact children by improving conditions at the household and neighborhood scale simultaneously. Improved housing conditions reduce risks associated with vermin, allergens, mold and other indoor health challenges while also reducing environmental stress factors (primarily associated with an improved sense of safety).<sup>73</sup>

These studies have primarily emerged from the Moving to Opportunity (MTO) ten-year experimental demonstration project initiative by the U.S. Department of Housing & Urban Development in five cities. Research by Raj Chetty has identified the longitudinal effects of the MTO program on child health and future earnings. Chetty's research literature clearly indicates that moving to an opportunity rich neighborhood produces a greater likelihood of increased lifetime earnings for youth as well as lowered rates of disease and better mental health. Life-time earnings for children in the MTO experiment were 31 percent higher.<sup>74</sup>

# Federal leadership and public policy are needed to support efforts to remedy our durable and complex legacy of discrimination in the housing market.

"If America's stark racial geography was intentionally constructed, work can be done to intentionally deconstruct it—although only through redirecting the momentum carried by public policy." -Faber, 2020, "We Built This: Consequences of New Deal Era Intervention in America's Racial Geography." American Sociological Review. pg. 3.

Many contemporary policy innovations and reforms could proactively counter the legacy of segregation in the housing market and foster reinvestment into neighborhoods that have faced historic disinvestment. Federal leadership and investment are needed to support communities and local governments who attempt to dismantle exclusionary land use regulations, open housing opportunities and foster reinvestment into historically disinvested

<sup>&</sup>lt;sup>71</sup> Reece, Jason. "Confronting the Legacy of "Separate but Equal": Can the History of Race, Real Estate, and Discrimination Engage and Inform Contemporary Policy?." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 7, no. 1 (2021): 110-133. Quoting directly from page 119-120.

<sup>&</sup>lt;sup>72</sup> Acevedo-Garcia, Dolores, Clemens Noelke, Nancy McArdle, Nomi Sofer, Nick Huntington, Erin Hardy, Rebecca Huber, Mikyung Baek, and Jason Reece. "The geography of child opportunity: why neighborhoods matter for equity." *Diversity Data Kids* (2020).

<sup>&</sup>lt;sup>73</sup> Acevedo-Garcia, Dolores, Theresa L. Osypuk, Rebecca E. Werbel, Ellen R. Meara, David M. Cutler, and Lisa F. Berkman. "Does housing mobility policy improve health?." *Housing policy debate* 15, no. 1 (2004): 49-98.

<sup>&</sup>lt;sup>74</sup> Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz. "The effects of exposure to better neighborhoods on children: New evidence from the Moving to Opportunity experiment." *American Economic Review* 106, no. 4 (2016): 855-902.

neighborhoods. Federal leadership is needed in building capacity, fostering collaboration, fostering local innovation while assuring protection of civil rights.<sup>75</sup> The federal government's leadership could be beneficial in aligning critical infrastructure investments, supporting the implementation of fair housing programs (particularly housing mobility programs) and fostering regional planning activities and capacity building.

#### Investment in Families, Neighborhoods and Regions:

As illustrated in the scholarship presented in my testimony, stable housing and healthy neighborhood environments are critical to family wellbeing and child development. Open and affordable housing markets are critical to support the labor force and for labor force mobility in metropolitan areas. Housing is a critical form of infrastructure serving families, neighborhoods and regions. Investment and policy reforms are needed to foster greater provision of affordable housing and open housing markets. For example, recent programs such as the U.S. Department of Housing and Urban Development's Housing Choice Voucher Mobility Demonstration should be expanded to assist local housing authorities in providing better access to safe and healthy neighborhoods for voucher holders.

We have growing evidence that when housing mobility programs are aligned with supportive coaching and social services, families and children see improved life outcomes ranging from economics and education, to health.<sup>76</sup> My recent research has followed the outcomes for Move to Prosper, a locally created housing mobility program in Columbus, OH. With limited funding support for housing mobility programs, Move to Prosper has utilized public-private partnerships to align private rental units in high opportunity areas with families who are housing unstable, while providing comprehensive life coaching.<sup>77</sup> While the program has demonstrated tremendous economic, educational and health benefits within the first three years of implementation, the lack of sustainable investment in similar programs limits the ability to scale and expand innovative programs like Move to Prosper.<sup>78</sup>

In addition to housing mobility, direct investment is needed in formerly redlined communities. Directing infrastructure investment into these communities and fostering equitable neighborhood revitalization will be critical to improving neighborhood conditions, while supporting affordable housing needs and creating opportunities for wealth building for families. We have strong evidence that collaborative investment that aligns various forms of infrastructure (e.g. transportation, housing and other public infrastructure) into historically disinvested communities can foster redevelopment. Being attentive to assuring a sustainable base of affordable housing during this process would allow long term residents to benefit from improving neighborhood conditions while avoiding displacement from rising housing prices.<sup>79</sup> Federal programs, such as the formerly introduced Livable Communities initiative, could be transformative in sparking the synergistic investment in infrastructure and affordable housing

<sup>&</sup>lt;sup>75</sup> Reece, Jason, and Meghan Z. Gough. "Planning for regional sustainability and justice: The role of collective impact." *Community Development* 50, no. 3 (2019): 368-386.

<sup>&</sup>lt;sup>76</sup> Chetty, Raj, J. P. A. L. Harvard, NBER Stefanie DeLuca, and Johns Hopkins. "Creating Moves to Opportunity." (2020).

<sup>&</sup>lt;sup>77</sup> Reece, J.W.; Kleit, R.; Klaben, A. "Going Local to Support Fair Housing: Establishing the Move to PROSPER Housing Mobility Program." *Poverty and Race: Journal of the Poverty Research Action Council, Volume 28: Number* 1 (January-April 2019), 3-11.

<sup>&</sup>lt;sup>78</sup> Reece, J.W.; Lee, J.Y. (2021). Move to PROSPER: Interim Program Evaluation 3.0. Retrieved from <u>https://www.movetoprosper.org/prosperitybrief2021</u>

<sup>&</sup>lt;sup>79</sup> Kelleher, Kelly, Jason Reece, and Megan Sandel. "The healthy neighborhood, healthy families initiative." *Pediatrics* 142, no. 3 (2018).

needed for neighborhood transformation.<sup>80</sup>

# Supporting Metropolitan Planning Organizations and Regional Governments in Developing Regional Housing Strategies.

Metropolitan housing markets are most effectively planned for through regional housing strategies. Regional housing approaches can align local government land use regulations and help reform local exclusionary housing policies. <sup>81</sup> Regional housing strategies also can assist in incentivizing local governments to implement inclusionary housing programs, such as inclusionary zoning and community land trusts. Regional planning is critical to build consensus, build capacity and develop strategy among multiple local governments. Programs such as the regional planning competitive grant program from the HUD Sustainable Communities Initiative could be reintroduced to support the capacity for regional planning. My scholarship evaluating the impacts of the SCI regional planning grant program, found SCI to be very effective in fostering better alignment of regional development, transportation and housing and supporting equitable housing policies in more than seventy grantee regions.<sup>82</sup> The SCI program and planning frameworks such as the Fair Housing Equity Assessment (an early pilot protype of the revised Affirmatively Furthering Fair Housing Rule) strengthened collaboration around issues of racial and social equity in grantee regions, while providing data capacity to help regions understand and address issues of regional inequity.<sup>83</sup>

### Conclusion

Efforts to reduce contemporary discrimination in the housing market and directing investment into historically disinvested neighborhoods would benefit racial and ethnic populations that are deeply impacted by segregation. These actions would also benefit society as a whole and provide an investment into the next generation of American society, boosting the nation's health, wealth and economic competitiveness.

Thank you for the opportunity to testify today. I look forward to your questions.

<sup>&</sup>lt;sup>80</sup> S.1621 - Livable Communities Act of 2011. 112th Congress (2011-2012). <u>https://www.congress.gov/bill/112th-congress/senate-bill/1621/text</u>

<sup>&</sup>lt;sup>81</sup> Serkin, Christopher, and Leslie Wellington. "Putting exclusionary zoning in its place: Affordable housing and geographical scale." *Fordham Urb. LJ* 40 (2012): 1667.

<sup>&</sup>lt;sup>82</sup> Reece, Jason. "In pursuit of just communities: supporting community development for marginalized communities through regional sustainability planning." In *Research Handbook on Community Development*. Edward Elgar Publishing, 2020.

<sup>&</sup>lt;sup>83</sup> Gough, Meghan Z., and Jason Reece. "The Impact of the Sustainable Communities Initiative on engagement and collaboration in planning: experiences from four US regions." *Cityscape* 19, no. 3 (2017): 115-134.

## ALL CHILDREN

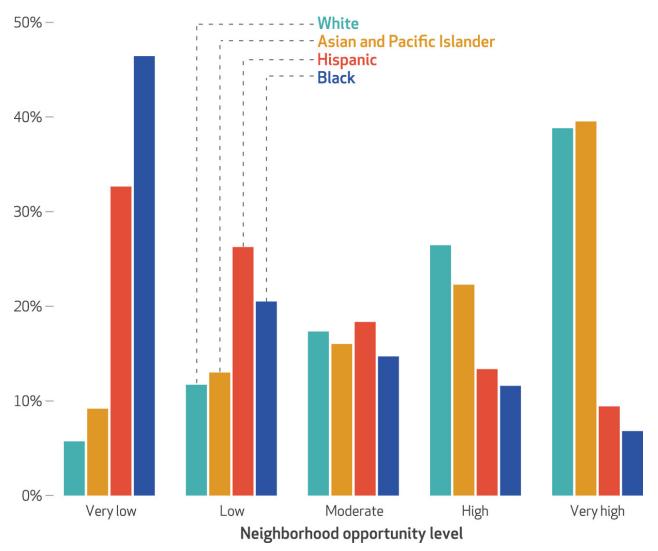


Figure 1: Percent of all children across levels of neighborhood opportunity, by race/ethnicity (100 largest metropolitan areas combined). Directly adapted from exhibit 2 in Acevedo-Garcia, Dolores, Clemens Noelke, Nancy McArdle, Nomi Sofer, Erin F. Hardy, Michelle Weiner, Mikyung Baek, Nick Huntington, Rebecca Huber, and Jason Reece. "Racial And Ethnic Inequities In Children's Neighborhoods: Evidence From The New Child Opportunity Index 2.0: Study uses the Child Opportunity Index 2.0 to examine geographic and racial/ethnic inequities children are exposed to in the one hundred largest metropolitan areas of the United States." Health Affairs 39, no. 10 (2020): 1693-1701.

### **POOR CHILDREN**

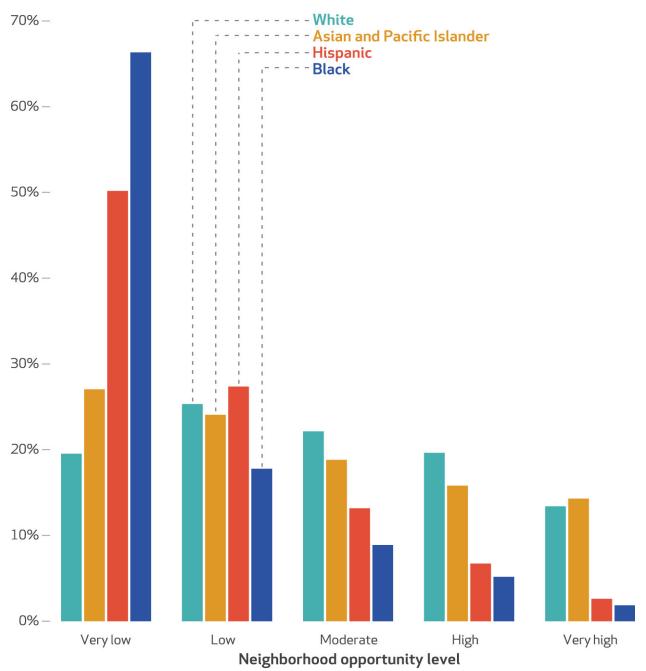


Figure 2: Percent of all children in poverty across levels of neighborhood opportunity, by race/ethnicity (100 largest metropolitan areas combined). Directly adapted from exhibit 3 in Acevedo-Garcia, Dolores, Clemens Noelke, Nancy McArdle, Nomi Sofer, Erin F. Hardy, Michelle Weiner, Mikyung Baek, Nick Huntington, Rebecca Huber, and Jason Reece. "Racial And Ethnic Inequities In Children's Neighborhoods: Evidence From The New Child Opportunity Index 2.0: Study uses the Child Opportunity Index 2.0 to examine geographic and racial/ethnic inequities children are exposed to in the one hundred largest metropolitan areas of the United States." Health Affairs 39, no. 10 (2020): 1693-1701.

# HISTORICAL TIMELINE OF STRUCTURAL RACISM IN 20<sup>TH</sup> CENTURY DEVELOPMENT POLICY

Our first federal act to dismantle housing segregation (the 68 Fair Housing Act) follows 60 years of pro-segregation policies. The Supreme Court's decision in Arlington Heights vs. Metropolitan Development Corp (1978) would make it difficult to legally challenge facially race neutral exclusionary zoning ordinances without evidence of direct racially discriminatory intent.

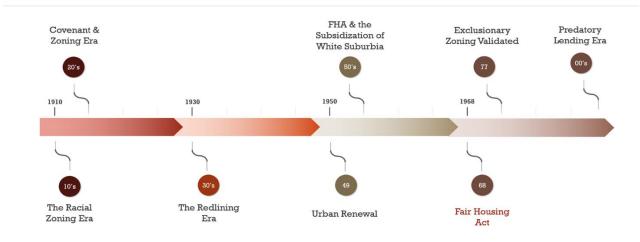
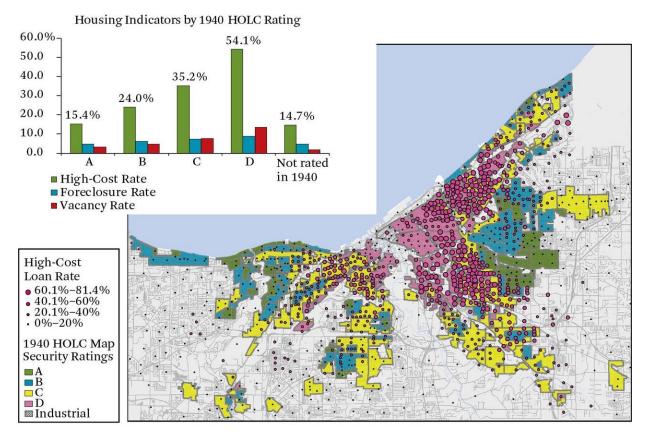
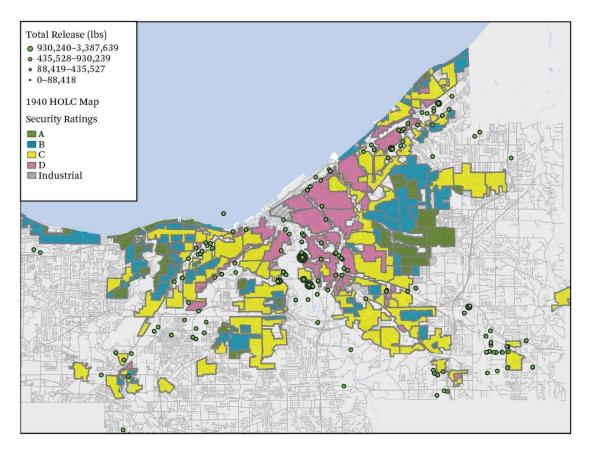


Figure 3: Historical timeline of structural racism in 20<sup>th</sup> century development policy.



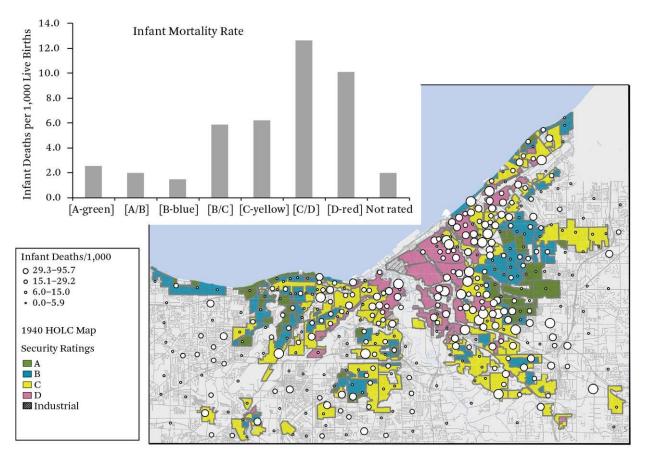
*Source:* Created by author from 1940 HOLC map and U.S. Department of Housing and Urban Development Neighborhood Stabilization Program data (adapted from analysis in Reece et al. 2015). *Note:* Areas in light gray were unrated in 1940. The optimal way to view figures 1–5 is in color. We refer readers of the print edition of this article to https://www.rsfjournal.org/content/7/1/110 to view the color versions.

Figure 4: HOLC (Redlining) Map of Cleveland from 1940 overlaid with high cost loans in 2008. Figure taken directly from Figure 1 in Reece, Jason. "Confronting the Legacy of "Separate but Equal": Can the History of Race, Real Estate, and Discrimination Engage and Inform Contemporary Policy?." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 7, no. 1 (2021): 110-133.



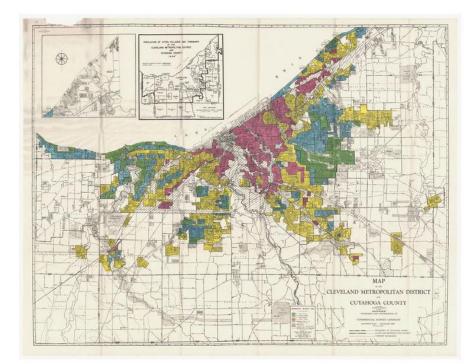
*Source:* Created by author from 1940 HOLC map and U.S. Environmental Protection Agency Toxic Waste Release Inventory data (adapted from analysis in Reece et al. 2015). *Note:* Areas in light gray were unrated in 1940.

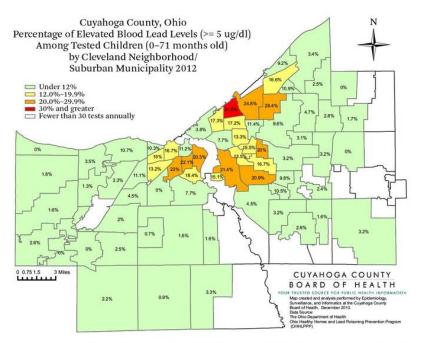
Figure 5: HOLC (Redlining Map) of Cleveland 1940 and Current Location of Toxic Waste Release Sites. Figure taken directly from Figure 2 in Reece, Jason. "Confronting the Legacy of "Separate but Equal": Can the History of Race, Real Estate, and Discrimination Engage and Inform Contemporary Policy?." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 7, no. 1 (2021): 110-133.



*Source:* Created by author from 1940 HOLC map and 2010 Infant Mortality data from the Ohio Department of Health (adapted from analysis in Reece et al. 2015). *Note:* Areas in light gray were unrated in 1940.

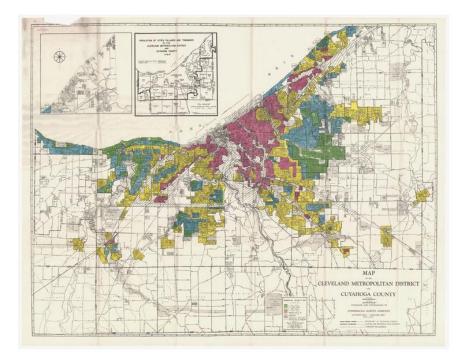
Figure 6: HOLC (Redlining Map) of Cleveland 1940 and Infant Mortality Rate in 2010. Figure taken directly from Figure 3 in Reece, Jason. "Confronting the Legacy of "Separate but Equal": Can the History of Race, Real Estate, and Discrimination Engage and Inform Contemporary Policy?." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 7, no. 1 (2021): 110-133.

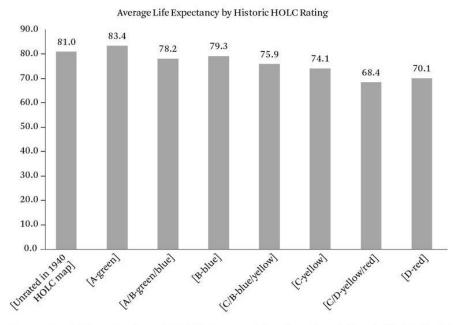




*Source:* Created by author from 1940 HOLC map and 2012 lead test results from Cuyahoga County Board of Health (adapted from analysis in Reece et al. 2015).

Figure 7: HOLC (Redlining Map) of Cleveland 1940 and Elevated Lead Tests in Children 2012. Figure taken directly from Figure 4 in Reece, Jason. "Confronting the Legacy of "Separate but Equal": Can the History of Race, Real Estate, and Discrimination Engage and Inform Contemporary Policy?." RSF: The Russell Sage Foundation Journal of the Social Sciences 7, no. 1 (2021): 110-133.





*Source:* Created by author from 1940 HOLC map and Cuyahoga County Board of Public Health 2008/2010 life expectancy data (adapted from analysis in Reece et al. 2015).

Figure 8: HOLC (Redlining Map) of Cleveland 1940 and 2008-2010. Figure taken directly from Figure 5 in Reece, Jason. "Confronting the Legacy of "Separate but Equal": Can the History of Race, Real Estate, and Discrimination Engage and Inform Contemporary Policy?." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 7, no. 1 (2021): 110-133.