

Strategies for Investing in Opportunity

Methodology

September 2025

This document describes the methodology used in the following neighborhood opportunity search tools in greater detail. It discusses indicator development, data sources, and analyses undertaken.



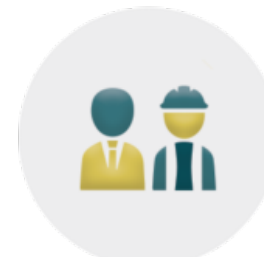
Opportunity Capital



Health Outlook



Educational Opportunity



Labor Market Access



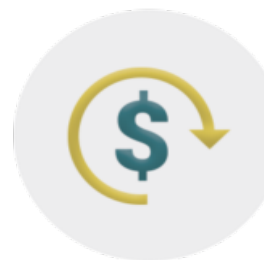
Transit Access



Neighborhood Desirability



Neighborhood Desirability Trajectory



Investment Pathway

Indicator Development

Within each opportunity capital category and for overall neighborhood desirability, the empirical indicators chosen to represent these concepts were those that were the most theoretically predictive, a good fit using confirmatory factor analysis, and available at the census tract level as described in [Strategies for Investing in Opportunity: An Assessment of the Assisted Housing Portfolio, Neighborhood Quality, and Opportunity Capital](#). Different. For each indicator, every neighborhood is standardized by area quintile position and assigned a rank relative to its overall position in the area. Neighborhoods are represented by 2022 census tracts and areas are represented by 2024 core based statistical areas (CBSAs). If an area is not in a CBSA, then an area is represented by the tracts outside of a CBSA in the state. A neighborhood receives a rank of one if it is located in a neighborhood with the lowest values in their area and five if it is located in a neighborhood with the highest values in their area. For indicators in which high values are undesirable (eg. percent of population earning below poverty), quintile positions were reversed so that a value of five always indicates the most desirable position. Adjusted quintile positions, one through five, were then summed by category to represent a neighborhood's relative position to other area neighborhoods across all category indicators. Neighborhoods were subsequently categorized into area quintiles based on their total scores, with a value of five indicating the highest quintile. Rather than receiving a raw score, each neighborhood is assigned a rank that reflects its relative standing compared to others in the same area. If a neighborhood was missing data for one indicator within a category and there were at least ten census tracts in the area, the summed quintile rank was calculated based on the remaining available indicators. If a neighborhood was missing data for more than one indicator within a category, or was in a CBSA with fewer than ten census tracts, its quintile position was not determined to eliminate bias based on low variation within the area. Neighborhoods in the first quintile were relabeled as 'very low,' while neighborhoods in the fifth quintile were relabeled as 'very high.'

Opportunity Capital Indicators

The opportunity capital indicators used in this analysis are grouped into four main categories, which reflect core concepts widely recognized by scholars as significant contributors to economic mobility and well-being: labor market access, educational opportunity, health outlook, and transit access. The indicators, along with their theoretical rationale, data sources, and supporting studies, are listed below. A '+' sign next to an indicator denotes that higher values contribute positively to the overall opportunity rank, while a '-' sign indicates a negative contribution. For negatively associated indicators, quintile rankings were reversed so that the fifth quintile consistently represents the most favorable outcome.

Labor Market Access Indicators

	Indicator	Rationale	Source	Reference
+	Percent of workers with less than a 30-minute commute	<i>A higher percentage of workers with shorter commutes should mean that there are more jobs available within that area.</i>	American Community Survey 2019-2023	Chetty et al. (2017) ¹ ; Eilers, Paloyo & Bechara, (2022) ² ; Bastiaanssen et al., (2020) ³
+	Labor force participation rate	<i>Actual labor force participation. A higher rate of people working should mean that jobs are more prevalent in that area.</i>	American Community Survey 2019-2023	Solignac, (2016) ⁴ ; Eilers, Paloyo & Bechara, (2022) ⁵ ; Weinberg et al., (2004) ⁶
-	Unemployment rate	<i>The higher the unemployment rate, the more difficult it might be to find jobs in an area.</i>	American Community Survey 2019-2023	Weinberg, et al. (2004) ⁷ ; Solignac, (2016) ⁸ ; Klaauw & Ours, (2003) ⁹
+	Percent of adults with a high school degree or more	<i>The higher percent of people with the labor force capital needed for entry level professional jobs, the more these jobs may be available in an area. Professional jobs would tend to pay higher wages.</i>	American Community Survey 2019-2023	
+	Number of jobs within a 45-minute drive	<i>The higher the number of jobs within a neighborhood, the easier it will be for people to find employment.</i>	EPA Smart Location Database 2025	Hu, (2016) ¹⁰ ; Jin & Paulson, (2017) ¹¹ ; Bastiaanssen et al., (2020) ¹² ; Andersson et al., (2014) ¹³

Educational Opportunity Indicators

	Indicator	Rationale	Source	Reference
+	Percent of 4 th graders at grade reading/math level	<i>A higher percentage of students meeting schooling expectations should be related to higher school quality and a higher percentage of students ready for academic advancement.</i>	HUD School Proficiency Index 2017	Chetty, et al. (2011) ¹⁴ ; Hastings & Weinstein, (2008) ¹⁵
-	Student-teacher ratio of closest school ¹⁶	<i>A lower student-teacher ratio should increase teacher attention, which should lead to better educational outcomes for students.</i>	National Center for Education Statistics Common Core of Data 2017-2018	Chetty, et al. (2011) ¹⁷ ; Jackson et al., (2016) ¹⁸ ; Browne et al., (2016) ¹⁹
+	ACT/SAT completion rate ²⁰	<i>A higher percentage of students taking college-prep exams should suggest better preparation for college by the local school and a greater likelihood for academic advancement.</i>	USDE Civil Rights data 2017-2018	Swiderski, (2024) ²¹
+	Percent ages 3-5 enrolled in school	<i>A higher percentage of students engaged in early education should signal a focus on learning and lead to better educational outcomes.</i>	American Community Survey 2019-2023	Morrissey, (2017) ²² ; Bailey, Sun, & Timpe, (2021) ²³ ; Heckman et al., (2010) ²⁴ ; Cascio & Schanzenbach, (2013) ²⁵
+	Percent with in-home broadband internet	<i>A higher percentage of households with internet connectivity can improve educational outcomes.</i>	American Community Survey 2019-2023	Dettling, et al., (2018) ²⁶ ; Caldarulo, et al., (2023) ²⁷ ; Hampton et al., (2021) ²⁸ ; Hampton, et al., (2023) ²⁹

Transit Access Indicators

	Indicator	Rationale	Source	Reference
+	Percent of workers using Public Transit to Commute	<i>A higher percentage of people using public transit should signal that the neighborhood is accessible via public transit.</i>	American Community Survey 2019-2023	Pendall, (2015) ³⁰
+	Percent of households with at least one vehicle	<i>A higher percentage of households with at least one vehicle suggests that more households can access jobs from their neighborhood via driving.</i>	American Community Survey 2019-2023	Hu, (2016) ³¹ ; Bastiaanssen et al., (2020) ³²
-	Number of public transit stops	<i>The more frequent public transit stops available the easier it should be to access jobs and services</i>	United States Department of Transportation. National Transit Map - All Stop Locations 2025 and Intercity Bus Atlas Stops 2025	Sanchez, (1999) ³³ ; Tyndall et al., (2015) ³⁴ ; Bastiaanssen et al., (2022) ³⁵
+	National walkability index	<i>The more walkable a neighborhood is, the more frequently people live a healthy lifestyle, reduce their vehicle use, and form community connections.</i>	National Walkability Index 2019	Glazier et al. (2014) ³⁶ ; Norman et al, (2006) ³⁷ ; Leyden, (2003) ³⁸
-	Average commuting time	<i>The lower the average commuting time, the closer the neighborhood is to jobs via transit.</i>	American Community Survey 2019-2023	Chetty et al. (2017) ³⁹

Health Outlook Indicators

	Indicator	Rationale	Source	Reference
-	Percent of population with a low life expectancy	<i>The lower the life expectancy, the more likely that the neighborhood is free from environmental hazards that cause cancer and subsequent labor force interruptions.</i>	Environmental Justice Mapping and Screening Tool 2023	Correia, (2013) ⁴⁰ , Stingone, (2016) ⁴¹
-	Percent of homes built before 1960	<i>The fewer homes built before 1960, the less likely they will contain lead, asbestos or other health hazards.</i>	American Community Survey 2019-2023	Jacobs, (2002) ⁴² ; Egan et al., (2021) ⁴³
-	Number of superfund sites within 10k of the average resident	<i>The fewer superfund sites, the more likely the neighborhood is free from potential environmental hazards.</i>	Environmental Justice Mapping and Screening Tool 2024	Garcia-Perez, (2015) ⁴⁴ ; Benedetti, (2001) ⁴⁵ ; Geschwind, (1992) ⁴⁶ ; Bulka, (2013) ⁴⁷
+	Number of employees of clinics of physicians per 1,000 people	<i>The more doctors per person, the more quickly and regularly person may be able to see a physician and avoid health-related job disruptions.</i>	National Neighborhood Data Archive (NaNDA) Health Care Services by Census Tract and ZCTA, United States, 2021	Zerehi, (2008) ⁴⁸ ; Starfield, (2005) ⁴⁹ ; Macinko, (2007) ⁵⁰ ; Shi, (2003) ⁵¹ ; Kelly et al., (2016) ⁵²
-	Share of population half a mile away from a grocery store (or 10 miles in rural areas)	<i>The more people in a neighborhood have access to a grocery store, the more likely that residents will be able to access healthy food.</i>	USDA Food Desert Database 2019	Massey et al, (2023) ⁵³

Neighborhood Desirability

Though related to opportunity, neighborhood desirability is a distinct concept that can impact economic mobility through different means. This analysis uses five main indicators to represent neighborhood desirability, based on previous research studies and confirmatory factor analysis: vacancy rate for all homes, the percent of households with annual incomes over \$200,000, median housing value, the personal crime index score, and the percent of people in poverty. As with opportunity capital, indicators areas are standardized by quintile position, summed into a total score, and further broken into area quintiles. The indicators, source, and rationale for inclusion are listed below. A '+' sign next to an indicator denotes that higher values contribute positively to the overall desirability rank, while a '-' sign indicates a negative contribution. For negatively associated indicators, quintile rankings were reversed so that the fifth quintile consistently represents the most favorable outcome.

Neighborhood Desirability Indicators

	Neighborhood Indicator	Rationale	Source	Reference
-	Vacancy rate	<i>The higher the vacancy rate for all units, the less desirable the neighborhood, leaving it open to disrepair and further residential and business exits.</i>	USPS Vacancy Data 2024	Jones, (2018) ⁵⁴
+	Percent of households with over \$200,000 in annual income	<i>A higher percent of high-income households may help to anchor property values and bring new amenities into a neighborhood.</i>	American Community Survey 2019-2023	Casciano, et al. (2008) ⁵⁵ ; Crane, (1991) ⁵⁶ ; Brooks-Gunn, et al. (1997) ⁵⁷
+	Median housing value	<i>The higher the property values, the more desirable the neighborhood.</i>	American Community Survey 2019-2023	
-	Violent crime index	<i>The lower the rate of violent crime compared to other neighborhoods, the more safe people will feel living and doing business in the neighborhood.</i>	Applied Geographic Solutions Crime Data 2022	Chetty, et al (2017) ⁵⁸
-	Percent of population in poverty	<i>The lower the percent of the population in poverty, the more likely that there is access to jobs, resources, and amenities in a neighborhood.</i>	American Community Survey 2019-2023	Chetty, et al (2017) ⁵⁹ ; Sampson et al. (2002) ⁶⁰ ; Small, et al. (2001) ⁶¹ ; Harding, et al. (2003) ⁶²

Neighborhood Desirability Change and Trajectory

Neighborhood change is incorporated into the analysis by assessing whether each indicator increased, decreased, or remained the same between 2019-2023 and 2015-2020. Neighborhoods with improving outcomes are classified as ‘upwardly transitioning.’ Neighborhoods with declining outcomes are classified as ‘downwardly transitioning.’ Neighborhoods with no change are classified as ‘stable.’ In the table below, indicators with a ‘+’ sign signify that higher values are associated with upwardly transitioning, while a ‘-’ sign signifies that higher values are associated with downwardly transitioning. The overall neighborhood trajectory was calculated by assigning tracts +1 point for increases in desirability, 0 points for no change, and -1 point for decreases in desirability. The sum of these values was used to determine overall neighborhood trajectory. A positive rank indicates a neighborhood is transitioning upward, a rank of zero signifies it is remaining the same, and a negative rank signifies the neighborhood is transitioning downward.

We also assessed how each neighborhood performed relative to their area. Neighborhoods were assigned +1 point for progressing quicker than their area toward a desirable outcome or slower towards an undesirable outcome. They recieved0 points for progressing at the same rate as the area or experiencing no changes, and -1 point for progressing quicker than their area towards an undesirable outcome. This approach captures the relative rate of change for each neighborhood. The sum of these values was used to determine the overall neighborhood trajectory relative to the area. Neighborhoods with positive ranks are classified as outpacing the area, a rank of zero as on par or just behind the area, and a negative rank as lagging behind the area.

Neighborhood Trajectory Indicators

Neighborhood Indicator	Source
+ Change in percent of households with annual Incomes over \$200,000	American Community Survey 2019-2023 and 2016-2020
+ Change in median housing value	American Community Survey 2019-2023 and 2016-2020
- Change in average personal crime index	Applied Geographic Solutions Crime Data 2018 and 2022
- Change in percent of people poverty	American Community Survey 2019-2023 and 2016-2020
- Change in the percent of vacant units	USPS Vacancy Data 2024 and 2020

Investment Pathways

We propose five affordable housing and community investment pathways guided by the level of opportunity, neighborhood desirability, and trajectory of a neighborhood. Outcomes include the preservation of federally assisted properties, bringing opportunity to places, and the expansion of affordable housing options. Beyond the trends identified here, investment pathways are community-specific and should be further developed by community stakeholders based on localized data.

Pathway	Classification	Description
Focus on Bargains	Typical or Better Opportunity Below Typical Desirability Outpacing Area or On Par/Just Behind	Properties in areas with typical or better opportunity capital and below typical neighborhood desirability may be well priced, making the expansion of affordable housing options possible. Residents in these areas would benefit from greater access to opportunity and there would be less difficulty in ‘penciling out’ the cost of development.
Focus on Entry	Typical or Better Opportunity Typical or Better Desirability On Par/Just Behind	These neighborhoods may not currently contain much assisted housing and may be on the verge of becoming more affordable.
Focus on Revitalization	Below Typical Opportunity Below Typical Desirability Outpacing Area	This strategy focuses on places and bringing opportunity to neighborhoods with below typical opportunity and neighborhood desirability that are at the same time outpacing the area trend in neighborhood quality. Investment strategies in these neighborhoods could utilize assisted properties as anchors for education and health partnerships and focus on a comprehensive development plan for the neighborhood.
Focus on Tipping Points	Typical or Better Opportunity Below Typical Desirability Lagging Behind Area	These areas may be at a ‘tipping point’ and in danger of losing ground in opportunity capital. Strengthening partnerships and continuing to invest in housing rehabilitation and preservation could be key activities to help such neighborhoods maintain their level of opportunity capital. Additional subsidy streams may also be needed to re-capitalize assisted housing assets in these areas.
Focus on Preservation	Typical or Better Opportunity Typical or Better Desirability Outpacing Area	This strategy focuses on preserving properties in hard-to-reach neighborhoods with typical or better opportunity capital that are outpacing their area trend in neighborhood desirability. These areas may have higher rents and a higher likelihood of landlord opt-outs. Keeping assisted units affordable in these neighborhoods might focus on building landlord relationships to improve landlord retention and increase participation. At the same time, combining multiple subsidy streams may be necessary to keep rents affordable to low-income families in these neighborhoods.

Scenarios not covered by these pathways include n ranking typical or better in desirability, but low opportunity and neighborhoods with below typical opportunity and desirability that are lagging behind area trends. In the former, there may be structural features keeping opportunity capital levels low, despite typical or better neighborhood desirability. In the latter, significant investments and planning are likely needed to provide greater opportunity to neighborhood residents. These neighborhoods should not be ignored, but would likely require more research and funding to plan for improvement.

Federally Assisted Properties

Assisted rental property data come from the National Housing Preservation Database (NHPD). The NHPD is a de-duplicated inventory of all federally subsidized housing properties, with the exception of some small subsidy programs and tenant-based vouchers. Properties with imprecise latitude and longitude coordinates are also excluded from the NHPD. More information about the NHPD can be found at www.preservationdatabase.org. Each assisted property in the NHPD was matched to its census tract and subsequently its opportunity capital and neighborhood desirability ranking.

Citations

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