



The State of Racial/Ethnic Equity in Children's Neighborhood Opportunity

FIRST FINDINGS FROM THE CHILD OPPORTUNITY INDEX 3.0

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TABLE OF CONTENTS

Introduction: A Call for Advancing Racial/Ethnic Equity in Neighborhood Opportunity	3
The Child Opportunity Index in Action	5
Fostering equitable early education in Michigan	6
Moving to opportunity in Massachusetts	6
Building the research evidence that neighborhoods matter for child health and wellbeing	7
Neighborhoods Matter for Child Wellbeing	8
Neighborhoods influence the quality of experiences that children have today	8
Neighborhoods influence children's health and development	8
Neighborhoods and health outcomes	8
What is neighborhood opportunity?	9
Neighborhoods and child development	10
Neighborhoods and health care utilization and spending	10
Neighborhoods and mortality	11
Neighborhoods influence children's education	12
Neighborhoods influence children's norms and expectations for the future	13
Neighborhoods influence adult outcomes	13
KEY TAKEAWAYS	14
Neighborhood Opportunity, Segregation and Racism: Why Neighborhoods Matter for Equity	15
Child Opportunity Index 3.0 Technical Summary	18
The dimensions of neighborhood opportunity	19
Geographic scope	20
Child Opportunity Index construction	20
Child Opportunity Score	20
Child Opportunity Levels	21
Child Opportunity Gaps	21
Opportunity hoarding and opportunity sharing	21
Racial/ethnic opportunity gaps	21
Child opportunity maps	21
Spotlight on Philadelphia	22
A Snapshot of Child Opportunity across the 100 Largest Metropolitan Areas	24
1. CHILD OPPORTUNITY ACROSS METROS	24
The geography of child opportunity	26
Where children live in relation to opportunity	27
2. INEQUITIES IN CHILD OPPORTUNITY WITHIN METRO AREAS	28
Opportunity hoarding and sharing	29
3. RACIAL/ETHNIC INEQUITY IN CHILD OPPORTUNITY	33
Racial/Ethnic Opportunity Gaps	35
Distribution of children by race/ethnicity across Opportunity Levels	39
Distribution of children in poverty by race/ethnicity across Opportunity Levels	41
KEY TAKEAWAYS	43

Child Opportunity and Adult Outcomes	44
Child opportunity and adult health	44
Child opportunity and intergenerational socioeconomic mobility	46
KEY TAKEAWAYS	48
The Five Americas	49
Policies to Advance Equity in Children’s Neighborhood Opportunity	52
Poverty reduction	54
Pro-desegregation and pro-neighborhood opportunity housing policies	55
Affirming a Commitment to Fair Housing	57
Using housing subsidies to access higher opportunity neighborhoods	58
Locating subsidized housing in higher opportunity neighborhoods	59
Reforming local zoning	59
Pro-desegregation and pro-neighborhood opportunity educational policies	61
Reforming school financing	61
Reforming school assignment	64
KEY TAKEAWAYS	65
Conclusion	66
Works Cited	69

INTRODUCTION: A CALL FOR ADVANCING RACIAL/ETHNIC EQUITY IN NEIGHBORHOOD OPPORTUNITY

At diversitydatakids.org, we have dedicated more than a decade to documenting and analyzing how our communities and society can help children maximize their potential. The biggest roadblock we see—in education, health, financial wellbeing and nearly every facet of life—is racial and ethnic inequality, which hurts our children and our prospects for an inclusive, equitable and prosperous future. A key form of inequality—the separation of children into neighborhoods with vastly different conditions—has been created and maintained by residential segregation. It is clear that we as a nation must reduce segregation to decrease inequities in opportunity that hurt our children.

That message has not always been an easy one to deliver, but public reckoning with systemic racism is changing. In the last four years, the impact of the Covid-19 pandemic made it difficult to ignore that some communities are much more exposed to health and economic shocks. They suffer more acutely and persistently when disaster strikes, because, for decades, we have made decisions that increase their vulnerability.^{1,2} The United States' history of racial exclusion and violence is long and painful, but the tragic murder of George Floyd and the unjust killings of many other Black Americans have brought about a reckoning with the disparate impact of policing and the extreme inequities in neighborhood conditions that put some groups at much greater risk of violent encounters with the police.³ At the same time, restrictive voter laws in some states and localities—strict voter ID requirements, consolidation of voting places and restrictions on Sunday voting, for example—have limited the ability of many Black and Hispanic Americans to cast their votes.⁴⁻⁷ The inherently local nature of voting, coupled with racial residential segregation, means that despite growing awareness of systemic racism, the voices of Black and Hispanic individuals and their communities continue to be suppressed in the political sphere.

We find today that the events of the last few years have created an opening to discuss segregation, inequities in neighborhood opportunity and the need for change. Civil society, social movements, policy context and the actions of other stakeholders such as foundations are helping build an explicit call and movement for racial/ethnic equity. The Biden administration's principles to address the pandemic prioritized an equitable response. In our own work as policy analysts, we have witnessed policymakers and administrators make a marked shift over the past decade toward equity analyses that focus on the creation and implementation of policies that prioritize high-needs populations. And our partnerships with Child Opportunity Index users in research and social programs have revealed an urgent need for high-quality data on racial and place-based inequities to help advance equity in health, early childhood, housing and more.

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In the U.S., racial and ethnic inequality has deep roots in stratification by place. Neighborhoods and schools have been segregated both through laws, policies and practices that were explicitly discriminatory as well as others that are seemingly race-neutral but have equally exclusionary effects. Decades of research have documented the causes, extent and consequences of segregation. More recently, research evidence has also made it clear that neighborhoods matter—have causal effects—for children's healthy development and their lifelong wellbeing. Some of those messages have found their way to policy, media and public opinion.

For our project, diversitydatakids.org, this wider recognition of structural racism, segregation, neighborhood inequality and inequities in child wellbeing—and the relationship between them—have offered more openings to share our data and analyses. Since we launched the first version of the Child Opportunity Index (COI) 1.0 a decade ago, we have been surprised and humbled by the increasing demand for the index data, analysis and guidance to help users of the COI develop research, program, and policy applications, many of which center equity.

We are launching the new Child Opportunity Index 3.0 to meet a demand in the field for rigorous, equity-focused data. We know that, in this new version, the COI will continue to inform research on the relationship between neighborhoods and child health, community needs assessments, and programs and policies working to uplift lower opportunity neighborhoods and reduce barriers to accessing higher opportunity communities.

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We begin this report making the case for why neighborhoods matter and why neighborhood-level indices can help advance equity. Influential users of the COI in health, housing and early childhood sectors have applied the COI data to develop or improve programs and policies (see section “The Child Opportunity Index in Action”). A bibliography of 90+ peer-reviewed papers using the COI, along with other bodies of research, have examined the connection between neighborhood opportunity and child wellbeing (see section “Why Neighborhoods Matter for Child Wellbeing”). Evidence is also clear that neighborhoods matter for equity (see section “Neighborhood Opportunity, Segregation and Racism”).

This report summarizes our findings from the first analyses of the Child Opportunity Index 3.0. The COI contains annual data for every neighborhood in the U.S. from 2012 to 2021 (see section: “Technical Summary”). Here, we focus mainly on what the COI teaches us about the state of child neighborhood opportunity in 2021 for children living in the 100 metropolitan areas with the largest child populations, which are home to 68% of all U.S. children. We document the overall level of neighborhood opportunity in each metro, the inequality between very low- and very high-opportunity neighborhoods and racial/ethnic inequities in neighborhood opportunity (see section “A Snapshot of Child Opportunity across the 100 Largest Metropolitan Areas”). We find large opportunity gaps between and within metro areas, as well as very large opportunity gaps between White and Asian children, on the one hand, and Black and Hispanic children, on the other. These inequities in neighborhood opportunity are harmful to children and threaten our nation’s prospects for a future in which all enjoy a shared experience of belonging and prosperity.

We document the reality that children in the U.S. reside in five “opportunity nations” with vastly different resources to support their wellbeing (see section “The Five Americas”); we review the stark association between child opportunity and key adult outcomes such as life expectancy and socioeconomic mobility (see section “Child Opportunity and Adult Outcomes”); and we conclude the report with a discussion of policies that could reduce segregation and inequities in neighborhood opportunity or lessen their negative effects (see section “Policies Recommendations to Advance Equity”). This discussion is not exhaustive but illustrates how we can center equity in the development of policy, using examples focusing on poverty reduction, housing, education and early childhood.

We hope that the information in this report will renew our collective commitment to ensuring that all children enjoy neighborhood conditions that enrich their childhood experiences and pave the way to bright futures. We believe the lessons that can be learned from the COI will deepen our resolve to reduce segregation and advance racial and ethnic equity. Data and research are only a small piece of social change, though. The Child Opportunity Index 3.0 and other data resources become useful when applied to eliminating inequities and supporting children and families. We look forward to facilitating, witnessing and disseminating existing and new equity-focused applications of the COI in research, interventions, programs and policies.

THE CHILD OPPORTUNITY INDEX IN ACTION

Since diversitydatakids.org launched the first version of the Child Opportunity Index in 2014, organizations and individuals across sectors have shown interest in using it. Early users of the COI included the Chicago Department of Public Health, the Juvenile Welfare Board of Pinellas County, FL and the city of Albany's department of recreation, youth and workforce services. Nearly a decade later, as we release this third version of the COI, there is a large and dedicated community of COI users in research, policy and practice across the country. Research insights from the COI are informing a new generation of health research on neighborhood effects.¹ The COI is used by local, state and national government agencies to determine areas of low opportunity, allocate resources to high-needs areas and make the case for equitable policy-making.² Foundations, nonprofits and other organizations use the COI in grantmaking, decision-making and advocacy.

Our project partnerships with users in each of these sectors, and their requests and perspectives have shaped how we built the COI 3.0. Data projects like the COI often do not make this relational aspect explicit; however, we have found it to be essential for advancing equity applications.^{2,3} Reports by the National Academies of Sciences, Engineering, and Medicine⁴ and the Robert Wood Johnson Foundation's Commission to Transform Public Health Data Systems⁵ corroborate and formalize some of our findings that "data and analytic work to inform decision-making require relational work, which involves having conversations and building connections to create long-term, sustainable relationships that center equity."² The following examples of the Child Opportunity Index in action highlight not only the application of the COI as a tool to advance equity, but also the importance of partnering with data users to make that impact happen.

Data producers should have the capacity to receive feedback from users and refine and adapt the index. Data updates and methodological improvements are two ways to be responsive to users. Additionally, these relationships involve providing users with technical assistance and help with the analysis, interpretation, and communication of findings to their stakeholders.

—Acevedo-Garcia, D., et. al., "Improving the Infrastructure for Neighborhood Indices to Advance Equity"³

This relationship between organizations/communities and data producers/intermediaries should be a two-way street. Although researchers have yet to fully define key principles and processes that should guide these relationships, there is agreement in the literature that meaningful democratization and ground-truthing of data tools require fairness and collaboration between organizations/communities and data intermediaries.

FOSTERING EQUITABLE EARLY EDUCATION IN MICHIGAN

The Great Start Readiness Program (GSRP), which provides public preschool to over half of eligible low-income four-year-old children in Michigan, uses the Child Opportunity Index to evaluate the extent to which the program is implemented equitably. GSRP serves over 35,000 young children in over 2,500 classrooms across Michigan. Funds for GSRP are administered through Michigan's Department of Education to Intermediate School Districts, which implement programs through a network of providers locally across the state. Evaluations from Michigan State University have found that, compared to children who were waitlisted for the program, GSRP students have higher levels of kindergarten readiness and better school attendance through kindergarten, as well as reduced literacy gaps between higher- and lower-risk learners.

State-funded evaluations use the Child Opportunity Index to assess the extent to which the program reaches children in high-needs communities. Public mapping projects overlay location data of GSRP sites with the Child Opportunity Index, demonstrating which low- and very low-opportunity neighborhoods are lacking public preschool sites. Evaluators are also investigating whether new preschool programs are opening in these lower-opportunity areas, and they are sharing that data in monthly meetings with local administrators.

Says Jamie Wu, the principal investigator at Michigan State leading these evaluations, the straightforward question administrators have from viewing COI maps is, "Why don't we have a program in that area where opportunity is low?" Whether those barriers include staff shortages, zoning regulations or lack of suitable infrastructure, the Child Opportunity Index provides a starting point for real conversations to take place about how to provide high-quality early education to children in those communities.

MOVING TO OPPORTUNITY IN MASSACHUSETTS

Supporting Neighborhood Opportunity (SNO Mass), run by Massachusetts' Executive Office of Housing and Livable Communities, helps families with children eligible for Housing Choice Vouchers relocate to designated "opportunity areas," as defined by the Child Opportunity Index. The program supports families in identifying neighborhoods with resources that support healthy child development and then finding appropriate housing there. Each family is matched with a mobility specialist, who supports families through the process of moving and settling into their new neighborhoods. SNO Mass also works closely with landlords, encouraging them to participate in the program and supporting them once they begin leasing to program participants.

Since the start of the program in 2019, diversitydatakids.org has partnered with SNO Mass to define its designated opportunity areas; provide the data and specialized support for its address locator tool; and customize the Child Opportunity Index to reflect local conditions.

Recent studies of SNO Mass participants' experiences and early outcomes have promising findings. Overall, 125 families—including 270 children—have moved to higher opportunity neighborhoods since 2019 as a result of the program. The positive impacts for these families and their children have been profound. Interviews and surveys with 34 families reveal improved physical and mental health, feelings of safety, educational opportunities and access to green space in their new neighborhoods. Nearly all participants described their new neighborhood as inclusive and welcoming. The participants have also expressed great satisfaction with the program, with a remarkable 88% reporting no drawbacks for themselves or their children after relocating to their new neighborhood.

BUILDING THE RESEARCH EVIDENCE THAT NEIGHBORHOODS MATTERS FOR CHILD HEALTH AND WELLBEING.

The Children's Hospital Association (CHA) has integrated the Child Opportunity Index into its Pediatric Health Information System (PHIS), a vast database of medical data from 49 children's hospitals, with far-reaching results for child health research. Health and hospital researchers and administrators are increasingly focusing on neighborhoods as an important factor in inequities in child health and health care utilization. While many health leaders understand the differences in neighborhood resources in the communities they serve, until recently there has been a lack of consistent, high-quality, accessible data quantifying neighborhood opportunity, limiting research possibilities. Health data is also often only available at the ZIP code level, while most neighborhood indices use census tracts to measure neighborhood wellbeing, which further complicates data integration.

After launching the COI 2.0, diversitydatakids.org received many requests for ZIP code-level data, leading to our development of ZIP code estimates of the COI. We then built on a partnership with the CHA to help their chief data scientist integrate the COI into the PHIS in 2021. Our data team presented on the COI to PHIS users at four different webinars and joined working groups to discuss how the COI is constructed, the advantages it offers and how to interpret associations found.

Since 2021, more than 90 papers have been written by health researchers across the country that use the COI to investigate the relationship between neighborhoods and child health outcomes and care usage. This research is adding to the evidence that neighborhood opportunity is related to complications arising from asthma and appendicitis, cardiovascular health, emergency room utilization and length of inpatient stays, life expectancy and mortality—and much more.

WHAT IS NEIGHBORHOOD OPPORTUNITY?

Think of a fourth-grade child exiting her home and walking to school. It's a hot and sunny walk, with few trees to provide shade and no parks along the way. Instead, the child walks past vacant houses, which make her feel uneasy. Her route also takes her close to a nearby bus station, and between the air pollutants and the heat, she can feel her asthma beginning to act up. As she gets close to school, she wants to run the final block, but she doesn't want to worsen her asthma and end up in the nurse's office, or worse, the emergency room. Even so, she is hot and tired by the time she gets to her classroom.

This child is welcomed by a teacher who is committed but inexperienced. More than half of students in the classroom are not reading at grade level. On days when the child needs extra help with an assignment, it's difficult for her to get the support she needs—and on days when the assignments come easily, she has little extra enrichment. Acquiring funds for new school supplies is a continuous struggle, so the books in the classroom library are old and few. Parents donate when they can, but poverty rates in the neighborhood are high, and many families are on public assistance. The school champions the idea that every student will go on to college, but this child does not quite understand what that means or how she will get there. Very few parents of her friends have a college degree themselves, and some did not graduate high school. Her friends with older siblings have had a difficult time finding work as young adults.

After school, the child drives with her parent to pick up fast food for dinner; there are no affordable grocery stores close to home. After dinner, when she struggles to complete her math homework, her parent feels stymied. A few local nonprofits offer free tutoring, but there are no open slots.

Now think of a fourth-grade child only a mile away in a different neighborhood. The day is still hot and sunny, but her walk to school is intermittently covered by shade from trees, and she passes through several grassy parks, which cool down the walk even more. The houses along the way are all lived in, making her feel safe. This child also has asthma, but she doesn't let it stop her from running down the last block to school. She hasn't needed her inhaler in months; the air in her neighborhood is relatively free of pollutants. When she arrives at her classroom, she feels happy and invigorated.

This child is greeted by a teacher who has just celebrated a decade at the school. Her classmates are nearly all reading at or above grade level, making the learning experience fast-paced. If this child finishes her work early, she looks forward to selecting a new book from the classroom library. The classroom is well-stocked with new books and supplies provided by the district. Recent parent fundraisers have also generated funds for field trips and new classroom furniture. This child's school also aims for every student to progress to a four-year college, and this child has recently taken an interest in learning about the many different colleges people attend. She has been asking friends' older siblings and parents where they attended, and she has been realizing how many different options will be open to her when she's older.

After school, this child and her parent stop at a local grocery store on their way home and pick up fresh vegetables for dinner. When the child sits down to complete her math homework, her parent notices that she's having difficulties. Her parent finds a local nonprofit that provides tutoring help. She enrolls her child in a new program.

The vastly different experiences of children living in these two neighborhoods reflect multiple, complex factors. Because comparing neighborhoods across so many factors is challenging, we measure and integrate these factors into the Child Opportunity Index, which provides a snapshot of children's neighborhood environment.

However, much research assesses neighborhood effects on child physical and mental health outcomes separately from developmental outcomes. Therefore, we first describe findings related to physical and mental outcomes and then turn to developmental outcomes.

An increasing body of research has used the Child Opportunity Index to document that children living in lower opportunity neighborhoods are more likely to suffer from a range of adverse health conditions, including asthma,²⁻⁵ obesity,^{6,7} severe scoliosis⁸ and childhood glaucoma.⁹ They exhibit higher levels of physiological stress,¹⁰ putting them at risk for adverse developmental and health outcomes.

Neighborhood opportunity influences child health independently of family environment. For example, children in families living in poverty have lower stress levels when their families reside in higher opportunity neighborhoods than in lower opportunity neighborhoods. This indicates that a positive neighborhood environment may be a protective factor against family poverty.¹¹ Children in lower opportunity neighborhoods also face greater levels of risk to their health, suffering more food insecurity,¹² greater rates of violent injury (particularly gun violence)¹³⁻¹⁶ and greater risk of cardiometabolic and cardiovascular disease,^{17,18} compared to children in higher opportunity neighborhoods. These inequities in health conditions and risks lead to significantly different challenges that children and their families face in their everyday lives and in their prospects for a healthy future.

Neighborhoods and child development

Neighborhoods affect child development—physical, cognitive, socioemotional and behavioral. Of course, child and family qualities are crucial, but neighborhood attributes matter too. Most research has focused on neighborhood disadvantage, using mainly the neighborhood poverty rate.¹⁹ A large number of observational studies indicate that neighborhood disadvantage is associated with socioemotional and behavioral development, while neighborhood advantage is associated with academic achievement. A few experimental studies confirm these findings, but neighborhood effects are relatively small.²⁰ Most evidence focuses on average neighborhood effects on child development, but only a small number of studies examine how and why neighborhoods influence developmental outcomes or differential effects by child characteristics.¹⁹ Neighborhoods' influence also varies by child age (older children are more susceptible to neighborhood influences), by the length of exposure to neighborhood conditions and by child outcome.²¹

Given the wide inequities in neighborhood environment by race/ethnicity, an important question is whether neighborhood conditions are associated with racial/ethnic differences in child development. Sampson and colleagues found that residing in severely disadvantaged neighborhoods reduced the verbal abilities of Black children by a magnitude equivalent to a year or more of schooling. Importantly, this study could not examine the effect of such neighborhood conditions on the verbal development of White children because in Chicago (the site for the study) White children do not experience the level of neighborhood disadvantage that Black children experience.²²

Some studies are beginning to use the COI to examine the relationship between neighborhood opportunity and child development outcomes. For example, a study of young children enrolled in Head Start found that child opportunity was positively associated with executive functioning skills at baseline, but not with executive functioning growth.²³ Child opportunity is also associated with physical development, specifically puberty. Girls living in lower opportunity neighborhoods showed an earlier and more accelerated onset of puberty than girls in higher opportunity neighborhoods.²⁴

Neighborhoods and health care utilization and spending

The incorporation of the Child Opportunity Index into the Pediatric Health Information System (PHIS),²⁵ used by more than 49 children's hospitals, has facilitated a wealth of research on the association between neighborhood opportunity and child healthcare utilization.²⁶ Children in lower opportunity

neighborhoods disproportionately use emergency medical services²⁷ and emergency room care, including care that could be managed more effectively in primary care settings.^{28, 29}

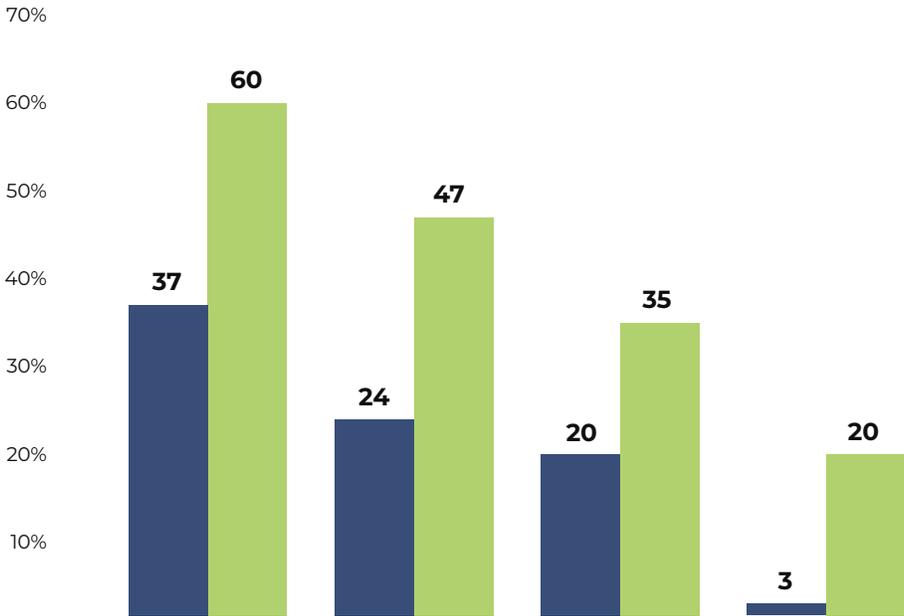
Residence in lower opportunity neighborhoods is also associated with higher rates of hospital readmission. In other words, a child who has been hospitalized for a certain condition is more likely to be hospitalized again for that same condition, including incidents that could have been potentially prevented through treatment in an outpatient primary care setting.³⁰ The same is true for readmissions to pediatric intensive care units³¹ and ER return visits.³² At the same time, living in very high-opportunity neighborhoods is associated with greater likelihood of preventive healthcare visits and being up-to-date on immunizations.³³ A recent large study utilizing a nationally representative, longitudinal survey of health care utilization and spending not only reaffirmed many associations between neighborhood opportunity, health care utilization, access and expenditures, but also shed new light on the relationship between neighborhood opportunity and satisfaction with care outcomes. Parents of children in lower opportunity areas were least likely to report easy access to care, good communication with providers and positive healthcare experiences. And despite these areas having greater levels of medical and social need, average annual per capita total health care expenditures for children in very low-opportunity areas was only two-thirds of those of children living in very high-opportunity areas.³⁴

Neighborhoods and mortality

Neighborhood opportunity is also a strong predictor of mortality, or death. Based on representative data on one million U.S. children followed over a seven-year period, children in very low-opportunity neighborhoods had a risk of dying that was nearly 40% higher than children living in very high-opportunity neighborhoods (**Figure 2**). These inequities are even more extreme when examining the mortality of children’s caregivers. Children in very low-opportunity neighborhoods had a nearly 60% higher risk of experiencing the death of a caregiver than children in very high-opportunity neighborhoods. For both groups, the risk of mortality decreases as neighborhood opportunity rises.³⁵

Figure 2: Neighborhood opportunity is strongly related to child and caregiver mortality³⁵

Percent higher mortality of children and their caregivers, compared to children in very high-opportunity neighborhoods



Sloven, N., Cosgrove, C., Acevedo-Garcia, D., Hatzenbuehler, M. L., Shonkoff, J. P., Noelke, C. (2023). Neighborhood Opportunity and Mortality among Children and Adults in Their Households. *Pediatrics* (Evanston). <https://publications.aap.org/pediatrics/article-abstract/doi/10.1542/peds.2022-058316/190871/Neighborhood-Opportunity-and-Mortality-Among-Neighborhoods-and-education>

Neighborhoods influence children's education

Neighborhoods have profound influences on child education, and educational outcomes are highly unequal across neighborhoods. Children in higher poverty neighborhoods have lower reading and math achievement,^{36, 37} and prolonged residence in disadvantaged neighborhoods significantly reduces the likelihood of graduating high school. The effects can exacerbate racial/ethnic inequity. Indeed, for Black children, growing up in the most disadvantaged fifth of neighborhoods reduces their probability of graduating from 96% to 76%. For non-Black children, the probability of graduation still declines, but less so, from 95% to 87%.³⁸

Recent COI-based research reveals linkages between higher levels of neighborhood opportunity and greater school readiness. Students living in higher opportunity school attendance areas in Virginia were found to be “more ready” to start kindergarten than were those from lower opportunity areas. Importantly, students living in more racially segregated areas were more sensitive to the level of neighborhood opportunity than those living in less segregated areas. This was especially true for students in segregated Black or Hispanic areas.³⁹ In contrast, lower neighborhood opportunity is associated with higher rates and trajectories of school absenteeism.⁴⁰ Factors such as school readiness and absenteeism can affect a child's ability to learn and get the most out of their schooling. Therefore, children living in lower opportunity neighborhoods may be less equipped to succeed academically.

Neighborhood opportunity affects educational outcomes through a variety of mechanisms. Because the vast majority of school assignments are based on where children live, residential economic segregation directly leads to both concentrated affluence and concentrated poverty in schools. Poor children tend to live near one another and attend the same schools; the same is true for wealthy children. The schools with concentrated levels of poverty tend to have fewer resources. They have fewer highly qualified teachers⁴¹ and challenging courses,⁴² less funding relative to need⁴³ and higher rates of violence and social disorder.⁴⁴ They also have lower educational expectations from teachers⁴⁵ and less social and cultural capital.⁴⁶

Many studies have found strong correlations between neighborhood conditions and children's educational attainment, and some suggest a causal link. One study followed low-income elementary school children living in public housing in Montgomery County, Maryland, as their families were randomly assigned to housing in neighborhoods with different poverty rates. Researchers found that students who had been assigned to low-poverty schools significantly outscored their peers in moderate-poverty schools in both math and reading after five to seven years. By the end of elementary school, the large achievement gap between non-poor students and public housing children in the district's most advantaged schools was cut by a third in reading and by half in math. Furthermore, while there was real academic benefit to living in low-poverty neighborhoods, the benefits of attending low-poverty schools was substantially greater.⁴⁷

Other aspects of neighborhood opportunity affect students' education indirectly, through their health. For example, neighborhoods with high levels of pollution can aggravate a child's asthma,⁴⁸ affecting their concentration, school attendance and learning.⁴⁹ Exposure to lead, even at low levels, can put a child at risk for higher rates of neurobehavioral disorders, including attention deficit and hyperactivity as well as reduced academic and intellectual ability.⁵⁰ Historical neighborhood poverty, defined as census tract-level poverty over four decades, has even been strongly linked to inadequate child sleep, which is associated with a range of worse outcomes, including behavioral, emotional, academic and physical outcomes.⁵¹ Exposure to local violence has also been shown to affect a child's behavior and functioning in school, arguably through the psychological distress it can cause their caregivers.⁵²

Neighborhoods influence children’s norms and expectations for the future

The social structure of neighborhoods—their social cohesion, role models, peer networks and widely-held collective norms—shape children’s own norms and expectations for the future, which may affect their behavior and, ultimately, their outcomes.⁵³ For example, living in a neighborhood where schools have high graduation rates or a large proportion of adults have college degrees can send a message to youth that education is valued and attainable. Alternatively, living in a neighborhood with low college enrollment and lower labor demand for college-educated individuals may signal that higher education is not “worth it” and increase students’ movement from high school directly into the workforce.⁵⁴

Role models and peers seem to particularly influence teens living in disadvantaged neighborhoods in terms of mental health, substance abuse, antisocial behavior and grades, with positive role models having less effect than negative ones. In addition, it takes a significant portion of neighbors to reinforce positive collective social norms and for them to become dominant in a community.^{55, 56}

Neighborhoods influence adult outcomes

For all these reasons, the neighborhoods where children grow up have long-lasting effects that follow them throughout their lives into adulthood. For example, research on the Moving to Opportunityⁱ housing mobility program showed that, compared to children who remained in high-poverty neighborhoods, those who moved from high- to low-poverty neighborhoods before the age of 13 were less likely to become a single parent, had greater earnings and higher-quality college education and were more likely to live in better neighborhoods when they became adults. These benefits of moving are greater for younger children, which suggests the importance of moving during critical developmental periods and/or spending longer time in low-poverty environments.⁵⁷

Economic mobility in adulthood appears to be highly related to the amount of “economic connectedness” in neighborhoods, or the degree to which lower socioeconomic status (SES) residents have friends of a higher socioeconomic status. A prominent study found that an increase in the share of low-income people’s friends who are high SES from about 25% to 50% had an association, on average, with a boost in incomes later in adulthood of 8.2 percentiles.⁵⁸ This economic connectedness is a function of both exposure of those of lower SES to others of higher SES and the degree to which people make friends with others of the same socioeconomic class (“friendship bias”). A move by low-income children at earlier ages to neighborhoods with more exposure to high-SES neighbors or less “friendship bias” was found to be associated with higher earnings when the children reached adulthood.⁵⁹

Neighborhood opportunity is strongly associated with many facets of adult health, including risk factors, preventive care, and health outcomes. These conditions likely have implications not only for the adults they impact directly, but also for the children who may be in their care. Our analysis of the Center for Disease Control 2021 PLACES data shows a clear association between three related health measures—limited physical activity, obesity and diabetes—and Child Opportunity Levels for the 100 largest metro areas combined. In each case, the median percent of adults with these conditions is greatest in very low-opportunity areas and declines in a step-wise progression to be smallest for those living in very high-opportunity neighborhoods (see **Figure 28** in section “Child Opportunity and Adult Outcomes”).

Of course, these correlations do not prove that living in a low-opportunity neighborhood causes worse health conditions. There are many reasons why neighborhoods may influence adult health conditions, but also many reasons why people with poor health may end up living in lower opportunity neighborhoods. However, in the experimental Moving to Opportunity program, adult public housing tenants who used housing vouchers to move to lower poverty neighborhoods were less likely to experience extreme

obesity or diabetes or to report physical limitations 10 to 15 years after their move, as compared to those who did not make such a move, strengthening the claim of neighborhood effects on health.⁶⁰ In addition, girls who moved to lower poverty neighborhoods had better mental health than those who did not. While boys who moved to lower poverty neighborhoods experienced worse mental health, later research clarified that this unexpected negative effect happened among boys whose families experienced health vulnerability (defined as a household member having a disability or a household child having any of four health or developmental problems).⁶¹

Life expectancy at birth ranges dramatically across the U.S., ranging from 56 years to 98 years across census tracts. Life expectancy is strongly associated with neighborhood opportunity, as measured by the Child Opportunity Index 3.0, ranging from 82 years in very high-opportunity neighborhoods to 76 years—six years fewer—in very low-opportunity neighborhoods (see **Figure 26** in section “Child Opportunity and Adult Outcomes”). One recent study found that the COI accounted for 41% of the variability in life expectancy at birth across neighborhoods and concluded that improvements in life expectancy and narrowing of health inequities may be meaningfully addressed through policies that target community conditions and resources.⁶²

Across a wide range of outcomes, including child health and education and adult life expectancy and economic mobility, evidence increasingly points to the importance of children’s neighborhood environment, even beyond the influence of a child’s individual and family traits. Although not all the evidence proves causal relationships between neighborhood characteristics and outcomes, and there are differences in where, how and for whom the effects are strongest, it is clear that neighborhoods as a sphere of influence on child wellbeing deserve close attention. As the understanding of neighborhood effects on children deepens and becomes more widely understood and accepted, it is vital to have high-quality, tested measures of neighborhood opportunity such as the Child Opportunity Index.

KEY TAKEAWAYS

- **Neighborhoods influence children’s health outcomes and health care utilization. Research using the Child Opportunity Index has shown that children in lower opportunity neighborhoods are more likely to suffer from adverse health conditions including asthma, obesity, glaucoma and physiological stress. They are more likely to be hospitalized for conditions that could have been treated in primary care. Worst of all, their mortality risk is much higher; a child in a very low-opportunity neighborhood has a 37% higher risk of dying and a 60% higher risk of experiencing the death of a caregiver than a child in a very high-opportunity neighborhood.**
- **Neighborhoods influence children’s educational outcomes. Children in lower opportunity or higher poverty neighborhoods have lower levels of kindergarten readiness and reading and math achievement, and they are less likely to graduate high school. This relationship is related to economic residential segregation; poor children tend to live near each other, and poorer schools have fewer resources. Environmental neighborhood factors such as lead exposure and air pollution can also affect children’s ability to learn.**
- **Neighborhoods influence adult outcomes. Economic mobility, adult health and life expectancy are all related to neighborhood opportunity. Children who move from a high- to a low-poverty neighborhood, especially at a young age, have greater earnings and educational attainment as adults. Although not all evidence points to a causal relationship between child neighborhood opportunity and adult outcomes, it is clear that neighborhoods as a sphere of influence on child wellbeing and equity deserve close attention.**

¹ Moving to Opportunity was a federally sponsored housing mobility experiment, begun in 1994, which randomly assigned low-income public housing tenants to receive different types of housing subsidies, allowing some to access low-poverty neighborhoods.

NEIGHBORHOOD OPPORTUNITY, SEGREGATION AND RACISM: WHY NEIGHBORHOODS MATTER FOR EQUITY

Powerful forces of racial discrimination and segregation, both historical and ongoing, have led to vast inequities in children's neighborhood opportunity by race and ethnicity. Children are even more racially segregated than adults,¹ and the differences in their neighborhood environments have profound impacts on racial/ethnic inequities in both their current health and wellbeing and in their expectations and future success. Because of segregation, the race/ethnicity of a child strongly predicts whether they will live in a place with access to quality early education, good schools, healthy foods and parks and playgrounds, as well as good jobs and adequate income for the adults in their lives.

Using data from the Child Opportunity Index 3.0, we find that, in the 100 largest metropolitan areas, the majority of Black (61%) and Hispanic (58%) children live in lower opportunity neighborhoods. In contrast, the majority of White (67%) and Asian/Pacific Islander (67%) children live in higher opportunity neighborhoods. Black children are about 7.6 times more likely and Hispanic children are about 7.2 times more likely than White children to live in very low-opportunity neighborhoods that offer fewer chances to grow up healthy. These inequities cannot be fully explained by racial/ethnic differences in family income. Even among children in poverty, 80% of Black and 77% of Hispanic children live in lower opportunity neighborhoods, compared with 43% and 46% of White and Asian children. The differences are even starker for just very low-opportunity neighborhoods: 58% of poor Black and 55% of poor Hispanic children live in very low-opportunity neighborhoods, compared with only 19% and 24% of poor White and Asian children.

While, understandably, much research has focused on the disproportionate concentration of Black and Hispanic populations in neighborhoods of poverty or little opportunity, it is important to also take a wider view: understanding and addressing inequity by examining the reasons for and implications of concentrated disadvantage and concentrated affluence. Racial/ethnic inequities in neighborhood opportunity did not occur by accident. They are the results of more than a century of policies and forces of opportunity hoarding and exclusion.

Historically, policies such as racial zoning, racial covenants, redlining, displacement through urban renewal and segregated public housing separated racial groups. These policies provided White families with access to higher opportunity neighborhoods, while shutting out many Black, immigrant, Hispanic and other minority families, forcing them into areas of concentrated poverty.

Historically, policies such as racial zoning,² racial covenants,³ redlining,^{4,5} displacement through urban renewal⁶ and segregated public housing⁷ separated racial groups. These policies provided White families with access to higher opportunity neighborhoods, while shutting out many Black, immigrant, Hispanic and other minority families, forcing them into areas of concentrated poverty. They limited Black, immigrant, Hispanic and other minority families' ability to accumulate wealth through homeownership and equity appreciation and further impeded their economic advancement by restricting residence to neighborhoods far from job opportunities. Because of the strong links between place of residence and school assignment, these policies also contributed to separate and unequal schools, isolating certain students in areas with high concentrations of low-income students, limited school funding and few educational resources.⁸ While most of these policies are now illegal, their effects remain. Many higher opportunity, largely suburban communities, once accessible only to White families with the help of discriminatory government programs, now zone and price out Black and Hispanic families, for whom the intergenerational economic impact of discrimination remains.⁹

Numerous mechanisms continue to create areas of concentrated affluence and disadvantage, including metropolitan fragmentation, neighborhood-based school assignments and the financing of schools and other resources largely through local taxes. Restrictive zoning—limits on what types of homes can be built where—is currently one of the most powerful mechanisms to hoard opportunity into exclusive enclaves and perpetuate segregation. Different types of exclusionary zoning (for example, restrictions on density and intensive use of land) are highly correlated with economic segregation and the concentration of affluent households.^{10,11} More stringent zoning is also related to both increased home prices and rents¹² and less multi-family housing,¹³ limiting the affordability and the supply of housing for low-income families with children.

Throughout U.S. history, White property owners, working through local governments to enhance their own resources and access to public benefits, have fueled segregation and unequal access to opportunity. Ironically, perhaps, some of the most restrictive zoning is found in otherwise politically liberal area on the coasts, from Washington, D.C. to Boston in the East and from California to Washington state in the West.

A number of studies have found that in excluding low-income families, restrictive zoning disproportionately excludes Black and Hispanic families¹⁶ or increases segregation more generally.^{17,18} Restrictive zoning leads to higher home prices, which Black and Hispanic families are less likely to be able to afford. Even those Black and Hispanic families who achieve higher income may not be able to overcome the hurdles caused by zoning restrictions because their lower levels of wealth prevent them from accumulating the large down payment necessary to purchase a home. Again, these policies have happened not by accident, but by choice: Throughout U.S. history, White property owners, working through local governments to enhance their own resources and access to public benefits, have fueled segregation and unequal access to opportunity.^{14,15} Ironically, perhaps, some of the most restrictive zoning is found in otherwise politically liberal area on the coasts, from Washington, D.C. to Boston in the East and from California to Washington state in the West.⁹

Certain beliefs and practices further sustain opportunity hoarding and racial segregation. For example, property owners may state they wish to “preserve the character of the neighborhood.” This seemingly-neutral justification can limit the building of affordable multifamily housing—and the families who need that housing—by over-emphasizing the potential effects of that housing growth on traffic, parking, school capacity, the environment and just the “look” of the town or neighborhood. Similarly, biased beliefs about the character and actions of people who are excluded from higher opportunity neighborhoods—related to criminality, morality, cleanliness, healthiness or laziness—reinforce views about why they should be excluded.¹⁹ Beliefs about where certain people “belong” have led not only to spatial exclusion that harms Black and Hispanic children by isolating them from opportunity—but also to injury and death in instances where gatekeepers take it into their own hands to police perceived White space. The tragic cases of Trayvon Martin and George Floyd exemplify what happens when segregation becomes the norm.^{20,21}

The U.S. has always been a racially and ethnically diverse nation, but that diversity is growing, particularly among the young. Non-White children are half of the child population, and their share is projected to rise to over 60% by 2050, with particularly strong growth of the Hispanic child population. In the coming years, as our children grow up and become adults, their health and productivity will reflect the neighborhood conditions available to them today. The segregation and inequities in neighborhood opportunity that have persisted for decades should have been addressed long ago, but these issues have become impossible to ignore. The inequities affect not only a growing share of the child population, but all of us. The time is now to take stock of and change the structures and policies that hurt so many of our children. We hope that the findings from the Child Opportunity Index 3.0 can help spur and inform these discussions.

KEY TAKEAWAYS

- **Children are highly racially segregated and live in neighborhoods with dramatically different levels of opportunity. The majority of White (67%) and Asian (67%) children live in higher opportunity neighborhoods and the majority of Black (61%) and Hispanic (58%) in lower opportunity neighborhoods. These inequities cannot be explained by family income.**
- **Many twentieth century policies created or reinforced patterns of segregation and hoarding of opportunity by race and place. For example, redlining, racial zoning and racial covenants all provided White families access to neighborhoods with high opportunity while shutting out Black, immigrant, Hispanic and other minority families, limiting their ability to accumulate wealth.**
- **Contemporary practices continue the same patterns. White and wealthy residents of higher opportunity neighborhoods can enact restrictive zoning policies that hoard opportunity into exclusive enclaves that are unlikely to be affordable to many Black or Hispanic families. Attitudes about preserving the “character” or “look” of a community often limit the building of affordable multifamily housing. Racist beliefs about where certain people “belong” have led not only to spatial exclusion but also to the injury and death of Black children and adults.**

CHILD OPPORTUNITY INDEX 3.0 TECHNICAL SUMMARY

We define child opportunity as the neighborhood resources and conditions—for example, good schools, access to green space and clean air—that matter for children's healthy development.¹ Healthy development means that children are able to satisfy their needs and reach their maximum potential in terms of their physical, cognitive, social and emotional development.²

Because neighborhoods are central to children's quality of life and healthy development, it is important that we have accurate and comprehensive measures of the quality of neighborhood environments. This section presents a summary of the construction of the Child Opportunity Index 3.0 and the main measures used in this report. For a full presentation of COI 3.0 methodology and development, please see the COI 3.0 Technical Document.³

COI 3.0 stands out from similar indices because it provides a nationally comprehensive, multidimensional, longitudinal measure of the neighborhoods that children experience today.

- **Measures contemporary child opportunity:** It captures the quality of neighborhood environments that children experience today. While other indices (such as the Social Vulnerability Index) and single-indicator metrics (such as the poverty rate) may be used as a proxy for neighborhood opportunity, the COI is the only multidimensional index designed specifically to measure how well neighborhoods support healthy child development today. It captures the overlapping and compounding benefits that multiple sources of opportunity can provide to children.
- **Nationally comprehensive:** The COI provides a single metric of child opportunity for each of the 73,000 neighborhoods (census tracts) in the U.S. This allows us to measure and compare children's neighborhood opportunity as children experience it today across the entire country.
- **Multidimensional:** The index quantifies 44 neighborhood conditions that shape children's healthy development in three domains: education, health and environment, and social and economic.
- **Longitudinal:** In addition to being available for all neighborhoods in the U.S. in 2021, COI 3.0 is available for all years from 2012 through 2021, which allows us to monitor whether children's neighborhoods are improving over time.
- **Reflects structural racism:** Structural racism has resulted in the hoarding of opportunity in affluent, predominantly White communities and the concentration of disadvantage in many Black, Hispanic and Native American communities. These compounding inequities are the product of many complex policy choices over the past century, including redlining, exclusionary zoning and siting of polluting industry sites. A multi-dimensional composite index like the COI is well-suited to measure the effects of structural racism, which manifest in racial/ethnic inequities in accessing neighborhood resources across multiple domains. And, unlike other indices, the COI does not include a measure of race/ethnicity (for example, percentage of residents who are non-White or who do not speak English) as an indicator. We omit racial/ethnic composition from the COI in order to separate the structural features of a neighborhood from who lives there and to be able to measure racial and ethnic inequities in access to neighborhood opportunity.

The dimensions of neighborhood opportunity

COI 3.0 indicators capture:

- Availability and quality of neighborhood institutions (e.g., quality schools and non-profits)
- Peer and adult influences that help shape children’s norms and expectations (e.g., high school graduation rate and high-skill employment rate for adults)
- Neighborhood social structure and economic resources (e.g., neighborhood poverty rate, broadband access and mobility-enhancing friendship networks)
- Environmental quality (e.g., air pollution)
- Resources for healthy living (e.g., green space, availability of healthy foods, walkability)

Figure 3: Neighborhood indicators in the Child Opportunity Index 3.0

Education	Health and Environment	Social and Economic
<p>Early childhood education</p> <ul style="list-style-type: none"> • Private pre-K enrollment • Public pre-K enrollment <p>Elementary education</p> <ul style="list-style-type: none"> • Reading and math test scores • Reading and math test score growth • Poverty-adjusted reading and math test scores <p>Secondary and post-secondary education</p> <ul style="list-style-type: none"> • Advanced Placement course enrollment • College enrollment in nearby institutions • High school graduation rate <p>Educational resources</p> <ul style="list-style-type: none"> • Adult educational attainment • Child enrichment-related non-profits • Teacher experience • School poverty 	<p>Pollution</p> <ul style="list-style-type: none"> • Airborne microparticles • Ozone concentration • Industrial pollutants in air, water or soil • Hazardous waste dump sites <p>Healthy environments</p> <ul style="list-style-type: none"> • Fast food restaurant density • Health food retailer density • Extreme heat exposure • NatureScore • Walkability <p>Safety-related resources</p> <ul style="list-style-type: none"> • Community safety-related non-profits • Vacant housing <p>Health resources</p> <ul style="list-style-type: none"> • Health-related non-profits • Health insurance coverage 	<p>Employment</p> <ul style="list-style-type: none"> • Employment rate • High-skill employment rate • Full-time year-round earnings <p>Economic resources</p> <ul style="list-style-type: none"> • Median household income • Poverty rate • Public assistance rate <p>Concentrated socioeconomic inequity</p> <ul style="list-style-type: none"> • Adults with advanced degrees • Very high-income households • Adults without high school degrees • Very low-income households <p>Housing resources</p> <ul style="list-style-type: none"> • Broadband access • Crowded housing <p>Social resources</p> <ul style="list-style-type: none"> • Mobility-enhancing friendship networks • Single-parent families • Non-profit organizations <p>Wealth</p> <ul style="list-style-type: none"> • Homeownership rate • Aggregate home values • Aggregate capital income • Aggregate real estate taxes

In some cases, indicators known to have important impacts on children, such as exposure to violent crime, could not be incorporated into the COI 3.0 because of lack of availability of comparable data for all U.S. neighborhoods. However, when this information is available at the local level, we encourage users to consider it in conjunction with the COI 3.0 to obtain a more complete picture of child opportunity. For a detailed description of the component indicators and methodology used to construct the index, please see the COI 3.0 Technical Document.³

Geographic scope

The Child Opportunity Index 3.0 is available for virtually all 73,000 neighborhoods (census tracts) in the U.S. In this report, we focus on child opportunity in the 100 largest Metropolitan Statistical Areas (“metros” or “metropolitan areas”), which comprise 47,000 neighborhoods and are home to 68% of U.S. children, or about 50 million children—42% (21 million) of whom are White, 15% (8 million) are Black, 29% (15 million) are Hispanic and 7% (3 million) are Asian/Pacific Islander.

Neighborhoods (census tracts) typically contain about 4,000 people and 1,600 housing units. A metropolitan area contains a core urban population of at least 50,000 and includes the cities and counties that make up the core urban area, as well as adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core. For example, the Boston metro area comprises the city of Boston, as well as certain cities and towns to the south, west and north, including parts of New Hampshire. The metropolitan areas presented in the Child Opportunity Index have geographic boundaries defined as of 2020. On average, each metro has about 470 neighborhoods (census tracts). Throughout this report, we use only the name of the principal city when referring to a metro area.

Child Opportunity Index construction

The Child Opportunity Index 3.0 is comprised of indicators measured on different scales, such as counts, percentages or U.S. dollars. To combine indicators measured on different scales into an index, the raw values of each indicator are standardized using a z-score transformation. See a complete description of the methodology in the Technical Document.

We next combine individual indicators into 14 subdomains (see **Figure 3**) that relate to the three domains captured: education, health and environment, and social and economic resources. We then compute the domain scores and overall COI score from the subdomain scores. In calculating the final index, we weighted each indicator and subdomain based on how strongly it is associated with long-term economic and health outcomes.

Child Opportunity Score

To facilitate analyses and interpretation, we transform the overall COI z-scores into an easy-to-work-with metric, the Child Opportunity Score, which expresses neighborhood opportunity on a scale from 1 to 100. To calculate the Child Opportunity Scores, we rank all 73,000 neighborhoods in terms of their overall COI z-scores and divide them into 100 equal groups from 1 to 100, each containing 1% of the U.S. child population (**Figure 4**). For example, a Child Opportunity Score of 1 indicates that a neighborhood's opportunity is equivalent to that experienced by the 1% of children living in the neighborhoods with the lowest child opportunity in the nation. A neighborhood with a score of 100 has opportunity equivalent to that experienced by the 1% of children living in neighborhoods with the highest child opportunity.

Figure 4: National Child Opportunity Score for each neighborhood



As discussed below, in addition to calculating a Child Opportunity Score for each neighborhood, we also calculate scores for each metropolitan area, both for all children and for racial/ethnic groups (White children, Black children, Hispanic children and Asian/Pacific Islander children). This allows us to quantify and compare the extent of opportunity available to children overall and to children of different racial/ethnic groups across the country both between and within metros.

Child Opportunity Levels

We also assign each neighborhood to one of five Child Opportunity Levels. Using the Child Opportunity Score (1-100), we group all neighborhoods into five Opportunity levels, from very low- to very high-opportunity. Each Level contains 20% of the U.S. child population. We refer to these five levels as very low-, low-, moderate-, high- and very high-opportunity neighborhoods. The five levels are defined nationally in some analyses or by metro area in other analyses.

Child Opportunity Gaps

We use a measure called the Child Opportunity Gaps to calculate the difference in median Child Opportunity Scores between very low- and very high-opportunity neighborhoods in a metro area. This measure reveals the extent of inequities in neighborhood opportunity between the highest and lowest opportunity neighborhoods in a given area.

Opportunity hoarding and opportunity sharing

Child Opportunity Gaps are pervasive, but their magnitude varies across metro areas. We therefore use the term “opportunity hoarding” to characterize metros with Child Opportunity Gaps of 80 points or higher. In opportunity hoarding metro areas, the difference in Child Opportunity Scores between very low- and very high-opportunity neighborhoods is as wide as or wider than the differences in Child Opportunity Scores between very low- and very high-opportunity neighborhoods across the entire country. We characterize areas with Child Opportunity Gaps of less than 80 points as areas of “opportunity sharing.”

Racial/ethnic opportunity gaps

We also measure racial/ethnic inequities in child opportunity by calculating the difference in median Child Opportunity Scores between children of different racial/ethnic groups in a metro area. This measure also allows us to compare the extent of racial/ethnic inequities in child opportunity between metro areas.

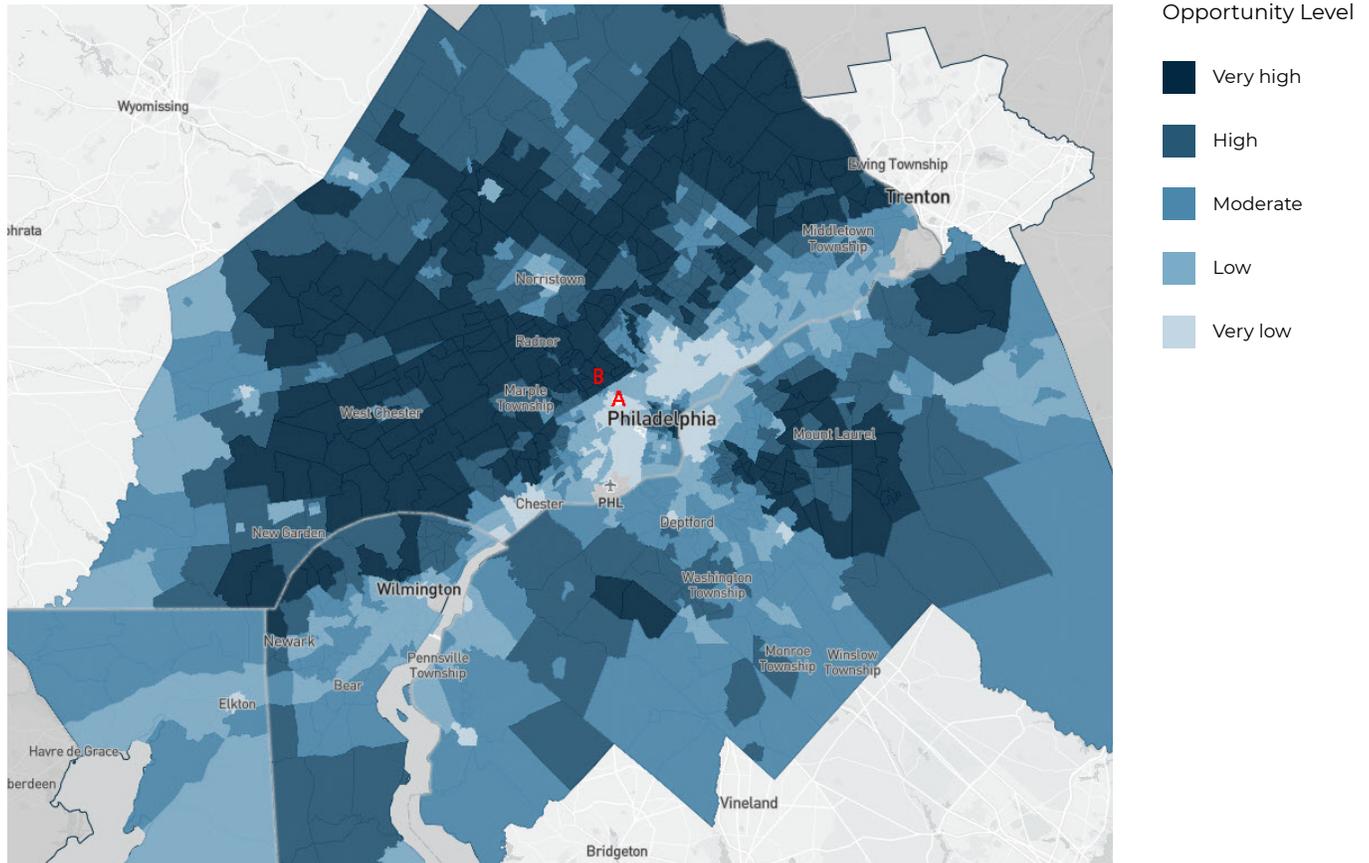
Child opportunity maps

Our Child Opportunity Index interactive mapping platform, available at diversitydatakids.org/maps, displays child opportunity for every U.S. neighborhood. Users can view neighborhood opportunity normed to the national-, state- and metro-level, showing the range of opportunity within each of those areas.

Spotlight on Philadelphia

The map below (**Figure 5**) shows child opportunity in the Philadelphia metropolitan area, which includes parts of Pennsylvania, New Jersey, Delaware and Maryland. The Philadelphia metro area has 1,554 neighborhoods (census tracts), each denoted here in a shade of blue. The shades correspond to the five Opportunity Levels, ranging from light blue (very low-opportunity) to dark blue (very high-opportunity). The data here is metro-normed, meaning that all neighborhoods are being compared only to those within the Philadelphia area.

Figure 5: Child opportunity in the Philadelphia metro area



The Philadelphia metro area exemplifies the juxtaposition in neighborhood opportunity seen in many metro areas throughout the United States. Philadelphia is known for being racially diverse and for its political importance in national elections. It calls to mind extremes; the area is home to some of the best colleges and universities in the country, as well as acute social and economic distress. The Child Opportunity Index displays these extremes. On the one hand, many of the neighborhoods directly to the west, north and east of the city have some of the highest opportunity not just in the area, but in the entire country. The children in these affluent neighborhoods have excellent schools and healthy neighborhood environments. But in many neighborhoods within the city, opportunity is very low—relative to both the area and the nation overall.

A look at select indicators in two neighborhoods highlighted on the map—"A" and "B"—show the vast inequities in opportunity:

Figure 6: Select indicators in a very low- and very high-opportunity neighborhood in the Philadelphia metro area

Select Indicators	Neighborhood A	Neighborhood B
 High school graduation rate:	72%	98%
 College enrollment:	42%	63%
 Share of adults with bachelor's degree or higher:	13%	91%
 School poverty rate:	93%	10%
 Share of teachers in their first or second year	20%	5%
 EPA Walkability Index:	14.5	15.3
 Number of summer days with maximum temperatures above 90F:	16	12
 Housing vacancy rate:	19%	0%
 Employment rate:	51%	80%
 White collar employment rate:	25%	81%
 Median household income:	\$28,318	\$151,003
 Poverty rate:	55%	8%

A SNAPSHOT OF CHILD OPPORTUNITY ACROSS THE 100 LARGEST METROPOLITAN AREAS

In this report, the first one analyzing data from the Child Opportunity Index 3.0, we provide an overview of the state of equity in child opportunity across the U.S. by focusing on the 100 largest metropolitan areas. These metro areas are home to 68% (about 50 million) of all children in the U.S. and 47,000 out of 73,000 census tracts. For this analysis, we define the 100 largest metropolitan areas by child population, rather than total population, because our work focuses on how well neighborhoods and cities support healthy child development and opportunity.

We explore three questions:

1. How does neighborhood opportunity in each metro area compare to overall neighborhood opportunity in the rest of the nation? Which and where are the metros with the lowest and highest levels of child opportunity?
2. Both nationally and within each metro, what is the Child Opportunity Gap—the extent of inequity between the lowest and highest opportunity neighborhoods?
3. How severe are inequities in access to neighborhood opportunity by race and ethnicity?

1. CHILD OPPORTUNITY ACROSS METROS

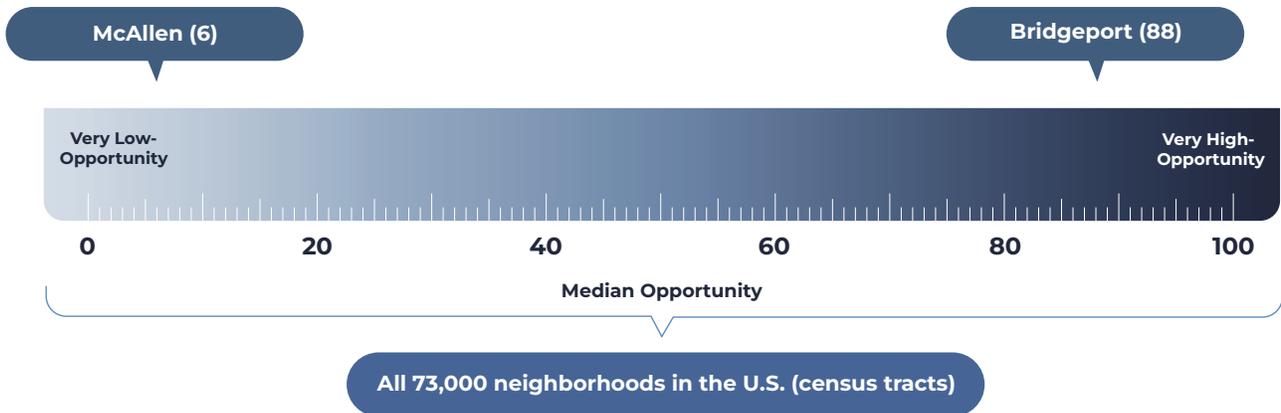
We know that conditions that affect children's wellbeing vary widely across the country. For example, child poverty rates range from 4% in states like Iowa, Maine and Utah to 13% in Florida and New York.¹ With the Child Opportunity Index, we can look at a very fine geographic scale and beyond single indicators of child wellbeing to explore how well the many conditions in their neighborhoods support children's healthy development. We can compare child neighborhood opportunity across metros, states and the country as a whole using a consistent metric.

An important question is the extent to which neighborhood opportunity varies across the entire nation, from metros in the Northeast to the West to those along the U.S.-Mexico border. Another question, which we will explore in the subsequent sections, is the extent to which neighborhood conditions vary within single metros. While the most striking differences in neighborhood environment often happen within metros, we do find that children face substantially different neighborhood conditions depending on the metro area in which they reside.

To assess the variation in child neighborhood opportunity between metros across the country we assign each metro a Child Opportunity Score, using the 1-100 scale described earlier. We use this score to summarize the level of child opportunity in that metro area. We arrive at a metro Child Opportunity Score by calculating the median score for all neighborhoods in a given metro area, weighted by the number of children living in each neighborhood. This metro Child Opportunity Score provides a measure of the overall neighborhood opportunity experienced by the typical (median) child in that metro area. For example, a Child Opportunity Score of 35 indicates that the typical child in that metro lives in a neighborhood at the 35th percentile of the national child opportunity distribution. This Child Opportunity Score therefore allows us to compare child opportunity across metro areas.

We see wide variation in child opportunity across the 100 largest metropolitan areas. For example, the McAllen, TX area has a Child Opportunity Score of 6 (the lowest in the nation), compared to the Bridgeport, CT area's Score of 88 (the highest in the nation) (**Figure 7**). This difference in Opportunity Scores signals that, compared to children in Bridgeport, children in McAllen overall live in neighborhoods with lower quality schools, fewer green spaces, less social connectedness and higher poverty and unemployment rates.

Figure 7: Child Opportunity Scores for McAllen, TX and Bridgeport, CT



BRIDGEPORT, CT AND MCALLEN, TX: THE METRO AREAS WITH THE HIGHEST AND LOWEST CHILD OPPORTUNITY SCORES

The typical child in McAllen, TX lives in a neighborhood with lower opportunity than a typical child in any other metro area in the country—and the typical child in Bridgeport, CT lives in a neighborhood with higher opportunity than a typical child in any other metro.

In McAllen, a typical child resides in a neighborhood where more than one in four (29%) of families live in poverty, and only 24% of adults (age 16+) are employed in professional sectors like management, health, engineering, education and legal work. In contrast, in the neighborhood of the typical child in Bridgeport, only 6% of families live in poverty, and more than half (51%) of adults are employed in professional sectors. This means that families in McAllen have far fewer economic resources to invest in their children.

The lack of resources in McAllen persists across other domains, too. In a typical child's neighborhood, only half (49%) of households have connections to high-speed broadband internet, compared to 84% in Bridgeport. A child in McAllen has vastly greater exposure to extreme heat, with 199 days per year with temperatures over 90 degrees, compared to just three days in Bridgeport. Access to health services is much lower in McAllen, too: The typical child lives in a neighborhood where just 65% of the non-senior population (age 0-64) have health insurance, compared to 94% in Bridgeport, meaning that the typical child in McAllen lives in a neighborhood where adults experience more health vulnerability. Additionally, the typical child in McAllen has much fewer health-related nonprofit organizations in their neighborhood than the typical child in Bridgeport.

The neighborhood educational environment is also more challenging in McAllen. While neighborhood high school graduation rates are close to the same in the two metros (91% in McAllen and 93% in Bridgeport), in the neighborhood of the typical McAllen child, 34% of young adults go on to enroll in college, compared to 45% in Bridgeport. This gap grows wider still for college graduation, with 15% of adults (age 25+) holding a bachelor's degree or higher in the neighborhood of the typical child in McAllen, versus 48% in Bridgeport.

In sum, McAllen and Bridgeport are not only geographically very far apart—1,600 miles—they are also separated by a large Child Opportunity Gap of 82 points. A child growing up in McAllen faces many neighborhood obstacles to healthy development, which may affect their lifelong health and educational outcomes. On the other hand, a child in Bridgeport is surrounded by many resources and supports.

These overall differences between metros are stark and signal wide inequities in neighborhood conditions between different geographic areas of the country. However, differences in overall neighborhood opportunity between metros do not tell the whole story. In later sections, we analyze the often vast gaps in neighborhood opportunity experienced by children who live within the same metro area, often only a few miles apart from each other.

The geography of child opportunity

The U.S. map below (**Figure 8**) shows clear geographic patterns of child opportunity between metro areas across the country. The 100 largest metro areas are denoted by dots. The color of each dot (from red to blue) indicates the Child Opportunity Score of that metro area, ranging from 6 to 88.

With a few exceptions, metros in the southern portion of the U.S. have notably lower opportunity than those in the north. The highest opportunity metros are generally in the Northeast and upper Midwest. California stands out as particularly divided, with metros in the Central Valley having some of the lowest child opportunity in the U.S., while San Jose and San Francisco offer some of the highest levels of opportunity. Other geographic patterns to note include a concentration of several metros with extremely low scores on the Texas-Mexico border, and a concentration of several metros with high scores in Utah, Colorado and the Pacific Northwest.

Figure 8: Map of Child Opportunity Scores for the 100 largest metro areas

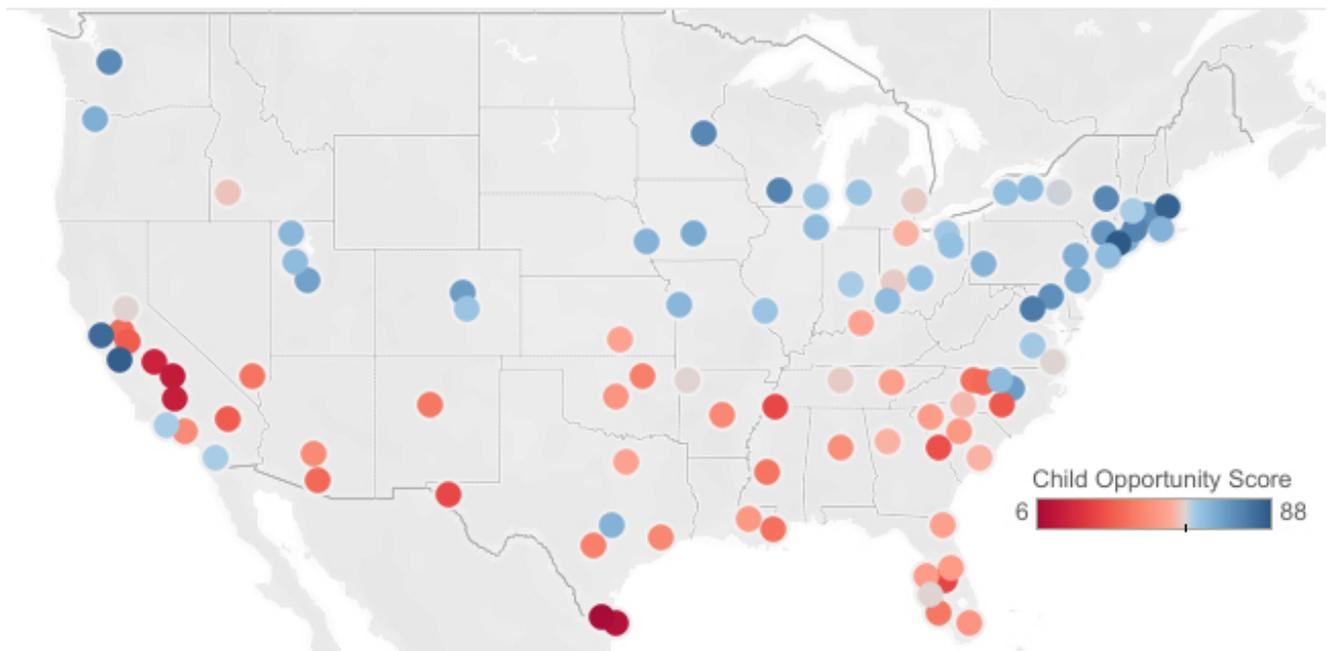


Figure 9 shows the 10 metropolitan areas with the highest Child Opportunity Scores, the 10 with the lowest scores, and the 10 in the middle of the distribution. McAllen, TX and Brownsville, TX are the metros with the lowest scores (6 and 9, respectively) which indicates that the typical (median) child in these metros lives in a neighborhood at the 6th and 9th percentile, respectively, of the national child opportunity distribution. Put another way, 94% of neighborhoods across the U.S. have a higher opportunity score than the neighborhood of the typical child in McAllen.

On the other hand, Bridgeport, CT and San Jose, CA are the metros with highest overall Child Opportunity Scores: 88 and 87, respectively. This means that the typical child in Bridgeport and San Jose lives in a neighborhood at the 88th and 87th percentile, respectively; only 12% of neighborhoods across the U.S. have a higher opportunity score than the neighborhood of the typical child in Bridgeport.

Figure 9: Metro areas ranked by national Child Opportunity Score

Highest 10	Score	Middle 10	Score	Lowest 10	Score
Bridgeport, CT	88	San Diego, CA	61	Fayetteville, NC	31
San Jose, CA	87	Springfield, MA	61	Augusta, GA-SC	29
Boston, MA-NH	86	Syracuse, NY	59	El Paso, TX	27
San Francisco, CA	84	Fayetteville, AR	58	Memphis, TN-MS-AR	27
Washington, DC-VA-MD-WV	80	North Port, FL	58	Lakeland, FL	26
Hartford, CT	78	Sacramento, CA	58	Fresno, CA	16
Madison, WI	78	Virginia Beach, VA-NC	58	Bakersfield, CA	14
Albany, NY	77	Dayton, OH	57	Visalia, CA	13
Minneapolis, MN-WI	77	Detroit, MI	57	Brownsville, TX	9
Seattle, WA	76	Nashville, TN	57	McAllen, TX	6

Where children live in relation to opportunity

Children live in neighborhoods with different conditions. To quantify and describe those differences, we use the Child Opportunity Index to rank all neighborhoods from low to high opportunity and then group them into five equal groups each containing about 20% of the U.S. child population. We call these Child Opportunity Levels: very low, low, moderate, high and very high.

We use these levels to examine within each metro the proportion of children who live in a given level of the national child opportunity distribution. A child living in a low- or very low-opportunity neighborhood faces some of the worst neighborhood conditions in the U.S.; conversely, a child living in a high- or very high-opportunity neighborhood experiences some of the best or most favorable conditions that support healthy development.

Across metros, there is wide variation in the distribution of children by national Opportunity Levels. **Figure 10** shows the 10 metro areas with the highest proportion of children living in very low-opportunity neighborhoods and the 10 metros with the highest proportion of children living in very high-opportunity neighborhoods. In McAllen, TX, 78% of children live in very low-opportunity neighborhoods. In other words, more than three out of four children in McAllen live in neighborhoods that, by national standards, have the most limited conditions and fewest resources for healthy child development. This share is much, much higher—nearly four times higher—than the 20% of all children across the U.S. who live in very low-opportunity neighborhoods.

At the other end of the opportunity range, in the San Jose, CA and Boston, MA-NH metro areas, about 60% of children live in very high-opportunity neighborhoods by national standards—a significantly higher proportion than the 20% of children that live in such neighborhoods across the entire country. Put another way, in San Jose and Boston, more than half of children grow up under the best conditions and with the most resources for healthy development in the entire country.

Figure 10: Variation in the distribution of children by national Child Opportunity Level, 100 largest metropolitan areas

Highest proportion of children in very high-opportunity neighborhoods

Highest proportion of children in very low-opportunity neighborhoods

Metro	Percent	Metro	Percent
San Jose, CA	61%	McAllen, TX	78%
Boston, MA-NH	59%	Brownsville, TX	77%
Bridgeport, CT	56%	Visalia, CA	70%
San Francisco, CA	54%	Bakersfield, CA	62%
Washington, DC-VA-MD-WV	49%	Fresno, CA	55%
Hartford, CT	47%	Memphis, TN-MS-AR	45%
Albany, NY	45%	El Paso, TX	39%
Seattle, WA	43%	Jackson, MS	38%
Baltimore, MD	42%	Las Vegas, NV	36%
Minneapolis, MN-WI	41%	Tucson, AZ	35%

It is notable then that nearly all metropolitan areas—even those with high overall opportunity—include at least some neighborhoods that are very low-opportunity by national standards. We expect this variation in neighborhood opportunity across the country between regions with vastly different socioeconomic outlooks. However, conceivably, there could be metro areas in which all neighborhoods are clustered around a similar Child Opportunity Score (e.g. all higher opportunity or all lower opportunity). This would mean that in a high-opportunity metro such as San Jose or Bridgeport, all neighborhoods would be higher opportunity by national standards.

But—and importantly—this is not the case. For example, while the vast majority of metro Bridgeport’s children do live in very high- (56%) or high- (16%) opportunity neighborhoods, 10% of children in this prosperous metro live in very low-opportunity neighborhoods that are similar to some of the most disadvantaged neighborhoods in the country. As we will discuss in the subsequent sections, we consistently find these patterns of inequities within metro areas across the country.

2. INEQUITIES IN CHILD OPPORTUNITY WITHIN METRO AREAS

That children across the country face very different neighborhood resources and conditions should be a cause for concern. But perhaps more striking are the inequities in opportunity within metro areas. As a general pattern, in many metro areas the differences in opportunity between neighborhoods is as wide—and in some cases even wider—as they are across the entire nation. This means that for many children, even those experiencing the worst neighborhood conditions, neighborhoods rich in resources that could support their health and wellbeing are often only a few miles away.

For any given metro, we can measure the difference in the Child Opportunity Score between very low- and very high-opportunity neighborhoods. We refer to this difference as the Child Opportunity Gap, which can be interpreted as the extent to which neighborhoods of the very lowest level of opportunity in a metro area differ from those of the very highest in terms of conditions that support healthy child development.

In this analysis, very low-opportunity neighborhoods are the 20% of neighborhoods with the lowest Child Opportunity Scores within a metro area, and very high-opportunity neighborhoods are the 20% of neighborhoods with the highest Child Opportunity Scores within a metro area. For each metro area, we

calculate the median (weighted by child population) Child Opportunity Score for very low-opportunity and very high-opportunity neighborhoods. We calculate the Child Opportunity Gap in a given metro area as the difference between the median Child Opportunity Score in very low- and very high-opportunity neighborhoods within that metro.

By design, across the entire U.S. the difference in the Child Opportunity Score between very low- and very high-opportunity neighborhoods is about 80 points. We find that in 25% of metro areas, the Child Opportunity Gap is at least 80 points, i.e., as wide as or wider than the difference between very low- and very high-opportunity neighborhoods across the entire nation. **Figure 11** below shows the top 10 metro areas with the widest and the narrowest Child Opportunity Gaps between very low- and very high-opportunity neighborhoods.

Figure 11: Ten metros with the widest and narrowest Child Opportunity Gaps

Widest Child Opportunity Gap		Narrowest Child Opportunity Gap	
Metro	Opportunity Gap	Metro	Opportunity Gap
Milwaukee, WI	90	Provo, UT	32
Cleveland, OH	88	Brownsville, TX	34
Detroit, MI	88	McAllen, TX	38
Philadelphia, PA-NJ-DE-MD	87	Visalia, CA	41
Columbus, OH	86	Fayetteville, NC	42
New York, NY-NJ-PA	86	Madison, WI	43
Rochester, NY	86	Lakeland, FL	46
Dallas, TX	85	Ogden, UT	47
Houston, TX	85	Boise City, ID	54
Los Angeles, CA	85	Modesto, CA	54

Importantly, Child Opportunity Gaps can vary considerably between metros with similar levels of overall opportunity (Child Opportunity Scores). For example, the Philadelphia metro area has a Child Opportunity Score of 69—in the highest quintile of the 100 largest metros—but the Child Opportunity Gap between neighborhoods with very low- and very high-opportunity is 87 points. This means that, despite the high overall opportunity, two children in Philadelphia could live just a few miles apart in neighborhoods that offer vastly different opportunity. In contrast, the Portland, OR metro area has almost the same Child Opportunity Score (68) as Philadelphia, but much narrower inequities between very low- and very high-opportunity neighborhoods—a Child Opportunity Gap of 59.

Opportunity hoarding and sharing

These large inequities in neighborhood opportunity exist within small geographic areas. Within most metro areas, children experience completely different worlds of neighborhood opportunity. The research evidence suggests that these inequities will likely result in very different childhood experiences and life trajectories for children—even for those children who are living only a few miles apart.

While Child Opportunity Gaps exist across all metros, their magnitude varies. To understand patterns of opportunity hoarding and sharing, we divide metros into three equal groups based on their overall opportunity (low, medium or high) measured by their Child Opportunity Score. Within each group of overall opportunity, we characterize metros with wide Child Opportunity Gaps of 80 points or higher as areas of opportunity hoarding. In hoarding metro areas, very low-opportunity neighborhoods have much worse conditions than very high-opportunity ones—so much so that their Child Opportunity Gap is larger than the gap between very low- and very high-opportunity neighborhoods across the entire country. We characterize areas with relatively narrow Child Opportunity Gaps of less than 80 points as areas of opportunity sharing: areas where the difference in conditions between very low- and very high-opportunity neighborhoods is much smaller.

Elements of opportunity hoarding applied to racial/ethnic inequity in neighborhood opportunity

- Racist motives or other exclusionary motives (e.g., classism) with disparate racial/ethnic impact
- Use of place and governance to create racialized boundaries and access barriers
- Affluent, predominantly White communities’ control of valuable resources subject to monopoly
 - Neighborhood opportunity: e.g., high-performing schools
- Sequestering of those resources by affluent, White communities in unequal relationships with members of excluded racial/ethnic groups through
 - Redlining
 - Zoning exclusively for single-family homes
 - School districts largely tied to local jurisdictions and their resources
- Creation and reproduction of beliefs and practices that sustain those communities’ control of resources and boundaries
 - Concerns about crime, congestion, school capacity and quality, property values
 - Need to preserve “the character of the neighborhood”

—Authors’ adaptation of Tilly (1998)² and Tilly (2003)³

As shown in **Figure 12** and **Figure 13**, metro areas at every overall opportunity level (low, medium, high) vary in the extent of their Child Opportunity Gaps.

Figure 12: Opportunity hoarding: Selected metro areas by Child Opportunity Score

Metro Area	Child Opportunity Score	Score for very low-opportunity	Score for very high-opportunity	Child Opportunity Gap
Memphis, TN-MS-AR	27	2	83	81
Jackson, MS	38	2	82	80
Houston, TX	43	5	90	85
Detroit, MI	57	4	92	88
Syracuse, NY	59	5	88	83
Cleveland, OH	62	4	92	88
Kansas City, MO-KS	66	10	93	83
Philadelphia, PA-NJ-DE-MD	69	9	96	87
Hartford, CT	78	13	96	83

Figure 13: Opportunity sharing: Selected metro areas by Child Opportunity Score

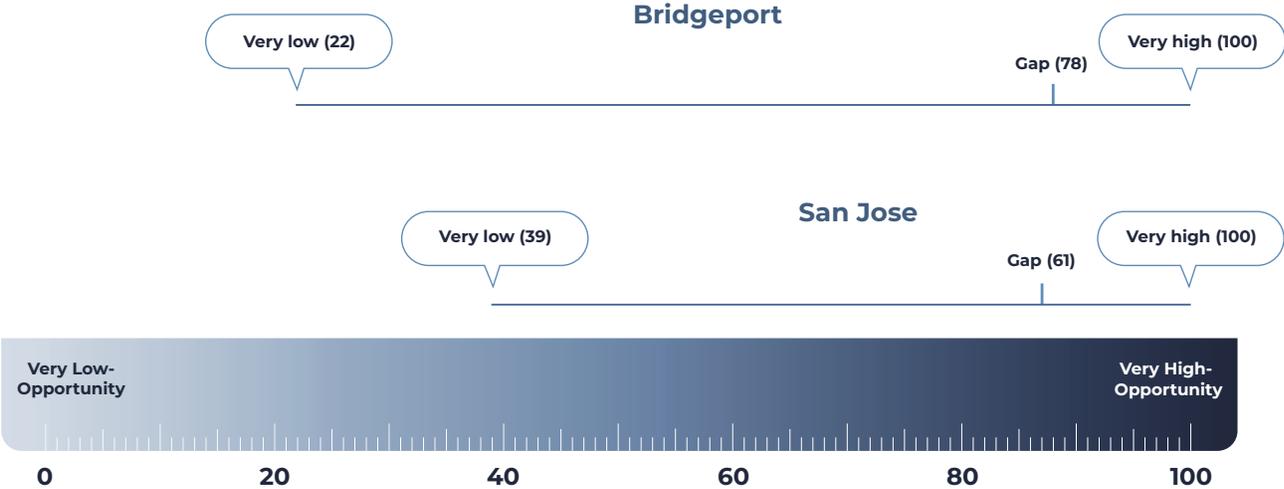
Metro Area	Child Opportunity Score	Score for very low-opportunity	Score for very high-opportunity	Child Opportunity Gap
Brownsville, TX	9	2	36	34
Visalia, CA	13	3	44	41
Fayetteville, NC	31	15	57	42
Boise City, ID	56	28	82	54
Fayetteville, AR	58	20	79	59
Colorado Springs, CO	63	29	91	62
Seattle, WA	76	38	98	60
Madison, WI	78	49	92	43
San Jose, CA	87	39	100	61

Let's first look at two metro areas with low overall opportunity (they are among the one-third of metros with the lowest Child Opportunity Scores). Memphis, TN, which also encompasses parts of Mississippi and Arkansas, has a Child Opportunity Score of 27. This overall Score, though, masks that Memphis is a hoarding metro with a very wide divide between its very low-opportunity neighborhoods—which have a Score of only 2—and its very high-opportunity neighborhoods, which have a Score of 83. Memphis' Child Opportunity Gap is therefore 81. On the other hand, Fayetteville, NC, which has a very similar overall Score of 31, is a sharing metro area with a much narrower Child Opportunity Gap of 42. The difference between the two metros stems from their very high-opportunity neighborhoods. In Memphis, very high-opportunity neighborhoods Score 83 on a national scale—26 points higher than in Fayetteville, NC. In other words, Memphis is a metro of extremes, with children experiencing very different neighborhood conditions. In contrast, in Fayetteville, NC, the conditions in very low- and very high-opportunity neighborhoods are not as disparate. Notably, these two metros' substantial differences in extent of inequities in opportunity exist even though they have similar levels of overall opportunity.

Next, we look at two metro areas with Child Opportunity Scores that are close to the median score (58) of the 100 large metros combined. Detroit, MI, and Boise City, ID, have nearly identical Scores of 57 and 56, respectively, but they have dramatically different Child Opportunity Gaps: 88 in Detroit—a hoarding metro—but 54 in Boise City—a sharing metro. In Detroit, very low-opportunity neighborhoods have a Score of only 4; in Boise City, that number is 28. This means that although the typical overall opportunity in these two metros is the same, children in the lowest opportunity neighborhoods in Boise City have access to more resources and opportunities to support their healthy development than children in Detroit. While there is also a difference in very high-opportunity neighborhoods—92 in Detroit versus 82 in Boise City—most of the difference is experienced by children in the least-resourced areas. The Boise City metro tends to share opportunity between its neighborhoods, while Detroit hoards opportunity in its most privileged neighborhoods. In Detroit's lowest opportunity neighborhoods, opportunity is just about as low as it gets in the entire U.S., and children in those areas face many obstacles to healthy development.

We now focus on two metros with very high Child Opportunity Scores (**Figure 14**). While wide Child Opportunity Gaps signal inequities in children’s neighborhood environments everywhere, they are especially troublesome in metro areas with overall high levels of opportunity. In these metros, resources for healthy development are present—but not equitably distributed.

Figure 14: Differences in Opportunity Gaps in the Bridgeport and San Jose metro areas



Bridgeport, CT, and San Jose, CA, have nearly identical Child Opportunity Scores (88 and 87, respectively), indicating high overall opportunity. However, they have vastly different Child Opportunity Gaps: 78 in Bridgeport versus only 61 in San Jose. This difference is driven entirely by very low-opportunity neighborhoods in Bridgeport being left behind, despite the metro’s overall high opportunity. In Bridgeport the lowest opportunity neighborhoods have a Score of 22; in San Jose, the lowest opportunity neighborhoods have a Score of 39—17 points higher. According to our definition, Bridgeport is not strictly a hoarding metro. However, its relatively wide Opportunity Gap (78)—coupled with it having the highest ranked Opportunity Score among large metros—highlight the importance of looking beyond Scores when investigating the scope of child opportunity in a given area.

It is important to note that our term “opportunity sharing” is a relative one. Certain metro areas tend to have a more equal distribution of opportunity across neighborhoods than others, and that is commendable. However, even “sharing” metros still have neighborhoods with very different levels of resources. Compared to those living in the very highest opportunity neighborhoods in their metro, the children living in the very lowest opportunity neighborhoods in these metros have fewer educational, health, environmental, social and economic resources. They may live close to each other, but they can still be worlds apart in opportunity.

NEARLY IDENTICAL HIGH OPPORTUNITY SCORES; VERY DIFFERENT OPPORTUNITY GAPS

San Jose and Bridgeport have the highest levels of overall neighborhood opportunity in the country, and the children in the very high-opportunity neighborhoods in these metros experience the healthiest conditions that the U.S. has to offer. However, these metros are very different in the extent to which this high overall opportunity helps lift up the lowest opportunity neighborhoods.

A child living in a typical very low-opportunity neighborhood in San Jose experiences worse conditions than 61% of all U.S. children—but a child in Bridgeport experiences worse conditions than 78% of all U.S. children. What does this mean for an individual child's experiences?

In San Jose, the typical child in a very low-opportunity neighborhood attends a school where 87% of students will graduate high school, and 53% will attend college. In Bridgeport, the high school graduation rate for a typical child in a very low-opportunity neighborhood is only 78%, and only 42% will attend college. This means that the top educational resources in Bridgeport are not reaching its lowest opportunity neighborhoods.

The San Jose child will likely perceive better housing upkeep and less physical distress walking through their neighborhood, where only 3% of houses are vacant and 52% of residents own their homes. In Bridgeport, a full 9% of houses are vacant, and only 33% of residents own their homes. These factors will likely affect this child's sense of neighborhood safety.

A high level of economic disadvantage is the norm for the Bridgeport child in a very low-opportunity neighborhood. There, more than one in five (21%) of their neighbors are very low-income (households making less than \$20,000 per year), versus 10% of households in the neighborhood of the San Jose child. The San Jose child is also more likely to have high-income neighbors, with 31% of households making above \$125,000 per year, versus only 12% for the Bridgeport child. This concentration of poverty in Bridgeport means that there are fewer economic resources in the community for the poorest children.

While similar in their overall high levels of opportunity, Bridgeport and San Jose are very different in the extent to which they share opportunity between their neighborhoods and in the conditions they offer to children living in their very low-opportunity neighborhoods. In San Jose, the narrower gap between the highest and lowest opportunity neighborhoods suggests that opportunity is shared, while in Bridgeport, the wide gap points to opportunity only for some children.

3. RACIAL/ETHNIC INEQUITY IN CHILD OPPORTUNITY

So far, we have used the Child Opportunity Index to explore two types of inequities in child opportunity: inequities between metro areas, and inequities within metro areas. These analyses are important, but they do not paint a full picture of neighborhood inequity. Another key dimension of child opportunity is racial and ethnic inequities in access to opportunity—the extent to which children of different races and ethnicities have or do not have equitable access to the neighborhood conditions and resources that help them thrive. For this analysis, we use the four largest racial and ethnic groups nationally. Hispanic includes anyone identifying as “Hispanic,” regardless of race. White includes non-Hispanic Whites only; we use the terms “White” and “non-Hispanic White” interchangeably. “Asian” includes both Asians and Pacific Islanders. Black and Asian groups include both Hispanic and non-Hispanic members of those groups.

Due to their small population size and concentration in rural areas, our analysis does not include American Indian/Alaska Native (AIAN) children; however, data on neighborhood opportunity for AIAN children can be found on our mapping platform at www.diversitydatakids.org/maps.

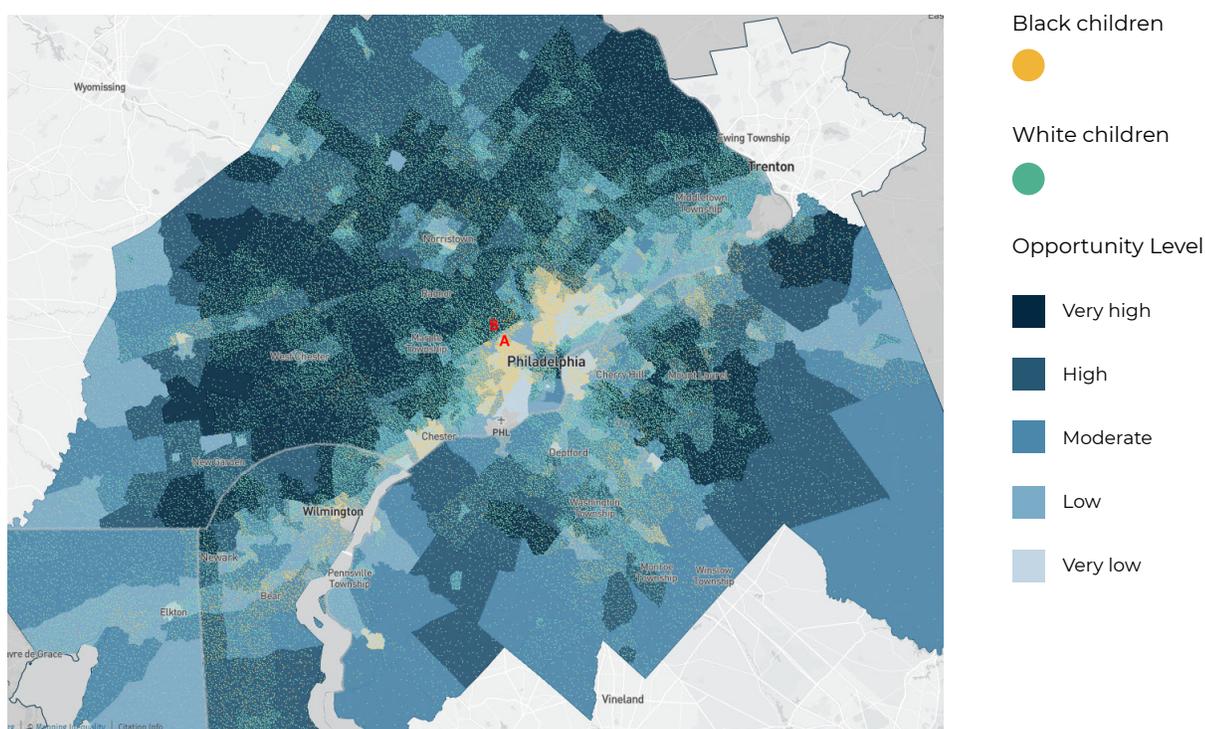
When we examine child opportunity maps for a given metro area and overlay the distribution of the child population across neighborhoods, we see clear and appalling patterns. Children of different races and ethnicities are highly residentially segregated. Generally, Black and Hispanic children tend to be clustered in neighborhoods of lower opportunity, and White and Asian children are concentrated in neighborhoods of higher opportunity.

Writing nearly 130 years ago, W. E. B. Du Bois painstakingly described the huge differences in the living conditions of Black and non-Black residents in Philadelphia. Shamefully, the stark inequities he documented persist today. The map below (**Figure 15**) shows contemporary child opportunity in the Philadelphia metro area. Black children (shown by the yellow dots) are concentrated in the city of Philadelphia, which has lower opportunity than the rest of the metro area. White children (shown by the green dots) largely live in the suburbs, which have much higher opportunity. Neighborhoods A and B have not only vastly different child opportunity—as we described earlier—but also very different racial/ethnic compositions of their child population. Of the 2,575 children in Neighborhood A, 92% are Black, and none are non-Hispanic White. Of the 1,665 children living in Neighborhood B, 81% are non-Hispanic White, and none are Black.

“One thing we must of course expect to find, and that is a much higher death rate at present among Negroes than among whites: this is one measure of the difference in their social advancement. They have in the past lived under vastly different conditions and they still live under different conditions: to assume that, in discussing the inhabitants of Philadelphia, one is discussing people living under the same conditions of life, is to assume what is not true.”

—W. E. B. Du Bois, 1899, *The Philadelphia Negro*, Chapter 10, p. 148⁴

Figure 15: Distribution of the child population by race/ethnicity across Child Opportunity Levels in the Philadelphia metro area

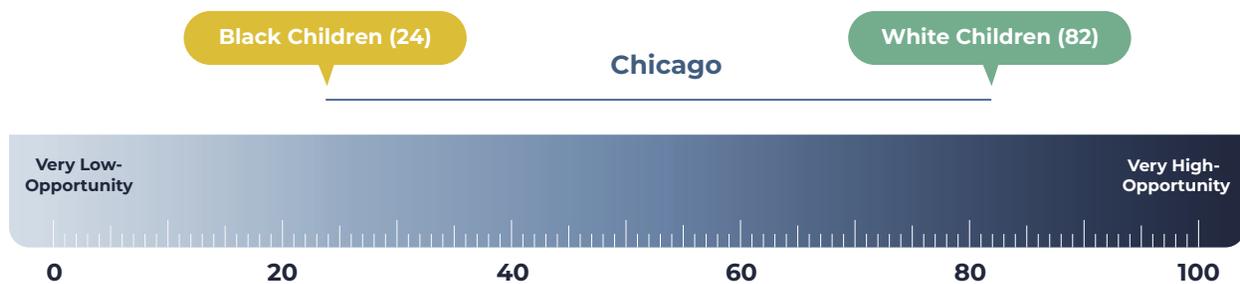


While maps and comparisons between specific neighborhoods are powerful ways of picturing racial/ethnic inequities in opportunity, it is helpful to have summary measures to quantify the extent of inequities in a given metro and compare inequities between metros.

Racial/Ethnic Opportunity Gaps

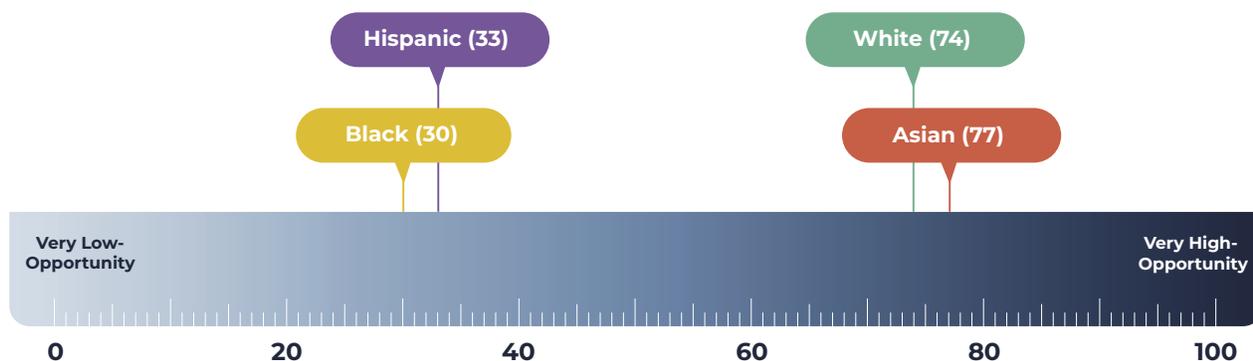
To summarize inequities in children’s access to opportunity, we calculate Child Opportunity Scores by racial/ethnic group for each metro. The Score for a given racial/ethnic group may be interpreted as the score of the neighborhood experienced by the typical (median) child of that group. For example, as shown in **Figure 16**, in the Chicago metro area, the typical White child enjoys a neighborhood with a Child Opportunity Score of 82, while the typical Black child lives in a neighborhood with a Score of only 24. This racial gap in Chicago is not far from the gap we saw earlier across the 100 largest metros between McAllen (6) and Bridgeport (88). As another point of comparison, this racial gap in Chicago spans about four Opportunity Levels: The typical Black child lives in a low-opportunity neighborhood, while the typical White child lives in a very high-opportunity neighborhood.

Figure 16: Child Opportunity Gap between White and Black children in the Chicago metro area



The pattern of racial/ethnic inequity that we observe in Chicago is remarkably consistent across the U.S. For the 100 largest metro areas combined, the Child Opportunity Scores for White and Asian children are 74 and 77, respectively—compared to only 30 for Black children and 33 for Hispanic children (**Figure 17**).

Figure 17: Opportunity Gap between White, Hispanic, Black and Asian children in the 100 largest metropolitan areas



THE CHICAGO OPPORTUNITY CHASM

These gaps in opportunity in Chicago signify that Black and White children are growing up in neighborhoods with vastly different conditions and resources.

For example, a child growing up in a Chicago neighborhood with a Score of 24, which is typical for Black children, lives in a community where only 24% of adults have obtained a bachelor's degree or higher, and 30% percent have professional jobs in sectors like law, business, engineering or health. This may instill in her low expectations about her own higher education prospects and discourage her from applying herself in school. In sharp contrast, a child growing up in a neighborhood with a score of 82, which is typical for White children, lives in a community where 71% of adults have obtained at least a bachelor's degree, and 63% have jobs in professional sectors. This clearly signals to her that educational achievement is the norm—and that it pays off.

The neighborhoods of Black and White children are very different in other ways, too. The typical White child has access to twice as many community nonprofits in their neighborhood as the typical Black child, as well as much higher access to green spaces and natural environments. The neighborhood of the White child therefore likely looks and feels safer.

The homes in the neighborhoods of these children look different, too. In the neighborhood of a typical White child, nearly all residents (85%) own their homes, as opposed to 61% for the Black child, and home values are more than three times as high—approximately \$700,000, versus \$215,000. These differences translate into both greater neighborhood stability, linked to increased community and civic participation, as well as greater property tax revenue to support local services such as schools in the neighborhood of the typical White child. Residents in the typical Black child's neighborhood are also seven times more likely to live in crowded housing, which makes community residents more vulnerable to communicable disease, and they are less likely to have internet access at home (71% of homes, as opposed to 88% in the typical White neighborhood), which may make participation in all aspects of society more difficult.

This inequitable pattern is pervasive across metros, although the extent of racial/ethnic inequities varies. For the 100 largest metros combined, the Opportunity Gap is 44 points between White and Black children and 41 points between White and Hispanic children. In **Figure 18**, we see the ten metropolitan areas with the widest and narrowest Opportunity Gaps between White and Black children and between White and Hispanic children. Milwaukee, WI has the largest Opportunity Gap between White and Black children (74 points) and, tied with Los Angeles, CA, between White and Hispanic children (59 points). McAllen actually has the narrowest White/Black gap (-13), signaling that Black children tend to live in higher-opportunity neighborhoods than White children. Honolulu, HI has the narrowest White/Hispanic gap (4 points).

At first glance, it may be reassuring to see that some metros have quite narrow—and even negative—gaps between White children and Black and Hispanic children. However, when we also consider the population size for different racial/ethnic groups, the picture becomes less encouraging. As a general pattern, we find that metro areas with narrow gaps between White and Black children tend to have very small Black populations. In eight of the 10 metros with the narrowest gaps, Black children represent 6% or less of the child population (compared to representing 15% of children in the 100 largest metros overall). And in Boise City, ID; Brownsville, TX; McAllen, TX; Ogden, UT; and Provo, UT, Black children make up only 1% of the child population.

Similarly, in seven of the 10 metros with the narrowest gaps, Hispanic children represent 18% or less of the child population (compared to representing 29% of children in large metros overall). The significant exception is Lakeland, FL, a metro where Hispanic children make up 35% of the child population, and the score of the typical Hispanic child's neighborhood (24) is only 9 points lower than that of the typical White child's neighborhood (33).

Figure 18: Metros with widest and narrowest Opportunity Gaps by race/ethnicity

Opportunity Gap between White and Black Children

Widest gap

Narrowest gap

Metro	Opportunity Gap	Metro	Opportunity Gap
Milwaukee, WI	74	Lakeland, FL	10
Cleveland, OH	62	Madison, WI	8
Los Angeles, CA	61	Urban Honolulu, HI	8
Syracuse, NY	61	Fayetteville, NC	7
Detroit, MI	60	Fayetteville, AR	4
Philadelphia, PA-NJ-DE-MD	59	Provo, UT	4
Rochester, NY	59	Ogden, UT	2
Albany, NY	58	Brownsville, TX	-2
Chicago, IL-IN-WI	58	Boise City, ID	-5
Bridgeport, CT	56	McAllen, TX	-13

Opportunity Gap between White and Hispanic Children

Widest gap

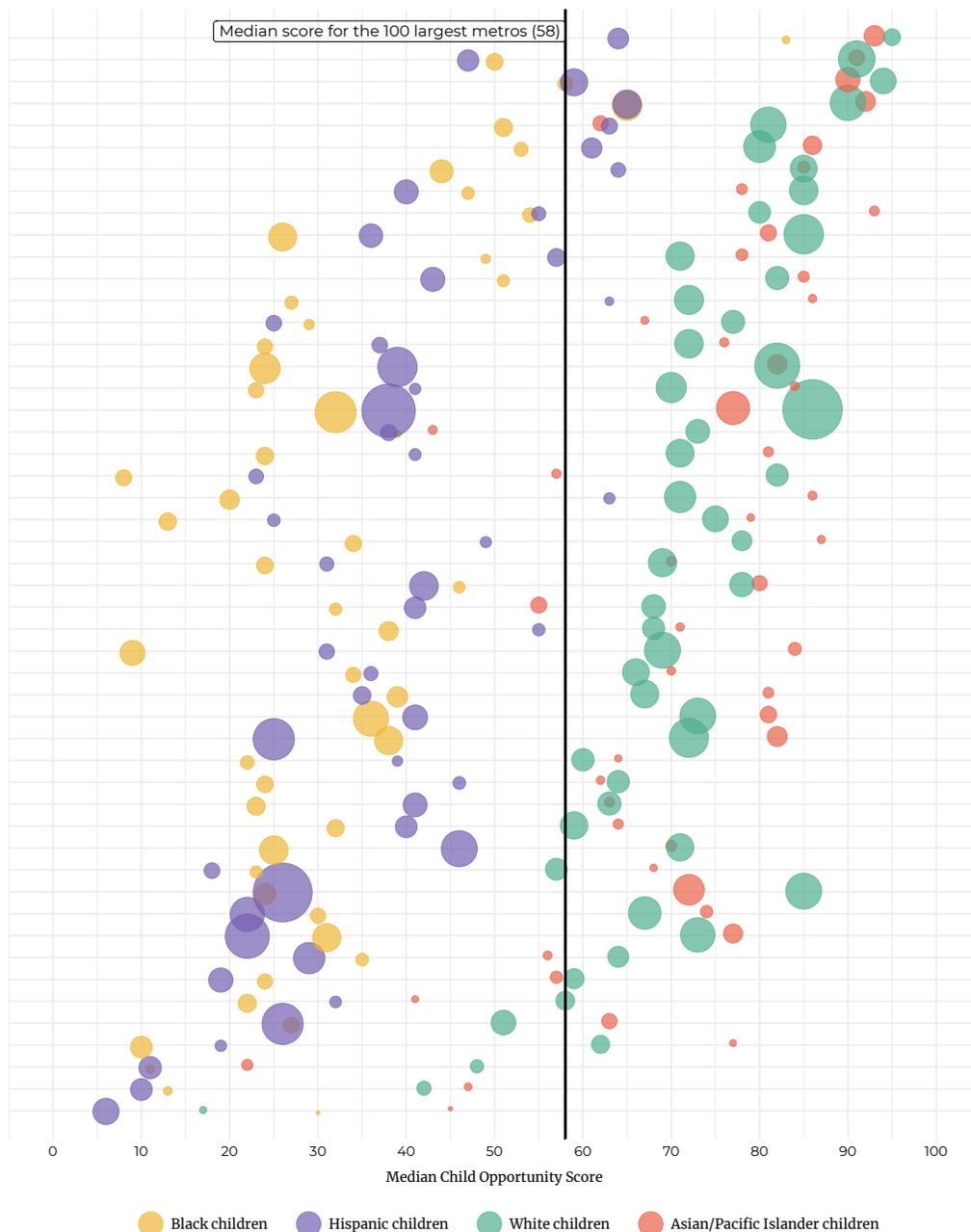
Narrowest gap

Metro	Opportunity Gap	Metro	Opportunity Gap
Los Angeles, CA	59	Brownsville, TX	10
Milwaukee, WI	59	Lakeland, FL	9
Hartford, CT	55	Madison, WI	9
New Haven, CT	52	Pittsburgh, PA	9
Providence, RI-MA	52	Provo, UT	9
Houston, TX	51	St. Louis, MO-IL	8
Cleveland, OH	50	Poughkeepsie, NY	6
Springfield, MA	50	Fayetteville, NC	5
Philadelphia, PA-NJ-DE-MD	49	Knoxville, TN	5
New York, NY-NJ-PA	48	Urban Honolulu, HI	4

Figure 19 shows the distribution of race/ethnicity-specific Child Opportunity Scores across the 50 largest metro areas ordered from highest overall opportunity (top) to lowest overall opportunity (bottom). The green dots represent the Child Opportunity Scores for White children in these metros. While there is variation in the Scores for White children, the distribution is shifted towards the right of the median for the largest metro areas: in the vast majority of metros, the typical White child enjoys neighborhood opportunity higher than the large metro median. The distribution for Asian children (red dots) is similar to that for White children. In contrast, the distributions for both Hispanic (purple dots) and Black children (yellow dots) are shifted towards the left. This signifies that in nearly all metros, the typical Hispanic and the typical Black child live in neighborhoods with Opportunity Scores lower than the large metro median.

The magnitude of the racial/ethnic gaps in each metro is shown by the distance between the Scores (dots) for two given racial/ethnic groups in that metro. In an ideal case, the Scores for all children—regardless of race/ethnicity—in a metro would be shifted towards the right (higher opportunity) and the distance between groups would be small, signaling narrow racial/ethnic inequities in child neighborhood opportunity in that metro.

Figure 19: Distribution of Child Opportunity Scores by race/ethnicity and population for each of the 50 largest metro areas



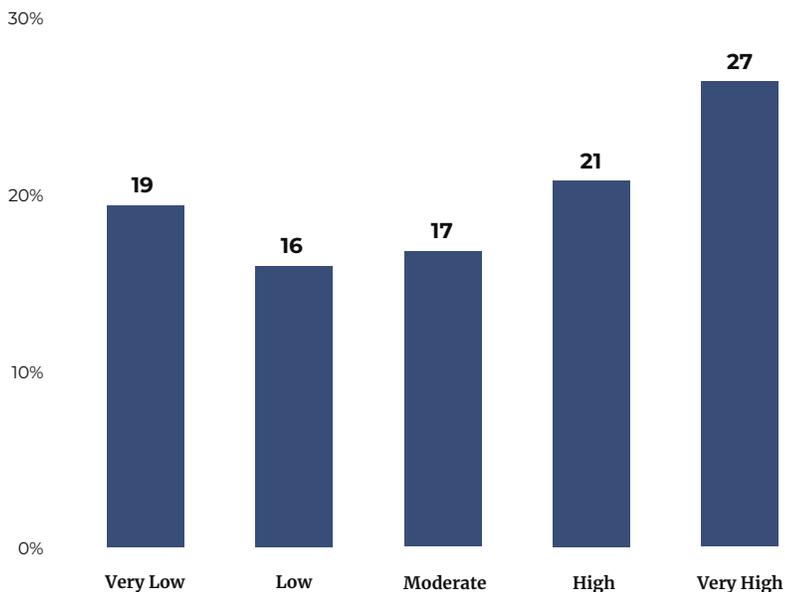
The size of the bubbles indicates the child population size of that racial/ethnic group in the metro area—which adds in a new layer of information. We see that in metros with overall high Child Opportunity Scores (metros at the top of the chart), the Black/White gap is relatively small—but the Black child population is also relatively very small. Conversely, metros with overall low Child Opportunity Scores (at the bottom of the chart) also have relatively small Black/White gaps—but in these areas, the White child population is relatively very small. We also see that Hispanic children are the majority population in the metros with the lowest overall Opportunity Scores, and that several metros with very large Hispanic populations rank in the lowest third or so of the overall child opportunity distribution.

Distribution of children by race/ethnicity across Opportunity Levels

Another way of examining racial/ethnic inequity in access to neighborhood opportunity is by looking at the share of children by race/ethnicity in each Opportunity Level. Nationally, the child population is distributed exactly evenly across Opportunity Levels, with 20% of the child population living in each Level (reflecting how the Opportunity Levels are constructed). In the 100 largest metros, the total child population is distributed roughly evenly across Levels (**Figure 20**). A somewhat higher share (27%) live in very high-opportunity neighborhoods, indicating that opportunity overall is higher in the 100 largest metros combined than it is nationally.

Figure 20: The overall child population is distributed roughly evenly across Opportunity Levels

Percent of children at each Child Opportunity Level (100 metros combined)



If, regardless of race/ethnicity, all children in the 100 largest metro areas were distributed evenly across Opportunity Levels, the race/ethnicity-specific distributions would look like the distribution for the total child population shown in **Figure 20**. In reality, though, children of different races/ethnicities are concentrated at different Opportunity Levels.

Close to half of non-Hispanic White (40%) and Asian and Pacific Islander (46%) children live in very high-opportunity neighborhoods, and about two-thirds of White and Asian and Pacific Islander children live in high- or very high-opportunity neighborhoods (**Figure 21**). In contrast, Hispanic (36%) and Black (38%) children are concentrated in very low-opportunity neighborhoods. (**Figure 22**). The difference between the distribution for White and Asian children (**Figure 21**) and the distribution for Black and Hispanic children (**Figure 22**) is so stark that they look like mirror images of each other.

Figure 21: White and Asian children are clustered in higher opportunity neighborhoods

Percent of White and Asian/Pacific Islander children at each Child Opportunity Level (100 metros combined)

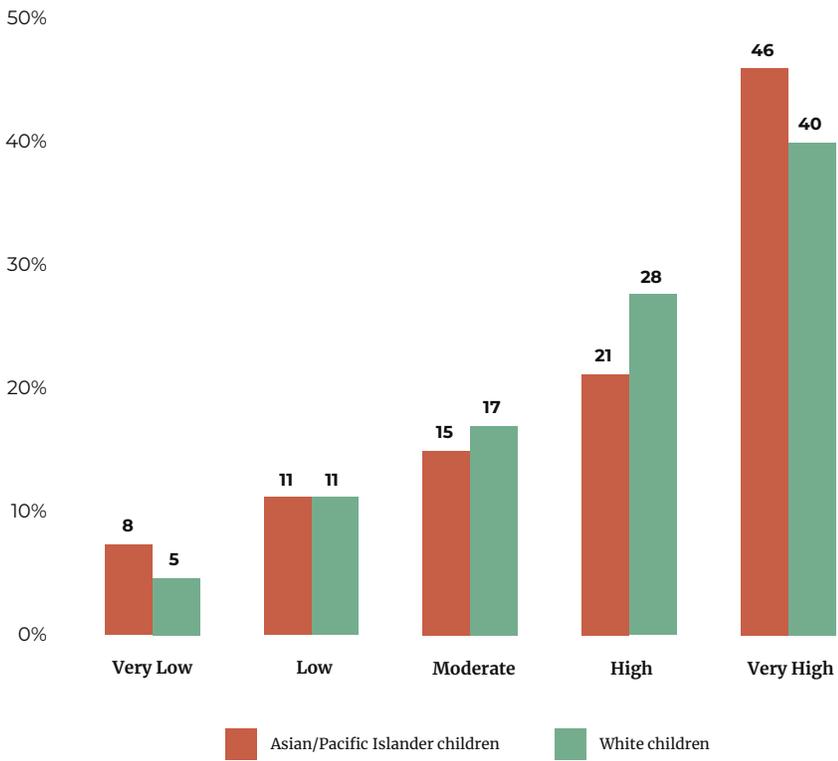
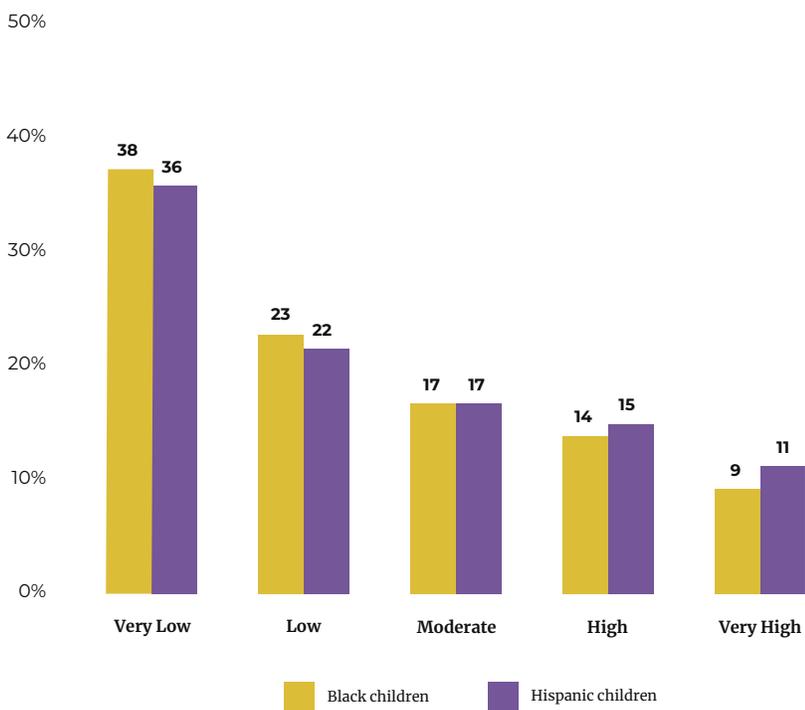


Figure 22: Black and Hispanic children are clustered in lower opportunity neighborhoods

Percent of Black and Hispanic children at each Child Opportunity Level (100 metros combined)



Black children experience the highest concentration in lower-opportunity neighborhoods: They are 7.6 times more likely to live in very low-opportunity neighborhoods than White children. Hispanic children are similarly 7.2 times more likely to live in very low-opportunity neighborhoods than White children.

Although the racial/ethnic inequity patterns above are consistent across most metro areas, there is variation in the extent of concentration of children of different racial/ethnic groups in very low-opportunity neighborhoods. The proportion of White children in the lowest opportunity neighborhoods is always disproportionately low, but some metro areas have relatively higher concentrations (e.g., Poughkeepsie, NY). The proportion of Black and Hispanic children in the lowest opportunity neighborhoods is nearly always high, but some metros have extremely high concentrations. For example, in Syracuse, NY, 80% of Black children live in very low-opportunity neighborhoods, and in Boston, 57% of Hispanic children live in very low-opportunity neighborhoods (**Figure 23**).

Figure 23: Ten metros with the highest concentration of children in very low-opportunity neighborhoods by race/ethnicity

Metro	Asian/Pacific Islander	Metro	Hispanic	Metro	Black	Metro	White
Buffalo, NY	54%	Boston, MA-NH	57%	Syracuse, NY	80%	Poughkeepsie, NY	22%
Minneapolis, MN-WI	44%	Worcester, MA-CT	54%	Albany, NY	70%	Knoxville, TN	17%
Syracuse, NY	41%	Des Moines, IA	52%	Pittsburgh, PA	67%	Boise City, ID	17%
Salt Lake City, UT	38%	Hartford, CT	51%	Rochester, NY	66%	Ogden, UT	17%
Fayetteville, AR	36%	Providence, RI-MA	49%	Toledo, OH	64%	Provo, UT	17%
Akron, OH	33%	Springfield, MA	47%	Dayton, OH	64%	Madison, WI	15%
Urban Honolulu, HI	33%	Allentown, PA-NJ	47%	St. Louis, MO-IL	62%	Portland, OR-WA	15%
Omaha, NE-IA	32%	Oklahoma City, OK	46%	Akron, OH	61%	Colorado Springs, CO	13%
Des Moines, IA	29%	Omaha, NE-IA	46%	Cincinnati, OH-KY-IN	59%	Pittsburgh, PA	12%
Provo, UT	28%	Rochester, NY	46%	Omaha, NE-IA	59%	Lakeland, FL	12%

Distribution of children in poverty by race/ethnicity across Opportunity Levels

Finally, we look at the distribution across neighborhood opportunity of children in poverty by race/ethnicity in the 100 largest metro areas. Race and ethnicity are often related to socioeconomic status, so it is important to disaggregate the two, as some may claim that Black and Hispanic children are more likely to live in lower opportunity neighborhoods simply because of their lower family incomes and inability to afford housing in higher opportunity communities. If access to neighborhood opportunity was explained by family poverty status, then we would expect the share of children in poverty in each Child Opportunity Level to look about the same across racial/ethnic groups. However, this is not the case.

As **Figure 24** and **Figure 25** show, among children in poverty, more than half of Black children (58%) and Hispanic children (55%) live in very-low opportunity neighborhoods—which is substantially more than the share of White and Asian children (19% and 24%, respectively). In fact, Black and Hispanic children in poverty are 3.1 and 2.9 times more likely, respectively, to live in very low-opportunity neighborhoods than are White children.

While White children in poverty are almost as likely to live in higher opportunity neighborhoods (35%) as they are in lower opportunity neighborhoods (43%), Black and Hispanic children in poverty have very little chance of experiencing higher opportunity neighborhoods. Only 10% and 11%, respectively, have access to the resources of a higher opportunity neighborhood.

Figure 24. White and Asian children in poverty are roughly equally distributed across Child Opportunity Levels

Percent of White and Asian/Pacific Islander children in poverty at each Child Opportunity Level (100 metros)

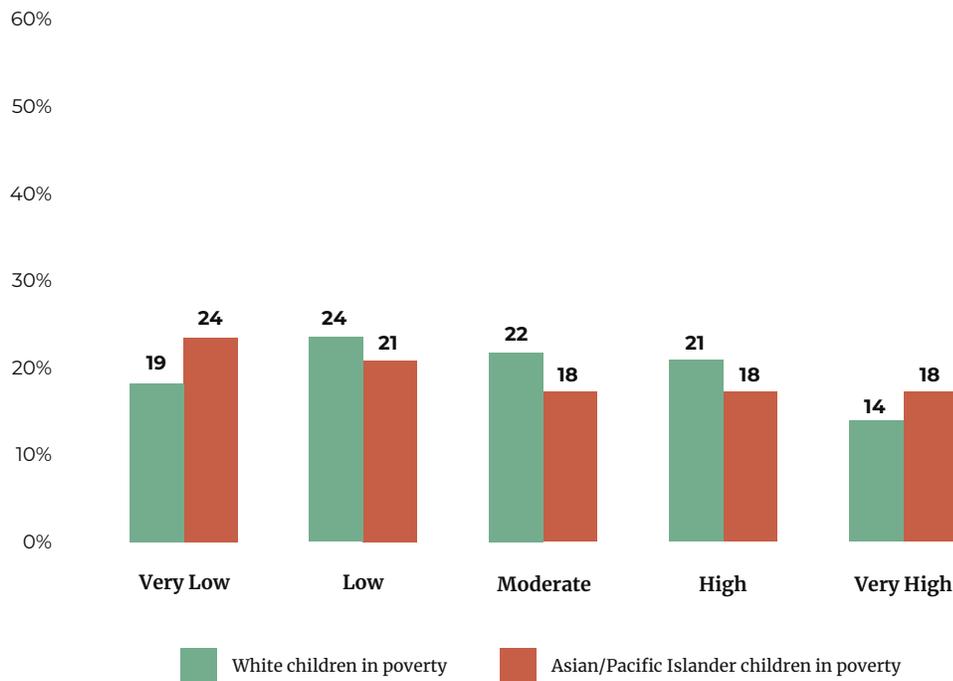
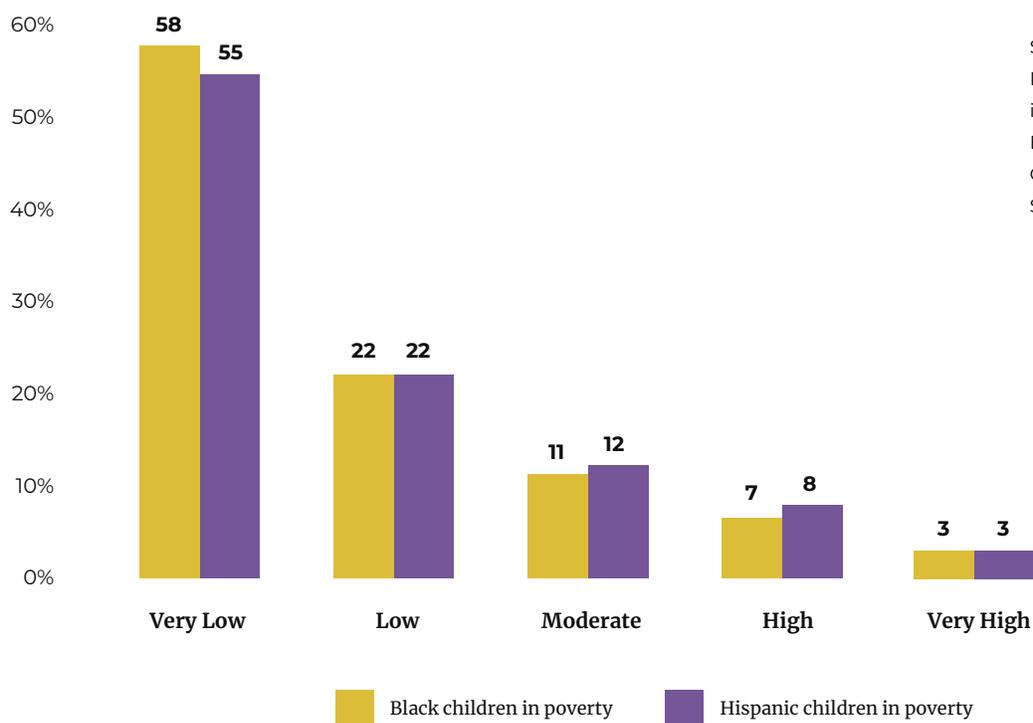


Figure 25. Black and Hispanic children in poverty are highly concentrated in lower opportunity neighborhoods

Percent of Black and Hispanic children at each Child Opportunity Level (100 metros combined)



These findings reveal the deep inequities facing the least advantaged Black and Hispanic children. White and Asian children growing up in poverty may be able to take advantage of the vast resources that a higher opportunity neighborhood has to offer, thus potentially buffering some of the effects of growing up in poverty. Black and Hispanic children, however, are highly unlikely to have access to the quality schools, healthy environment and substantial socioeconomic resources that might support White and Asian children of the same lower family income.

KEY TAKEAWAYS

- **Neighborhood opportunity varies widely across metropolitan areas.** The metro areas with the most favorable neighborhood conditions include San Jose, CA, Bridgeport, CT, and Boston, MA. In these metros, schools, socioeconomic resources and the physical environment tend to bolster healthy child development—although each metro also contains pockets of low opportunity that are similar to some of the most disadvantaged neighborhoods in the country. The metro areas with the lowest levels of overall neighborhood opportunity include McAllen, TX, Brownsville, TX, and Visalia, CA.
- **Neighborhood opportunity varies widely within metropolitan areas.** The areas with the widest Child Opportunity Gaps between very low- and very high-opportunity neighborhoods include Milwaukee, WI, Cleveland, OH, and Detroit, MI. We refer to these metros, which contain inequities in opportunity that are wider than those across the entire country, as “opportunity hoarding” areas. Other areas, such as Madison, WI, Fayetteville, AR, and Boise City, ID, are “opportunity sharing” metros that have a relatively small Opportunity Gap.
- **We see clear and disturbing patterns of inequity in neighborhood opportunity by race and ethnicity.** On a scale of 1-100, the typical White child lives in a neighborhood with a Score of 74; that Score is 77 for an Asian child, 30 for a Black child and 33 for a Hispanic child. Some metro areas, such as Los Angeles and Milwaukee, have especially large White-Black and White-Hispanic Opportunity Gaps, but the problem is pervasive. In the 100 largest metro areas, Black and Hispanic children are 7.6 and 7.2 times more likely, respectively, than White children to live in very low-opportunity neighborhoods.

CHILD OPPORTUNITY AND ADULT OUTCOMES

The neighborhood quality that children experience when they are young influences not only the experiences and outcomes they have during childhood, but also their outcomes throughout the life course.

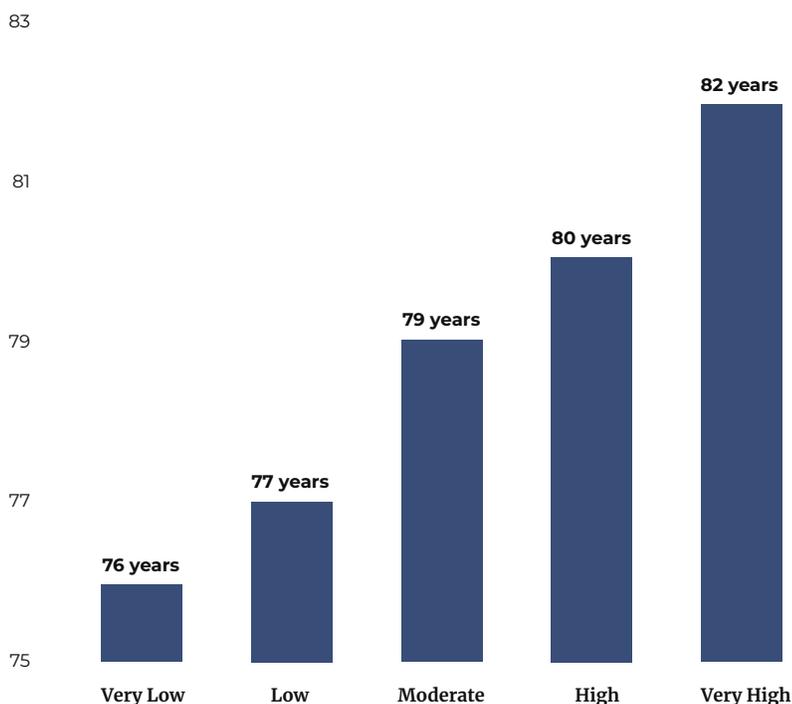
Measures of child neighborhood opportunity should both capture the quality of children's neighborhoods and be associated with how well children will do in the future as adults. Therefore, in this report, we examine the association between the Child Opportunity Index 3.0 and selected adult outcomes across the 100 largest metropolitan areas. We use high quality outcome data from vetted sources such as the U.S. Small-Area Life Expectancy Estimates Project¹ (CDC-NCHS) and the Opportunity Atlas^{2,3}.

Child opportunity and adult health

Very low- and very high-opportunity neighborhoods vary considerably in the health and life prospects of their residents. **Figure 26** shows the relationship between child neighborhood opportunity and life expectancy at birth. There is a strong association and a clear gradient between increasing opportunity and increasing life expectancy.

Across the 100 largest metropolitan areas, we find that there is a difference of six years in life expectancy between residents in very low-opportunity neighborhoods (life expectancy of 76 years) and residents in very high-opportunity neighborhoods (life expectancy of 82 years) (**Figure 26**). This is the same difference in life expectancy that exists between Panama (76) and France (82). More than any other metric, it summarizes why neighborhood opportunity matters for health and wellbeing.

Figure 26: Children growing up in higher opportunity neighborhoods can expect to live longer
Life expectancy at birth by Child Opportunity Level (100 largest metros combined)



Note: Life expectancy is the average number of years a person can expect to live at birth for individuals born in a given neighborhood (census tract) for the period 2010-2015. Each neighborhood is assigned to one of five Opportunity Levels (very low, low, moderate, high or very high) based on their COI 3.0. Each opportunity level contains 20% of the U.S. child population. We calculated median life expectancy at birth across all tracts with the same Opportunity Level weighted by the population of children aged 0-17 years in each tract.

Sources: Child Opportunity Index 3.0, 2024, available from diversitydatakids.org. Life expectancy data from the U.S. Small-Area Life Expectancy Estimates Project (CDC-NCHS).

While for the 100 largest metros combined there is a clear association between child neighborhood opportunity and life expectancy, the extent of inequity in life expectancy between very low- and very high-opportunity neighborhoods—the “life expectancy gap”—varies by metro. **Figure 27** shows the 10 metros with the widest and the 10 with the narrowest life expectancy gaps. In the Dayton, OH metro area, which has a very large Opportunity Gap (82) between very low- and very high-opportunity neighborhoods, we observe a corresponding life expectancy gap of 10.1 years. On the other hand, in Provo, UT, which has a small Opportunity Gap (32), the life expectancy gap is only 3.1 years.

Figure 27: Ten metro areas with the widest and narrowest life expectancy gap (100 largest metropolitan areas)

<i>Widest life expectancy gap (years)</i>		<i>Narrowest life expectancy gap (years)</i>	
Metro	Gap	Metro	Gap
Dayton, OH	10.1	McAllen, TX	2.3
Birmingham, AL	9.6	Fayetteville, AR	2.7
Detroit, MI	9.6	Provo, UT	3.1
Cleveland, OH	9.5	San Jose, CA	3.1
Toledo, OH	9.5	Modesto, CA	3.7
Cincinnati, OH-KY-IN	9.2	Fayetteville, NC	3.8
Baltimore, MD	9.1	Salt Lake City, UT	3.9
St. Louis, MO-IL	9.1	El Paso, TX	3.9
Jackson, MS	9.0	San Diego, CA	4.2
Louisville, KY-IN	9.0	Visalia, CA	4.2

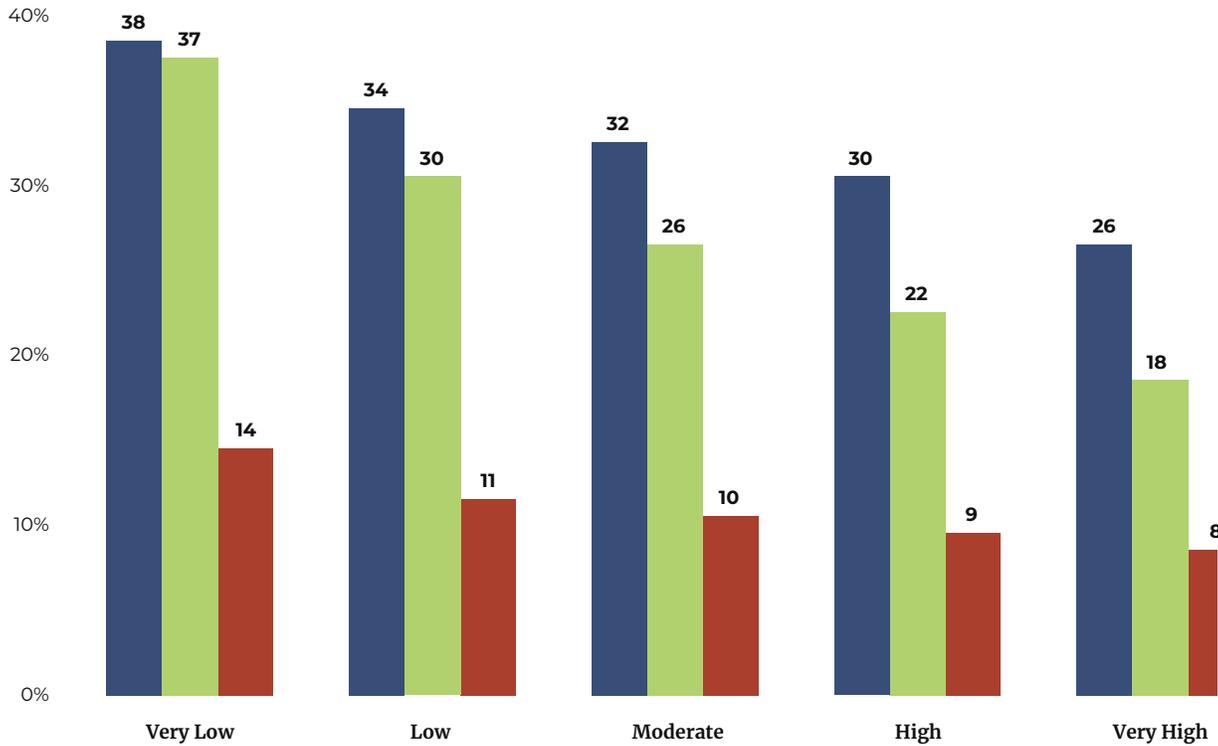
Note: Life expectancy gap defined as the difference in median life expectancy at birth between the 20% of neighborhoods with the lowest opportunity and the 20% of neighborhoods with the highest opportunity in the specified metro area. Metro names abbreviated to first named city.

Sources: diversitydatakids.org Child Opportunity Index 3.0; American Community Survey, 5-Year Summary Files; U.S. Small-Area Life Expectancy Estimates Project (CDC-NCHS).

The Child Opportunity Index is associated with a range of other health outcomes, too. For example, using CDC PLACES data⁴ on health behaviors, conditions and other health measures, we find that the prevalence of diabetes, limited physical activity and obesity for adults over the age of 18 in the 100 largest metros increases as neighborhood opportunity decreases (**Figure 28**). In very low-opportunity neighborhoods, 38% of adults report being obese, 37% report having no physical activity outside of work and 14% have diabetes. In contrast, in very high-opportunity neighborhoods, only 26% of adults qualify as obese, 18% report having limited physical activity and just 8% have diabetes. Each of these health conditions can affect quality of life and lead to a range of other poor health outcomes.

Figure 28: Lower neighborhood opportunity during childhood is related to higher likelihood of obesity, limited physical activity and diabetes in adulthood

Prevalence of obesity, limited physical activity and diabetes by Child Opportunity Level (100 largest metros combined)



Note: Limited Physical Activity is percentage of respondents aged 18 years or older who answered “no” to the following question: “During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?” Obesity is percentage of respondents aged 18 years or older who have a body mass index (BMI) greater than 30.0 kg/m² calculated from self-reported weight and height. Diabetes is percentage of respondents aged 18 years or older who report ever been told by a doctor, nurse or other health professional that they have diabetes other than diabetes during pregnancy. Data shown are the median values of the specified health condition across all census tracts of the specified COL level in the 100 largest metros, weighted by the total child population in each tract.

Sources: Child Opportunity Index 3.0, 2024, available from diversitydatakids.org. Health outcomes data from the PLACES Data, available from Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, 2021, based on 2019 Behavioral Risk Factor Surveillance System.

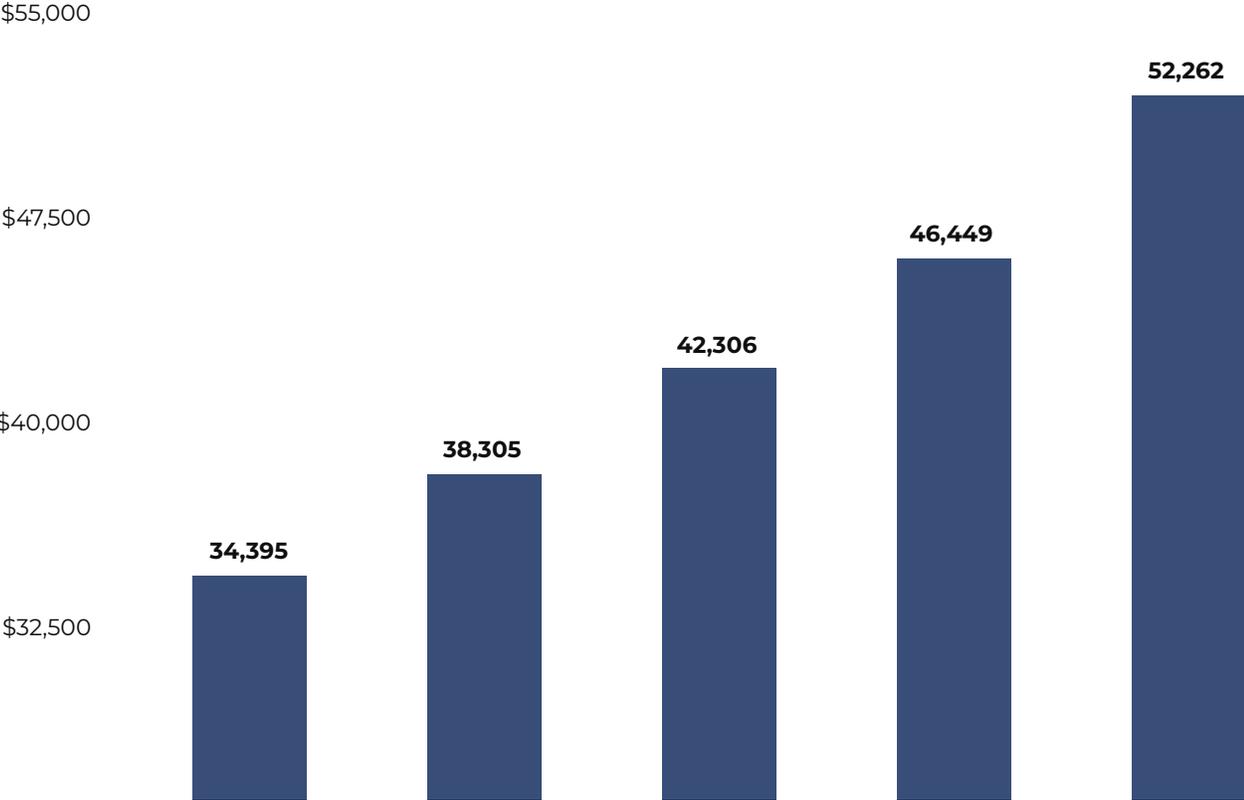
Child opportunity and intergenerational socioeconomic mobility

Child opportunity is also strongly associated with socioeconomic mobility. Like life expectancy, socioeconomic mobility—defined as the level of household income that individuals attain as adults compared to the level of household income their parents had—varies considerably across neighborhoods (Chetty et al., 2018), and it is strongly associated with child opportunity.

We look at socioeconomic mobility specifically for children growing up at the 25th percentile of the parent income distribution, for whom upward mobility as adults would make the biggest impact on quality of life. As shown in **Figure 29**, the income attained at age 35 for a child growing up at the 25th percentile of the parent income distribution varies from \$34,000 in very low-opportunity neighborhoods to \$52,000 in very high-opportunity neighborhoods. This means that two children from families with equally low income may have very different adult incomes depending on the type of neighborhood in which they grow up. The child from a very high-opportunity neighborhood could expect an income that is 50% higher than the child from a very low-opportunity neighborhood.

Figure 29: For children from low-income families, higher neighborhood opportunity is associated with greater socioeconomic mobility in adulthood

Adult socioeconomic mobility by Child Opportunity Level (100 largest metros combined)



Note: Average household income (2022 U.S. Dollars) is the household income at age 35 for individuals born between 1978 and 1983 with parents at the 25th percentile of the parent income distribution. It is measured at the neighborhood (census tract) level, based on information of individual's place of residence during childhood and adolescence. Each neighborhood is assigned to one of five Opportunity Levels (very low, low, moderate, high or very high) based on their COI 3.0. Each opportunity level contains 20% of the U.S. child population. We calculated median household income at age 35 by taking the median household income across all neighborhoods with the same Opportunity Level weighted by the population of children aged 0-17 years in each tract.

Sources: Child Opportunity Index 3.0, 2024, available from diversitydatakids.org. Average household income at age 35 from the Opportunity Atlas (Chetty et al.).

The extent of the inequity in socioeconomic mobility between very low- and very high-opportunity neighborhoods—the “socioeconomic mobility gap”—also varies across metros. **Figure 30** shows the 10 metros with the widest and the 10 with the narrowest socioeconomic mobility gaps.

Figure 30: Ten metro areas with the widest and narrowest socioeconomic mobility gap (100 largest metropolitan areas, excluding Milwaukee and Madison)

Widest socioeconomic mobility gap

Narrowest socioeconomic mobility gap

Metro	Gap	Metro	Gap
Richmond, VA	\$27,378	McAllen, TX	\$2,744
Philadelphia, PA-NJ-DE-MD	\$26,393	Visalia, CA	\$3,968
Baltimore, MD	\$25,825	Brownsville, TX	\$4,090
Cleveland, OH	\$24,305	Fayetteville, AR	\$5,365
Milwaukee, WI	\$24,305	Fayetteville, NC	\$6,448
Birmingham, AL	\$24,096	Charleston, SC	\$6,566
Akron, OH	\$23,254	Boise City, ID	\$6,745
St. Louis, MO-IL	\$23,020	El Paso, TX	\$8,240
Toledo, OH	\$23,020	Stockton, CA	\$9,360
New York, NY-NJ-PA	\$22,852	Urban Honolulu, HI	\$9,811

Note: Socioeconomic mobility gap is defined as the difference in median household income at age 35 for individuals born between 1978 and 1983 with parents at the 25th percentile of the parent income distribution between the 20% of neighborhoods with the lowest opportunity and the 20% of neighborhoods with the highest opportunity in the specified metro area. Metro names abbreviated to first named city.

Sources: diversitydatakids.org Child Opportunity Index 3.0; American Community Survey, 5-Year Summary Files; Opportunity Atlas (Chetty et al.)

The Richmond, VA area, which has a relatively wide Child Opportunity Gap (81), has the widest socioeconomic mobility gap of more than \$27,000 (ranging from \$55,000 expected income in its highest opportunity neighborhoods to \$28,000 in its lowest). On the other end of the spectrum is McAllen, TX, McAllen, which has both very low overall opportunity and a relatively small Opportunity Gap, also has a socioeconomic mobility gap of only \$3,000 (ranging from \$45,000 expected income in its highest opportunity neighborhoods to \$42,000 in its lowest).

KEY TAKEAWAYS

- **Analyses using the Child Opportunity Index 3.0 show strong associations between neighborhood opportunity and adult outcomes. “Greater life expectancy; lower rates of adult diabetes, obesity and limited physical activity; and higher intergenerational socioeconomic mobility are all associated with higher levels of neighborhood opportunity.**
- **In some metro areas, these differences are particularly stark. For example, the difference in life expectancy at birth in very low- versus very high-opportunity neighborhoods in Dayton, OH is 10 years. The difference in expected adult income for a child from a low-income family in a very low- versus very-high opportunity neighborhood in Richmond, VA is \$27,000.**

THE FIVE AMERICAS

The differences in child opportunity we see across the U.S. call to mind global differences in opportunity. Children across the world have access to very different resources and environments. The Human Development Index (HDI)¹—a United Nations measure of achievement in key dimensions of human development that includes life expectancy, education and a decent standard of living—shows vastly different values across countries. Western and Northern Europe, the U.S. and Canada have high scores; Central America, most countries in Africa and many in Southeast Asian have low values. For example, in the Americas, the U.S. has a “Very High” HDI of .921, which reflects a life expectancy at birth of 77.2 years, 13.7 years of mean schooling and a gross national income (GNI) per capita of nearly \$65,000 (2017, adjusted for purchasing power). In contrast, Mexico has a “High” HDI of .758, and much lower indicators: life expectancy of 70.2 years, mean schooling of 9.2 years and a GNI per capita of about \$18,000. Haiti has a “Low” HDI of .535: life expectancy of 63.2 years, mean schooling of 5.6 years and a GNI per capita of only about \$2,800.²

While we have come to expect such inequality in health, social and economic prospects across countries, the differences within countries are often stark as well. Within the U.S., Massachusetts is the state with the highest HDI (0.967), higher than any nation worldwide, while Mississippi has the lowest HDI (0.876), similar to that of Poland.³

Examining the state of child opportunity in metro areas across the U.S. (see “A Snapshot of Child Opportunity” section), it is easy to think of not one, but several different nations. Formally, the United States is one nation, and, aspirationally, it prides itself on being a nation of opportunity, where all those who work hard can achieve an education, economic wellbeing, health and happiness. Our analysis of the new Child Opportunity Index 3.0, however, shows that in terms of neighborhood resources that support positive childhood experiences, healthy development and favorable child and adult outcomes, America’s children are instead living in five different nations, each with very different opportunities. Although not always geographically contiguous, the neighborhoods in each of these five nations have more in common with each other than with those that may be close by. The children in each of these nations also often share more in common with each other than with those who live just a few miles away.

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The concept of different Americas within the U.S. is not a novel one. The existence of large differences in wellbeing and in racial/ethnic composition as they relate to different social environments have led others to discuss boundaries that are not geographic but drawn by stark socioeconomic and health inequalities. In 2006, Murray and colleagues described the existence of Eight Americas. In “America 8”—identified as “Blacks living in high-risk urban areas”—young adults had a mortality risk similar to that of the Russian Federation and sub-Saharan Africa. America 8’s mortality risk was much higher than in “America 1”—identified as “Asians”—which had a risk similar to Japan’s.⁴ About a decade later, Egen and colleagues defined 50 new U.S. “states” based on counties ranked by their median household income. The “poorest state”—comprised of the 2% of poorest countries—was vastly different from the “richest state”—comprised of the

2% of richest counties. Men in the “richest state” had a life expectancy of 79.3 years, nearly a decade longer than in the “poorest state” (69.8 years), and the share of the Black population was 4.5 times larger in the “poorest state” than in the “richest state.”⁵

We build on that research to illustrate that our children live in five different nations: Five Americas. We call these nations: Very Low-opportunity America, Low-opportunity America, Moderate-opportunity America, High-opportunity America and Very High-opportunity America. These “nations” are drawn from all neighborhoods in the country, not just those in the 100 largest metropolitan areas.

Children in each opportunity nation share a very similar context in which they can grow and develop and become happy, healthy and productive adults. The Very Low-opportunity nation has a median household income of about \$45,000, a poverty rate of 25.4% and a high school graduation rate of 81.2%. In contrast, the Very High-opportunity nation has a median household income of about \$135,000, a poverty rate of 3.7% and a high school graduation rate of 93.9% (Figure 31). Life expectancy in the Very High-opportunity America is 82 years—similar to that of Finland—while life expectancy in the Very Low-opportunity America is 7 years lower (75 years), comparable to that of Albania.²

Figure 31: Household income, poverty, educational outcomes and life expectancy look very different in each of the Five Americas

Select Child Opportunity Index 3.0 indicators and life expectancy

	Household Income	Poverty Rate (%)	High School Graduation Rate (%)	Life Expectancy (Years)
Very Low	\$44,933	25.4	81.2	75
Low	\$60,121	14.9	86.0	77
Moderate	\$73,777	9.9	88.2	79
High	\$94,212	6.4	90.5	80
Very High	\$135,378	3.7	93.9	82

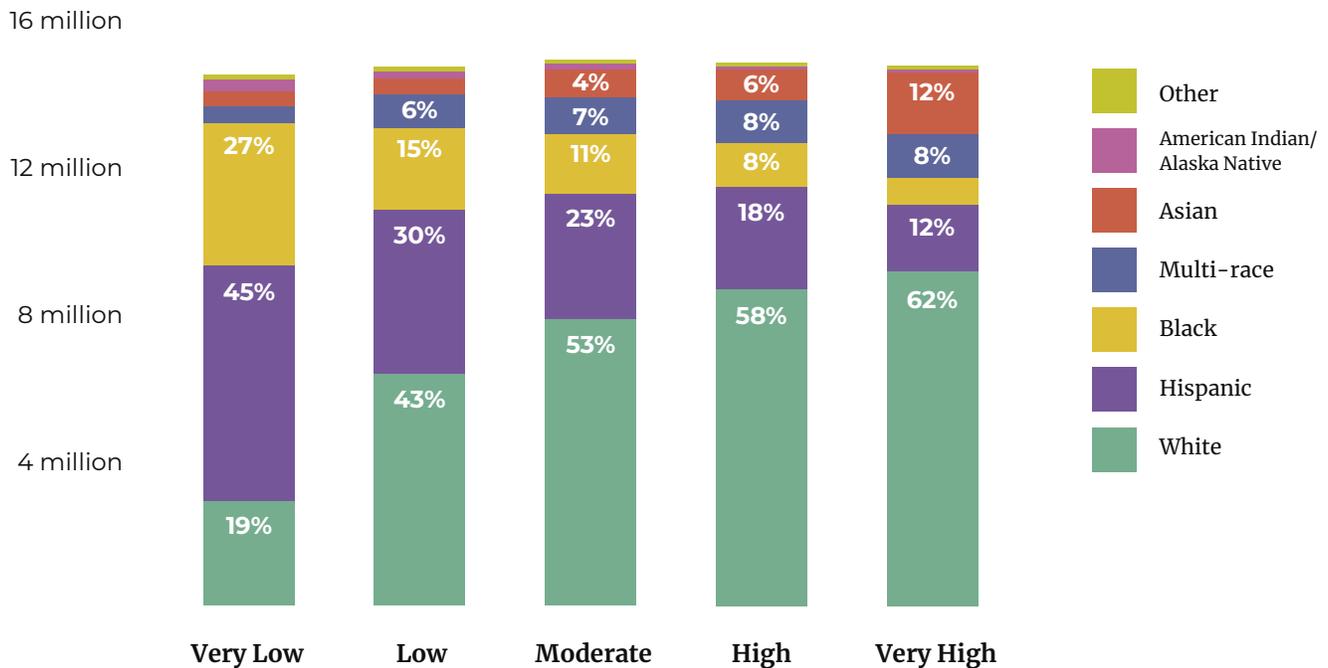
Note: Data are median values of indicators across census tracts within each of the Five Americas, weighted by the child population of each tract.

These Five Americas are not only very different in terms of opportunity; they also reflect the structural racism—for example, high levels of segregation—that have shaped them, so their child populations look very different. Each of the Five Americas has a total child population of about 14.6 million, similar to the size of the child population in the United Kingdom.⁶ In the Very Low-opportunity America, Hispanic (45%) and Black (27%) children together make up 72% of the child population. In this nation, only 19% of children are White. In contrast, in the Very High-opportunity nation, Hispanic and Black children make up only 17% of the child population, while White children make up 62% (Figure 32).

Compared to their shares of the child population nationally, Hispanic and Black children are vastly over-represented in the Very Low-opportunity nation. Of about 18 million Hispanic children, about 6.4 million (34%) live in the Very Low-opportunity America. Similarly, of about 9.7 million Black children, about 3.9 million (40%) live in the Very Low-opportunity America. In sharp contrast, of 34.6 million White children, only 2.8 million (8%) live in the Very Low-opportunity America.

Figure 32: The racial/ethnic composition of children across the Five Americas differs dramatically

Number of children of each racial/ethnic group, by Child Opportunity Level



The divisions and inequities between these five nations are not random, natural or solely the result of economic forces. On the contrary, we have built the edifice of these five nations with decades of policy decisions—often racist policy decisions—to maintain exclusion and division by race/ethnicity and geography (see “Neighborhood Opportunity, Segregation and Racism” section).^{7,8} The United States has built racial and ethnic stratification largely around place, which means purposefully separating where people live and the place-based opportunities they can enjoy.

The U.S. is an increasingly divided society—income inequality⁹ and political polarization¹⁰ have risen in recent decades. Our findings indicate that another axis of division is our children’s access to opportunity and wellbeing. In some instances, this division in opportunities for healthy child development is as wide as that between different countries, with grave consequences for our children today and for their prospects as adults.

ⁱ In this discussion, child population is taken from 2020 Decennial Census counts, and all racial groups include only non-Hispanic members.

POLICIES TO ADVANCE EQUITY IN CHILD NEIGHBORHOOD OPPORTUNITY

Vast inequities in neighborhood opportunity, residential segregation and opportunity hoarding are not inevitable. They are neither natural nor random. They have been created and maintained by policies—designed at best without equity in mind, and often with explicit and racist intent—which have resulted in the exclusion of some groups from access to places with more resources. These policies have excluded and hurt many children.

As we witnessed during the response to the Covid-19 pandemic, it is possible to reverse course by strengthening policies that protect children. The expansion of the Child Tax Credit had immediate effects on drastically reducing the number of children in poverty—by about 5 million children from 2019 to 2021, and especially for Black and Hispanic children.^{1,2} Pandemic-related Medicaid expansions also had a positive effect on increasing health insurance coverage and narrowing inequities in uninsured rates between Blacks and Hispanics on one hand and Whites on the other.³ In addition to demonstrating the power of social policy to improve children’s lives, the pandemic also made it even more evident that high levels of segregation and inequality make some communities highly vulnerable to health and economic shocks. Epidemiologic research has shown that neighborhoods with low socioeconomic status or environmental characteristics such as high levels of particulate matter had higher rates of Covid-19 infection and hospitalizations.⁴⁻⁷

An analysis of all the policies that hurt children by maintaining racial/ethnic and place stratification and inequities is beyond the scope of this report. Elsewhere we have analyzed the exclusionary design of policies that supplement family income and offer work supports, for example, policies that reduce child poverty such as the Earned Income Tax Credit (EITC) and policies that support working families such as paid family and medical leave. In this report, we focus on selected policy areas that can help to increase equitable access to place-based resources by: 1) targeting individuals or families or 2) targeting places. These policy recommendations are by no means exhaustive. In compiling selected policy options, we chose to include policy areas that met the following criteria:

- Research evidence suggests that they can improve child, family or neighborhood outcomes,
- Research evidence suggests that they can improve outcomes particularly for children in Black and Hispanic families,
- And recent changes in policy adoption, implementation and/or in the policy debate suggest increasing support for policy change.

There are other important policy areas to improve child neighborhood opportunity not discussed in this report. These include: (i) improving access to high quality early childhood care and education at the neighborhood level—which we examined in another report;⁸ (ii) mitigating risk in neighborhoods that experience a high burden of environmental threats;⁹ and (iii) promoting adequate and equitable access to banking and other financial services as well as investments in communities affected by past disinvestment and redlining as signaled by recent changes to the Community Reinvestment Act.¹⁰

Policy analysts have sometimes presented a false dichotomy between “people-based policies” aimed at reducing segregation and allowing residential choice mobility and “place-based policies” aimed at investing in or revitalizing low-opportunity neighborhoods. In reality, we need both types of policies.¹¹ Battles over the type of policies needed mask the more important issue that funding for and commitment to both kinds have been insufficient to correct vast inequities in children’s access to neighborhood opportunity.

What we should be thinking about is how to revitalize the places in which people live, how to enable people to take advantage of opportunities that are located in different places around the region, and how to make connections between where they live and regional opportunities. Whether we’re trying to fix up a place or create more opportunities for individuals, it’s essential to acknowledge the importance of all these elements—location, individual and family needs, and the distribution of opportunities and challenges throughout a region—and to interweave these approaches.

—Marjorie Turner, The Urban Institute, Metropolitan Housing and Communities Policy Center¹²

While we focus on policy, we recognize that successfully combating racial inequality is also a product of social movements, community organizing, political forces and litigation. Resistance to reducing inequities is often strong, concealed as legitimate concerns and entrenched in hard-to-change institutions and governance. Therefore, identifying policies to improve equitable access to neighborhood opportunity is just one step.

Recent judicial decisions that represent a retrenchment from policies to reduce inequities underscore how policies to support more equitable opportunities and outcomes continue to face challenges. As an example, a 2023 landmark Supreme Court decision curtailed the ability of educational institutions to use race in admissions decisions.¹³ The ensuing debate on how to maintain diversity in higher education showcases just how complex these policy choices are. Recent simulations performed by Stanford University researchers for *The New York Times* suggest that use of income as a proxy for race/ethnicity would do fairly little to increase Black and Hispanic admissions to selective colleges, but would greatly increase the share of low-income applicants admitted.¹⁴ Importantly, in seeking alternatives to promote diversity among students, some contend that because “place” is strongly correlated with race, using students’ neighborhoods instead of race could help include students from underrepresented racial/ethnic groups. This suggests that incorporating child neighborhood opportunity—a race-neutral criterion—as a factor in admissions may increase representation of students from disadvantaged backgrounds and racial/ethnic diversity. Cashin has argued for responding to the threats on race-based affirmative action by incorporating “the experience of segregation into diversity strategies.” For example, including exposure to neighborhood or school poverty as an admission criterion would “better approximate the structural disadvantages many children of color actually endure [...]”¹⁵

Race-based affirmative action in a context of ascending diversity will continue to fuel white resentment and division and is unnecessary when place-based alternatives that track actual disadvantage are available. I would substitute “low opportunity neighborhood” for race as a plus factor in the type of formulas that university’s use in admissions decisions because race is too blunt an instrument and too costly politically.

—Sheryll Cashin, 2014, p.965¹⁵

Similar to income-based affirmative action, place-based affirmative action is also controversial. Some maintain that, to address historical exclusions and remain consistent with civil rights principles, advocacy for the use of race as a criterion in admissions should continue, instead of resorting to alternative proxy criteria such as place. These arguments posit that, as a matter of justice, race-conscious policies are necessary and fair to redress historical race-conscious harms. Additionally, they argue that states that have used proxies for race—for example, for selective public college admissions—have wound up with much less diverse classes than what could have been achieved with race-conscious plans.¹⁶ This has led some civil rights leaders to conclude that: “There is no substitute for race-based affirmative action . . . Affirmative action is a critical part of ensuring racial justice and equity in higher education.”¹⁷

In the next section, we describe selected policy areas where change in a positive direction could help increase access to and reduce inequities in child neighborhood opportunity.

Poverty reduction

In the United States, child poverty is high compared to other developed countries and deeply tied to racial/ethnic inequality. In 2022, 12.4% percent of children in the U.S. lived in poverty, and rates were much worse for Black (17.8%) and Hispanic (19.5%) children.¹⁸ Children in poverty may not have adequate food, housing, clothing and other necessities for a healthy childhood. Poverty is also often highly geographically concentrated in neighborhoods with large proportions of Black and Hispanic children, and this concentrated neighborhood poverty is associated with adverse child outcomes. For example, high neighborhood poverty is associated with high exposure to environmental toxins that can hurt cognitive development.¹⁹⁻²¹

In the last five years, both research and policy changes have shown incontrovertible evidence that the U.S. can significantly reduce child poverty through ambitious and equitable safety net policies. For example, the expansion of the Child Tax Credit (CTC) in 2021 lowered the child poverty rate to 5.2%—a historic low. It also showed how some policy design elements can help reduce child poverty more for children who endure the highest poverty rates. For example, eliminating minimum family income requirements and making the credit fully refundable would reduce child poverty overall and particularly for Black and Hispanic children.^{2, 22}

Reducing poverty for families would also have beneficial effects on neighborhoods. Current rules that exclude families with very-low incomes from receiving the full CTC result in geographic concentration of children who do not receive this resource. Using a conservative definition of children who do not receive the full credit—children with a Social Security number who appeared on health insurance forms but not on tax returns in 2019 or 2020—the Urban-Brookings Tax Policy Center found that across ZIP codes, the proportion of children not receiving the full credit ranged from 0.3% to 82%.²³ Therefore, the evidence suggests that a more inclusive CTC would not only reduce child poverty overall, but would reduce racial/ethnic inequities in child poverty and help alleviate the geographic concentration of poverty in neighborhoods with large proportions of Black and Hispanic children.

Some of the effects of poverty concentration result from environmental conditions enabled by neglect, disinvestment and discrimination over a long period. Therefore, remedying these conditions would also take targeted investments and time. However, other effects of poverty concentration such as high numbers of families that experience insecurity and material hardship can be addressed much sooner with proven, fast-acting policies such as an expanded Child Tax Credit.

Poverty reduction conclusions: An expanded and inclusive Child Tax Credit that builds on the expanded Child Tax Credit of 2021 would provide meaningful relief to the lowest-income families and reduce child poverty and poverty concentration. To enhance the policy effects on racial/ethnic equity, the credit should be fully refundable and include eligibility for families with no or with very low income. Consistent with

policy that had been in effect up to 2018 and is scheduled to be in effect again in 2025, the credit should also be available to children without Social Security numbers. Other policy improvements like monthly payments (instead of yearly); built-in adjustments for inflation; and higher payments for the lowest income families would also help reduce child poverty. Other safety net and family-work policies, such as an expanded and more inclusive Earned Income Tax Credit, could also help reduce child poverty rates and concentrated neighborhood poverty.²⁴⁻²⁶

Pro-desegregation and pro-neighborhood opportunity housing policies

Historically, much U.S. housing policy has been designed to create barriers limiting where people can live based on their race/ethnicity, socioeconomic status or other factors, allowing the hoarding of beneficial neighborhood opportunities in well-off, largely White communities. These policies have included explicit government action such as racial zoning, segregated public housing projects, urban renewal and highway construction that divided and sometimes destroyed communities, as well as the condoning of private discriminatory actions such as restrictive covenants in property deeds.

Redlining, in which mortgage credit was withheld from communities deemed “high risk,” often because of the presence of Black, lower class or immigrant residents, is one example of past discrimination for which researchers have been able to establish continuing negative effects or associations. Some prominent research has asserted causal effects of redlining on neighborhood conditions years later, including: homeownership, home values and racial residential segregation²⁷⁻²⁹ and intergenerational economic mobility.²⁹ Redlining has also been associated with present-day firearm assaults and violent crimes,³⁰ preterm birth and other birth outcomes,^{31, 32} self-rated health,³³ asthma-related emergency department visits³² and lack of greenspace.³⁴ Additionally, a case study of seven metro areas “found a rather consistent correspondence between school funding inequity today and 1935-40 redlining maps that were used to keep Black and Hispanic families isolated during the era of suburbanization that built our modern segregation regime.”³⁵

While redlining has been illegal since 1968, it has never completely disappeared, with some lenders still shunning the provision of mortgage lending and services in Black and Hispanic communities. However, the Department of Justice has increasingly targeted redlining through a special initiative, which secured more than \$75 million in settlements from lending institutions between October 2021 and January 2023.³⁶ Many current policies continue to maintain segregation and inequities in neighborhood opportunity. Local zoning regulations, discussed further below, limit the production of multifamily and affordable housing in many higher opportunity neighborhoods. However, in recent years, pro-desegregation policies have gained more visibility and support.

FROM REDLINING TO CHILD OPPORTUNITY: CONFRONTING SYSTEMIC RACIST RESIDENTIAL SEGREGATION

To call attention to racist policies that have restricted access to neighborhood opportunity, diversitydatakids.org has developed data and maps that allow for the comparison between 1930's redlining policies of the federal Home Owners' Loan Corporation (HOLC) and present-day child neighborhood opportunity. Our method associates HOLC-rated areas with current census tracts and classifies those tracts from "mainly D" (redlined) to "mainly A" (greenlined). Learn more at diversitydatakids.org/from-redlining-to-child-opportunity.

HOLC created maps of U.S. cities meant to quantify variation in credit default risk across neighborhoods. Neighborhoods were assigned one of four color-coded letter grades ranging from D ("hazardous"), which generally had a greater share of Black, lower class or immigrant residents, to A ("best"), often assigned to affluent White neighborhoods. D-rated neighborhoods were marked in red on HOLC maps, giving rise to the term "redlining".

While it is difficult to ascertain whether redlining had causal effects on present-day child opportunity, there are nevertheless very strong associations between HOLC ratings and contemporary child opportunity. As shown in **Figure 33**, modern-day neighborhoods graded mostly D (redlined) by HOLC in the 1930's have a Child Opportunity Score (COI 3.0) of 32, while neighborhoods graded mostly A (greenlined) have a score of 75.

Neighborhoods graded "mainly D" have a life expectancy of 76 years, compared to 81 years in neighborhoods graded "mainly A" (**Figure 34**).

Figure 33: Mean Child Opportunity Score of neighborhoods formerly graded by the Home Owners' Loan Corporation (HOLC)

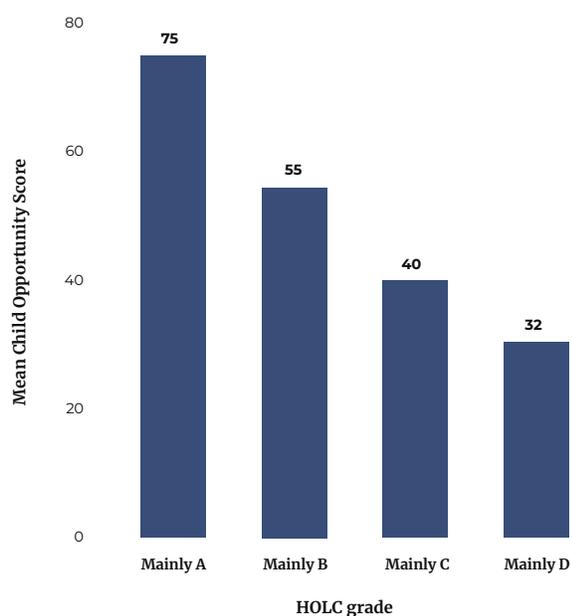
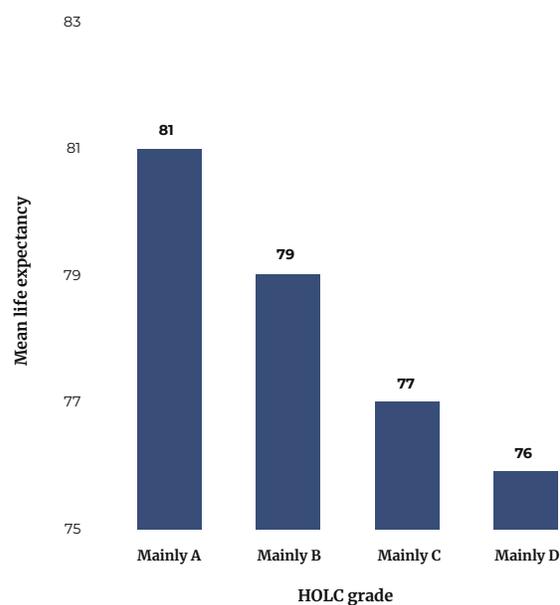


Figure 34: Mean life expectancy in neighborhoods formerly graded by the Home Owners' Loan Corporation (HOLC)



Affirming a commitment to Fair Housing

The most successful efforts to tackle segregation should start at the top, reaffirming the importance of fair housing and creating strong rules, guidance and enforcement to make it a reality.

After a period of inaction (if not blatant attack) during the previous administration, the present presidential administration has strengthened a commitment to implementing fair housing policies. These policies are still difficult to enforce, but there is a renewed focus on encouraging jurisdictions that receive federal funding to assess patterns of residential segregation and neighborhood inequity in their communities and to develop plans to lessen both. In 2023, diversitydatakids.org submitted comments to HUD on the proposed “Affirmatively Furthering Fair Housing” (AFFH) rule commending HUD for leading the new rule with an explanation of the importance of neighborhoods for child development. It is encouraging that this connection between reduced segregation and promoting child wellbeing is now explicitly stated in housing policy.

The proposed AFFH rule’s focus on children’s wellbeing, its support for both people- and place-centered policies and its explicit condemnation of segregation are important touchstones for housing policy going forward.

Housing plays a central role in American life. Where children live and grow up is inextricably linked to their level of educational attainment, their relationship with policing and the criminal justice system, what jobs they can obtain as adults, how much wealth their family can attain, whether they will someday purchase their own home, whether they will face chronic health conditions or other lifelong obstacles, and ultimately the opportunities they will be able to provide for their own children and grandchildren.”

—U.S. Department of Housing and Urban Development, 2023, “Purpose of the Regulatory Action for proposed Affirmatively Furthering Fair Housing Rule.”³⁷

Notwithstanding progress in combatting some types of housing discrimination, the systemic and pervasive residential segregation that was historically sanctioned (and even worsened) by Federal, State, and local law, and that the Fair Housing Act was meant to remedy has persisted to this day. In countless communities throughout the United States, people of different races still reside separate and apart from each other in different neighborhoods, often due to past government policies and decisions.

— U.S. Department of Housing and Urban Development, 2023, p. 5³⁷

The finalized Affirmatively Furthering Fair Housing (AFFH) rule should include both the provision of data and assistance to help entities understand, document and address barriers to fair housing as well as a strict enforcement mechanism that will hold funding recipients accountable if they do not take the necessary steps to break down the barriers of segregation. More states and municipalities should follow the lead of California³⁸ and Boston³⁹ in adopting their own AFFH laws to extend the reach of the federal AFFH provisions and insulate them from changes at the federal level.

Sufficient funding must also be provided for fair housing education and enforcement, including for fair housing investigations (especially against high profile targets). Mortgage brokers and landlords continue to discriminate against people of color, families with children and people with disabilities, and fair housing organizations have limited funding and capacity to effectively challenge these violations.⁴⁰

Affirming a commitment to Fair Housing conclusions: Continued high profile emphasis on the importance of fair housing, such as their recently released Equity Action Plan⁴¹ and the proposed AFFH rule help set the tone that fair housing, which includes the elimination of segregation and the opening of communities, is not optional. It is a legal mandate that should be implemented both with incentives and, if necessary, with litigation. At the same time, policies should be implemented at all levels of government—federal, state and local—both to increase effectiveness and ensure continuity. Policies alone, however, are not sufficient. Adequate implementation requires funding to enable fair housing agencies to protect the right to fair housing and break down the barriers that promote segregation and exclude families from neighborhood opportunity.

Using housing subsidies to access higher opportunity neighborhoods

Research evidence indicates that access to higher opportunity neighborhoods, especially from a young age, is beneficial for a host of educational, economic, and in some cases, health outcomes.^{42, 43} Housing Choice Vouchers (HCV), portable renter subsidies intended to improve neighborhood choice by allowing subsidized renters to obtain housing in the private market, have the potential to allow moves to opportunity areas but have yet to live up to their potential. Vouchers are disproportionately used in higher-poverty neighborhoods of minority concentration,⁴⁴ due to constraints such as low subsidy amounts, unaffordable private market rents, limits on how long a renter has to find a unit and housing discrimination.

However, in recent years, a number of policy and program changes have addressed some of the challenges to the use of HCVs in promoting neighborhood opportunity. Over 60 public housing agencies are now required to use Small Area Fair Market Rents (Small Area FMRs) rather than metropolitan area-wide rents to determine the maximum rent that a voucher will cover. And more do so voluntarily. Housing agencies using Small Area FMRs will administer 45% of all vouchers in the Housing Choice Voucher program.⁴⁵ This may help families that receive vouchers rent housing in higher cost neighborhoods, many of which offer higher opportunity.⁴⁵ Research shows that public housing agencies' use of Small Area FMRs positively affects the neighborhood outcomes of families with children who move, allowing them to settle into higher opportunity neighborhoods with lower neighborhood poverty rates and schools with higher levels of student proficiency.⁴⁶ Additionally, more and more states and localities are passing laws banning source of income discrimination against voucher holders,⁴⁷ although such discrimination often occurs despite bans.⁴⁸

Further, in 2023 HUD made \$25 million in Housing Mobility-Related Services awards to expand housing choices for voucher families with children by increasing access to opportunity neighborhoods with high-performing schools, access to jobs, low crime rates, parks and other amenities.⁴⁹ Research shows that children who can move from high to lower poverty neighborhoods at a young age have better educational and economic outcomes as adults.⁵⁰ This funding is in addition to the \$50 million previously awarded through the Community Choice Demonstration to test which types of assistance (e.g. counseling, landlord recruitment, flexible financial assistance, etc.) are most effective in terms of facilitating families' moves to higher opportunity neighborhoods, while minimizing program costs.⁵¹ Counseling may be particularly important for some low-income families with special needs or disabilities, as recent research has found that housing vouchers alone may not be enough to enable such families to move to high-opportunity neighborhoods.⁵²

Using housing subsidies to access higher opportunity neighborhoods conclusions: Given the strong research evidence on the importance of neighborhoods for children—especially young children—a special focus on reducing segregation of families with children is warranted. Improving funding and incentives in the Housing Choice Voucher program and Housing mobility programs are two mechanisms to improve child opportunity. Continued program innovation, funding, and incentives, such as the Community Choice Demonstration program and rewarding local housing authorities for assisting renter families with housing subsidies find housing in higher opportunity neighborhoods, are all steps in the right direction. The passage of and forceful implementation of laws banning source of income discrimination, potentially at the national level, could also have important effects on breaking down barriers.

Locating subsidized housing in higher opportunity neighborhoods

In the next section we discuss zoning changes which are likely necessary, though not sufficient, to enable subsidized, affordable and multifamily housing to be built in many higher opportunity neighborhoods. But some of the impediments to construction of subsidized housing are due to housing production program regulations and limitations. For example, the Low-Income Housing Tax Credit (LIHTC) program, the largest federal subsidy for the construction of affordable housing, incentivizes the location of such housing in higher poverty neighborhoods.⁵³ However, states are increasingly including provisions in their own plans and eligibility guidelines for awarding LIHTC credits that incentivize housing construction in neighborhoods with higher quality schools or low poverty rates. These changes have led to larger shares of credits going to produce housing in lower poverty areas with lower minority concentration.^{54,55} There has also been a marked decline in the extent to which local approval, which can stymie the development of subsidized housing, is required for the granting of tax credit funding.⁵⁵

There is a need for more research on neighborhood impacts on children living in a LIHTC unit and how that varies by location. While there is evidence that growing up in a LIHTC unit increases earnings and the likelihood of enrolling in post-secondary education in adulthood, there is less clarity about the effects of the neighborhood where the LIHTC unit is located. Research shows that education benefits do accrue to children living for longer periods in neighborhoods with a higher share of the White population and with higher neighborhood opportunity measures, but it could not discount that these differences were confounded by individual family or child characteristics.⁵⁶

Locating subsidized housing in higher opportunity neighborhoods conclusions: Changes in state guidelines to incentivize tax credit construction in higher opportunity neighborhoods have already been shown to affect the location of such construction. The continued and expanded use of these incentives will likely allow more low-income families to access neighborhoods with greater resources to enhance their children's wellbeing. At the same time, it is important to acknowledge the importance of maintaining and improving housing in more affordable neighborhoods, which may have fewer resources and opportunities for children. However, new housing production in lower opportunity areas should be done in conjunction with effective neighborhood revitalization plans.

Reforming local zoning

The fragmentation of local governance into many geographic jurisdictions, coupled with the ability of these jurisdictions to create zoning regulations that restrict the type of housing construction within their boundaries, is a main barrier to reducing segregation and improving access to opportunity for children. A large body of research has documented the relationship between restrictive zoning laws and residential segregation by income and race/ethnicity.⁵⁷⁻⁶³ Examples of restrictive zoning include regulations that limit

multifamily housing or require a large lot size for permitting housing construction. Zoning has been used in the U.S. for over a century to exclude property uses or people seen as “undesirable,” and in the process it has hoarded opportunity for advantaged, primarily White homeowners.⁶⁴ Infamously, the last presidential administration, while trying to dismantle fair housing protections, appealed to suburban jurisdictions and their residents, stating that “people living their Suburban Lifestyle Dream [would] no longer be bothered or financially hurt by having low income housing built in [their] neighborhood.”⁶⁵

The debate about zoning has changed significantly over the last few years. There is wider recognition not only that exclusionary housing perpetuates segregation, but also that it is economically inefficient and environmentally damaging. Research shows that single-family only zoning reduces affordability, increases inequality, limits access to higher opportunity neighborhoods and pushes development into either already very dense communities or outlying communities, exacerbating commuting times and producing negative environmental impacts.^{63,66} The possibility of limiting this kind of zoning is increasingly the subject of policy discussions.^{67,68} States have the ability to promote the construction of affordable housing by creating requirements for local jurisdictions. In Massachusetts, for example, at least 35,000 affordable units have been built, primarily in higher wealth, suburban areas, through the 55-year-old Chapter 40B program which allows developers, in certain cases, to bypass local zoning in communities with relatively low affordable housing stock.⁶⁹ State action is required because local jurisdictions are subject to political pressures of residents who want to maintain opportunity hoarding.

At least five states have ended single-family zoning, and an increasing number of cities are loosening their zoning laws as well.^{70,71} Massachusetts, where diversitydatakids.org is based, recently passed laws requiring local jurisdictions to re-zone their downtown areas or areas close to transit to allow for the construction of multifamily housing and/or increased housing density.⁷² Making changes to enable more equitable distribution of housing across a region are not easy, though. The new Massachusetts law, for example, has been met with fierce opposition from the Boston suburbs, including accusations that it constitutes “an invasion.”⁷³

Opportunity hoarding is hardly an academic concept; recent elections in the Boston suburbs revolved around maintaining exclusionary zoning.⁷⁴ In some suburbs, the rezoning camp was defeated, signaling entrenched exclusionary sentiments and actions.⁷⁵ The appeal of endorsing restrictive zoning is that it allows suburban communities to present their exclusionary policies as policies to “preserve the character of their communities,” “save their villages” or “prevent traffic or overcrowded schools.” Even with new state laws such as those in Massachusetts, local jurisdictions have power to resist zoning changes that would allow a more diverse and affordable housing stock.⁷³ Just last month, voters in Milton, MA rejected changes to the town’s zoning that would allow more multi-family housing, despite the fact that Massachusetts towns with access to transit are required by the MBTA Communities Act to allow housing development close to transit.⁷⁶ Similar reactions to state laws that promote more inclusionary zoning have taken place in California, New York, Arizona and Connecticut.^{70,77}

It is important to acknowledge that anti-child and anti-minority biases often underlie exclusionary zoning. Children are sometimes zoned out explicitly, as in the case of age 55 plus communities, or implicitly, as when only units with few bedrooms are allowed. Children are often seen as drains on localities’ financial resources, especially schools. While, of course, racial/ethnic discrimination is illegal in zoning decisions, public zoning hearings often include residents who bemoan the influx of “outsiders,” “those with different values,” “loud” or “lazy” people, or statements that anyone is welcome as long as they can afford the existing housing. These biases, and the extent to which they are reflected in zoning decisions, hurt children, especially Black and Hispanic children.

It is ironic, then, that some of the most exclusionary zoning has occurred in areas thought to be more politically liberal.⁶³ Research has shown that “liberal homeowners are cross-pressured and barely more likely than conservative homeowners to support dense housing development. Messages appealing to homeowners’ self-interest reduce support further, while countervailing appeals about housing’s benefits to low- and middle-income families barely offset the negative effect.”⁷⁸

The children are always ours, every single one of them, all over the globe; and I am beginning to suspect that whoever is incapable of recognizing this may be incapable of morality.

—James Baldwin, 1980⁷⁹

While we may optimistically hope that people will agree with James Baldwin’s sentiment (above) and support zoning reform to open neighborhood opportunity to all children, there is substantial research that, despite the “YIMBY” (“Yes in my backyard”) movement in some areas, altruism may not be a substantially motivating factor in this regard.^{64, 78, 80}

Reforming local zoning conclusions: It will likely take the oversight and actions of higher levels of government, such as states, to impose local zoning regulations that will benefit all children and society as a whole. Further, it may be more effective to emphasize benefits of zoning reform that appeal to self-interest, such as having housing for local teachers, police and fire personnel and well as housing that may allow residents’ own children to stay in the area or accommodate residents as they grow older and want to trade down to a smaller unit in a more walkable area. Although, fortunately, exclusionary barriers are falling in more and more areas around the country, the extent to which these changes will continue and will ultimately benefit lower income or minority families remains to be seen.⁸¹⁻⁸³ While zoning reform may allow for multi-family housing in higher opportunity communities, that does not mean it will necessarily improve affordability or allow families of color to find housing in those neighborhoods. As in other areas of policy, equity needs to be explicitly addressed and centered in the design and implementation of zoning reform.

Pro-desegregation and pro-neighborhood opportunity educational policies

One of the primary ways that residential segregation creates inequities in child opportunity between neighborhoods is the close association between housing segregation and school segregation. Local control of education and school assignment plans that favor children’s school attendance in their own or proximate neighborhoods means that high levels of residential segregation are translated into high levels of school segregation and large inequities in educational opportunity between neighborhoods.

Reforming school financing

The connection between municipal fragmentation, residential segregation and school funding is clear. Analyses suggest that local control over zoning and education is one of the main factors that maintains residential segregation by income and race/ethnicity.⁶³ First, funding for schools is tied to the local property tax base, which has been a mechanism to hoard educational opportunity at the local level. The value of the local housing stock is closely linked to the quality of local schools because it directly translates first into local tax revenue and then into funding for local schools. A report for the congressional Joint Economic Committee – Republicans titled “How School and Residential Zoning Limit Educational Opportunity” found that because 71% of students attend their assigned public school, “[h]ousing still effectively acts as a gateway to educational opportunity for a majority of K-12 students.” An analysis for this committee showed that the average home value, at the ZIP code level, was approximately \$486,000 for schools

with the highest “overall school quality” grade but only \$122,000 for schools with the lowest grade.⁸⁴ The localized funding structure of public schools also creates incentives against certain types of housing, such as affordable housing, that could lower the value of the local tax base.^{85, 86}

Although economic incentives like these drive local control of education, racialized motives are also a major factor. Through local control, residents of affluent jurisdictions—who are disproportionately White—can avoid sharing resources with other school districts and have discretion to allocate funding across schools within their district. One of the most extreme forms of exerting local control is the secession of a community from an existing school district.⁸⁷ In these instances, Black and Hispanic communities, with lower home values and less taxable wealth, endure higher effective tax rates to fund schools.³⁵ Historically and presently, these mechanisms have served to benefit majority-White schools over majority non-White schools. This has led researchers to conclude that “school finance is deeply implicated in contemporary racial subordination”⁸⁸ and that “[...] just as race seems to be an influential undercurrent in welfare policy and debate, so too does it appear to influence school finance litigation and reform.”⁸⁹ While this conclusion is supported by other research, education scholars have urged analysts and policymakers to consider equity in education funding in a more nuanced way—including the extent to which funding is adequate to reach certain educational goals and the amounts of funding provided by different levels of government—instead of by simplistically assuming that the main driver of inequity is local financing of schools.⁹⁰

91

By collectively severing themselves off, wealthy communities can better control property tax rates, regulate where and how education dollars are being spent within their school district, and alter the socioeconomic status of their schools through a redistricting process. If social closure motivates school district secession, this practice may equate to opportunity hoarding (Tilly 1999) and a means to command resources as a collective.

—Cooperstock, 2022, p. 1980 (emphasis added)⁸⁷

Analyses of school finance reforms (SFR)—defined as changes in state funding for schools in response to litigation challenging adequacy and equity in school funding—that occurred between 1990 and 2010 suggest that SFR can increase state aid for school funding, particularly for districts with large proportions of racial/ethnic minority students. Reductions in local funding for schools partially offset the increases in state aid, but the overall effect is an increase in funding for schools with large shares of minority students. Other analyses of SFR that occurred between 1990 and 2014 find that they can increase funding for low-income districts, but there is large variation across states. States without SFR also made changes in school funding formulas and spending similar to those in states with SFR.⁹²

School finance reform, including the role of state and federal funding to offset local property tax contributions, has reduced racial/ethnic inequities in overall expenditures in most states, though some differences remain, more commonly by race than by income.⁹³⁻⁹⁷ Some research even suggests that funding disparities by race are smaller in areas of higher segregation, attributing this result in general to compensatory state and federal funding policies.⁹⁸

Although federal and state funding helps equalize spending across school districts, equal funding does not result in equal outcomes. What is needed is not equal funding, but equitable and adequate funding—in other words, *progressive funding* that can create similar educational opportunities and address the family, school and neighborhood factors that produce adverse educational outcomes in schools with large

shares of students from low-income and minority families.^{90,91} Although the question of what constitutes “adequate” school funding is open to debate, some researchers have modeled the “per-pupil funding levels required (i.e., adequate) to achieve the ‘benchmark’ common goal of national average math and reading scores” and concluded that “districts serving large absolute or relative shares of Black/Hispanic students are dramatically more likely than disproportionately white districts to be funded inadequately.”³⁵

One form of progressive funding, currently used in the Boston Public Schools, is an Opportunity Index that identifies schools with high concentrations of student need. The Index combines information on “student’s home neighborhood, such as safety; income and education levels; and physical environment. It also calculates factors specific to individual students and their families, such as the socioeconomic status of the family, and student attendance rates and academic achievement” into a single measure that is then used to allocate special discretionary funding from the district as well as funding for school-based opportunities donated by community partners. This innovative funding mechanism acknowledges the effects of neighborhood stressors in influencing student wellbeing and success and consciously acts to counteract them through supplemental funding.⁹⁹

Notably, civil rights groups have highlighted that compensatory funding for disadvantaged districts can create disincentives for inter-district integration plans when low-income “sending” districts lose funds allocated based on their number of low-income students. To prevent this problem, civil rights groups suggest mechanisms that “split” the funding attached to a low-income student between the sending and receiving district in some manner. Similarly, they advocate that schools within a district not be penalized for reducing poverty concentration or at least that decreases in funding be phased in over time.¹⁰⁰

It is also important to acknowledge that even progressive funding may not outweigh the benefits of attending lower poverty schools and living in lower poverty neighborhoods. A study of students living in public housing in Montgomery County, MD who were randomly assigned to housing in either relatively low or high poverty schools and neighborhoods found that, over time, the effects on educational outcomes of being in lower poverty schools and neighborhoods exceeded the benefit of an allocation of an extra \$2,000 per pupil to higher poverty schools used for a number of research-based interventions.^{63,101} Given our society’s unfortunate history of allowing segregation under the guise of “separate but equal,” as well as continued exclusionary attitudes on the part of parents of children in advantaged districts,¹⁰² the issue of remedying racial/ethnic inequities in education with more funding should always be examined with great caution.

In response to the severe educational setbacks and exacerbation of educational inequities brought about by the Covid-19 pandemic, the federal government provided \$122.8 billion to states and districts through the Elementary And Secondary School Emergency Relief Fund (ESSER III). As a condition for receiving this funding, recipients had to agree to maintenance of equity provisions, designed to ensure that “funding supports the students who have been subject to longstanding opportunity gaps in our education system and have also experienced the greatest impact from the COVID-19 pandemic.”¹⁰³ As the last of these funds need to be spent down by September 30, 2024, it is an important time for schools and districts to keep equity in the forefront of their funding decisions both now and after the ESSER III funding has ended.¹⁰⁴

Reforming school financing conclusions: Progressive funding can help create more equitable educational opportunities and address the family, school and neighborhood factors that produce adverse educational outcomes in schools with large shares of minority and low-income students. Indices like the Child Opportunity Index can be used to identify high-needs or low-resource neighborhoods, and students who live in those neighborhoods can then be allocated special discretionary funding. School financing reform may also not be enough to mitigate gaps in educational outcomes, but it can be used alongside other measures such as increasing student mobility to lower poverty schools and neighborhoods.

Reforming school assignment

School assignment policy is another factor linking housing and residential segregation. Most school districts are tied to local jurisdictions and their resources, and most often school assignment policies restrict school attendance to the neighborhood where a student lives or to a nearby one. Therefore, housing segregation between jurisdictions and between neighborhoods feeds school segregation.^{86, 105-107} Furthermore, residential and school segregation can create a vicious cycle. Because of the strong association between parent socioeconomic status and student test scores, scores are generally higher in wealthier communities.¹⁰⁸ Higher income families then often rely on those scores, commonly publicized by real estate agents, as an indicator of school quality and use their economic resources to buy into wealthier communities, perpetuating the cycle.⁸⁶ Racial and economic segregation are also perpetuated by the ways in which privileged parents decide which are “good” schools: not through research of school traits but via the opinions of other high socioeconomic status parents. As a result, “the most coveted schools are . . . those schools without low-income students or students of color.”¹⁰⁹

Given the mechanisms that tie residential segregation to school segregation and inequities in school funding and school quality, there are two general policy strategies to reduce inequities in access to educational opportunity. First, policies that weaken the link between home values in a jurisdiction and school funding—for example, state school finance reforms discussed above—have helped reduce the association between home values and school quality. Second, policies that allow families to attend a school that is not in their immediate neighborhood, referred to as school choice policies, also weaken the link between neighborhoods and school quality. These policies may be intra-district, allowing students to attend schools outside their neighborhood but within their school district, or inter-district, allowing students to attend schools in another district. Choice policies take on a wide variety of forms including magnet schools, open enrollment (either within or across districts), controlled choice plans, charter schools or vouchers. While some policies are intentionally integrative, such as controlled choice plans, others can be either integrative or segregative, depending on their design and implementation. In many cases, vouchers, charter schools and unrestricted open enrollment plans have been found to increase segregation.^{86, 110-113} Historically and presently, two strong motivations for school vouchers are resistance to school integration and the privatization of schools.¹¹⁴

Despite the Supreme Court ruling that overt use of race in school assignment is unconstitutional,¹¹⁵ race-neutral mechanisms can still result in reduced school segregation and mitigate its effects.¹¹⁶ These include the siting of schools and drawing of attendance boundaries in such a way as to include a diverse student body; controlled choice plans that rely on socioeconomic or neighborhood characteristics rather than a student’s race; magnet schools that draw a diverse student body from across a district or broader area; intentionally integrative charter schools; and inter-district plans, such as those that have been used successfully in Hartford CT, that break down the segregation between city and suburban districts.¹¹⁷ Furthermore, to benefit all children and not just the advantaged, school choice programs must empower and proactively inform families who face barriers to participation and provide necessary transportation.^{118, 119} Efforts to desegregate schools often face vicious resistance—the flip side of resistance to inclusionary zoning. In the most extreme form, this entails the succession of communities from existing school districts, increasing segregation, separating children further racially and economically, and often pulling resources away from the district that is left behind.^{120, 121}

Reforming school assignment conclusions: It is clear that housing and school segregation are inextricably intertwined and that both must be confronted in order for all children to thrive in two of their most formative environments. While certain housing interventions, like the provision of a housing voucher with mobility assistance, can lead to fairly rapid improvement in a family’s neighborhood and school, other housing policies, such as zoning reform, will take a longer time to have a substantial effect, likely too long for many of today’s children who struggle in segregated and concentrated poverty schools. Given enough political will, school desegregation policies can potentially happen much more quickly, freeing students

from the imposed boundaries keeping them segregated. Improving equity in neighborhood and school opportunity for all children requires the continued development and funding of a range of school choice and other pro-desegregation policies including integration planning and implementation grants, magnet schools and transportation. Additional measures in the right direction include new inter-district integration plans, charter schools intentionally focusing on integration, such as those in the Diverse Charter Schools Coalition, and considering geographic placement of newly constructed schools and drawing of attendance boundaries to maximize integration. Appropriate legal measures should be taken to counter actions that further segregation and hoard educational resources, such as the secession of wealthy communities from existing school districts and the use of vouchers that separate children, often transferring needed resources from struggling public schools to private hands.

KEY TAKEAWAYS

- **Poverty reduction: Child poverty is often geographically concentrated in areas with large proportions of Black and Hispanic children. The expansion of the Child Tax Credit (CTC) in 2021 demonstrated that ambitious anti-poverty policy can reduce child poverty equitably. A new, permanent expanded and inclusive CTC with certain policy design elements could meaningfully reduce child poverty and poverty concentration. These elements include being fully refundable, eligible for families with little or no income, and available to children without Social Security numbers.**
- **Housing: Historically, U.S. housing policy has created and entrenched residential segregation by race/ethnicity and socioeconomic status. Equitable housing policy demands that the federal government affirm fair housing rules and adequately fund, implement and enforce them. Enhancing the Housing Choice Voucher program and housing mobility programs can facilitate families' moves to neighborhoods with higher child opportunity. Incentivizing subsidized housing construction in higher opportunity neighborhoods is also important. Finally, state and local jurisdictions should limit restrictive zoning laws that exclude children or make it impossible to build multi-family or affordable housing in higher opportunity areas, especially those close to transit.**
- **Education: Residential segregation and school segregation are deeply intertwined. Localized school financing entrenches opportunity hoarding and segregation. School finance reform has helped equalize funding, but it is not enough. Creating equitable educational opportunities requires adequate and progressive funding. School desegregation programs, such as those that allow students to attend a school that is not in their immediate neighborhood, and inter-district integration plans, may be the fastest methods through which young people can access educational opportunity; they should be incentivized and promoted.**

Conclusion

All children deserve to have healthy and happy childhoods and the resources they need to grow into thriving adults. They deserve quality schools, clean air, parks and playgrounds, access to health care and community nonprofits, economic security—all of the conditions that make up a healthy neighborhood environment. These characteristics can have a positive impact on a child's life. Over the past several years, the importance of neighborhoods for healthy child development has become more recognized in public discourse—and so too have the ways in which neighborhoods are unequal due to segregation. With the launch of the Child Opportunity Index 3.0, we hope to call attention not only to the extent of these neighborhood inequities, but also to the importance of neighborhoods for children's health and wellbeing—so that policymakers, health leaders, community organizations and funders can use this data to advance equity.

Neighborhoods matter for children's health and development, expectations for the future, education and adult outcomes. Research evidence has found associations between lower neighborhood opportunity and adverse health conditions including asthma and obesity; greater rates of hospitalization and emergency room usage; and mortality. Other research has found associations with lower kindergarten readiness, reading and math achievement, adult earnings and educational attainment. Neighborhoods can also be a powerful force for equity—or for inequity. Historically, policies such as redlining and racial covenants segregated neighborhoods by race/ethnicity, limiting Black, Hispanic, immigrant and low-income families' ability to access educational, health and wealth-building opportunities. Today, policies like restrictive zoning maintain that segregation and its effects.

The Child Opportunity Index (COI) 3.0 maps, measures and compares the neighborhood features that matter for healthy child development. Combining 44 indicators across three domains (education, health and environment, and social and economic), the COI provides a single metric of child opportunity for each of the 73,000 neighborhoods (census tracts) in the U.S. It is available for all years from 2012 to 2021, allowing us to monitor whether and where children's neighborhoods are improving over time. The COI is the only multidimensional index designed specifically to measure how well neighborhoods support healthy child development today.

With the Child Opportunity Index 3.0, we find that neighborhood opportunity is not equitable. Across the 100 largest metropolitan areas, children have very different levels of access to healthy neighborhood environments. In some metro areas, such as San Jose, CA, and Bridgeport, CT, children tend to live in neighborhoods that are rich in educational, socioeconomic and health and environmental resources—and in some metro areas, such as McAllen and Brownsville, TX, children tend to live in neighborhoods with very few of these resources. Naming the “highest” and “lowest” opportunity metros, however, paints over the inequities that exists within metro areas. These inequities are often just as wide—or wider—as the ones across metros. For example, some metro areas, including Milwaukee, WI, and Cleveland, OH, have opportunity gaps between their highest and lowest opportunity neighborhoods that are wider than those between the highest and lowest ranked metros across the entire country. Metros like these hoard opportunity in select neighborhoods. Resources that support healthy child development are available in the metro area, but not accessible to all children. Other metro areas, including Provo, UT, and Fayetteville, NC, tend to share opportunity across neighborhoods.

There are also vast racial/ethnic inequities. We find that, in the 100 largest metro areas, the typical White child or Asian child lives in a neighborhood with many resources for healthy development (Child Opportunity Scores of 74 and 77, respectively), while the typical Black child or Hispanic child lives in a neighborhood with limited resources (Scores of 30 and 33, respectively). These racial/ethnic inequities cannot be explained by family income. In the 100 largest metros, Black and Hispanic children in poverty are 3.1 and 2.9 times more likely, respectively, to live in very low-opportunity neighborhoods than White children in poverty.

These differences in neighborhood opportunity can have lifelong consequences. Using COI 3.0 data, we find strong associations between neighborhood opportunity and adult outcomes. In the 100 largest metros, life expectancy is six years longer in very high-opportunity neighborhoods (82 years) than it is in very low-opportunity neighborhoods (76 years). In some metros, such as Dayton, OH, and Birmingham, AL, that gap is as large as 10 years. Lower rates of adult diabetes, obesity and limited physical activity, as well as greater socioeconomic mobility, are also associated with higher levels of neighborhood opportunity.

The differences in neighborhood opportunity are so profound that it is as if children in the United States are growing up not in one country, but in five different nations. These “Five Americas” are not always geographically contiguous, but the neighborhoods within each one often have more in common with each other than they do with others just a short distance away. For example, the Very Low-opportunity nation has a median household income of about \$45,000 and a high school graduation rate of 81.2%; in contrast, the Very High-opportunity nation has a median household income of about \$135,000 and a high school graduation rate of 93.9%. Compared to their shares of the child population nationally, Hispanic and Black children are vastly overrepresented in the Very Low-opportunity America, and White children are overrepresented in the Very High-opportunity America.

The segregation that underlies racial/ethnic inequities in neighborhood opportunity was, in large part, created and maintained through policies designed to hoard opportunity to benefit Whites, primarily White homeowners. While certain policies, such as exclusionary zoning and school attendance zones rigidly tied to students’ neighborhoods, continue to reinforce segregation, other policies serve to counter these forces and further equity. Support for some these policies seems to be on the rise due to concerns about economic development, lack of affordable housing and the environment—and perhaps because of concern about inequities. Zoning reform, including the ending of single-family only zoning in some states, fair housing enforcement, programmatic changes to the Housing Choice Voucher and Low Income Housing Tax Credit program, as well as the expansion of source of income anti-discrimination laws all serve to foster open communities, despite often forceful and vocal opposition.

School finance reform has cut the rigid ties between local tax base and school funding in many areas, helping equalize how funding is distributed. Still, the level of funding achieved for high-need schools may not yet be sufficient to provide an adequate and equitable education for all students. The challenges experienced by low-income, largely minority schools go beyond what can be addressed by funding alone. Changes in school attendance policies have also loosened the link between neighborhoods and schools, for both good and bad. Certain policies, such as controlled choice plans and integrative magnet and charter schools, have helped counter segregation, while some voucher, charter and open enrollment policies have strengthened it.

Other policies can help offset some of the inequities in families’ economic situations. Among these are an expanded and inclusive Child Tax Credit, building on the expanded Child Tax Credit of 2021, which would provide meaningful relief to the lowest-income families and reduce child poverty and poverty concentration.

With this report, we have presented the first of what will likely be many analyses using the Child Opportunity Index 3.0 to examine inequities in children’s neighborhood opportunity and how those inequities translate to outcomes. We encourage researchers to use COI 3.0 to examine how inequities in neighborhood opportunity relate to inequities in child outcomes by race, ethnicity and other characteristics such as immigrant status. We encourage nonprofits, state and local government agencies, grant-makers and other organizations to use the COI to advance equity—to identify lower-opportunity neighborhoods in need of resources and also to identify neighborhoods which may be beneficial destinations for families seeking to move to higher opportunity.

The racial/ethnic inequities we find in neighborhood opportunity are not random—but nor are they inevitable. In the same way that policies and practices created the widespread opportunity gaps within and across metros, so too can policies and practices dismantle them. We look forward to working together with Child Opportunity Index users to advance racial/ethnic equity in our neighborhoods, so that all children can have the healthy and happy childhoods they deserve and be prepared to thrive in adulthood.

WORKS CITED

Introduction

1. Hong, B., Bonczak, B. J., Gupta, A., Thorpe, L. E., Kontokosta, C. E. (2021). Exposure Density and Neighborhood Disparities in Covid-19 Infection Risk. *Proceedings of the National Academy of Sciences*, 118(13), e2021258118. 10.1073/pnas.2021258118
2. Bilal, U., Tabb, L. P., Barber, S., Diez Roux, A. V. (2021). Spatial Inequities in Covid-19 Testing, Positivity, Confirmed Cases, and Mortality in 3 U.S. Cities: An Ecological Study. *Annals of internal medicine*, 174(7), 936-944. 10.7326/M20-3936
3. Gordon, D. (2022). *Policing the Racial Divide: Urban Growth Politics and the Remaking of Segregation*. New York: NYU Press.
4. Herron, M. C., Smith, D. A. (2014). Race, Party, and the Consequences of Restricting Early Voting in Florida in the 2012 General Election. *Political Research Quarterly*, 67(3), 646-665. 10.1177/1065912914524831
5. Kuk, J., Hajnal, Z., Lajevardi, N. (2020). A Disproportionate Burden: Strict Voter Identification Laws and Minority Turnout. *Politics, Groups, and Identities*, 10(1), 126-134. 10.1080/21565503.2020.1773280
6. Barreto, M. A., Nuño, S., Sanchez, G. R., Walker, H. L. (2019). The Racial Implications of Voter Identification Laws in America. *American Politics Research*, 47(2), 238-249. 10.1177/1532673X18810012
7. Morris, K., Miller, P. (2022). Voting in a Pandemic: Covid-19 and Primary Turnout in Milwaukee, Wisconsin. *Urban Affairs Review*, 58(2), 597-613. 10.1177/10780874211005016

The Child Opportunity Index in Action

1. diversitydatakids.org. (2024). *Bibliography of Peer-Reviewed Articles and Reports That Use the Child Opportunity Index*. Waltham, MA, Institution for Child Youth and Family Policy, Heller School for Social Policy and Management, Brandeis University. https://www.diversitydatakids.org/sites/default/files/file/diversitydatakids.org_COI_bibliography_02-29-24_sorted.pdf
2. Ressler, R. W., Weiner, M., Acevedo-Garcia, D. (2023). In Conversation with Equity: Qualitatively Engaging Quantitative Data for Equitable Social Impact. *Public Integrity*, 1-19. 10.1080/10999922.2023.2264413
3. Acevedo-Garcia, D., Noelke, C., Ressler, R. W., Shafer, L. (2023 (August 31)). Improving the Infrastructure for Neighborhood Indices to Advance Health Equity. *Health Affairs Forefront*. 10.1377/forefront.20230830.428660
4. National Academies of Sciences, Engineering, and Medicine. (2023). *Toward a 21st Century National Data Infrastructure: Mobilizing Information for the Common Good*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/26688>
5. Christopher, G. C., Zimmerman, E. B., Chandra, A., Martin, L. T. (2021). Charting a Course for an Equity-Centered Data System: *Recommendations from the National Commission to Transform Public Health Data Systems*. Robert Wood Johnson Foundation. <https://www.rwjf.org/en/insights/our-research/2021/10/charting-a-course-for-an-equity-centered-data-system.html>

Why Neighborhoods Matter for Child Wellbeing

1. National Research Council, Institute of Medicine. (2004). *Children's Health, the Nation's Wealth: Assessing and Improving Child Health*. Washington, D.C.: National Academies Press (US). <https://doi.org/10.17226/10886>

2. Aris, I. M., Perng, W., Dabelea, D., Padula, A. M., Alshawabkeh, A., Vélez-Vega, C. M., Aschner, J. L., Camargo, C. A., Sussman, T. J., Dunlop, A. L. (2023). Neighborhood Opportunity and Vulnerability and Incident Asthma among Children. *JAMA Pediatrics*, 177(10), 1055-1064. 10.1001/jamapediatrics.2023.3133
3. Beck, A. F., Huang, B., Wheeler, K., Lawson, B., Kahn, R. S., Riley, C. L. (2017). The Child Opportunity Index and Disparities in Pediatric Asthma Hospitalization across Ohio Metropolitan Area, 2011-2013. *The Journal of Pediatrics*, 190, 200-206.e201.
4. Gilbert, S. (2018). Assessing Disparities in Asthma among Children across Neighborhoods of a Large Metropolitan Area: The Child Opportunity Index. *Journal of Ethnic and Cultural Studies*, 5(2), 186-195. <http://www.ejecs.org/index.php/JECS/article/view/135>
5. Skeen, E., Moor, C. M., Liu, A. H., Seibold, M. A., Hamlington, K. L. (2023, May 22, 2023). *Neighborhood-Level Child Opportunity Predicts Exacerbation-Prone Status in a Cohort of Urban Children with Asthma* American Thoracic Society 2023, Washington, D.C. <https://www.abstractsonline.com/pp8/#!/10703/presentation/4656>
6. Aris, I. M., Perng, W., Dabelea, D., Padula, A. M., Alshawabkeh, A., Vélez-Vega, C. M., Aschner, J. L., Camargo, C. A., Jr, Sussman, T. J., Dunlop, A. L., Elliott, A. J., Ferrara, A., Zhu, Y., Joseph, C. L. M., Singh, A. M., Hartert, T., Cacho, F., Karagas, M. R., North-Reid, T., . . . Oken, E. (2022). Associations of Neighborhood Opportunity and Social Vulnerability with Trajectories of Childhood Body Mass Index and Obesity among Us Children. *JAMA network open*, 5(12), e2247957-e2247957. 10.1001/jama-networkopen.2022.47957
7. Thorpe, D., Klein, D. N. (2022). The Effect of Neighborhood-Level Resources on Children's Physical Development: Trajectories of Body Mass Index and Pubertal Development and the Influence of Child Biological Sex. *Journal of Youth and Adolescence*. 10.1007/s10964-021-01547-4
8. Orellana, K. J., Lee, J., Yang, D., Hauth, L., Flynn, J. M. (2023). Impact of Social Determinants of Health on Adolescent Idiopathic Scoliosis Curve Severity. *Journal of Pediatric Orthopaedics*. 10.1097/bpo.0000000000002529
9. Elhusseiny, A. M., Oke, I., Adomfeh, J., Chauhan, M. Z., VanderVeen, D. K. (2023). Association of Neighborhood Environment with the Outcomes of Childhood Glaucoma. *Ophthalmology Glaucoma*. <https://doi.org/10.1016/j.ogla.2023.06.001>
10. Gunnar, M. R., Haapala, J., French, S. A., Sherwood, N. E., Seburg, E. M., Crain, A. L., Kunin-Batson, A. S. (2022). Race/Ethnicity and Age Associations with Hair Cortisol Concentrations among Children Studied Longitudinally from Early through Middle Childhood. *Psychoneuroendocrinology*, 144, 105892-105892. 10.1016/j.psyneuen.2022.105892
11. Roubinov, D. S., Hagan, M. J., Boyce, W. T., Adler, N. E., Bush, N. R. (2018). Family Socioeconomic Status, Cortisol, and Physical Health in Early Childhood: The Role of Advantageous Neighborhood Characteristics. *Psychosomatic Medicine*, 80(5), 492-501. 10.1097/psy.0000000000000585
12. Ho, B. J., Rucker, A., Boyle, M. D., Badolato, G. M., Goyal, M. K. (2022). Relationship between Food Insecurity and Neighborhood Child Opportunity Index. *The Journal of Pediatrics*. 10.1016/j.jpeds.2022.02.042
13. Kwon, E. G., Nehra, D., Hall, M., Herrera-Escobar, J. P., Rivara, F. P., Rice-Townsend, S. E. (2023). The Association between Childhood Opportunity Index and Pediatric Hospitalization for Firearm Injury or Motor Vehicle Crash. *Surgery*. 10.1016/j.surg.2023.04.011
14. Sarnthiyakul, S., Ross, E. E., Ourshalimian, S., Spurrier, R. G., Chaudhari, P. P. (2023). Neighborhood Deprivation and Childhood Opportunity Indices Are Associated with Violent Injury among Children in Los Angeles County. *J Trauma Acute Care Surg*, 95(3), 397-402. 10.1097/ta.0000000000003860
15. Gastineau, K. A. B., Williams, D. J., Hall, M., Goyal, M. K., Wells, J., Freundlich, K. L., Carroll, A. R., Browning, W. L., Doherty, K., Fritz, C. Q., Frost, P. A., Kreth, H., Plancarte, C., Barkin, S. (2021). Pediatric Firearm-Related Hospital Encounters During the Sars-Cov-2 Pandemic. *Pediatrics*, 148(2), e2021050223. 10.1542/peds.2021-050223
16. Reddy, A. R. (2024). Child Opportunity Index Is Associated with Pediatric Firearm Injury in Philadelphia, Pennsylvania. *Frontiers in public health*, 12, 1-5. 10.3389/fpubh.2024.1339334
17. Aris, I. M., Rifas-Shiman, S. L., Jimenez, M. P., Li, L.-J., Hivert, M.-F., Oken, E., James, P. (2021). Neighborhood Child Opportunity Index and Adolescent Cardiometabolic Risk. *Pediatrics (Evanston)*. <https://pediatrics.aappublications.org/content/early/2021/01/19/peds.2020-018903>
18. Zewdie, H., Zhao, A. Y., Patel, H. H., Hansen, E., Messiah, S. E., Armstrong, S. C., Skinner, A. C., Neshteruk, C. D., Hipp, J. A., D'Agostino, E. M. (2021). The Association between Neighborhood Quality, Youth Physical Fitness, and Modifiable Cardiovascular Disease Risk Factors. *Annals of Epidemiology*, 57, 30-39. 10.1016/j.annepidem.2021.02.004

19. Minh, A., Muhajarine, N., Janus, M., Brownell, M., Guhn, M. (2017). A Review of Neighborhood Effects and Early Child Development: How, Where, and for Whom, Do Neighborhoods Matter? *Health & Place*, 46, 155-174. 10.1016/j.health-place.2017.04.012
20. Leventhal, T., Dupéré, V. (2019). Neighborhood Effects on Children's Development in Experimental and Nonexperimental Research. *Annual Review of Developmental Psychology*, 1(1), 149-176. 10.1146/annurev-devpsych-121318-085221
21. Leventhal, T. (2018). Neighborhood Context and Children's Development: When Do Neighborhoods Matter Most? *Child Development Perspectives*, 12(4), 258-263. <https://doi.org/10.1111/cdep.12296>
22. Sampson, R. J., Sharkey, P., Raudenbush, S. W. (2008). Durable Effects of Concentrated Disadvantage on Verbal Ability among African-American Children. *Proceedings of the National Academy of Sciences*. 10.1073/pnas.0710189104.
23. Cubides-Mateus, D. M., LoCasale-Crouch, J., Turnbull, K. L. P. (2023). Do Neighborhood Resources Mitigate Family Risk to Preschool Children's Executive Function Skills Growth? *Prevention Science*, 24(1), 115-125. 10.1007/s1121-022-01480-3
24. Thorpe, D., Klein, D. N. (2022). The Effect of Neighborhood-Level Resources on Children's Physical Development: Trajectories of Body Mass Index and Pubertal Development and the Influence of Child Biological Sex. *Journal of Youth and Adolescence*, 51(5), 967-983. 10.1007/s10964-021-01547-4
25. Children's Hospital Association. Leverage Clinical and Resource Utilization Data. Retrieved February 28, 2024, from <https://www.childrenshospitals.org/phis>
26. diversitydatakids.org. (2024). *Bibliography of Peer-Reviewed Articles and Reports That Use the Child Opportunity Index*. Waltham, MA, Institution for Child Youth and Family Policy, Heller School for Social Policy and Management, Brandeis University. https://www.diversitydatakids.org/sites/default/files/file/diversitydatakids.org_COI_bibliography_02-29-24_sorted.pdf
27. Ramgopal, S., Jaeger, L., Cercone, A., Martin-Gill, C., Fishe, J. (2022). The Child Opportunity Index and Pediatric Emergency Medical Services Utilization. *Prehospital Emergency Care*, 1-8. 10.1080/10903127.2022.2076268
28. Kaiser, S. V., Hall, M., Bettenhausen, J. L., Sills, M. R., Hoffmann, J. A., Noelke, C., Morse, R. B., Lopez, M. A., Parikh, K. (2022). Neighborhood Child Opportunity and Emergency Department Utilization. *Pediatrics*. 10.1542/peds.2021-056098
29. Tyris, J., Gourishankar, A., Kachroo, N., Teach, S. J., Parikh, K. (2023). The Child Opportunity Index and Asthma Morbidity among Children Younger Than 5 Years Old in Washington, Dc. *Journal of Allergy and Clinical Immunology*. [https://www.jacionline.org/article/S0091-6749\(23\)01145-4/fulltext](https://www.jacionline.org/article/S0091-6749(23)01145-4/fulltext)
30. Parikh, K., Lopez, M. A., Hall, M., Bettenhausen, J., Sills, M. R., Hoffmann, J., Morse, R., Shah, S. S., Noelke, C., Kaiser, S. V. (2023). Child Opportunity Index and Rehospitalization for Ambulatory Care Sensitive Conditions at Us Children's Hospitals. *Hosp Pediatr*. 10.1542/hpeds.2023-007279
31. Akande, M. Y., Ramgopal, S., Graham, R. J., Goodman, D. M., Heneghan, J. A. (2023). Child Opportunity Index and Emergent Picu Readmissions: A Retrospective, Cross-Sectional Study of 43 U.S. Hospitals. *Pediatric Critical Care Medicine*. 10.1097/PCC.0000000000003191
32. Bettenhausen, J. L., Noelke, C., Ressler, R. W., Hall, M., Harris, M., Peltz, A., Auger, K. A., Teufel li, R. J., Lutmer, J. E., Krager, M. K., Simon, H. K., Neuman, M. I., Pavuluri, P., Morse, R. B., Eghtesady, P., Macy, M. L., Shah, S. S., Synhorst, D. C., Gay, J. C. (2021). The Association of the Childhood Opportunity Index on Pediatric Readmissions and Emergency Department Revisits. *Academic Pediatrics*. 10.1016/j.acap.2021.12.015
33. Ramachandran, J., Mayne, S. L., Kelly, M. K., Powell, M., McPeak, K. E., Dalembert, G., Jenssen, B. P., Fiks, A. G. (2023). Measures of Neighborhood Opportunity and Adherence to Recommended Pediatric Primary Care. *JAMA Network Open*, 6(8). <https://doi.org/10.1001/jamanetworkopen.2023.30784>
34. Annis, I. E., deJong, N. A., Christian, R. B., Davis, S. A., Hughes, P. M., Thomas, K. C. (2023). Neighborhood Context and Children's Health Care Utilization and Health Outcomes: A Comprehensive Descriptive Analysis of National Survey Data. *Health Affairs Scholar*, 1(3), qxad038.
35. Slopen, N., Cosgrove, C., Acevedo-Garcia, D., Hatzenbuehler, M. L., Shonkoff, J. P., Noelke, C. (2023). Neighborhood Opportunity and Mortality among Children and Adults in Their Households. *Pediatrics* (Evanston). <https://publications.aap.org/pediatrics/article-abstract/doi/10.1542/peds.2022-058316/190871/Neighborhood-Opportunity-and-Mortality-Among>

36. Hicks, A. L., Handcock, M. S., Sastry, N., Pebley, A. R. (2018). Sequential Neighborhood Effects: The Effect of Long-Term Exposure to Concentrated Disadvantage on Children's Reading and Math Test Scores. *Demography*, 55(1), 1-31. <http://dx.doi.org/10.1007/s13524-017-0636-5>
37. McCoy, D. C., Connors, M. C., Morris, P. A., Yoshikawa, H., Friedman-Krauss, A. H. (2015). Neighborhood Economic Disadvantage and Children's Cognitive and Social-Emotional Development: Exploring Head Start Classroom Quality as a Mediating Mechanism. *Early Childhood Research Quarterly*, 32, 150-159.
38. Wodtke, G. T., Harding, D. J., Elwert, F. (2011). Neighborhood Effects in Temporal Perspective: The Impact of Long-Term Exposure to Concentrated Disadvantage on High School Graduation. *American Sociological Review*, 76(5), 713-736. 10.1177/0003122411420816
39. Lenahan, T., LoCasale-Crouch, J., Chamberlain, C., Williford, A., Downer, J., Whittaker, J., Miller, L. (2022). Examining the Association between Neighborhood Conditions and School Readiness across Low and Highly Segregated School Attendance Boundaries [Original Research]. *Frontiers in Education*, 7, 1-18. 10.3389/educ.2022.932558
40. Opara, I., Thorpe, D., Lardier, D. T. (2022). School Absenteeism and Neighborhood Deprivation and Threat: Utilizing the Child Opportunity Index to Assess for Neighborhood-Level Disparities in Passaic County, Nj. *Urban education (Beverly Hills, Calif.)*, 4208592211257. 10.1177/00420859221125704
41. Adamson, F., Darling-Hammond, L. (2012). Funding Disparities and the Inequitable Distribution of Teachers: Evaluating Sources and Solutions. *education policy analysis archives*, 20(37), 1-42. 10.14507/epaa.v20n37.2012
42. Nowicki, J. (2018). *Public High Schools with More Students in Poverty and Smaller Schools Provide Fewer Academic Offerings to Prepare for College*. Washington, D.C., US Government Accountability Office. <https://eric.ed.gov/?id=ED590911>
43. Allegretto, S., García, E., Weiss, E. (2022). *Public Education Funding in the U.S. Needs an Overhaul: How a Larger Federal Role Would Boost Equity and Shield Children from Disinvestment During Downturns*. Washington, D.C., Economic Policy Institute, <https://www.epi.org/publication/public-education-funding-in-the-us-needs-an-overhaul/>
44. Jones, S. E., Underwood, J. M., Pampati, S., Le, V. D., DeGue, S., Demissie, Z., Adkins, S. H., Barrios, L. C. (2020). School-Level Poverty and Persistent Feelings of Sadness or Hopelessness, Suicidality, and Experiences with Violence Victimization among Public High School Students. *J Health Care Poor Underserved*, 31(3), 1248-1263. 10.1353/hpu.2020.0092
45. Rumberger, R. W., Palardy, G. J. (2005). Does Segregation Still Matter? The Impact of Student Composition on Academic Achievement in High School. *Teachers college record*, 107(9), 1999-2045. 10.1177/016146810510700905
46. Black, D. W. (2012). Middle-Income Peers as Educational Resources and the Constitutional Right to Equal Access. *Bcl Rev.*, 53, 373.
47. Schwartz, H. (2010). *Housing Policy Is School Policy: Economically Integrative Housing Promotes Academic Success in Montgomery County, Maryland*. New York, NY, The Century Foundation, <https://tcf.org/assets/downloads/tcf-Schwartz.pdf>
48. Aris, I. M., Perng, W., Dabelea, D., Padula, A. M., Alshawabkeh, A., Vélez-Vega, C. M., Aschner, J. L., Camargo, C. A., Sussman, T. J., Dunlop, A. L. (2023). Neighborhood Opportunity and Vulnerability and Incident Asthma among Children. *JAMA Pediatrics*.
49. Koinis-Mitchell, D., Kopel, S. J., Farrow, M. L., McQuaid, E. L., Nassau, J. H. (2019). Asthma and Academic Performance in Urban Children. *Annals of Allergy, Asthma & Immunology*, 122(5), 471-477. 10.1016/j.anai.2019.02.030
50. Lanphear, B. P., Lowry, J. A., Ahdoot, S., Baum, C. R., Bernstein, A. S., Bole, A., Brumberg, H. L., Campbell, C. C., Pacheco, S. E., Spanier, A. J. (2016). Prevention of Childhood Lead Toxicity. *Pediatrics*, 138(1).
51. Sheehan, C., Powers, D., Margerison-Zilko, C., McDevitt, T., Cubbin, C. (2018). Historical Neighborhood Poverty Trajectories and Child Sleep. *Sleep Health*, 4(2), 127-134. 10.1016/j.sleh.2017.12.005
52. Sharkey, P. T., Tirado-Strayer, N., Papachristos, A. V., Raver, C. C. (2012). The Effect of Local Violence on Children's Attention and Impulse Control. *American Journal of Public Health*, 102(12), 2287-2293. 10.2105/AJPH.2012.300789
53. Galster, G. (2012). The Mechanism(S) of Neighbourhood Effects: Theory, Evidence, and Policy Implications. In M. van Ham, D. Manley, N. Bailey, L. Simpson, & D. Maclennan (Eds.), *Neighbourhood Effects Research: New Perspectives* (pp. 23-56). Dordrecht, Netherlands: Springer.
54. Bozick, R., DeLuca, S. (2011). Not Making the Transition to College: School, Work, and Opportunities in the Lives of American Youth. *Social Science Research*, 40(4), 1249-1262. 10.1016/j.ssresearch.2011.02.003.

55. Galster, G. C. (2014). *How Neighborhoods Affect Health, Well-Being, and Young People's Futures*. Chicago: McArthur Foundation.
56. Galster, G. C. (2019). *Making Our Neighborhoods, Making Our Selves*. University of Chicago Press.
57. Chetty, R., Hendren, N., Katz, L. F. (2016). The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment. *American Economic Review*, 106(4), 855-902. doi: 10.1257/aer.20150572
58. Chetty, R., Jackson, M. O., Kuchler, T., Stroebel, J., Hendren, N., Fluegge, R. B., Gong, S., Gonzalez, F., Grondin, A., Jacob, M. (2022). Social Capital I: Measurement and Associations with Economic Mobility. *Nature*, 608(7921), 108-121. 10.1038/s41586-022-04996-4
59. Chetty, R., Jackson, M. O., Kuchler, T., Stroebel, J., Hendren, N., Fluegge, R. B., Gong, S., Gonzalez, F., Grondin, A., Jacob, M. (2022). Social Capital I I: Determinants of Economic Connectedness. *Nature*, 608(7921), 122-134. 10.1038/s41586-022-04997-3
60. Sanbonmatsu, L., Potter, N. A., Adam, E., Duncan, G. J., Katz, L. F., Kessler, R. C., Ludwig, J., Marvakov, J., Yang, F., Congdon, W. J. (2012). The Long-Term Effects of Moving to Opportunity on Adult Health and Economic Self-Sufficiency. *Cityscape*, 109-136. 10.2307/41581100
61. Osypuk, T. L., Tchetgen, E. J. T., Acevedo-Garcia, D., Earls, F. J., Lincoln, A., Schmidt, N. M., Glymour, M. M. (2012). Differential Mental Health Effects of Neighborhood Relocation among Youth in Vulnerable Families: Results from a Randomized Trial. *Archives of General Psychiatry*, 69(12), 1284-1294. 10.1001/archgenpsychiatry.2012.449
62. Shanahan, K. H., Subramanian, S. V., Burdick, K. J., Monuteaux, M. C., Lee, L. K., Fleegler, E. W. (2022). Association of Neighborhood Conditions and Resources for Children with Life Expectancy at Birth in the Us. *JAMA Network Open*, 5(10), e2235912-e2235912. 10.1001/jamanetworkopen.2022.35912

Neighborhood Opportunity, Segregation and Racism: Why Neighborhoods Matter for Equity

1. Owens, A. (2017). Racial Residential Segregation of School-Age Children and Adults: The Role of Schooling as a Segregating Force. *The Russell Sage Foundation Journal of the Social Sciences*, 3(2), 63-80. 10.7758/rsf.2017.3.2.03
2. Silver, C. (1991). *The Racial Origins of Zoning: Southern Cities from 1910–40*. *Planning Perspectives*, 6(2), 189-205. 10.1080/02665439108725726
3. Jones-Correa, M. (2000-2001). The Origins and Diffusion of Racial Restrictive Covenants. *Political Science Quarterly*, 115(4). 10.2307/2657609
4. Aaronson, D., Faber, J., Hartley, D., Mazumder, B., Sharkey, P. (2021). 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, 103622. 10.1016/j.regsciurbeco.2020.103622
5. Aaronson, D., Hartley, D., Mazumder, B., Stinson, M. (2023). The Long-Run Effects of the 1930s Redlining Maps on Children. *Journal of Economic Literature*, 61(3), 846-862. 10.1257/jel.20221702
6. Digital Scholarship Lab. *Renewing Inequality: Urban Renewal, Family Displacements, and Race 1950-1966*. Retrieved March 11, 2024 from <https://dsl.richmond.edu/panorama/renewal/#view=0/0/1&viz=cartogram>
7. Rothstein, R. (2017). *The Color of Law: A Forgotten History of How Our Government Segregated America*. New York: Liveright Publishing. <https://wwnorton.com/books/the-color-of-law/>
8. Owens, A. (2020). Unequal Opportunity: School and Neighborhood Segregation in the USA. *Race and Social Problems*, 12(1), 29-41. 10.1007/s12552-019-09274-z
9. Kahlenberg, R. (2023). *Excluded: How Snob Zoning, Nimbyism, and Class Bias Build the Walls We Don't See*. Public Affairs.
10. Lens, M. C., Monkkonen, P. (2016). Do Strict Land Use Regulations Make Metropolitan Areas More Segregated by Income? *Journal of the American Planning Association*, 82(1), 6-21. 10.1080/01944363.2015.1111163
11. Menendian, S., Gambhir, S., Gales, A. (2020). *Racial Segregation in the San Francisco Bay Area, Part 5: Remedies, Solutions, and Targets*. Berkeley, CA, Othering & Belonging Institute, University of California Berkeley. <https://belonging.berkeley.edu/racial-segregation-san-francisco-bay-area-part-5>

12. Rothwell, J. (2019). *Land Use Politics, Housing Costs, and Segregation in California Cities*. Berkeley, CA, Turner Center for Housing Innovation, University of California Berkeley. <https://turnercenter.berkeley.edu/wp-content/uploads/2023/04/Land-Use-Politics-Rothwell.pdf>
13. Schuetz, J., Murray, C. (2019). *Is California's Apartment Market Broken? The Relationship between Zoning, Rents, and Multifamily Development*. Berkeley, CA, Turner Center for Housing Innovation, University of California Berkeley. https://www.brookings.edu/wp-content/uploads/2019/07/20190711_metro_Is-California-Apartment-Market-Broken-Schuetz-Murray.pdf.
14. Trounstein, J. (2018). *Segregation by Design: Local Politics and Inequality in American Cities*. Cambridge University Press. <https://doi.org/10.1017/9781108555722>
15. Williams, D. A., Delgado, L. H., Cameron, N., Steil, J. (2023). The Properties of Whiteness: Land Use Regulation and Anti-Racist Futures. *Journal of the American Planning Association*, 89(4), 1-12. 10.1080/01944363.2022.2144930
16. Pendall, R. (2000). Local Land Use Regulation and the Chain of Exclusion. *Journal of the American Planning Association*, 66(2), 125-142. <https://doi.org/10.1080/01944360008976094>
17. Trounstein, J. (2020). The Geography of Inequality: How Land Use Regulation Produces Segregation. *American Political Science Review*, 114(2), 443-455. 10.1017/S0003055419000844
18. Rothwell, J., Massey, D. S. (2009). The Effect of Density Zoning on Racial Segregation in U.S. Urban Areas. *Urban Affairs Review*, 44(6), 779-806. <https://doi.org/10.1177/1078087409334163>
19. Cashin, S. (2021). *White Space, Black Hood: Opportunity Hoarding and Segregation in the Age of Inequality*. Boston, MA: Beacon Press.
20. Bell, J. (2015). Can't We Be Your Neighbor: Trayvon Martin, George Zimmerman, and the Resistance to Blacks as Neighbors. *Boston University Law Review*, 95, 851-871. <https://www.repository.law.indiana.edu/facpub/2411>
21. Olorunnipa, T., Witte, G. (2020). George Floyd's America: Born with Two Strikes, How Systemic Racism Shaped Floyd's Life and Hobbled His Ambition. *The Washington Post*. Retrieved February 28, 2024, from <https://www.washingtonpost.com/graphics/2020/national/george-floyd-america/systemic-racism/>

The Child Opportunity Index 3.0 Technical Summary

1. Acevedo-Garcia, D., McArdle, N., Hardy, E., Crisan, U. I., Romano, B., Norris, D., Baek, M., Reece, J. (2014). The Child Opportunity Index: Improving Collaboration between Community Development and Public Health. *Health Affairs*, 33(11), 1948-1957. <http://content.healthaffairs.org/content/33/11/1948.long>
2. National Research Council, Institute of Medicine. (2004). *Children's Health, the Nation's Wealth: Assessing and Improving Child Health*. Washington, D.C.: National Academies Press (US). <https://doi.org/10.17226/10886>
3. Noelke, C., McArdle, N., DeVoe, B., Leonardos, M., Lu, Y., Ressler, R. W., Acevedo-Garcia, D. (2024). *Child Opportunity Index 3.0 Technical Documentation*. diversitydatakids.org. <https://www.diversitydatakids.org/research-library/coi-30-technical-documentation>

A Snapshot of Child Opportunity across the 100 Largest Metropolitan Areas

1. The Annie E Casey Foundation, Kids Count Data Center. (2023). *Children in Poverty According to the Supplemental Poverty Measure in United States*. Baltimore, MD: <https://datacenter.aecf.org/data/tables/11230-children-in-poverty-according-to-the-supplemental-poverty-measure#detailed/1/any/false/2479,2097,1985/any/21624,21625>
2. Tilly, C. (1998). *Durable Inequality*. Berkeley and Los Angeles: University of California Press.
3. Tilly, C. (2003). Changing Forms of Inequality. *Sociological Theory*, 21(1), 31-36. <http://www.jstor.org/stable/3108606>
4. DuBois, W. E. B. (1899). *The Philadelphia Negro: A Social Study*. Philadelphia: University of Pennsylvania Press. <http://www.jstor.org/stable/j.ctt3fhpfb>

Child Opportunity and Adult Outcomes

1. National Center for Health Statistics. (2018). U.S. Small-Area Life Expectancy Estimates Project – Usaleep:): *Life Expectancy Estimates File for {Jurisdiction}, 2010-2015*. National Center for Health Statistics. Retrieved March 5, 2024 from <https://www.cdc.gov/nchs/nvss/usaleep/usaleep.html>
2. Chetty, R., Friedman, J. N., Hendren, N., Jones, M. R., Porter, S. R. (2018). The Opportunity Atlas: Mapping the Childhood Roots of Social Mobility. *National Bureau of Economic Research*(25147), 1-95. 10.3386/w25147. (NBER Working Paper Series)
3. Chetty, R., Friedman, J. N., Hendren, N., Jones, M. R., Porter, S. R. (2018). *Data*. <https://opportunityinsights.org/data>.
4. Centers for Disease Control and Prevention. (2023). *Places: Local Data for Better Health*. Centers for Disease Control and Prevention. <https://www.cdc.gov/places/>

The Five Americas

1. United Nations Development Programme. (2024). *Human Development Index (H.D.I.)*. Retrieved March 11, 2024 from <https://hdr.undp.org/data-center/human-development-index#/indicies/HDI>
2. United Nations Development Program, Data Center, Human Development Index. (2024). *Human Development Index and Its Components*. <https://hdr.undp.org/data-center/human-development-index#/indicies/HDI>
3. Sheth, S. K., Bettencourt, L. M. A. (2023). Measuring Health and Human Development in Cities and Neighborhoods in the United States. *npj Urban Sustainability*, 3(1), 7. 10.1038/s42949-023-00088-y
4. Murray, C. J. L., Kulkarni, S. C., Michaud, C., Tomijima, N., Bulzacchelli, M. T., Iandiorio, T. J., Ezzati, M. (2006). Eight Americas: Investigating Mortality Disparities across Races, Counties, and Race-Counties in the United States. *PLOS Medicine*, 3(9), e260. 10.1371/journal.pmed.0030260
5. Egen, O., Beatty, K., Blackley, D. J., Brown, K., Wykoff, R. (2017). Health and Social Conditions of the Poorest Versus Wealthiest Counties in the United States. *American Journal of Public Health*, 107(1), 130-135. 10.2105/AJPH.2016.303515
6. UNICEF Data, Monitoring the situation of children and women. (2024). *How Many Children Are There in the U.K.?* <https://data.unicef.org/how-many/how-many-children-under-18-are-there-in-the-uk/>
7. Rothstein, R. (2017). *The Color of Law: A Forgotten History of How Our Government Segregated America*. New York: Liveright Publishing. <https://www.norton.com/books/the-color-of-law/>
8. Kahlenberg, R. (2023). *Excluded: How Snob Zoning, Nimbysism, and Class Bias Build the Walls We Don't See*. Public Affairs.
9. Saez, E., Zucman, G. (2020). The Rise of Income and Wealth Inequality in America: Evidence from Distributional Macroeconomic Accounts. *Journal of Economic Perspectives*, 34(4), 3-26. 10.1257/jep.34.4.3
10. Heltzel, G., Laurin, K. (2020). Polarization in America: Two Possible Futures. *Current Opinion in Behavioral Sciences*, 34, 179-184. 10.1016/j.cobeha.2020.03.008

Policies to Advance Equity in Children's Neighborhood Opportunity

1. Collyer, S., Curran, M., Harris, D., Wimer, C. (2023). *Children Left Behind by the Child Tax Credit in 2022*. Center on Poverty and Social Policy, Columbia University. www.povertycenter.columbia.edu/publication/2023/children-left-behind-by-the-child-tax-credit-i
2. Wimer, C., Collyer, S., Harris, D., Lee, J. (2022). *The 2021 Child Tax Credit Expansion: Child Poverty Reduction and the Children Formerly Left Behind*. Center on Poverty and Social Policy, Columbia University. <https://www.povertycenter.columbia.edu/publication/2021-child-poverty-reduction>
3. Hill, L., Artiga, S., Damico, A. (2024). *Health Coverage by Race and Ethnicity, 2010-2022*. Kaiser Family Foundation. <https://www.kff.org/racial-equity-and-health-policy/issue-brief/health-coverage-by-race-and-ethnicity/>
4. Carrión, D., Colicino, E., Pedretti, N. F., Arfer, K. B., Rush, J., DeFelice, N., Just, A. C. (2021). Neighborhood-Level Disparities and Subway Utilization During the Covid-19 Pandemic in New York City. *Nature Communications*, 12(1), 3692. 10.1038/s41467-021-24088-7

5. Hatef, M., MPH, Elham, Chang, H.-Y., Kitchen, C., Weiner, J. P., Kharrazi, H. (2020). Assessing the Impact of Neighborhood Socioeconomic Characteristics on Covid-19 Prevalence across Seven States in the United States [Brief Research Report]. *Frontiers in public health*, 8. 10.3389/fpubh.2020.571808
6. Berkowitz, R. L., Gao, X., Michaels, E. K., Mujahid, M. S. (2021). Structurally Vulnerable Neighbourhood Environments and Racial/Ethnic Covid-19 Inequities. *Cities & Health*, 5(sup1), S59-S62. 10.1080/23748834.2020.1792069
7. Bowe, B., Xie, Y., Gibson, A. K., Cai, M., van Donkelaar, A., Martin, R. V., Burnett, R., Al-Aly, Z. (2021). Ambient Fine Particulate Matter Air Pollution and the Risk of Hospitalization among Covid-19 Positive Individuals: Cohort Study. *Environment International*, 154, 106564. <https://doi.org/10.1016/j.envint.2021.106564>
8. Hardy, E., Joshi, P., Leonardos, M., Garcia, D. (2021). *Advancing Racial Equity through Neighborhood-Informed Early Childhood Policies: A Research and Policy Review*. diversitydatakids.org & Brandeis University. <https://www.diversitydatakids.org/research-library/research-report/advancing-racial-equity-through-neighborhood-informed-early>
9. U.S. Environmental Protection Agency. (2023). *Climate Change and Children's Health and Well-Being in the United States*. Washington, DC, U.S. Environmental Protection Agency. <https://www.epa.gov/cira/climate-change-and-childrens-health-report>
10. Federal Deposit Insurance Corporation. (2023, October 24, 2023). *Agencies Issue Final Rule to Strengthen and Modernize Community Reinvestment Act Regulations* <https://www.fdic.gov/news/press-releases/2023/pr23086.html>
11. Turner, M. A., O'Brien, M. (2021). *Place-Conscious Strategies to Restore Opportunity and Overcome Injustice. Five Guiding Principles Illustrated by Building Healthy Communities*. Washington, DC, The Urban Institute, Metropolitan Housing and Communities Policy Center. <https://www.urban.org/research/publication/place-conscious-strategies-restore-opportunity-and-overcome-injustice>
12. Gerber, S. (2010). *Adopting a Place-Conscious Approach to Community Development: A Conversation with Margery Austin Turner of the Urban Institute*. Minneapolis, MN, Federal Reserve Bank of Minneapolis. <https://www.minneapolisfed.org/article/2010/adopting-a-placeconscious-approach-to-community-development-a-conversation-with-margery-austin-turner-of-the-urban-institute>
13. Students for Fair Admissions Inc. v. President & Fellows of Harvard College, 600 (Supreme Court of the United States 2023). https://www.supremecourt.gov/opinions/22pdf/20-1199_hgdj.pdf
14. Bhatia, A., Badger, E. (2024). Can You Create a Diverse College Class without Affirmative Action? *The New York Times*, Retrieved March 10, 2024, from <https://www.nytimes.com/interactive/2024/03/09/upshot/affirmative-action-alternatives.html>
15. Cashin, S. (2014). Place, Not Race: Affirmative Action and the Geography of Educational Opportunity, 47. *University of Michigan Journal of Law Reform*, 47, 935-965. <https://doi.org/10.36646/mjlr.47.4.place>
16. Jones, T., Nichols, A. H. (2020). *Hard Truths: Why Only Race-Conscious Policies Can Fix Racism in Higher Education*. The Education Trust., <https://edtrust.org/resource/hard-truths/>
17. Quilantan, B. (2023). How the Supreme Court's Decision on Affirmative Action May Change the Future of College. <https://www.politico.com/news/2023/06/22/the-supreme-court-could-end-race-in-college-admissions-heres-what-to-know-00103149>
18. Shrider, E. A., Creamer, J. (2023). *Poverty in the United States: 2022* (Current Population Reports, Issue. U.S. Census Bureau. <https://www.census.gov/content/dam/Census/library/publications/2023/demo/p60-280.pdf>
19. Lanphear, B. P. (2015). The Impact of Toxins on the Developing Brain. *Annual Review of Public Health*, 36(1), 211-230. 10.1146/annurev-publhealth-031912-114413
20. Miodovnik, A. (2011). Environmental Neurotoxicants and Developing Brain. *Mount Sinai Journal of Medicine: A Journal of Translational and Personalized Medicine*, 78(1), 58-77. 10.1002/msj.20237
21. Wodtke, G. T., Ramaj, S., Schachner, J. (2022). Toxic Neighborhoods: The Effects of Concentrated Poverty and Environmental Lead Contamination on Early Childhood Development. *Demography*, 59(4), 1275-1298. 10.1215/00703370-10047481
22. Collyer, S., Curran, M. A., Garfinkel, I., Harris, D., Parolin, Z., Waldfogel, J., Wimer, C. (2023). The Child Tax Credit and Family Well-Being: An Overview of Reforms and Impacts. *The ANNALS of the American Academy of Political and Social Science*, 706(1), 224-255. 10.1177/00027162231205148

23. Urban-Brookings Tax Policy Institute. (2021). *Where Are Families Most at Risk of Missing out on the Expanded Child Tax Credit?* Washington, D.C.: Retrieved March 10, 2024 from https://apps.urban.org/features/missing-ctc-map/data/CTC_data.xlsx
24. Acevedo-Garcia, D., Joshi, P., Ruskin, E., Walters, A. N., Sofer, N. (2021). Restoring an Inclusionary Safety Net for Children in Immigrant Families: A Review of Three Social Policies. *Health Affairs*, 40(7). <https://doi.org/10.1377/hlthaff.2021.00206>
25. Acevedo-Garcia, D., Joshi, P., Ruskin, E., Walters, A. N., Sofer, N., Guevara, C. A. (2021). Including Children in Immigrant Families in Policy Approaches to Reduce Child Poverty. *Academic Pediatrics*, 21(8), S117-S125. <https://doi.org/10.1016/j.acap.2021.06.016>
26. Acevedo-Garcia, D., Walters, A. N., Shafer, L., Wong, E., Joshi, P. (2022). *A Policy Equity Analysis of the Earned Income Tax Credit*. diversitydatakids.org & Brandeis University. <https://www.diversitydatakids.org/research-library/research-report/policy-equity-analysis-eitc>
27. Faber, J. W. (2020). We Built This: Consequences of New Deal Era Intervention in America's Racial Geography. *American Sociological Review*, 85(5), 739-775. 10.1177/0003122420948464
28. Aaronson, D., Hartley, D. A., Mazumder, B. (2020). The Effects of the 1930s HOLC 'Redlining' Maps. *American Economic Journal: Economic Policy*, 13(4), 355-392. 10.1257/pol.20190414
29. Aaronson, D., Faber, J., Hartley, D., Mazumder, B., Sharkey, P. (2021). 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, 103622. 10.1016/j.regsciurbeco.2020.103622
30. Jacoby, S. F., Dong, B., Beard, J. H., Wiebe, D. J., Morrison, C. N. (2018). The Enduring Impact of Historical and Structural Racism on Urban Violence in Philadelphia. *Social Science & Medicine*, 199, 87-95. 10.1016/j.socscimed.2017.05.038
31. Krieger, N., Van Wye, G., Huynh, M., Waterman, P. D., Maduro, G., Li, W., Gwynn, R. C., Barbot, O., Bassett, M. T. (2020). Structural Racism, Historical Redlining, and Risk of Preterm Birth in New York City, 2013–2017. *American Journal of Public Health*, 110(7), 1046-1053. 10.2105/AJPH.2020.305656
32. Nardone, A., Casey, J. A., Morello-Frosch, R., Mujahid, M., Balmes, J. R., Thakur, N. (2020). Associations between Historical Residential Redlining and Current Age-Adjusted Rates of Emergency Department Visits Due to Asthma across Eight Cities in California: An Ecological Study. *The Lancet Planetary Health*, 4(1), e24-e31. 10.1016/S2542-5196(19)30241-4
33. McClure, E., Feinstein, L., Cordoba, E., Douglas, C., Emch, M., Robinson, W., Galea, S., Aiello, A. E. (2019). The Legacy of Redlining in the Effect of Foreclosures on Detroit Residents' Self-Rated Health. *Health & Place*, 55, 9-19. 10.1016/j.health-place.2018.10.004
34. Nardone, A., Rudolph, K. E., Morello-Frosch, R., Casey, J. A. (2021). Redlines and Greenspace: The Relationship between Historical Redlining and 2010 Greenspace across the United States. *Environmental health perspectives*, 129(1), 017006. 10.1289/EHP749
35. Baker, B. D., Di Carlo, M., Green III, P. C. (2022). *Segregation and School Funding: How Housing Discrimination Reproduces Unequal Opportunity*. Washington, D.C., Albert Shanker Institute. <https://eric.ed.gov/?id=ED620896>
36. Nakamura, D. (2023). Justice Dept. Wins \$31 Million Redlining Settlement with L.A. Bank. *The Washington Post*. <https://www.washingtonpost.com/national-security/2023/01/12/doj-bank-redlining/>
37. Affirmatively Furthering Fair Housing: A Proposed Rule by the Housing and Urban Development Department on 02/09/2023, 8516-8590 (2023). <https://www.federalregister.gov/documents/2023/02/09/2023-00625/affirmatively-furthering-fair-housing>
38. Poverty & Race Research Action Council. (2022). How States Can Affirmatively Further Fair Housing: Key Leverage Points and Best Practices. <https://prrac.org/pdf/affh-for-states.pdf>
39. Jennings, J., Brown, K., Larmond, L., Terrell, R. (2021). Fair Housing and Zoning: Toward a New Boston? *Shelterforce Online*. <https://shelterforce.org/2021/02/18/fair-housing-and-zoning-toward-a-new-boston/>
40. National Fair Housing Alliance. (2022). *2022 Fair Housing Trends Report*. Washington, D.C. <https://nationalfairhousing.org/wp-content/uploads/2022/11/2022-Fair-Housing-Trends-Report.pdf>
41. U.S. Department of Housing and Urban Development. (February 14, 2024). *H.U.D. Releases 2023 Update to Equity Action Plan, Outlines New Commitments to Advance Equity* https://www.hud.gov/press/press_releases_media_advisories/hud_no_24_029

42. Sanbonmatsu, L., Potter, N. A., Adam, E., Duncan, G. J., Katz, L. F., Kessler, R. C., Ludwig, J., Marvakov, J., Yang, F., Congdon, W. J. (2012). The Long-Term Effects of Moving to Opportunity on Adult Health and Economic Self-Sufficiency. *Cityscape*, 109-136. 10.2307/41581100
43. Chetty, R., Hendren, N., Katz, L. F. (2016). The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment. *American Economic Review*, 106(4), 855-902. DOI: 10.1257/aer.20150572
44. Ellen, I. G. (2020). What Do We Know About Housing Choice Vouchers? *Regional Science and Urban Economics*, 80, 103380. <https://doi.org/10.1016/j.regsciurbeco.2018.07.003>
45. Greene, S., McCabe, B. J. (2023). Expanding Small Area Fair Market Rents to Increase Housing Opportunities. Retrieved March 6, 2024, from <https://www.huduser.gov/portal/pdredge/pdr-edge-frm-asst-sec-103123.html>
46. Dastrup, S., Finkel, M., Ellen, I. G. (2019). The Effects of Small Area Fair Market Rents on the Neighborhood Choices of Families with Children. *Cityscape*, 21(3), 19-47. <https://www.huduser.gov/portal/periodicals/cityscape/vol21num3/ch1.pdf>
47. Poverty & Race Research Action Council. (2024). *Appendix B: State, Local, and Federal Laws Barring Source-of-Income Discrimination*. Washington, D.C. <http://www.prrac.org/pdf/AppendixB.pdf>
48. Tighe, J. R., Hatch, M. E., Mead, J. (2017). Source of Income Discrimination and Fair Housing Policy. *Journal of Planning Literature*, 32(1), 3-15. 10.1177/0885412216670603
49. U.S. Department of Housing and Urban Development. (2023, November 27, 2023). H.U.D. Awards \$25 Million to Public Housing Agencies to Expand More Housing Choices for Families https://www.hud.gov/press/press_releases_media_advisories/hud_no_23_263
50. Chetty, R. H., Nathaniel; Katz, Lawrence F. . (2016). The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment. *American Economic Review*, 106(4), 855-902.
51. U.S. Department of Housing and Urban Development. *Community Choice Demonstration*. Washington, D.C.: U.S. Department of Housing and Urban Development,. Retrieved March 6, 2024 from https://www.hud.gov/program_offices/public_indian_housing/programs/hcv/communitychoicedemo
52. Osypuk, T. L., Gailey, S., Schmidt, N. M., Acevedo Garcia, D. (2024). Does Poor Health Influence Residential Selection? Understanding Mobility among Low-Income Housing Voucher Recipients in the Moving to Opportunity Study. *Housing Policy Debate*, 1-30. 10.1080/10511482.2023.2301336
53. Gramlich, E. (2024). Low-Income Housing Tax Credits. In *Advocates' Guide '24* (pp. 5.6-5.20). National Low Income Housing Coalition. https://nlihc.org/sites/default/files/AG-2024/5-2_Low-Income-Housing-Tax-Credits.pdf
54. Ellen, I. G., Horn, K. M. (2018). Points for Place: Can State Governments Shape Siting Patterns of LIHTC Developments? *Housing Policy Debate*, 28(5), 727-745. 10.1080/10511482.2018.1443487
55. Taylor, J., Lindsay, R., Tegeler, P. (2023). Building Opportunity III: *Affirmatively Furthering Fair Housing in the Low Income Housing Tax Credit Program*. Washington, D.C., Poverty & Race Research Action Council. <http://www.prrac.org/pdf/BuildingOpportunityIII.pdf>
56. Derby, E. (2021). *Does Growing up in Tax-Subsidized Housing Lead to Higher Earnings and Educational Attainment?* Washington, D.C. Retrieved from https://www.novoco.com/public-media/documents/tax-subsidized_housing_lead_to_higher_earnings_and_educational_attainment_112119.pdf
57. Trounstine, J. (2020). The Geography of Inequality: How Land Use Regulation Produces Segregation. *American Political Science Review*, 114(2), 443-455. 10.1017/S0003055419000844
58. Massey, D. S., Rugh, J. S. (2018). Zoning, Affordable Housing, and Segregation in Us Metropolitan Areas. In G. D. Squires (Ed.), *The Fight for Fair Housing: Causes, Consequences, and Future Implications of the 1968 Federal Fair Housing Act* (pp. 245-265). New York: Taylor and Francis. <https://doi.org/10.4324/9781315545080>
59. Lens, M. C. (2022). Zoning, Land Use, and the Reproduction of Urban Inequality. *Annual Review of Sociology*, 48(1), 421-439. 10.1146/annurev-soc-030420-122027
60. Pendall, R. (2000). Local Land Use Regulation and the Chain of Exclusion. *Journal of the American Planning Association*, 66(2), 125-142. <https://doi.org/10.1080/01944360008976094>
61. Rothstein, R. (2017). *The Color of Law: A Forgotten History of How Our Government Segregated America*. New York: Liveright Publishing. <https://www.norton.com/books/the-color-of-law/>

62. Rothwell, J., Massey, D. S. (2009). The Effect of Density Zoning on Racial Segregation in U.S. Urban Areas. *Urban Affairs Review*, 44(6), 779-806. <https://doi.org/10.1177/1078087409334163>
63. Kahlenberg, R. (2023). *Excluded: How Snob Zoning, Nimbysism, and Class Bias Build the Walls We Don't See*. Public Affairs.
64. Trounstine, J. (2018). *Segregation by Design: Local Politics and Inequality in American Cities*. Cambridge University Press. <https://doi.org/10.1017/9781108555722>
65. Karni, A., Haberman, M., Ember, S. (2020, July 29, 2020; updated Jan. 20, 2021). Trump Plays on Racist Fears of Terrorized Suburbs to Court White Voters. *The New York Times*. <https://www.nytimes.com/2020/07/29/us/politics/trump-suburbs-housing-white-voters.html>
66. Manville, M., Monkkonen, P., Lens, M. (2020). It's Time to End Single-Family Zoning. *Journal of the American Planning Association*, 86(1), 106-112. 10.1080/01944363.2019.1651216
67. Kazis, N. M. (2023). Learning from Land Use Reforms: Housing Outcomes and Regulatory Change. *Cityscape*, 25(2), 93-105.
68. Flint, A. The State of Local Zoning: Reforming a Century-Old Approach to Land Use. Retrieved March 5, 2024, from <https://www.lincolnst.edu/publications/articles/2022-12-state-local-zoning-reform>
69. MassHousing. *Chapter 40b and Masshousing*. Retrieved March 9, 2024 from <https://www.masshousing.com/en/programs-outreach/planning-programs/40b>
70. Meyersohn, N. (2023). The Invisible Laws That Led to America's Housing Crisis. *CNN Business*. Retrieved March 4, 2024, from <https://www.cnn.com/2023/08/05/business/single-family-zoning-laws/index.html>
71. Cantong, J., Menendian, S., Gambhir, S. (2023, November 13, 2023). *Zoning Reform Tracker*. Berkeley, CA: Othering & Belonging Institute. Retrieved March 4, 2024 from <https://belonging.berkeley.edu/zoning-reform-tracker>
72. MA Executive Office of Housing and Liveable Communities. (2024). Multi-Family Zoning Requirement for MBTA Communities. Retrieved March 14, 2024, from <https://www.mass.gov/info-details/multi-family-zoning-requirement-for-mbta-communities>
73. Brinker, A. (2024). 'It's an Invasion.' in Towns across Eastern Mass., Resistance Grows against Ambitious State Housing Law. *The Boston Globe*. Retrieved March 4, 2024, from <https://www.bostonglobe.com/2024/03/03/business/milton-massachusetts-towns-housing-law/>
74. Brinker, A. (2024). 'It's Sad That Makes Me a Villain': Longtime Newton Councilor Got Voted out after Leading Zoning Rewrite. *The Boston Globe*. Retrieved March 4, 2024, from <https://www.bostonglobe.com/2024/02/08/business/newton-housing-city-council-deborah-crossley/>
75. Seay, B. (2024). Milton Voters Reject New Housing Plan, Violating the M.B.T.A. Communities Act. *WGBH*. Retrieved March 4, 2024, from <https://www.wgbh.org/news/local/2024-02-15/milton-voters-reject-new-housing-plan-violating-the-mbta-communities-act>
76. Brinker, A., Berger, A. (2024, February 14). After Fierce Debate, Milton Voters Overturn State-Mandated Housing Plan. Referendum Shooting Down Town's MBTA Zoning Plan Could Reverberate across Eastern Mass. *The Boston Globe*. <https://www.bostonglobe.com/2024/02/14/metro/milton-housing-vote-referendum/>
77. Gill, J., Schuetz, J. (2023). In California, Statewide Housing Reforms Brush against Local Resistance. Retrieved March 4, 2024, from <https://www.brookings.edu/articles/in-california-statewide-housing-reforms-brush-against-local-resistance/>
78. Marble, W., Nall, C. (2021). Where Self-Interest Trumps Ideology: Liberal Homeowners and Local Opposition to Housing Development. *The Journal of Politics*, 83(4), 1747-1763. 10.1086/711717
79. Baldwin, J. (1980, November 1). Notes on the House of Bondage. *The Nation*.
80. Trounstine, J. (2023). You Won't Be My Neighbor: Opposition to High Density Development. *Urban Affairs Review*, 59(1), 294-308. 10.1177/10780874211065776
81. Freemark, Y. (2020). Upzoning Chicago: Impacts of a Zoning Reform on Property Values and Housing Construction. *Urban Affairs Review*, 56(3), 758-789. 10.1177/1078087418824672
82. Monkkonen, P., Lens, M., O'Neill, M., Elmendorf, C., Preston, G., Robichaud, R. Do Land Use Plans Affirmatively Further Fair Housing? *Journal of the American Planning Association*, 1-14. 10.1080/01944363.2023.2213214
83. Bratt, R. G., Vladeck, A. (2014). Addressing Restrictive Zoning for Affordable Housing: Experiences in Four States. *Housing Policy Debate*, 24(3), 594-636. 10.1080/10511482.2014.886279

84. Joint Economic Committee – Republicans, U.S. Senate. (2019). *Zoned Out: How School and Residential Zoning Limit Educational Opportunity* (Social Capital Project Report, Issue. Washington, DC, U.S. Senate. <https://www.jec.senate.gov/public/index.cfm/republicans/2019/11/zoned-out-how-school-and-residential-zoning-limit-educational-opportunity>
85. Boser, U., Baffour, P. (2017). *Isolated and Segregated: A New Look at the Income Divide in Our Nation's Schooling System*. Washington, DC., Center for American Progress,. <https://www.americanprogress.org/wp-content/uploads/sites/2/2017/05/SESintegration-report2.pdf>
86. Tegeler, P., Hilton, M. (2018). Disrupting the Reciprocal Relationship between Housing and School Segregation. In C. Herbert, J. Spader, J. Molinsky, & S. Rieger (Eds.), *A Shared Future: Fostering Communities of Inclusion in an Era of Inequality* (pp. 436-453). Cambridge, MA: Joint Center for Housing Studies of Harvard University,. <https://www.jchs.harvard.edu/research/books/shared-future-fostering-communities-inclusion-era-inequality>
87. Cooperstock, A. (2022). The Demographics of School District Secession. *Social Forces*, 101(4), 1976-2012. 10.1093/sf/soac069
88. James, O. (2023). School Finance as Racial Subordination. *Poverty & Race*, 32(2), 1-2,4. <https://www.prrac.org/newsletters/April-July2023.pdf>
89. Ryan, J. E. (1999). The Influence of Race in School Finance Reform. *Michigan Law Review*, 98(2), 432-481. <https://www.jstor.org/stable/1290344>
90. Baker, B. D., Di Carlo, M., Oberfield, Z. W. (2023). *The Source Code: Revenue Composition and the Adequacy, Equity, and Stability of K-12 School Spending*. Washington, D.C., Albert Shanker Institute. <https://www.shankerinstitute.org/revenuecomp>
91. Baker, B. D., Weber, M., Di Carlo, M. (2020). *The Adequacy and Fairness of State School Finance Systems (Second Edition)*. Washington, D.C., Albert Shanker Institute. <https://www.shankerinstitute.org/resource/adequacy-and-fairness-state-school-finance-systems-second-edition>
92. Shores, K. A., Candelaria, C. A., Kabourek, S. E. (2023). Spending More on the Poor? A Comprehensive Summary of State-Specific Responses to School Finance Reforms from 1990–2014. *Education Finance and Policy*, 18(3), 395-422. 10.1162/edfp_a_00360
93. Blagg, K., Lafortune, J., Monarrez, T. (2022). *Measuring Differences in School-Level Spending for Various Student Groups*. Research Report. Urban Institute. <https://www.urban.org/sites/default/files/2022-10/Measuring%20Differences%20in%20School-Level%20Spending%20for%20Various%20Student%20Groups.pdf>
94. Owens, A. (2023). Separate and Unequal: The Need for a Nuanced Accounting of the Inequities Created by Segregation. *Poverty & Race*, 32(2), 9-10. <https://www.prrac.org/newsletters/April-July2023.pdf>
95. Tyner, A. (2023). *Think Again: Is Education Funding in America Still Unequal?* Washington, D.C., Thomas B. Fordham Institute,. <https://fordhaminstitute.org/national/research/think-again-education-funding-america-still-unequal>
96. Reardon, S. F., Kalogrides, D., Shores, K. (2019). The Geography of Racial/Ethnic Test Score Gaps. *American Journal of Sociology*, 124(4), 1164-1221. 10.1086/700678
97. Lee, H., Shores, K., Williams, E. (2022). The Distribution of School Resources in the United States: A Comparative Analysis across Levels of Governance, Student Subgroups, and Educational Resources. *Peabody Journal of Education*, 97(4), 395-411. 10.1080/0161956X.2022.2107369
98. Reardon, S. F., Weathers, E. S., Fahle, E. M., Jang, H., Kalogrides, D. (2022). *Is Separate Still Unequal? New Evidence on School Segregation and Racial Academic Achievement Gaps*. Center for Education Policy Analysis, Stanford University. <https://cepa.stanford.edu/content/separate-still-unequal-new-evidence-school-segregation-and-racial-academic-achievement-gaps>
99. Boston Public Schools. B.P.S. Opportunity Index. Boston Public Schools,. Retrieved March 8, 2024 from <https://www.bostonpublicschools.org/domain/2301>
100. Tegeler, P. Unintended Consequences of School Finance Reform? An Initial Exploration. *Poverty & Race*, 32(2), 15,18. <https://www.prrac.org/newsletters/April-July2023.pdf>
101. Schwartz, H. (2010). *Housing Policy Is School Policy: Economically Integrative Housing Promotes Academic Success in Montgomery County, Maryland*. New York, NY, The Century Foundation,. <https://tcf.org/assets/downloads/tcf-Schwartz.pdf>
102. Schachner, J. N. (2021). Racial Stratification and School Segregation in the Suburbs: Evidence from Los Angeles County. *Social Forces*, 101(1), 309-340. 10.1093/sf/soab128

103. U.S. Department of Education, Office of Elementary and Secondary Education. (2021, February 16, 2024). *ARP ESSR Maintenance of Equity*. Retrieved March 9, 2024 from <https://oese.ed.gov/offices/education-stabilization-fund/elementary-secondary-school-emergency-relief-fund/maintenance-of-equity/>
104. Education Trust. (2023). *Advocating for Education Equity as ESSR Spending Winds Down*. Retrieved March 9, 2024, from <https://edtrust.org/resource/watch-out-for-the-fiscal-cliff-advocating-for-education-equity-as-esser-spending-winds-down/>
105. Owens, A., Rich, P. (2023). Little Boxes All the Same? Racial-Ethnic Segregation and Educational Inequality across the Urban-Suburban Divide. *The Russell Sage Foundation Journal of the Social Sciences*, 9(2), 26-54. 10.7758/rsf.2023.9.2.02
106. Owens, A. (2020). Unequal Opportunity: School and Neighborhood Segregation in the USA. *Race and Social Problems*, 12(1), 29-41. 10.1007/s12552-019-09274-z
107. Frankenberg, E. (2013). The Role of Residential Segregation in Contemporary School Segregation. *Education and Urban Society*, 45(5), 548-570. 10.1177/0013124513486288
108. Davis-Kean, P. E. (2005). The Influence of Parent Education and Family Income on Child Achievement: The Indirect Role of Parental Expectations and the Home Environment. *Journal of Family Psychology*, 19(2), 294–304. 10.1037/0893-3200.19.2.294
109. Holme, J. J. (2002). Buying Homes, Buying Schools: School Choice and the Social Construction of School Quality. *Harvard Educational Review*, 72(2), 177-206. 10.17763/haer.72.2.u6272x676823788r
110. Potter, H. (2018). *Do Private School Vouchers Pose a Threat to Integration?* Washington, D.C., The Century Foundation., <https://tcf.org/content/report/private-school-vouchers-pose-threat-integration/>
111. Institute on Metropolitan Opportunity. (2012). *Open Enrollment and Racial Segregation in the Twin Cities: 2000–2010*. Minneapolis, MN, University of Minnesota Law School., <https://cascw.umn.edu/wp-content/uploads/2014/02/Open-Enrollment-and-Racial-Segregation-Final.pdf>
112. Monarrez, T., Kisida, B., Chingos, M. (2022). The Effect of Charter Schools on School Segregation. *American Economic Journal: Economic Policy*, 14(1), 301-340. 10.1257/pol.20190682
113. Welner, K., Orfield, G., Huerta, L. A. (2023). *The School Voucher Illusion: Exposing the Pretense of Equity*. New York, NY: Teachers College Press. <https://www.tcpres.com/the-school-voucher-illusion-9780807768303>
114. MacLean, N. (2021). How Milton Friedman Exploited White Supremacy to Privatize Education. *Institute for New Economic Thinking Working Paper Series*, 1. <https://scholars.duke.edu/publication/1498407>
115. *Parents Involved in Community Schools V. Seattle School Dist. No. 1*, 551 U.S. 701. 05-908, (2007).
116. U.S. Department of Justice, U.S. Department of Education. (2020). *Guidance on the Voluntary Use of Race to Achieve Diversity and Avoid Racial Isolation in Elementary and Secondary Schools*. Washington, D.C.: Retrieved March 7, 2024 from <https://www2.ed.gov/about/offices/list/ocr/docs/guidance-ese-201111.html>
117. Kahlenberg, R. (2016). *School Integration in Practice: Lessons from Nine Districts*. The Century Foundation., <https://tcf.org/content/report/school-integration-practice-lessons-nine-districts/>
118. Gross, B. (2019). Going the Extra Mile for School Choice: How Five Cities Tackle the Challenges of Student Transportation. *Education Next*, 19(4), 58-64. <https://www.educationnext.org/going-extra-mile-school-choice-how-five-cities-tackle-challenges-student-transportation/>
119. Corcoran, S. P., Jennings, J. L. (2019). Information and School Choice. In *Handbook of Research on School Choice* (pp. 365-378). New York: Routledge. <https://doi.org/10.4324/9781351210447>
120. Taylor, K., Frankenberg, E., Siegel-Hawley, G. (2019). Racial Segregation in the Southern Schools, School Districts, and Counties Where Districts Have Seceded. *AERA open*, 5(3). 10.1177/2332858419860152
121. Houck, E. A., Murray, B. C. (2019). Left Behind: District Secession and the Re-Segregation of American Schools. *Peabody Journal of Education*, 94(4), 388-402. 10.1080/0161956X.2019.1648951

MARCH 2024
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