



RESEARCH REPORT

Denver and the State of Low- and Middle-Income Housing

Strategies to Preserve Affordability and Opportunities for the Future

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Executive Summary

Denver is experiencing rapid population growth and economic success, which has led to rising housing costs that make the city cost-prohibitive to longtime residents and newcomers alike. This is especially the case for low- and middle-income (LMI) households (i.e., families who make between 50 and 120 percent of the area median income), who make too much for subsidies and too little to pay market prices. This report examines the state of LMI housing in Denver through a data-rich analysis of the population and housing market changes from 2000 to 2015. Through a typology, we identify which neighborhoods are changing the most for LMI residents and which ones most need to create and preserve LMI housing. Finally, informed by our meetings with stakeholders, we identify policy and programmatic tools that could make a difference for LMI housing affordability in Denver.

Population and housing stock trends indicate that Denver's population has exploded over the last 15 years. The following findings describe where Denver's families live and how their housing has changed:

- Neighborhoods that were once LMI strongholds (e.g., Five Points and Whittier) have gentrified in the last 15 years, and longtime residents may be left out of the prosperity. Many neighborhoods in the Lower Downtown area have changed, and residents there have higher income and are more highly educated than was the case 15 years ago. Homeownership rates have increased in the downtown areas. Consequently, LMI housing policy could focus on how to create and preserve workforce housing in these areas because of such rapid changes.
- Many LMI households in 2015 are located in southwest Denver, putting a priority on preserving naturally occurring affordable housing in these neighborhoods. This is also where many of Denver's Latino families live. Neighborhoods such as Bear Valley, Fort Logan, Harvey Park, and Marston have remained consistently LMI and are likely to remain so.
- Rental cost burdens, households paying 30 percent or more of their income on housing costs, have increased from 2000 to 2015 for very low-income (VLI) and LMI families (60 to 82 percent among VLI households and 7 to 26 percent among LMI households). In the Belcaro neighborhood, rental cost burden for LMI families increased from 46 to 77 percent from 2000 to 2015. Renters in Denver are feeling a housing-cost squeeze.
- Historic preservation and light rail development are factors in gentrification. The creation and continued development of the Lower Downtown area has changed the composition of the

population downtown, and fewer VLI and LMI families live in this area in 2015 than in 2000. Similarly, neighborhoods near light rail locations have seen rapid changes in rental and housing prices, as well as in the composition of the population, such that more high-income residents resided there in 2015 than in 2000.

- The data and stakeholder information suggest that Globeville is a neighborhood for immediate LMI housing preservation. Given its current low housing costs, large stock of naturally occurring affordable housing, existing LMI population, and considerable planned economic development and a light rail station to be opened this year, the neighborhood could be on the cusp of gentrification.

In meetings with housing stakeholders in Denver, we heard about barriers to LMI affordable housing, as well as tremendous opportunities for programmatic and policy solutions. Key points include the following:

- Denver's extraordinary population growth is changing the city's demographics and demand for housing in ways that intersect with equity issues. Displacement, for example, is occurring in LMI neighborhoods, such as Globeville, which have been populated by majorities of Latino families in recent decades. The population migrating into Denver is more likely to be young, white, and higher income than many of the city's longtime residents. These demographic shifts suggest that the city should use a lens focused on equity and inclusion in future conversations, planning, and decisionmaking about housing and economic development policies.
- State policy is a constraint on Denver's abilities to address affordable housing. Colorado does not allow rent control, and even if municipalities such as Denver wanted to stabilize rising rents, the Telluride decision prohibits them from creating local laws that do so. The state's construction defect law was enacted to protect home and condominium buyers from construction flaws, but has instead provided incentives for developing market-rate apartment units rather than condominiums. These policies have contributed to an unbalanced housing market in Denver, such that a proliferation of market-rate units contributes to rent inflation, but the city has few levers to protect affordability for renters. Land trusts and expanded tenants' rights (e.g., preservation of affordable units through the right of first refusal) may be increasingly important strategies for Denver moving forward.
- Denver has been thoughtful and forward thinking in its approach to LMI affordable housing policies and programs, but the city and other affordable housing stakeholders cannot keep pace with demand, particularly in neighborhoods slated to undertake rapid change in coming years.

The recently passed Affordable Housing Trust Fund was a successful collaboration to seed a fund for the next 10 years with up to \$150 million for developing affordable housing. But stakeholders suggest that the funds will not fully meet the demand for affordable housing. Private funding may provide gap financing for preserving and constructing new affordable units in Denver. For example, social impact investing—whether an accelerator fund or locally based investment fund, such as a real estate investment trust—can leverage private funding to supplement public funds.

These findings suggest that Denver, an already innovative city compared with most in approaching affordable housing, will need to think creatively about LMI affordability as it continues to experience growth and economic success.

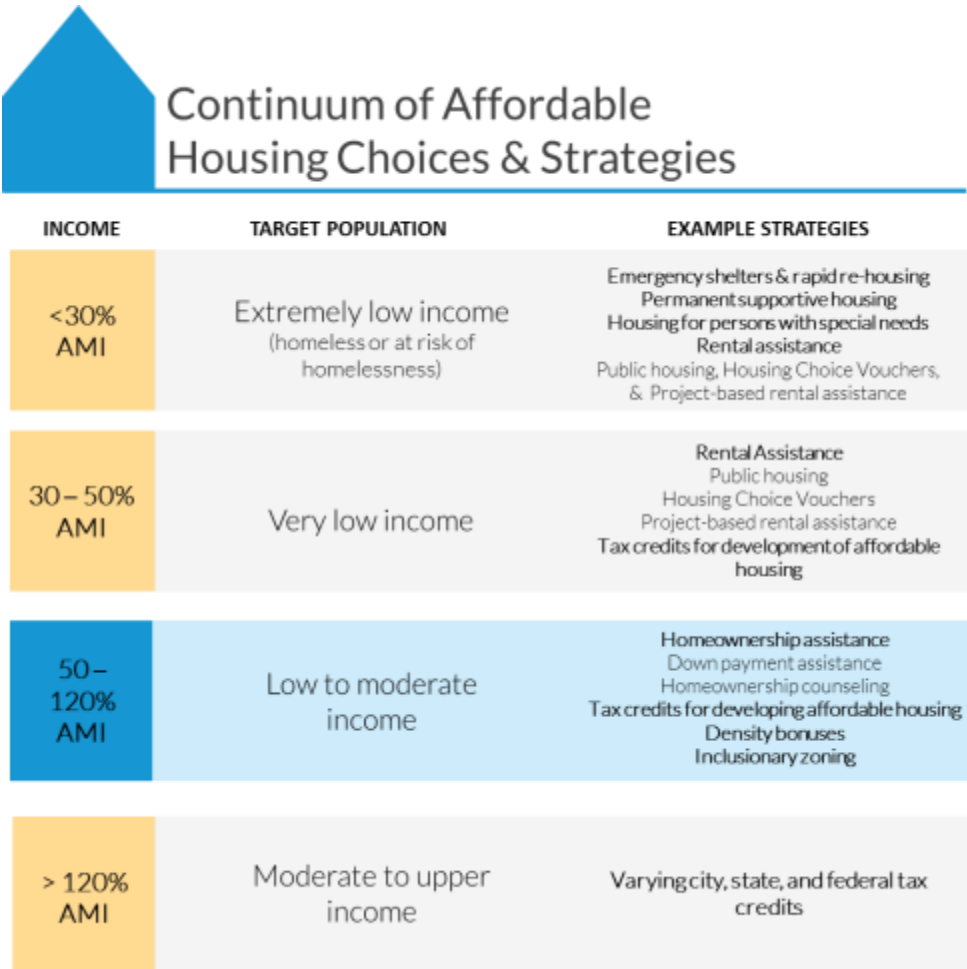
Denver and the State of Low- and Middle-Income Housing

Introduction

Denver, like many western cities, is experiencing rapid population growth. As its economy flourishes and young professionals are drawn to the city for its robust job market, abundant sunshine, and proximity to nature and outdoor activities, an already tight housing market has become tighter. This puts pressure on both new arrivals and existing residents to find affordable housing in a city where it has become scarce. Facing particular challenges are low- and middle-income (LMI) residents, especially renters, because rents are rising in many neighborhoods without an adequate supply of housing to keep up with the demand for affordable units. Although Denver's lowest-income renters are eligible for federal housing subsidies, LMI families make too much to qualify for subsidies and too little to afford rapidly rising housing prices. Consequently, there is a need to understand the state of LMI housing in Denver's neighborhoods and to identify opportunities to bolster affordable housing and strengthen communities.

This report explores the state of LMI housing in Denver by focusing on changes in the city's more than 80 neighborhoods. By focusing on households making between 50 and 120 percent of the area median income (AMI), or \$40,050 to \$96,120 a year in 2016 for a household of four,¹ this report highlights households who may be especially challenged by Denver's rising housing costs. Furthermore, this report describes Denver's LMI households and affordable housing within a neighborhood context, reflecting how the community, developers, and planners think about these issues within their city.

This report has two key components. First, a data-rich analysis of demographic, economic, and housing trends is presented across Denver's neighborhoods to identify where the most potential exists for maintaining and creating affordable housing for LMI households. Second, insights from meetings with stakeholders involved in housing and development in Denver are summarized to best identify the direction that the city and its residents should move toward on these issues. Through integrating rigorous neighborhood-level data and the guidance and policy needs of those working directly in the community, we can identify strategies to preserve the economic diversity of Denver's residents and to ensure that all may benefit from the city's prosperity.

BOX 1**LMI Households within the Continuum of Affordable Housing Choices and Strategies**

The diagram is titled "Continuum of Affordable Housing Choices & Strategies" and features a blue house icon to the left of the title. Below the title is a table with four rows, each representing a different income level. The first row is for income below 30% AMI, targeting the extremely low income population (homeless or at risk of homelessness) with strategies like emergency shelters and rental assistance. The second row is for 30-50% AMI, targeting very low income with rental assistance and public housing. The third row is for 50-120% AMI, targeting low to moderate income with homeownership assistance and counseling. The fourth row is for income above 120% AMI, targeting moderate to upper income with varying tax credits. The table uses a color-coded system: orange for the first two rows, blue for the third, and light gray for the fourth.

INCOME	TARGET POPULATION	EXAMPLE STRATEGIES
<30% AMI	Extremely low income (homeless or at risk of homelessness)	Emergency shelters & rapid re-housing Permanent supportive housing Housing for persons with special needs Rental assistance Public housing, Housing Choice Vouchers, & Project-based rental assistance
30–50% AMI	Very low income	Rental Assistance Public housing Housing Choice Vouchers Project-based rental assistance Tax credits for development of affordable housing
50–120% AMI	Low to moderate income	Homeownership assistance Down payment assistance Homeownership counseling Tax credits for developing affordable housing Density bonuses Inclusionary zoning
>120% AMI	Moderate to upper income	Varying city, state, and federal tax credits

A continuum of affordable housing options and strategies align with family income levels defined in relation to the area median income. Municipalities generally pursue several policy and programmatic options to meet families' needs across the income spectrum. The strategies listed above are only a sample of the options and best practices municipalities use.

This report focuses on the needs of low- and middle-income (LMI) families who earn too much to qualify for publicly subsidized rental assistance, but not enough to afford much of the market-rate housing available. For LMI families, municipalities typically pursue strategies that expand their access to affordable rental and owner-occupied workforce housing or assist them with homeownership. The strategies municipalities pursue for LMI families vary by place and local context. These context-specific policy and program options are the focus of this report.

A Brief History of Housing in Denver Neighborhoods

Across its relatively young history, Denver has been characterized by periodic and explosive growth, arrivals of new and diverse residents in its LMI neighborhoods, and constraints and opportunities in its development and city planning. These themes shed light on why present-day Denver has challenges with housing affordability for LMI residents. This section explores a brief history of the city, how the history relates to LMI households and housing issues, Denver's recent population growth, and the unique policy context of the city and state that affect affordable housing availability for LMI residents.

Denver, like many western cities, has its origin in the gold rush and 19th century expansion. Denver was sparsely populated until 1858, when gold was discovered and miners began to settle the area in growing numbers. Two of Denver's original encampments during the gold rush were St. Charles and the present-day neighborhood of Auraria, settlements formed in 1858 across from each other on the South Platte River at the junction of Cherry Creek.² Although St. Charles was named Denver first, Auraria was soon integrated within the incorporation, laying the foundation for the present-day city.³

As Denver grew, its neighborhoods expanded around the original city core. Some of Denver's oldest neighborhoods (e.g., Curtis Park, Five Points, and Whittier) came into being during an era of prosperity in Denver—between 1870, when the city became an important railroad hub, and 1893, when Denver's economy nearly collapsed because of a devaluation in silver.⁴ During this period, Denver experienced the same explosive population growth and development that the city is experiencing today. Denver's earliest neighborhoods were mixed income and mixed occupation before Denver's most privileged residents created their own neighborhood enclaves (e.g., Capitol Hill) at the beginning of the 20th century and left such older neighborhoods to be populated mainly by LMI and new immigrant households.⁵ But in the renaissance of Denver's neighborhoods in the last 15 years, even traditionally LMI neighborhoods are experiencing gentrification.⁶

Other neighborhoods that spread out from the center were working-class neighborhoods by design, home to the city's earliest LMI residents. Barnum, on the western border of the city, is one such neighborhood, which started intentionally as a working-class Denver suburb, keeping this identity over the years. In the post-World War II era, Barnum's first wave of working-class residents began moving to more far-removed suburbs and more Hispanic residents moved in, shifting the demographics from 10 percent Hispanic to 75 percent Hispanic between 1950 and 2000. But Barnum's status as a working-class neighborhood has been secured, as homeowners of modest means have continuously populated the neighborhood over its history.⁷ Even today, many LMI households live in neighborhoods in the west and southwest of the city, such as Barnum.

Denver's early history of housing and development was one of growth outward from the inner core as more land was annexed, sparsely populated neighborhoods were created, and density in those neighborhoods increased. Yet, as these population and settlement dynamics were happening, policies and regulations were dictating how the city land was planned and used. This has become an especially prominent issue in recent years, as Denver's explosive population growth has created unprecedented demand for housing, especially affordable housing. Denver's population in 2010 was 604,414 and grew nearly 13 percent to 682,545 by 2015, with the addition of nearly 80,000 new residents.⁸ As a result of the population boom and lagging housing stock, housing costs have increased faster than incomes.⁹

Denver's residents and leaders are aware of the growing affordable housing issue and have pursued various strategies to create and preserve affordable housing through funding, policy, and regulation. With respect to funding, like most state and local efforts, Denver programs that directly support developing and preserving affordable housing financially seek to leverage other public (federal) and private investments by providing gap funds. The city has several programs that fall into this category. Established in 2015, the city's revolving affordable housing loan fund offers funds to low-income housing developers through the City of Denver, leveraging state and city funds, to provide gap financing to encourage take-up of the federal government's 4 percent Low-Income Housing Tax Credit (LIHTC) program (Denver Office of Economic Development 2016).¹⁰ This program will provide around \$10 million in funding over 10 years and is replenished as the loans are paid off, but is not a permanent program (Denver Office of Economic Development 2015a; Peterson 2016). The revolving loan fund was instrumental in completing three LMI housing developments in the first year of the program, which added nearly 300 new affordable housing units (Denver Office of Economic Development 2015a). The revolving loan fund replaced the inclusionary housing ordinance, which had required all new, for-sale housing developments with 30 or more units to reserve 10 percent of units for affordable housing, negotiate alternative arrangements that are more flexible on one requirement but exceed criteria in others, or pay a fee-in-lieu that had previously created 479 affordable units in the city primarily through fees paid-in-lieu (Denver Office of Economic Development 2015b). The state also funds its own 4 percent Low-Income Housing Tax Credit, set up in 2001 and recently extended through 2019, but this is a relatively small piece of affordable housing funding, providing around \$5 million in funding in 2015 (Peterson 2016).

Another way Denver has funded affordable housing is through transit-oriented design (TOD). Denver is a pioneer in TOD as one of the first cities to develop a transit-focused strategic growth plan and to create a fund dedicated toward TOD, a public-private partnership between Enterprise Community Partners, the city, state offices, and nonprofits and philanthropies (Enterprise, n.d.).

Originally a \$15 million fund with a single borrower focused on the city, this program has grown in the last few years into a broader \$24 million regional effort with multiple participants looking to create and preserve affordable housing at transit sites (Enterprise, n.d.). Similar to other state and local efforts, this program helps guarantee the cost of land around transit by buying and banking lots while developers await additional tax credits and funding to build.

Recognizing the magnitude of demand and the need for a sustainable strategy, these activities have established a permanent, dedicated fund to support affordable housing development and preservation by the city in 2016. Put into effect in 2017, this fund is supported by a property tax increase (of 0.5 mills) and one-time impact fees on new development, with an additional \$8 million in city funds dedicated in 2016 for current projects (Denver Office of Economic Development 2015a). The fund is anticipated to grow to \$150 million over the next 10 years and will be used to develop and preserve many affordable housing options, including permanent supportive housing for residents at risk, rentals for LMI residents, and homes for sale to middle-income buyers.¹¹

In addition to the Affordable Housing Trust Fund, Denver has made other investments and has started initiatives to stem the loss of affordable housing and to create more units. In 2015, Denver invested nearly \$8 million in nine new developments that will lead to over 600 new income-restricted units through restrictive covenants with developers (Denver Office of Economic Development 2015a). Other programs offer financial incentives directly to LMI homebuyers. One is the Metro Mortgage Assistance Plus program, which provides up to 4 percent down payment and closing-cost assistance for LMI homebuyers and has offered more than a thousand grants totaling \$100 million since 2013 that have facilitated the sale of 595 homes (City of Denver 2014; Denver Office of Economic Development 2016). The program is funded by bonds, but receives sustained funding through the resale of these mortgages and serves borrowers up to 150 percent of the AMI, though most borrowers have income below \$60,000 a year (Denver Office of Economic Development 2015a). Another program to assist first-time LMI homebuyers is the Mortgage Credit Certificate program, a federal income tax credit for 30 percent of interest paid on a mortgage up to \$2,000 (Denver Office of Economic Development 2016). Although the credit applies to federal tax liability, eligibility is determined through state and local programs that issue the certificates to qualifying buyers making eligible purchases.¹² Denver also funds the Colorado Housing Assistance Corporation, which issues loans to new LMI homebuyers to help cover down payment and closing costs (Denver Office of Economic Development 2016).

Another promising regulatory tool is Denver's affordable housing preservation ordinance—passed in 2000 and recently strengthened in 2015—that allows the city the right of first refusal to purchase affordable housing units on covenants being sold, as well as more advanced notice of units whose

covenants are expiring (Denver Office of Economic Development 2016). Using zoning changes and exceptions, the city has relaxed restrictions, including parking requirements in transit-served areas, as part of TOD and allowed for greater density through infill and developer density bonuses (Peterson 2016). Finally, city government is also working with developers to streamline the process for building or rehabilitating affordable housing by reducing the regulatory burden in the approvals process (City of Denver 2014).

One way to better leverage these regulatory and funding tools is to improve data and information about Denver's efforts in these domains, a city government priority. One initiative seeks to identify and map affordable housing and to get more timely information on units that are leaving covenants and covenant units that are going to sale (City of Denver 2014; Denver Office of Economic Development 2016). The government has also been working to identify neighborhoods at high risk of gentrification and has engaged in land banking, prioritizing the preservation of affordable units and engaging in resident and business retention strategies in these areas (Denver Office of Economic Development 2016). Through such targeted information, the government can more rapidly respond to affordable housing needs.

Many of these city-funded programs have emerged from policy strategies implemented, in some cases, from the mayor's office. For example, the mayor has a 3x5 Housing Initiative to create 3,000 affordable units in five years (2014–19) that is ahead of schedule (Denver Office of Economic Development 2015a). Another element is Denver's Road Home policy plan, a 10-year policy to end homelessness that was started in 2005 and created nearly 3,000 new housing units for the chronically homeless and provided 6,000 or more families with eviction assistance that prevented homelessness (Denver Office of Economic Development 2015a). The mayor also established a Housing Task Force in 2012 composed of stakeholders from across the spectrum charged with guiding affordable housing efforts and providing key recommendations that became the backbone of the city's strategic plan (City of Denver 2014). In 2017, the mayor also created the Office of Housing Opportunities for People Everywhere (HOPE) and appointed its director to address housing issues comprehensively in the city from homelessness to homeownership.¹³

BOX 2

Homelessness and Affordable Housing in Denver

This report focuses on the affordable housing needs of low- and middle-income families who are typically ineligible for a housing subsidy. But homelessness is relevant to this narrative in Denver. The 2016 point-in-time survey found that about 3,600 people were homeless in the city, many of whom are

veterans, families, or meet the US Department of Housing and Urban Development standard for chronically homeless (MDHI 2016). Denver has included supporting housing affordability for homeless residents as a critical rung in the continuum of housing presented in the *Housing Denver: A 5-Year Plan* (City of Denver 2014) for affordable housing that expires in 2019. Similarly, *Opening Doors* (USICH 2015), the comprehensive federal plan for preventing and ending homelessness, considers access to affordable housing, and lack thereof, as a critical cause and solution for effectively meeting its goals.

Data indicate that the cost of housing and cost burdens for renters and homeowners have grown in recent years, and qualitative evidence suggests these trends are likely to continue in many historically low-income neighborhoods. The consequences are twofold:

1. As the gap between families' incomes and cost of housing grows, more people are at risk of homelessness.
2. Although 30 percent of area median income is a conventionally cited threshold for being at risk of homelessness, area median income is a relative metric. Families' incomes may hover above this threshold, but rising housing costs and increasing cost burdens can have the same effect as low incomes. Absent income growth, families not at risk of homelessness stand to become vulnerable in the future.

Preserving and expanding affordable housing is necessary to reduce the likelihood that low- and middle-income families will face the risk of homelessness. The City of Denver has taken numerous steps to this end, detailed in the plan for "Denver's Road Home" that lasted from 2005 to 2015. A few examples include the following:

- The 3x5 Housing Initiative to add 3,000 affordable housing units by 2019
- Recently updated zoning, building, and development codes to ensure an adequate supply of affordable and emergency housing
- The Denver Social Impact Bond Initiative is exploring financing mechanisms to connect the private and public sectors and to provide affordable housing for chronically homeless people

Even as a leader in this area, Denver faces challenges providing affordable housing for its residents. Some state laws limit the ability and tools available to the city in creating and preserving affordable housing. A 1980 Colorado statute forbids cities from requiring rent controls except when the city has a contract or equity stake in a development (Denver Office of Economic Development 2016). Further hampering renters, the city's inclusionary housing ordinance applies only to new, for-sale units and not to those being developed for rent (Peterson 2016). These challenges facing renters are compounded and magnified by the relative dearth of starter homes, in part a consequence of a 2009 state supreme court decision that restricted condominium developers' right to insurance for construction defects,

which has had a chilling effect on new condominium construction (Peterson 2016). The 1982 Gallagher and 1992 Taxpayer's Bill of Rights amendments to the state constitution have limited the city's and state's ability to raise taxes to fund investments in affordable housing and reduced the level of certainty for funding in different domains by shifting funding decisions from elected officials to voters (The Bell Policy Center 2015). The 1974 Poundstone amendment also imposed geographic constraints on Denver's size, making it more difficult to acquire land (Denver Office of Economic Development 2016).

Denver's history as a frontier boom town and its recent and explosive population growth have defined its development and have solidified its reputation as an attractive place to live. Denver has been thoughtful about staying ahead of affordable housing issues through funding and programmatic innovations, but the population increases and tight housing stock have culminated in a challenging and pricey housing market. This makes the need to identify new and innovative programmatic and policy solutions an especially pressing concern as LMI residents may be especially challenged by Denver's housing market.

BOX 3

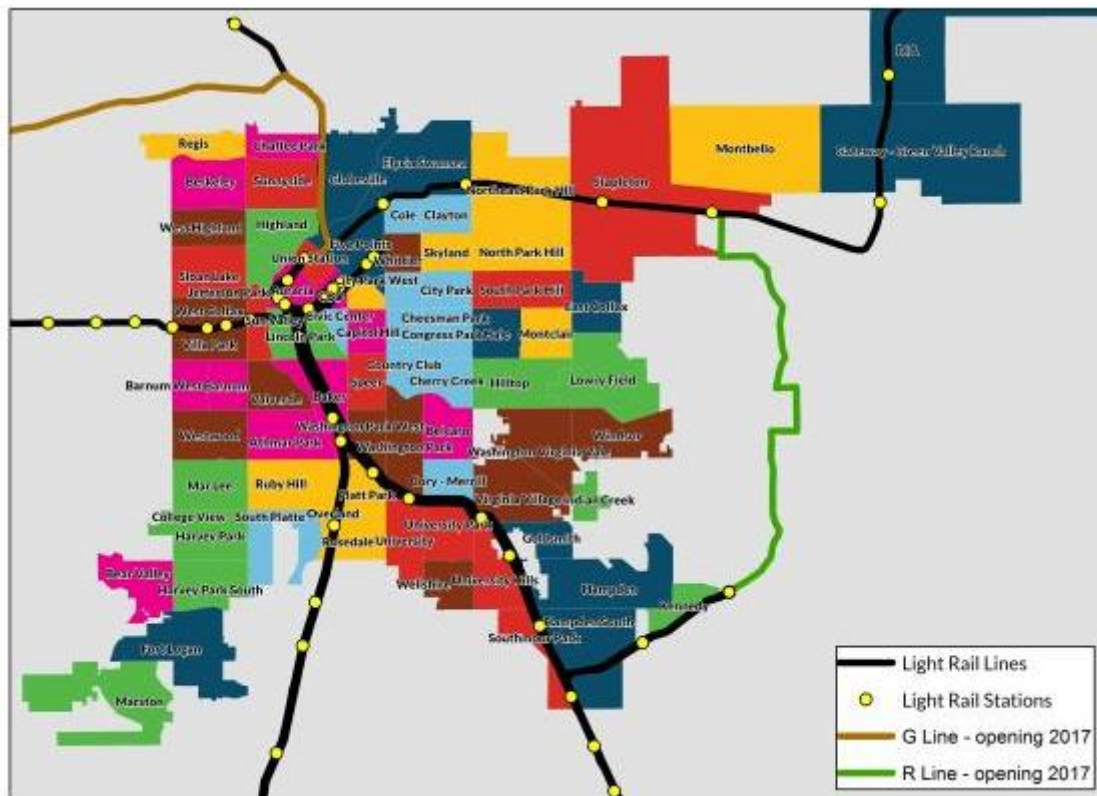
Defining Denver's Neighborhoods

Neighborhoods often reflect shared community identity across cities—boundaries understood by residents, but not often quantified in official data sources. This report presents data at the neighborhood level, using geographic information system boundaries made available through the City of Denver to aggregate census tract-level data into the corresponding neighborhoods.^a Analyses in this report are broken out for neighborhoods wherever permitted with the data available. Denver has 78 neighborhoods (figure 1).

^a Neighborhood boundaries can be found at "Statistical Neighborhoods," Denver Open Data Catalog, last updated September 4, 2016, <https://www.denvergov.org/opendata/dataset/city-and-county-of-denver-statistical-neighborhoods>.

FIGURE 1

Neighborhoods in Denver and Regional Transportation District Light Rail Lines



Source: Regional Transportation District.

Changing Demographics in Denver's Neighborhoods

People drive the diversity and development of any city. Understanding population dynamics is critical for identifying LMI housing opportunities. To understand Denver's neighborhoods, we describe the populations living in them and how these areas have changed. We rely on data from the 2000 Decennial Census and the American Community Survey's five-year sample from 2011 to 2015 for localized data (referenced as "2015" throughout this report). As these data show, some of Denver's neighborhoods have lost LMI households, and others have gained them.

Population and Households

Denver has experienced tremendous population growth. Since 2010, Denver has added over 75,000 new residents for a total population of 682,545 in 2015, growing 13 percent over six years.¹⁴ In 2000, Denver had a population of 554,636. The city has added nearly 128,000 new residents since then, growing 23 percent (appendix table A.1).

The neighborhoods where growth has been most concentrated have been in the center of the city and on the edge of the city line at the boundary with Aurora. The Union Station, Auraria, Central Business District, and Civic Center neighborhoods more than doubled in size between 2000 and 2015. These neighborhoods have few residents compared with other areas. But the collective growth of the neighborhoods of the Lower Downtown (LoDo) area reflect the revitalization and gentrification brought about, in part, by city zoning and historic preservation.¹⁵ Such population growth in downtown Denver also reflects a phenomenon found in other cities, where residents desire living closer to workplaces and other city-life amenities. Not surprisingly, these LoDo neighborhoods have collectively doubled the number of households within them since 2000.

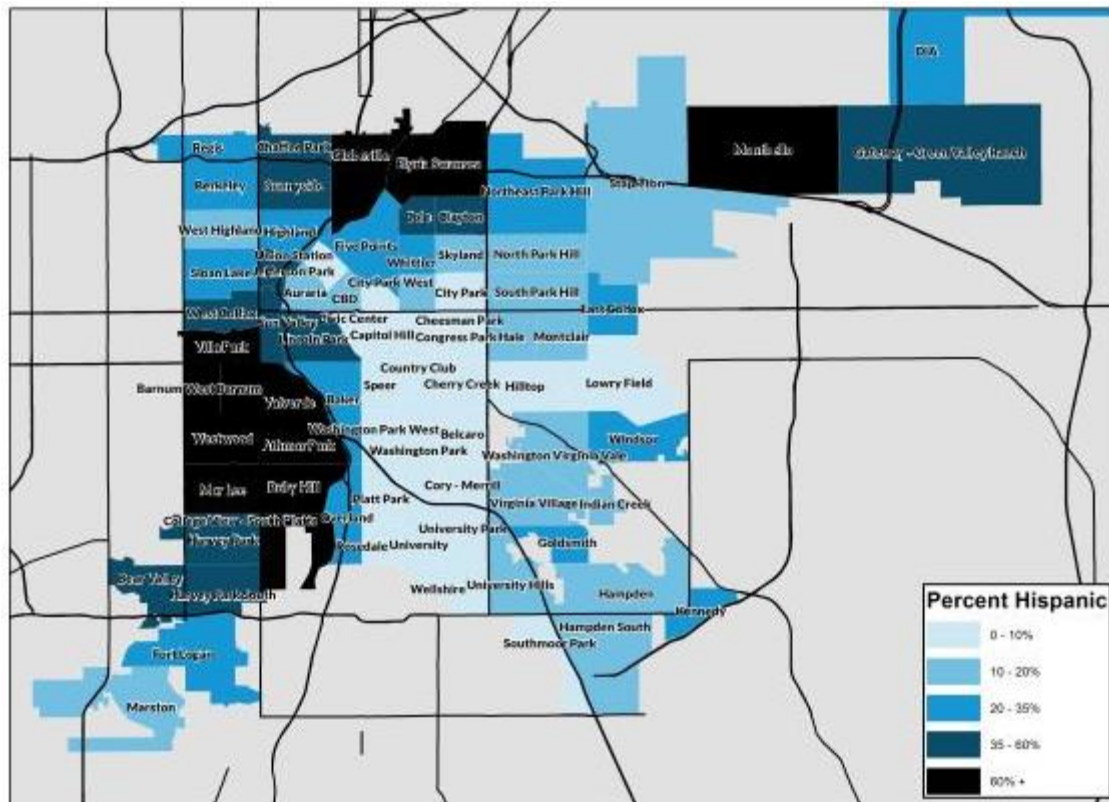
Meanwhile, the Gateway–Green Valley Ranch, Lowry Field, and Stapleton neighborhoods on the Denver–Aurora city border have been growing tremendously since 2000 (appendix table A.1). These three neighborhoods in 2000 only had 15,000 residents, but by 2015, their collective population increased to nearly 62,000 residents. The number of households in these communities increased by a similar share—from over 4,700 households in 2000 to more than 20,000 by 2015. These three Denver neighborhoods were part of redevelopment and annexation that happened in the 1990s, because of the creation of Denver International Airport, the reuse of Stapleton Field, and the acquisition of Lowry Air Field from the Air Force (City of Denver 2000). Because of long-term planning, these areas have seen tremendous residential growth.

Key Demographics: Race, Ethnicity, Age, and Education

Like many cities, Denver has a diverse population, but its neighborhoods tend to reflect residential clustering—by race and ethnicity, and between younger and older households. About 31 percent of Denver’s population identifies as Hispanic or Latino, but some neighborhoods are ethnically concentrated, such that in nine neighborhoods, at least 7 in 10 residents in 2015 were Hispanic or Latino. Eight of these neighborhoods are clustered in southwest Denver, including Athmar Park, Barnum, Barnum West, College View–South Platte, Mar Lee, Valverde, Villa Park, and Westwood, and have all been majority Hispanic and Latino since 2000 (figure 2). Similarly, the city’s black population is

clustered in the northeast corner, especially in the Northeast Park Hill neighborhood, where over 4 in 10 residents identified as such (appendix table A.2).

FIGURE 2
Hispanic Population in Denver Neighborhoods, 2011–15



Source: Urban Institute tabulations of 2011–15 American Community Survey data.

There is considerable overlap in those neighborhoods where Hispanic and Latino and black households are concentrated and households with children in them. Over half the households in Barnum, Elyria Swansea, Gateway–Green Valley Ranch, Montebello, Stapleton, Sun Valley, Valverde, and Westwood have children under age 18 (appendix table A.3). Consequently, affordable housing considerations in these neighborhoods should factor in the need for family-appropriate housing with multiple bedrooms.

Shifts in who has a bachelor’s degree reveals a great deal about how the city has changed and who has moved in. Between 2000 and 2015, the percentage of city residents with a bachelor’s degree increased 5 percent (from 22 to 27 percent). But in some neighborhoods, this change was pronounced—increasing 10 percentage points or more—reflecting an influx of highly educated residents into certain

neighborhoods. This has been especially notable in select neighborhoods fanning out from the LoDo district, where the population with a bachelor's degree increased 15 percentage points or more, including Auraria, City Park, City Park West, Highland, North Capitol Hill, and Whittier. The Highland neighborhood, just north of Union Station, increased 23 percentage points, such that nearly 4 in 10 residents now have a bachelor's degree (appendix table A.3). These shifts are one more sign that gentrification has occurred throughout many Denver neighborhoods.

LMI Households: Who Are They, Where Are They Concentrated, and How Have They Changed?

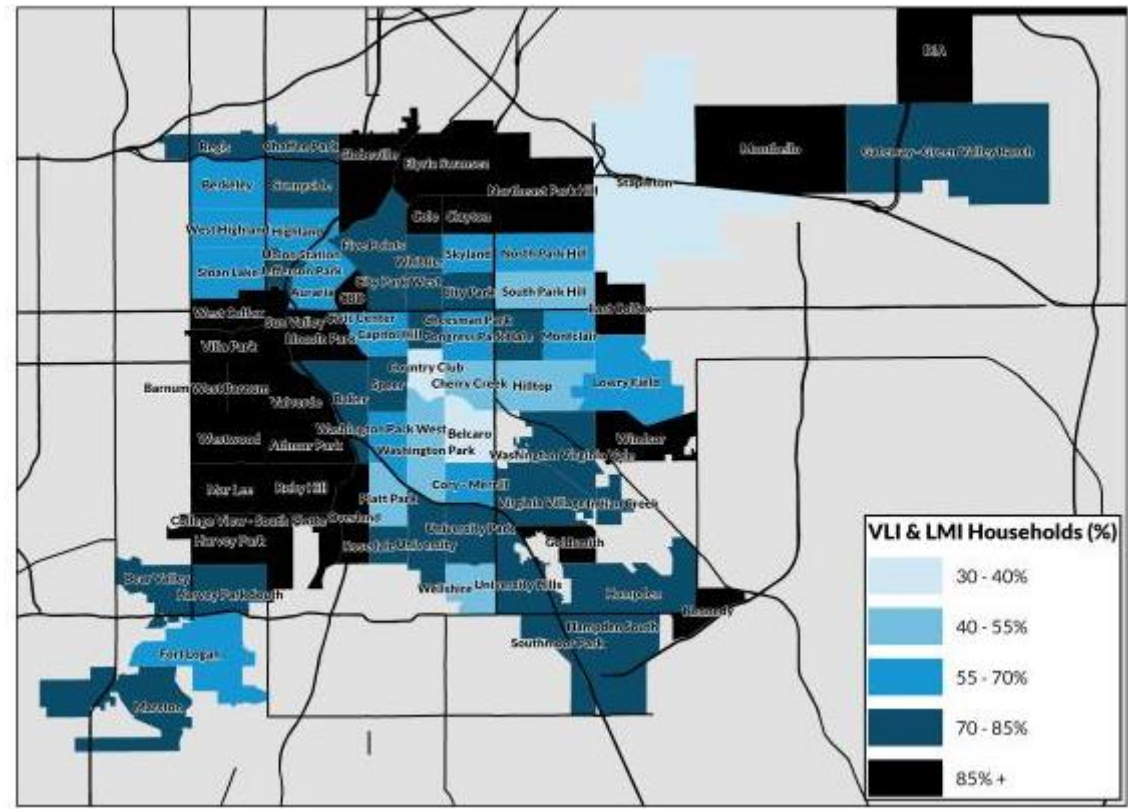
Amid an influx of new arrivals and increasing gentrification, especially around the city center, where do LMI households (i.e., those who earn 50 to 120 percent of the Denver AMI) live, and how have neighborhood income distributions changed (appendix table A.5)? Overall, 35 percent of Denver households were LMI in 2000 and 38 percent of households were LMI in 2015. The percentage of very low-income households (VLI, or households who earn less than 50 percent of the Denver AMI) decreased 6 percent (from 44 to 38 percent) from 2000 to 2015, reflecting the shift in Denver's population to higher-income households.

Some neighborhoods have remained solidly LMI from 2000 to 2015. Thirteen neighborhoods in Denver persisted as neighborhoods in which at least 4 in 10 households were LMI in 2000 and 2015: Athmar Park, Barnum West, Bear Valley, Gateway–Green Valley Ranch, Hampden South, Harvey Park, Indian Creek, Mar Lee, Marston, Montbello, Overland, Regis, and Rosedale. Many LMI households are in southwest Denver. Two important exceptions are Montbello and Gateway–Green Valley Ranch in the upper northeast corner, where about half of all households are LMI (figure 4). These neighborhoods have persisted as ones where LMI households reside in higher shares, suggesting that these locations are where LMI affordability should be prioritized.

Who lives in the average LMI household? Detailed data about the demographics of Denver by income show that the average LMI household head is around age 45, prime working age, and the average household size is 2.17 people. Very low-income household heads were on average four years older than LMI heads, and high-income heads were on average two years older than LMI heads. Very low-income households averaged less than two people, and high-income households averaged slightly over 2.5 people (table 1). Looking at occupation, the heads of VLI and LMI households were largely clustered in the service, retail, cleaning, and education sectors. High-income heads were more

commonly in managerial or professional occupations (table 2). Low- and middle-income household heads in Denver are teachers, nurses, retail employees, and office staff.

FIGURE 4
Share of Very Low-Income or Low-Income Households in Denver, 2011–15



Source: Urban Institute tabulations of 2011–15 American Community Survey data.
Notes: LMI = low and middle income; VLI = very low income.

TABLE 1
Select Characteristics by Income Group, Denver

	VLI	LMI	HI
Average age of household head	48.6	44.6	46.5
Household size	1.82	2.17	2.52

Source: Urban Institute tabulations of 2011–15 American Community Survey Public Use Microdata Sample.
Notes: VLI = very low income (<50 percent AMI); LMI = low and middle income (50–120 percent AMI); HI = high income (>120 percent AMI).

TABLE 2

Top 10 Reported Occupations for Head of Household by Income Group, Denver

	Count	Share of total (%)
VLI head of household		
Retail salespersons	2,241	2.7
Customer service representatives	2,027	2.4
Maids and housekeeping cleaners	1,768	2.1
Waiters and waitresses	1,761	2.1
Janitors and building cleaners	1,652	2.0
Secretaries and administrative assistants	1,478	1.8
Cashiers	1,465	1.8
Driver/sales workers and truck drivers	1,417	1.7
Cooks	1,299	1.6
Laborers and freight, stock, and material movers	1,233	1.5
LMI head of household		
Miscellaneous managers	2,547	2.6
Accountants and auditors	2,263	2.3
Elementary and middle school teachers	2,185	2.2
Customer service representatives	1,929	1.9
First-line supervisors of retail sales workers	1,630	1.6
Registered nurses	1,598	1.6
Secretaries and administrative assistants	1,441	1.5
Waiters and waitresses	1,432	1.4
Retail salespersons	1,377	1.4
Postsecondary teachers	1,316	1.3
High-income head of household		
Miscellaneous managers	3,566	5.4
Lawyers and judges, magistrates, and other judicial workers	2,243	3.4
Physicians and surgeons	1,946	3.0
Chief executives and legislators	1,814	2.8
Software developers, applications and systems software	1,586	2.4
Accountants and auditors	1,460	2.2
Management analysts	1,437	2.2
Marketing and sales managers	1,230	1.9
Real estate brokers and sales agents	1,199	1.8
Registered nurses	1,145	1.7

Source: Urban Institute tabulations of 2011-15 American Community Service Public Use Microdata Sample.

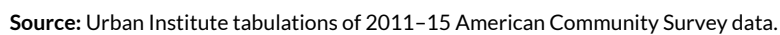
Notes: LMI = low and middle income; VLI = very low income.

Renters and Homeowners

About half of Denver's households are renters, and this has changed little since 2000 (up 3 percentage points to 51 percent in 2015). The number of renter-occupied units increased most in the Civic Center neighborhood (17 percent), Globeville (27 percent), Harvey Park (17 percent), and Overland (29 percent) (appendix table A.6 and figure 5). Why did Globeville and Overland's share of renters increase so much? These neighborhoods have seen influxes of new residents and housing development, in part because these areas have been historically more affordable than other parts of the city.¹⁶ Changes in affordability will have to be monitored as high-income residents move in and potentially displace low-income ones. As cited in the Denver development plan for Globeville, affordable homeownership and single-family dwellings have been historically important in the neighborhood, an asset to be preserved as economic development progresses. Ensuring that low-income homeowners can stay in place as home values rise is an element of the neighborhood plan (City of Denver 2016).

Overland's population of renters changed in income mix tremendously. Although 64 percent of Overland's renters were very low income in 2000, just 30 percent were in 2015. At the same time, 27 percent of Overland's renters were low and middle income in 2000, increasing to 56 percent by 2015. Overland's renters are increasingly high-income residents.

Share of Renter-Occupied Households in Denver, 2011–15



Housing Units

Naturally occurring affordably housing (NOAH) is important for meeting LMI families' needs. NOAH opportunities tend to be in neighborhoods and municipalities with older housing stock or available apartments at prices LMI households can afford. This section looks at the state of the housing stock across Denver's neighborhoods, including the availability, age, and price of rental units and homes for purchase, to understand changes in affordable housing.

Changing Housing Stock

Denver's housing stock changed considerably between 2000 and 2015. Some neighborhoods saw tremendous growth in housing units. Neighborhoods that doubled in size include Gateway–Green Valley (245 percent growth), Lowry Field (175 percent), Union Station (152 percent), Five Points (144 percent), and the Central Business District (139 percent). Meanwhile, four neighborhoods, all far from the city center, grew less than 2 percent: Goldsmith, Hampden, Regis, and University (appendix table B.1).

In contrast to the city's population growth since 2000 (23 percent), the growth in housing units was slower (17 percent). This may reflect a lag in the ability of new development to keep pace with the rapid population influx.

NOAH neighborhoods are generally characterized by older housing stock, as units in older structures are typically more affordable. In this analysis, we consider housing units built before 1980 to be "old." Denver's share of older units dropped from 84 to 58 percent between 2000 and 2015. This reflects a loss in older units and an extraordinary increase in new units. As of 2015, 17 percent of all units were built since 2000.¹⁷ This is not uniformly the case across all Denver's neighborhoods. In six neighborhoods, all in southern Denver, 95 percent or more of the housing units were built before 1980: Goldsmith (98 percent), Hampden (95 percent), Harvey Park (97 percent), Mar Lee (95 percent), Virginia Village (95 percent), and Wellshire (95 percent) (appendix table B.5). Except for Wellshire, these neighborhoods have the same or a greater percentage of units with rent below \$1,000 a month compared with Denver's city average (appendix table B.4). Because of their older housing stock and average to below-average rentals, these neighborhoods could be appropriate for preserving NOAH for LMI families.

In contrast, some neighborhoods have a great deal of newer housing stock, reflecting recent development and growth. The areas on the city's eastern border that were part of land annexation following the redevelopment of the airport have seen new development since 1980, including Denver International Airport and Gateway–Green Valley Ranch. Meanwhile, four neighborhoods east of LoDo have seen a lot of new housing development, and less than a quarter of occupied housing units in these areas were built before 1980, including City Park (21 percent), Civic Center (20 percent), Five Points (17 percent), and Whittier (22 percent) (appendix table B.5).

NOAH is reflected in older and less-expensive housing units and in smaller-scale buildings. Areas primarily composed of large multifamily housing units are in the LoDo area, including the Central Business District (99 percent multifamily), Civic Center (99 percent), and Union Station (93 percent) (appendix table B.3). Even in 2000, these areas were characterized by having mostly multifamily units, so this reflects little change. In contrast, the Five Points and City Park neighborhoods saw a 15 and 14 percentage point increase in the share of multifamily units from 2000 to 2015, reflecting rapid development and density growth. The neighborhood that has changed most in its housing unit composition has been Overland, where in 2000, 87 percent of its housing units were single-family. By 2015, 49 percent were single-family units.

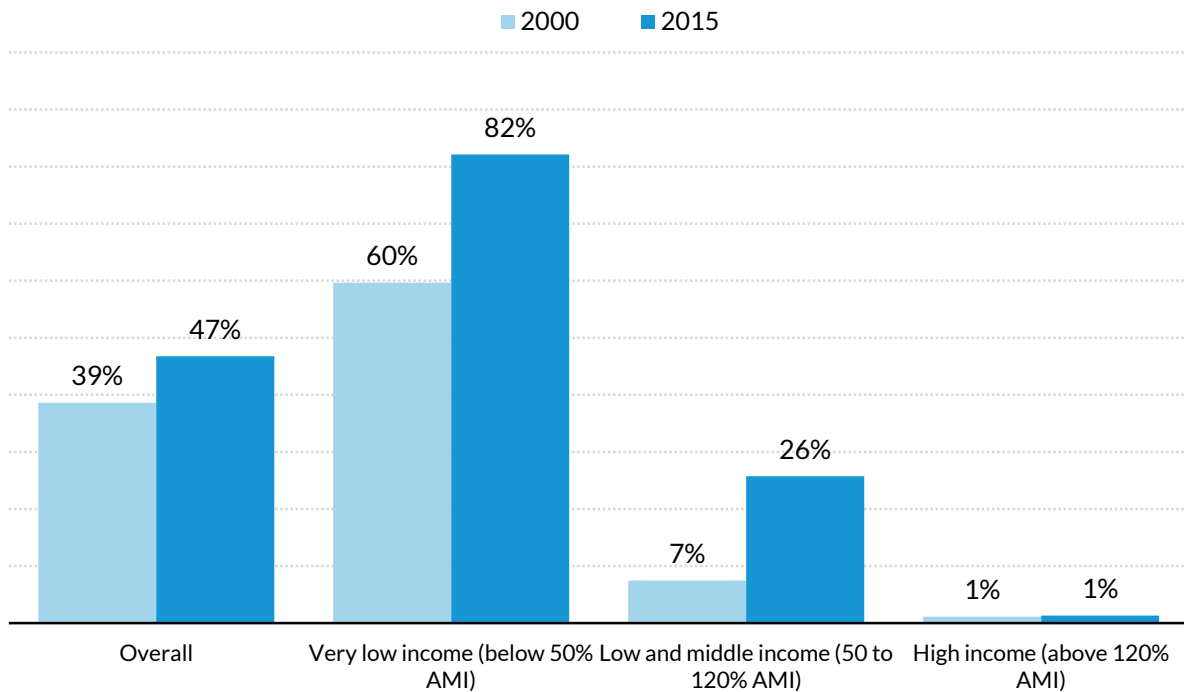
Renter Cost Burden

In 2015, around 51 percent of households in Denver rented. Renters are particularly vulnerable to changes in the housing market, and rapidly rising property values can place tremendous pressure on households to make rent, particularly LMI renters. The landscape of affordable rental units is rapidly changing, but some neighborhoods have a higher concentration of affordable and older rental housing units (appendix B). The important questions here are whether rentals are affordable to LMI households and whether such families are burdened by housing costs. This section describes how renter households, especially LMI households, are faring with respect to housing cost burden. A household is cost burdened if it spends 30 percent or more of household income on housing.

Housing cost–burden rates have increased for renters in Denver over the last 15 years (figure 6). Among renter households, around 47 percent were housing cost burdened in 2015 compared with 39 percent in 2000. For VLI and LMI renters, the change was more pronounced. Cost burden rates for VLI renters increased from 60 to 82 percent. Low- and middle-income renter households, whose cost burden rates were around 7 percent in 2000, had cost burden rates increase to 26 percent by 2015. Cost burden rates for high-income renters remained around 1 percent.

FIGURE 6

Renter Households by Cost Burden in 2000 and 2015



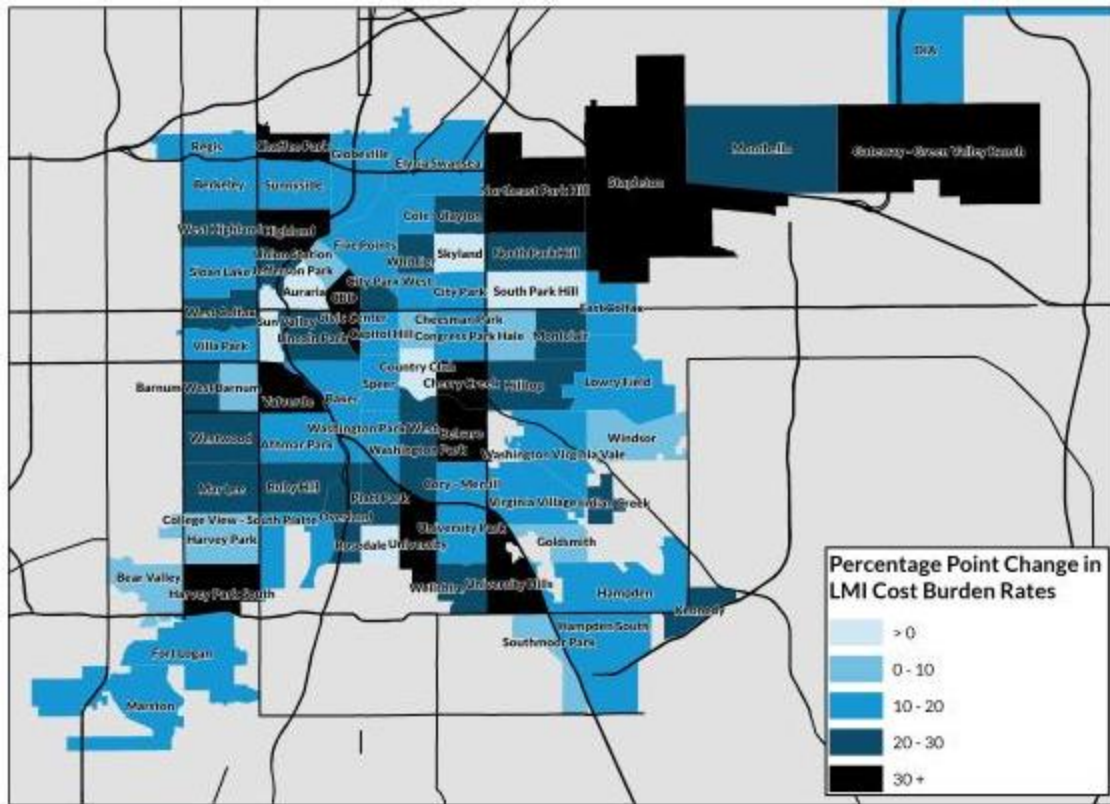
Source: Urban Institute tabulations of 2000 Decennial Census and 2011–15 American Community Survey data.

Note: AMI = area median income.

Although most LMI households were not cost burdened in 2015, 74 of the 78 neighborhoods had increases in renter cost burden rates since 2000, and in some areas, the changes were dramatic (figure 7). Thirteen neighborhoods experienced an over 30 percentage point increase in the rate of housing cost burden for LMI households (table 1). The areas with the largest growth were concentrated in the northeast region of the city, in west Denver, in south central Denver, and in neighborhoods surrounding the Central Business District. The dramatic changes within certain areas highlight the pressures LMI renter households face in some Denver neighborhoods.

FIGURE 7

Percentage-Point Change in Cost Burden Rate for LMI Renters in Denver, 2000–15



Source: Urban Institute tabulations of 2000 Decennial Census and 2011–15 American Community Survey data.

Note: LMI = low and middle income (50 to 120 percent of area median income).

TABLE 1

LMI Renter Cost Burden for Select Neighborhoods in 2000 and 2015

Neighborhood	LMI renter cost burden rate (%), 2000	LMI renter cost burden rate (%), 2015	Difference (%)
Cherry Creek	14	58	45
Valverde	5	49	45
University Hills	13	54	42
Chaffee Park	19	59	40
Harvey Park South	5	44	39
Highland	5	42	36
University	8	43	35
Northeast Park Hill	10	43	32
Belcaro	46	77	31
Gateway–Green Valley Ranch	11	41	30
CBD	4	34	30

Source: Urban Institute tabulations of 2000 Decennial Census and 2011–15 American Community Survey data.

Notes: CBD = Central Business District; LMI = low and middle income (50 to 120 percent of area median income).

Lending Activity

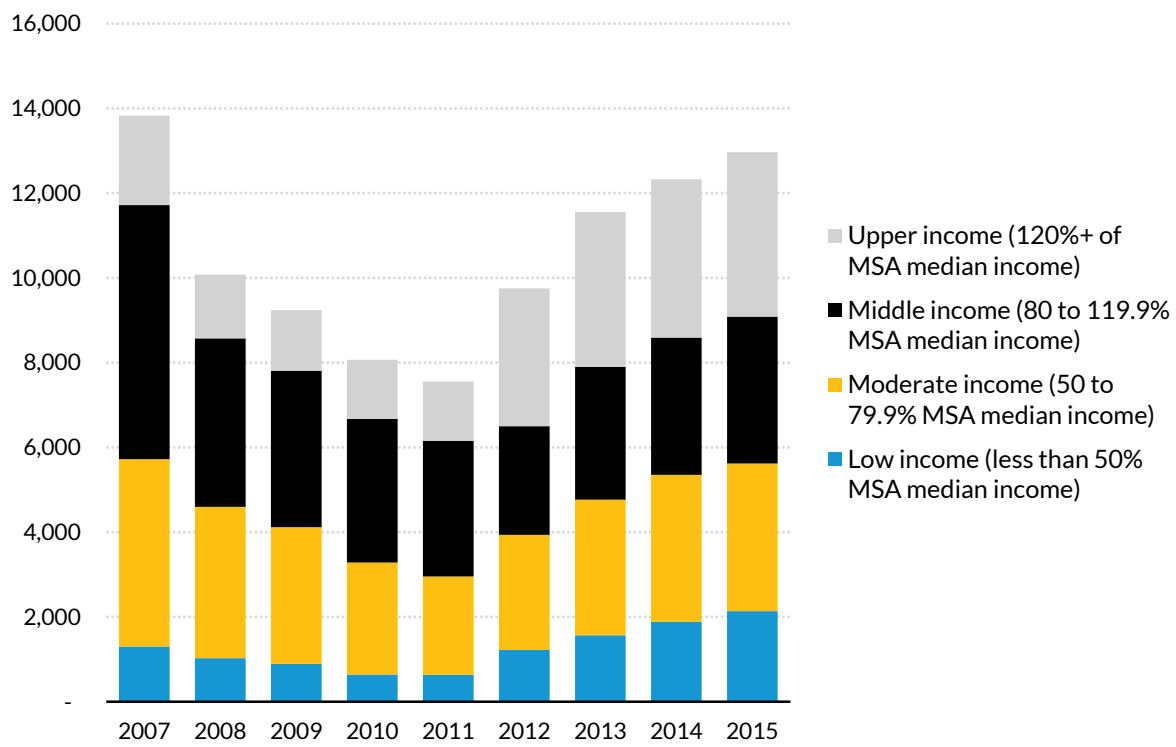
The Great Recession had a considerable impact on lending activity in Denver. Home Mortgage Disclosure Act data indicate lending activity declined 45 percent between 2007 and 2011. But the city was quick to recover, and by 2015, lending activity was approaching prerecession levels. Although there was significant recovery from the 2011 low, the gains were not even across neighborhoods. The share of lending in LMI neighborhoods fell between 2007 and 2015.

Lending in middle- and moderate-income neighborhoods has remained flat, while there has been rapid growth in upper-income neighborhoods and, to a lesser extent, low-income neighborhoods (figure 8). In 2007, 15 percent of loans were issued in upper-income neighborhoods (120 percent or more of the metropolitan statistical area, or MSA, median income), 43 percent of loans were in middle-income neighborhoods (80 to 119.9 percent of the MSA median income), 32 percent of loans were in moderate-income neighborhoods (50 to 79.9 percent of the MSA median income), and 9 percent of loans were in low-income neighborhoods (less than 50 percent of the MSA median income). The share in upper-income neighborhoods doubled to 30 percent by 2015 (increasing from 2,112 loans in 2007 to 3,876 in 2015). Meanwhile, the share in middle-income and moderate-income areas declined from being 75 percent of loans in 2007 to 54 percent of loans in 2015. But growth was not limited to upper-income neighborhoods. The share of loans issued in low-income neighborhoods increased to 15 percent of the total by 2015 (from 1,301 to 2,138).

The lending activity analysis does not include loans for multifamily units (i.e., properties with more than five units) because the number of dwelling units on the property is not specified, making it impossible to determine if it is a small or large multifamily development (Bureau of Consumer Financial Protection 2015). But for Denver, multifamily housing units were a small share of originated loans. In each year from 2007 to 2015, multifamily housing accounted for between 0.6 and 1.2 percent of total loans each year.

FIGURE 8

Loans Issued by Neighborhood Area Median Income Group, Denver



Source: Urban Institute tabulations of Home Mortgage Disclosure Act data, 2007–15.

Notes: MSA = metropolitan statistical area. The figure includes one- to four-unit family dwellings and manufactured housing. Multifamily housing units, which account for less than 1 percent of loans originated each year, are excluded from the analysis.

Neighborhood Change Typology: Understanding Opportunities for Preserving and Creating LMI Housing

The culmination of understanding the changing population, housing dynamics, and stock of affordable housing across Denver’s neighborhoods is to determine where the best opportunities exist to preserve and create LMI housing. Some areas are ripe for protecting NOAH and creating LMI housing, other areas may be too developed, and other areas receive too little investment. This section presents data from a typology created to identify neighborhoods where affordable housing needs can best be addressed, so residents across the income distribution can continue to live in and contribute to Denver’s diverse community.¹⁸ We look across neighborhoods from 2000 to 2015 to understand how Denver’s LMI opportunities have changed.

Composite Index

To understand how these neighborhoods have changed in the last decade, we created a composite index that accounts for resident economic success, housing accessibility, and changes within neighborhoods that might affect LMI households. We based our index on the Kirwan Institute's "Opportunity Index" and tailored it to assess factors affecting LMI households more directly.¹⁹ Our composite index uses eight indicators of residents' economic success and housing market health to understand how neighborhoods have changed (table 3). Residents' economic success is indicated by a low unemployment rate, low poverty rate, shorter commute time, and an entropy index for residential income mix (which measures how well integrated a neighborhood is among people of all income levels, focusing on how well represented LMI households are).²⁰ Neighborhood housing market health is measured through higher property values, lower vacancy rates, lower housing cost burdens, and higher homeownership rates.

In constructing these indexes, we used data from the 2000 Decennial Census and the 2011–15 American Community Survey (referred to as "2015" in this section). In characterizing neighborhoods, we looked at the "match" between residents' economic success and the area's housing market health. The neighborhoods we identify for LMI affordable housing interventions are not the highest ranking in either component index. For example, a neighborhood that ranks high on economic success and housing market health may already be too inaccessible to LMI households. In contrast, neighborhoods that rank in the middle or below may present opportunities for LMI-specific community development or preservation efforts.

TABLE 3

Neighborhood Change Composite Indexes

Resident economic success index	Housing market health index
Unemployment rate	Property value (median home value)
Poverty rate	Vacancy rate
Percentage with 45-minute commute or longer	Percentage cost burdened in renting or owning
Entropy index for resident income mix	Homeownership rate

Neighborhood Rankings

The results of the composite index indicate that resident economic success and housing market health trend together for most neighborhoods from 2000 to 2015 (table 4 and figures 9 and 10). Most of the neighborhoods that were top ranked in 2000 continued to remain in the top in 2015. For example,

seven of the neighborhoods ranked in the top 10 in 2000 (Belcaro, Cory–Merrill, Country Club, Hilltop, South Park Hill, Washington Park, and Wellshire) were also in the top 10 in 2015, with Country Club remaining at the top over time. Three new entrants to the top 10 include North Park Hill, Platt Park, and Stapleton that all happen to be locations of some of Denver’s light rail stations, a system created in 1994, which has blossomed in the intervening years and has helped spur economic development in surrounding neighborhoods.²¹

Meanwhile, two neighborhoods that were ranked low in 2000 improved considerably and are in the top tier in 2015. Whittier was number 58 on the list in 2000 and is now number 22. Housing indicators in Whittier improved so much that the neighborhood moved from being number 55 in housing market health in 2000 to number 14 by 2015. In 2000, 44 percent of homes had property values less than \$200,000 (in 2015 dollars). By 2015, just 8 percent were valued that low. Similarly, LMI renter cost burden increased from 3 percent of LMI households to a quarter by 2015. Auraria had equally dramatic changes in housing stock and is now ranked 23 out of all neighborhoods on the housing market health index. These two neighborhoods have experienced dramatic shifts in home values and rental prices.

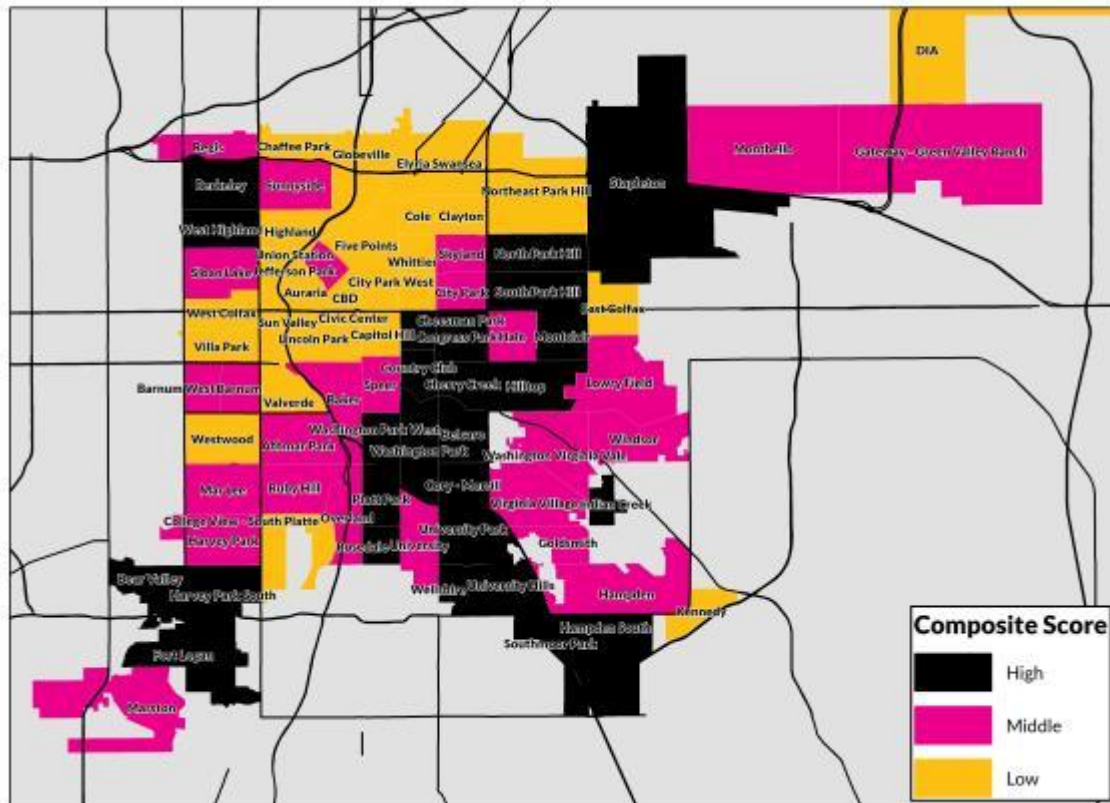
Neighborhoods ranked in the middle, neighborhoods that present the most potential for preserving LMI housing, include some that have stayed solidly middle ranked since 2000. Bear Valley, Fort Logan, Harvey Park, and Marston are all in the southwest corner of the city and have remained solidly LMI neighborhoods from 2000 to 2015. These neighborhoods have older housing stock, have a significant share of rentals under \$1,000 a month, and housing values have remained affordable (a significant portion are under \$200,000). Policies that ensure these neighborhoods can be preserved as affordable to LMI families should be considered here, particularly because they have remained relatively buffered from other changes.

Finally, some neighborhoods in the bottom third of the neighborhood typology are on the rise, with both rising economic success of the residents and housing market health as factors. Five Points has quickly moved up from 2000 to 2015 because of economic and housing changes that point to gentrification. Meanwhile, other neighborhoods have dropped into the bottom tier after having been solidly in the middle grouping, including Montebello, Ruby Hill, Washington Virginia Vale, and Windsor, primarily because residents’ economic success and the housing market health has stagnated and dropped.

To understand the forces contributing to neighborhood changes, we will explore details about each component index.

FIGURE 9

Denver Neighborhood Composite Scores, 2000



Source: Urban Institute tabulations of 2000 Decennial Census data.

Denver Neighborhood Composite Scores, 2015

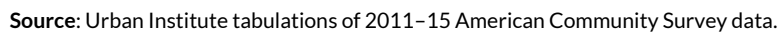


TABLE 4

Neighborhood Change Typology Rankings

Neighborhood	Overall ranking, 2000	Overall ranking, 2015	Change, 2000–15	RES, 2000	RES, 2015	Change, 2000–15	HMH, 2000	HMH, 2015	Change, 2000–15
Country Club	1	1	0	4	20	-16	1	1	0
Wellshire	3	2	1	8	3	5	3	6	-3
South Park Hill	8	3	5	15	9	6	8	3	5
Hilltop	4	4	0	1	18	-17	4	2	2
Belcaro	2	5	-3	11	8	3	2	4	-2
Platt Park	12	6	6	19	1	18	11	10	1
Stapleton	14	7	7	33	5	28	9	9	0
Cory–Merrill	6	8	-2	12	22	-10	6	5	1
Washington Park	5	9	-4	2	2	0	5	13	-8
North Park Hill	21	10	11	37	15	22	16	8	8
Montclair	9	11	-2	3	4	-1	13	16	-3
Washington Park West	10	12	-2	5	32	-27	12	7	5
Congress Park	19	13	6	21	7	14	17	19	-2
West Highland	25	14	11	27	34	-7	26	11	15
Indian Creek	11	15	-4	6	12	-6	18	20	-2
Cherry Creek	7	16	-9	10	11	-1	7	22	-15
Regis	27	17	10	40	35	5	20	12	8
Hampden South	15	18	-3	13	13	0	21	24	-3
Berkeley	24	19	5	25	31	-6	27	15	12
Rosedale	26	20	6	14	6	8	43	37	6
University Hills	13	21	-8	9	14	-5	22	25	-3
Whittier	58	22	36	63	44	19	55	14	41
Sloan Lake	39	23	16	42	36	6	36	21	15
Skyland	43	24	19	48	47	1	42	18	24
Chaffee Park	53	25	28	58	19	39	47	36	11
Hale	28	26	2	20	23	-3	34	31	3
Bear Valley	23	27	-4	47	37	10	15	27	-12
Fort Logan	17	28	-11	31	54	-23	10	17	-7
Lowry Field	50	29	21	36	17	19	63	40	23
Southmoor Park	18	30	-12	7	10	-3	24	51	-27
Athmar Park	36	31	5	39	24	15	35	34	1
Baker	49	32	17	53	26	27	46	35	11
Auraria	76	33	43	76	49	27	72	23	49
Highland	66	34	32	64	16	48	67	48	19
Speer	42	35	7	28	21	7	52	49	3
Harvey Park South	16	36	-20	22	40	-18	14	32	-18
University Park	20	37	-17	16	33	-17	23	43	-20
Marston	33	38	-5	34	42	-8	30	30	0
Cheesman Park	22	39	-17	18	29	-11	28	46	-18
Gateway–Green									
Valley Ranch	52	40	12	30	58	-28	70	26	44
Sunnyside	51	41	10	59	56	3	45	28	17
Hampden	32	42	-10	17	28	-11	44	50	-6
University	37	43	-6	38	45	-7	37	33	4
Harvey Park	29	44	-15	45	43	2	19	39	-20
Barnum West	40	45	-5	55	60	-5	25	29	-4
Virginia Village	30	46	-16	29	50	-21	32	44	-12
City Park	35	47	-12	32	30	2	40	55	-15

Neighborhood	Overall ranking, 2000	Overall ranking, 2015	Change, 2000–15	RES, 2000	RES, 2015	Change, 2000–15	HMH, 2000	HMH, 2015	Change, 2000–15
Union Station	48	48	0	41	57	-16	56	42	14
Mar Lee	38	49	-11	49	51	-2	29	45	-16
Capitol Hill	54	50	4	44	25	19	66	62	4
Civic Center	75	51	24	57	38	19	77	58	19
Overland	47	52	-5	35	27	8	59	61	-2
DIA	78	53	25	78	41	37	78	60	18
City Park West	65	54	11	61	59	2	65	52	13
North Capitol Hill	60	55	5	66	39	27	49	65	-16
Five Points	73	56	17	71	52	19	73	59	14
Washington									
Virginia Vale	31	57	-26	26	61	-35	33	53	-20
Windsor	41	58	-17	24	46	-22	51	63	-12
Ruby Hill	44	59	-15	50	62	-12	38	54	-16
Montbello	46	60	-14	51	68	-17	41	47	-6
Cole	70	61	9	74	74	0	58	41	17
Goldsmith	34	62	-28	46	53	-7	31	71	-40
Northeast Park									
Hill	55	63	-8	54	69	-15	61	57	4
Lincoln Park	71	64	7	62	65	-3	71	64	7
Villa Park	62	65	-3	68	64	4	54	66	-12
Valverde	67	66	1	72	48	24	53	76	-23
Elyria Swansea	69	67	2	69	72	-3	62	56	6
Jefferson Park	74	68	6	75	63	12	68	74	-6
Barnum	45	69	-24	52	76	-24	39	38	1
Westwood	64	70	-6	65	66	-1	60	70	-10
East Colfax	57	71	-14	56	73	-17	64	67	-3
Clayton	63	72	-9	67	70	-3	57	72	-15
West Colfax	72	73	-1	73	67	6	69	75	-6
Globeville	61	74	-13	70	75	-5	48	69	-21
CBD	68	75	-7	43	55	-12	75	78	-3
Kennedy	59	76	-17	23	71	-48	76	77	-1
College View–									
South Platte	56	77	-21	60	77	-17	50	68	-18
Sun Valley	77	78	-1	77	78	-1	74	73	1

Source: Urban Institute analysis of 2000 Decennial Census and 2011–15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport; HMH = housing market health; RES = residential economic success. Neighborhoods are listed in order of 2015 overall ranking.

Resident Economic Success Index

The economic success index measures whether residents are struggling in the economy and whether the neighborhood reflects income diversity. The index comprises neighborhood unemployment rates, poverty rates, the percentage of residents with commutes longer than 45 minutes, and an entropy index that measures the neighborhood’s income mix with a focus on LMI households (table 3).

Understanding changes in resident economic success in the context of composite index scores is discordant, as drastic changes occurred at both ends of the neighborhood ranking (table 4). Lower-ranking neighborhoods in the overall index, such as Five Points, Valverde, and North Capitol Hill, improved in their resident economic success by 19, 24, and 27 positions, respectively. Neighborhoods ranking highly overall, such as Washington Park West and Hilltop, experienced significantly decreased economic resident success, dropping 27 and 17 positions, respectively. The highest-ranked third of neighborhoods in the composite index also saw improved rankings on resident economic success. On average, top-ranked neighborhoods' economic success ranking increased 2.9 positions, with 11 seeing decreases and the other 15 posting gains or maintaining their position. Mirroring this top-ranked group, most neighborhoods ranking in the bottom third on the composite index also saw their economic success ranking fall between 2000 and 2015, and just over a third made gains or stayed the same. The average neighborhood in the bottom third saw its resident economic success ranking fall 4.3 positions. Neighborhoods ranked in the middle third on the composite index were more mixed. Half this group experienced declines in their resident economic success ranking, and the other half improved or maintained their position. These mid-tier neighborhoods improved slightly in economic success, with their average ranking increasing by 1.4 places.

The overall highest-ranking neighborhoods in 2015 generally had less poverty in 2015, but most of these neighborhoods (65 percent) experienced marginal increases in poverty rates since 2000. Unsurprisingly, these high-ranking neighborhoods also had the lowest resident commute times, with most residents enjoying commutes less than 45 minutes. But the share of residents who have a 45-minute or longer commute has increased in all the top-ranked neighborhoods. Unemployment rates followed similar patterns, though less closely. Only a handful of the top third (e.g., Chaffee Park, Regis, Skyland, and Stapleton) had better employment, and the other neighborhoods in this cohort experienced modest increases or no change. Income segregation was least unified across this cohort, with most worsening on resident segregation (Stapleton is indicative) and around a third improving, as in Indian Creek and University Hills.

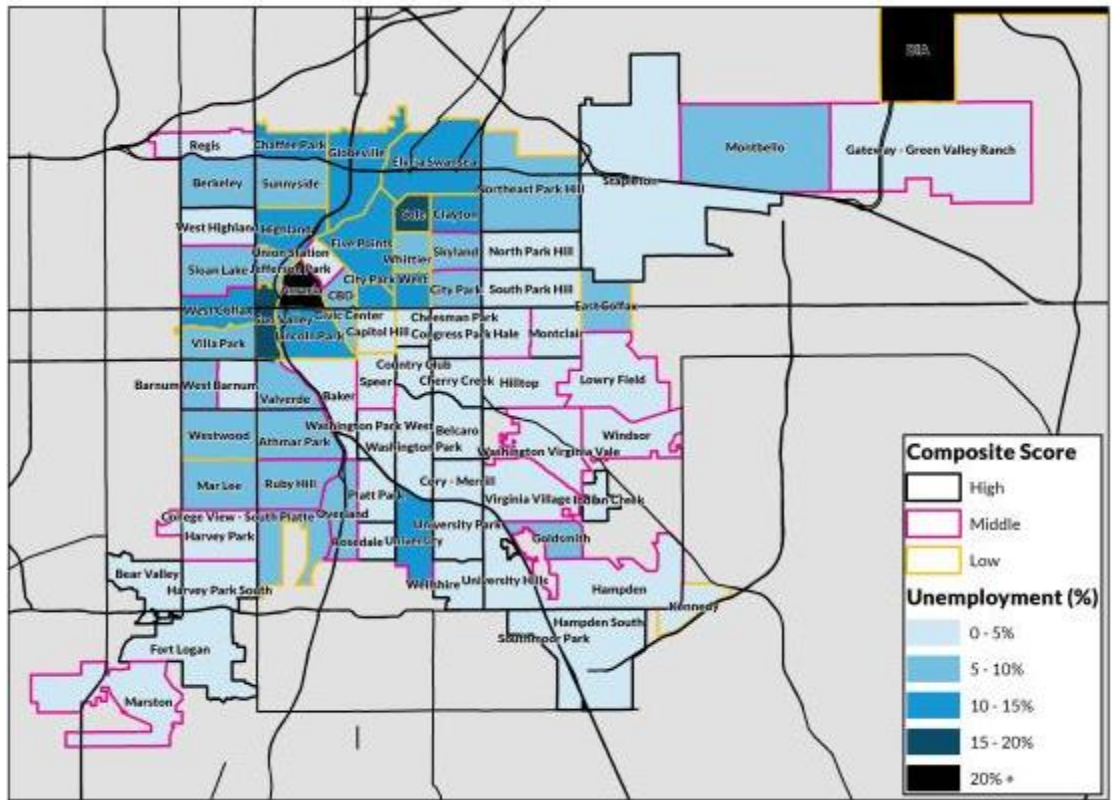
The neighborhoods ranked in the middle of the composite index were the most diverse performers in unemployment rates, poverty rates, and changes in both these measures between 2000 and 2015. Most experienced modest increases in unemployment and poverty. Among those within this cohort that improved in these measures, improvements were significant, with many neighborhoods reducing unemployment by 9 percentage points (Auraria and Highland) and poverty by as many as 38 percentage points (Auraria). The percentage of residents with long commute times increased across almost all Denver neighborhoods, and the middle-ranking neighborhoods experienced typical increases. The level

of income segregation in this cohort decreased slightly, with increased diversity in most neighborhoods in 2015 relative to 2000. Income diversity increased the most in Bear Valley, Overland, and Sunnyside, and Lowry Field and Union Station had the greatest decreases in economic diversity.

Residents of the neighborhoods that ranked in the bottom third of the neighborhood typology experienced the highest unemployment and poverty rates, with few or modest improvements. Four neighborhoods clustered in the northern part of Denver—Clayton, Elyria Swansea, Globeville, and Northeast Park Hill—have among the highest unemployment rates in the city in 2015, similar to their rates in 2000 (figures 11 and 12). Neighborhoods in the bottom third of the typology also dealt with longer commute times than residents in other neighborhoods. In most neighborhoods in this cohort, more than 33 percent of residents had journeys to work longer than 45 minutes. Like the top-ranking neighborhoods, income segregation varied widely across neighborhoods at the bottom of the typology. Some, such as North Capitol Hill and Five Points, made impressive gains to improve resident diversity, but more than half remained at similar levels of income diversity or saw increased segregation. For example, although many neighborhoods experienced income stagnation or income loss at the median, in part because incomes have not kept pace with inflation, Five Points' median family income increased over \$22,000 between 2000 and 2015. This reflects the considerable change in population (table 5).

FIGURE 11

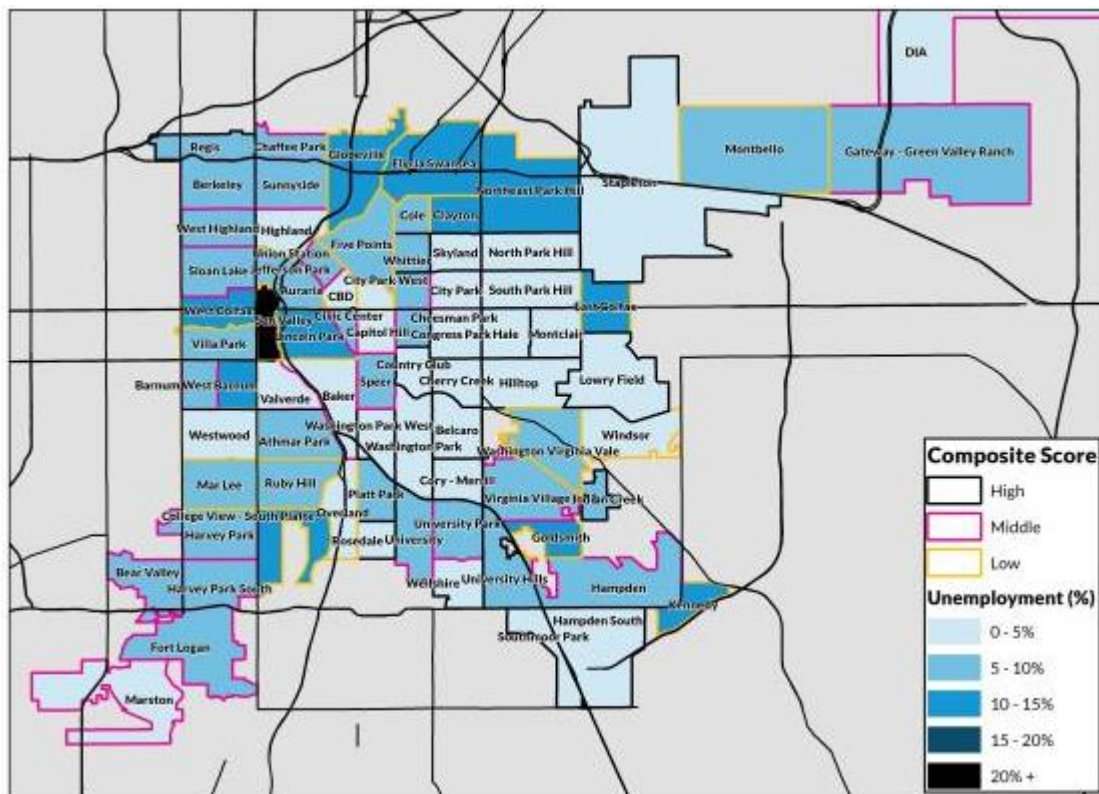
Denver Unemployment Rate, 2000



Source: Urban Institute tabulations of 2000 Decennial Census data.

FIGURE 12

Denver Unemployment Rate, 2015



Source: Urban Institute tabulations of 2011-15 American Community Survey data.

TABLE 5

Neighborhood Median Family Income, 2000 to 2015

Neighborhood	Median family income, 2000 (\$)	Median family income, 2015 (\$)	Change in median family income (\$)
Country Club	175,843.70	134,167.00	-41,676.73
Wellshire	114,776.00	99,716.00	-15,059.98
South Park Hill	113,803.70	105,524.60	-8,279.08
Hilltop	131,427.10	129,430.20	-1,996.85
Belcaro	182,298.00	131,333.00	-50,965.00
Platt Park	86,250.00	98,561.00	12,311.00
Stapleton	2,645.02	126,219.00	123,574.00
Cory-Merrill	94,742.52	94,583.00	-159.52
Washington Park	146,491.60	110,442.00	-36,049.60
North Park Hill	63,450.20	79,377.45	15,927.26
Montclair	109,930.80	77,868.00	-32,062.80
Washington Park West	98,962.26	86,938.11	-12,024.15
Congress Park	96,237.62	68,673.23	-27,564.39
West Highland	71,087.42	88,752.33	17,664.91
Indian Creek	89,493.00	56,940.00	-32,553.00
Cherry Creek	158,992.60	89,926.00	-69,066.56
Regis	71,637.18	56,691.00	-14,946.18
Hampden South	93,043.27	62,270.89	-30,772.38
Berkeley	63,138.71	65,065.75	1,927.04
Rosedale	72,234.72	64,725.00	-7,509.72
University Hills	75,434.26	64,036.49	-11,397.77
Whittier	41,286.84	58,861.00	17,574.16
Sloan Lake	59,304.20	59,990.23	686.04
Skyland	59,904.42	63,793.00	3,888.58
Chaffee Park	51,301.50	47,969.00	-3,332.50
Hale	81,805.13	58,059.36	-23,745.78
Bear Valley	80,576.13	60,257.70	-20,318.43
Fort Logan	89,172.07	66,763.98	-22,408.09
Lowry Field	99,452.52	77,864.30	-21,588.21
Southmoor Park	96,903.56	68,525.05	-28,378.52
Athmar Park	59,088.82	47,607.36	-11,481.46
Baker	50,408.64	49,318.00	-1,090.64
Auraria	22,903.86	82,788.00	59,884.14
Highland	46,901.00	66,877.27	19,976.27
Speer	69,614.87	52,746.70	-16,868.16
Harvey Park South	71,341.52	50,239.66	-21,101.86
University Park	84,869.77	54,776.34	-30,093.43
Marston	96,913.52	59,206.56	-37,706.96
Cheesman Park	88,423.67	56,002.38	-32,421.29
Gateway-Green Valley Ranch	85,973.89	68,959.63	-17,014.27
Sunnyside	51,751.91	50,122.50	-1,629.41
Hampden	81,124.90	51,684.04	-29,440.86
University	81,482.90	47,478.87	-34,004.03
Harvey Park	65,401.23	46,540.99	-18,860.24
Barnum West	52,140.54	49,878.00	-2,262.54
Virginia Village	66,430.27	55,201.89	-11,228.38
City Park	70,149.54	58,487.00	-11,662.54
Union Station	99,867.84	81,961.00	-17,906.84
Mar Lee	57,110.58	45,969.28	-11,141.30
Capitol Hill	53,881.34	43,213.71	-10,667.63
Civic Center	112,940.60	69,638.00	-43,302.58

Neighborhood	Median family income, 2000 (\$)	Median family income, 2015 (\$)	Change in median family income (\$)
Overland	57,692.28	51,054.00	-6,638.28
DIA	49,637.22	45,125.00	-4,512.22
City Park West	40,734.74	37,481.08	-3,253.66
North Capitol Hill	48,050.64	52,090.58	4,039.94
Five Points	37,879.19	60,455.48	22,576.29
Washington Virginia Vale	67,896.69	42,001.53	-25,895.16
Windsor	58,396.82	39,539.11	-18,857.71
Ruby Hill	55,756.34	37,549.99	-18,206.35
Montbello	64,183.45	46,163.09	-18,020.35
Cole	42,175.56	38,286.00	-3,889.56
Goldsmith	64,847.58	31,449.00	-33,398.58
Northeast Park Hill	44,981.78	34,855.62	-10,126.16
Lincoln Park	35,896.11	32,517.76	-3,378.35
Villa Park	48,876.98	31,967.62	-16,909.36
Valverde	44,357.34	27,176.00	-17,181.34
Elyria Swansea	44,391.84	39,433.00	-4,958.84
Jefferson Park	30,802.98	40,819.00	10,016.02
Barnum	51,930.78	39,528.00	-12,402.78
Westwood	43,382.71	31,584.06	-11,798.65
East Colfax	44,430.75	40,827.47	-3,603.28
Clayton	40,824.54	39,130.00	-1,694.54
West Colfax	43,801.71	24,091.20	-19,710.52
Globeville	47,129.76	29,639.00	-17,490.76
CBD	95,737.50	58,242.00	-37,495.50
Kennedy	50,354.82	31,386.00	-18,968.82
College View–South Platte	50,743.98	26,173.00	-24,570.98
Sun Valley	10,835.76	9,849.00	-986.76

Source: Urban Institute analysis of 2000 Decennial Census and 2011–15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport. Neighborhoods are listed in order of 2015 overall ranking. Median income in 2000 was inflation adjusted to 2015 constant dollars.

Housing Market Health Index

The housing accessibility index assesses neighborhood housing market health using neighborhood property values, vacancy rates, share of residents cost burdened in renting or owning, and the homeownership rate (table 3).

Changes in housing market health across all Denver neighborhoods were mixed (table 4). Neighborhoods at the top of the typology enjoyed an average rank increase of 4.5 places, whereas neighborhoods at the bottom fell by an average 5.7 places. Most neighborhoods ranking in the top third of the neighborhood typology saw their rankings improve between 2000 and 2015. The improvement of the top-tier neighborhoods in housing market health was driven primarily by property values. Two-thirds experienced increases of over \$100,000 dollars, and only one neighborhood, Hale, experienced declining property values (figures 13 and 14). Vacancy rates and the percentage of cost-burdened residents declined or stayed the same for most neighborhoods within the cohort. Notable among these are West Highland, whose share of cost-burdened residents declined almost 10 percentage points, and Wellshire, whose share increased 13 percentage points. The change in homeownership rates for these neighborhoods was also notable in that only four (Chaffee Park, Cory–Merrill, Rosedale, and University Hills) experienced decreases. Cherry Creek, Congress Park, Hale, Hampden South, and Washington Park West all increased this figure between 10 and 13 percentage points.

There was less movement in the middle-tier neighborhoods, who enjoyed modest increases (on average, 1.2 ranks) if any by 2015. Half the 26 middle-ranking neighborhoods decreased in their housing market health rankings, but property values rose for almost every neighborhood (18 of 26) in the cohort. University Park is a standout, with its median property value increasing a notable \$287,581 (figures 13 and 14). In contrast to the top-ranking neighborhoods, vacancy rates increased for half the middle-ranking neighborhoods, though these increases were no greater than 6 percentage points across the cohort. The percentage of cost-burdened residents also decreased in half of the middle-ranked neighborhoods, though University and City Park experienced significant increases of 17 percent and 16 percent, respectively. Like the top-ranking neighborhoods, homeownership rates increased in most middle-tier neighborhoods, with the largest gains occurring in Capitol Hill, Cheesman Park, City Park, Civic Center, and Union Station.

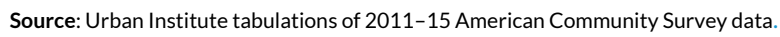
Only about a third of the neighborhoods ranked in the bottom third of the neighborhood typology saw their housing market health ranks increase by 2015. But even in these neighborhoods, property values grew most notably in Five Points and Jefferson Park, whose median property values increased almost \$130,000 (figures 13 and 14). Changes in vacancy rates were mixed across this cohort, with

nearly half the neighborhoods experiencing increases and the other half experiencing declines or no change. For those neighborhoods that experienced increases, the increases hovered at or below 5 percent across the board. Changes in homeownership rates were likewise split down the middle, with about half experiencing increases and the other half experiencing decreases. Denver International Airport and Globeville have experienced the largest declines (40 percentage points and 21 percentage points, respectively), with Westwood and Elyria Swansea also posting decreases of 10 or more percentage points. Windsor (34 percentage point increase) and the Central Business District (33 percentage point increase) have seen the greatest growth in the homeownership rate, followed by City Park West with a 14 percentage point jump. The share of cost-burdened residents in the bottom-ranking neighborhoods increased in all but five neighborhoods (City Park West, Denver International Airport, Elyria Swansea, Five Points, and Lincoln Park), with some experiencing increases of over 20 percentage points (Kennedy with a 27 percent increase and Goldsmith with a 22 percent increase are indicative). The Central Business District, College View–South Platte, Globeville, Washington Virginia Vale, and Valverde also experienced double-digit increases in cost-burdened residents.

In 2015 dollars



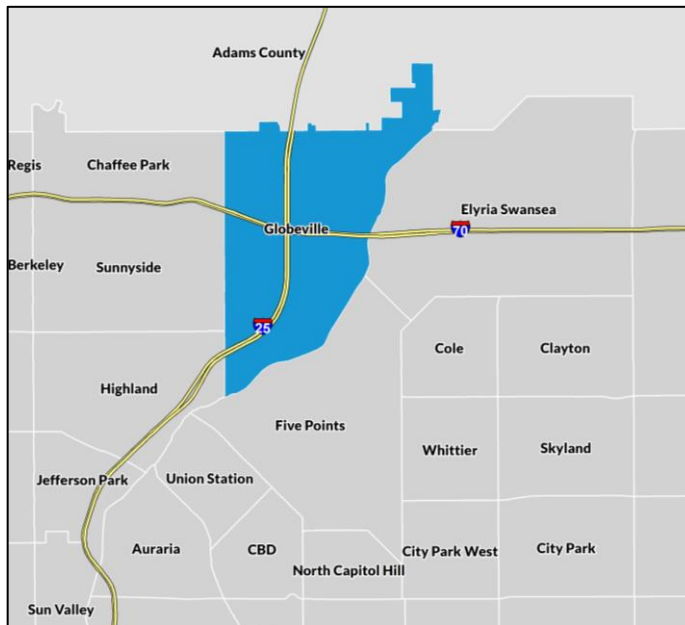
Denver Median Home Values, 2015



BOX 4

Neighborhood Case Study: Globeville

Globeville is a small neighborhood in north central Denver along the bank of the South Platte River. Only a few miles from downtown, the neighborhood of about 3,500 residents (appendix table A.1) is a largely blue-collar immigrant community surrounded by industry, with historically high rates of homeownership and a large concentration of NOAH. Globeville's residents are experiencing gentrifying pressures, with dramatic rises in property values and a spurt of new



development projects. But unlike neighboring Five Points and Lower Downtown, which have seen dramatic transformation, Globeville is in early stages of change. Several stakeholders from the city and philanthropic and nonprofit sectors identified Globeville as a small, tight-knit community that would be an ideal candidate to profile given its location and pending transformations. Along with the growth in private development, the city has undertaken massive investment and planning efforts in the neighborhood with the North Denver Cornerstone Collaborative, Regional Transportation District expansion of rail lines in the neighborhood, and the Globeville Neighborhood Plan.^a Without a concerted policy effort to maintain affordability, it is unclear whether long-term residents can stay in the community.

The neighborhood is largely an immigrant community. The area was first settled by Eastern European immigrants who were drawn to work in smelting plants, meatpacking houses, and rendering plants. As the first wave of immigrants moved out, a new wave of immigrants, largely from Mexico and Central America, settled the area to work in the factories.^b Since the neighborhood's incorporation into Denver, it has faced multiple infrastructural, economic, environmental, and educational issues, many of which were long neglected or exacerbated by public officials. Perhaps the most notable monument to

the neighborhood's complicated relationship with local government is “the Mousetrap,” the massive interchange of I-70 and I-25 constructed in the 1950s in the heart of what was historic Globeville. The interchange remains an impressive physical barrier that divides the neighborhood into quadrants and poses significant challenges to neighborhood connectivity (e.g., the only elementary school in the neighborhood is in the southeast quadrant, and most residents live in the northeast). Following the construction of the interchange, residents and city officials battled over zoning codes and classifications for the area. There was pressure in the city government to turn much of the community into an industrial park to take advantage of the prime proximity to transportation hubs. Although the industrial park plan was never implemented, in the 1950s, the city rezoned much of Globeville's residential areas as industrial, which meant homeowners could not receive the necessary permitting required to modify, repair, or improve their homes. Although the zoning struggle was officially resolved in 2006 with the resurrection of the original residential codes, the years of neglect on the structures and lack of investment from the city has left a lasting mark on the community.^c The struggle also left a lasting distrust in the relationship between Globeville residents and city government.

Although much of the original heavy industry that defined the neighborhood has declined, the factories that brought wealth and jobs to Denver had a profound environmental impact on the surrounding community. One of the oldest and most significant industrial sites in Globeville—the Asarco Globe Smelter, which operated for over 120 years and gives the area its name—polluted the neighborhood's groundwater and soil with high levels of cadmium, lead, arsenic, and zinc. A 4.5-square-mile area around the factory in northern Globeville was declared an Environmental Protection Agency Superfund site in 1993.^d Following the declaration, a massive \$28 million cleanup was initiated that lasted over 20 years. Despite the significant challenges, residents largely chose to stay in the neighborhood and develop a resilient tight-knit community with strong local support networks.

In recent years, the industrial zones have become home to a relatively new industry in Denver—legal marijuana growing facilities—which bring different issues to the neighborhood. We heard from some stakeholders that this could be related to displacement issues. A federal banking loophole prevents money made from drugs, even if legally earned, to be deposited in most banks.^e There is speculation that those in the legal marijuana industry have been purchasing nearby Globeville homes in cash for investment purposes.^f

Since 2010, the city has taken a renewed focus to address the legacy of infrastructural, environmental, zoning, and economic challenges. Much of the city's recent development and planning work in Globeville has been directed through the North Denver Cornerstone Collaborative, which was created in 2013 to align six planning efforts in the Elyria Swansea, Globeville, and River North neighborhoods: Brighton Boulevard Redevelopment, Central 70, National Western Center, Neighborhood Plans, River North, and Regional Transportation District Station Development.^g The Globeville Neighborhood Plan, adopted in December 2014 as the first comprehensive plan for the area since 1989, is meant to be the guiding framework for development and community building. The plan includes efforts to improve walkability, parks, and transit options and to attract jobs and improve access to goods and services (City of Denver 2016). Notably, the plan outlines the redevelopment of the former Asarco Smelter site into an industrial park with warehouses and light manufacturing facilities and is estimated to bring between 800 and 1,500 jobs to the area.^h Yet, representatives from community organizations expressed concern that the project may not improve economic opportunities for neighborhood residents. There is also fear that the initiatives will accelerate gentrification pressures. To address some of these concerns, the plan includes recommendations for improving access to housing for residents, such as developing a land bank strategy with local nonprofit partners, constructing more affordable housing units, and making recommendations for new mixed-use developments.

Although redevelopment is in a relatively early stage, stakeholders noted that the community is showing early signs of change and resident displacement. Demographic differences between 2000 and 2015 hint at changing circumstances in Globeville. The neighborhood only added about 100 residents from 2000 to 2015, but added 160 new households, suggesting a shift away from larger families. Notably, the share of households with at least one child under age 18 decreased nearly 20 percentage points from 52 to 35 percent. This confirms stakeholder reports that school enrollment is declining at Globeville schools, in part because of displacement. Globeville remained a predominately Hispanic neighborhood, but the population share decreased from 77 to 61 percent. Furthermore, the neighborhood income composition changed, with increases in very low-income (VLI) households (56 to 62 percent) and decreases in LMI households (35 to 30 percent) from 2000 to 2015. Notably, renter households became more cost burdened (paying more than 30 percent of income on rent), with a 20 percent increase for all renters, with nearly all VLI renter households experiencing cost burdens, confirming stakeholder reports of increasing rents precipitating displacement.

Demographic Profile of Globeville Residents, 2000 and 2015

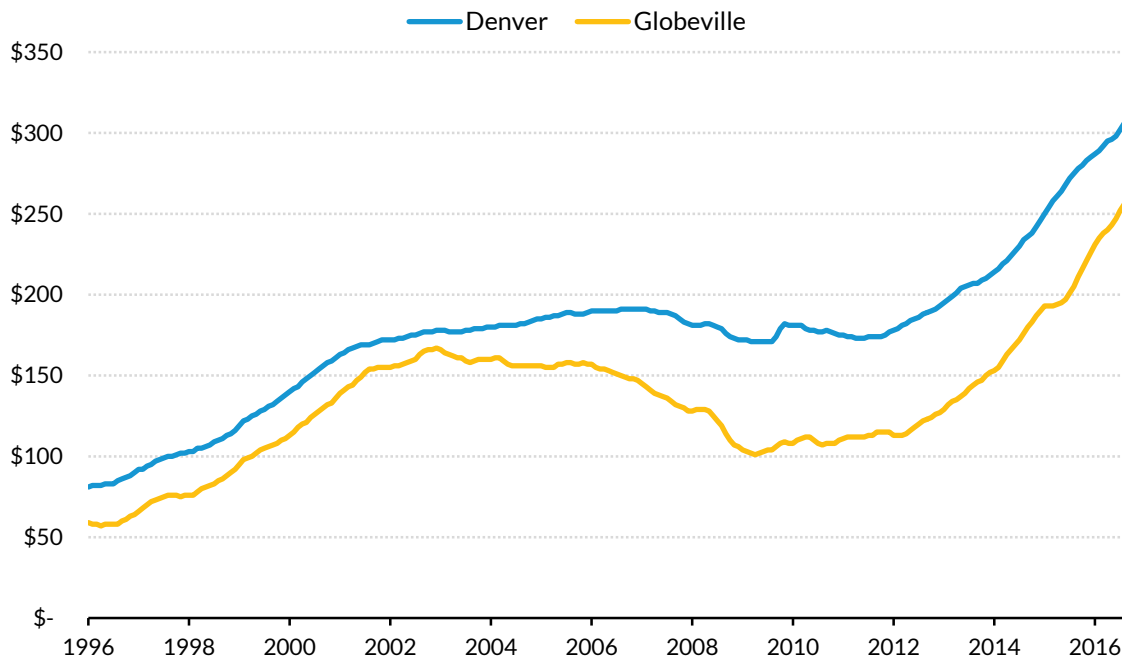
	2000	2015
Population	3,454	3,551
Households	911	1,071
Hispanic	77%	61%
Households with at least 1 person under 18	52%	35%
Households with at least 1 person over 65	21%	17%
VLI households	56%	62%
LMI households	35%	30%
Cost-burdened renters	43%	63%
VLI cost-burdened renters	71%	91%
LMI cost-burdened renters	7%	24%

Source: Urban Institute tabulations of 2000 Decennial Census and 2011–15 American Community Survey data.

Notes: LMI = low and middle income; VLI = very low income.

Given the modest to negative economic changes for Globeville residents, the dramatic rise in Globeville property values places pressure on residents. Using Zillow sale price figures, we found an up-to-date profile of housing price change. The change in Globeville property values has largely followed the City of Denver average between 1996 and 2003, with the average square-foot price around \$20 less in Globeville than the city average. From 2004 to 2010, Globeville's prices dropped while Denver's prices remained relatively constant. Between 2012 and 2016, though, the average square-foot price in Globeville more than doubled (from \$105 to \$251), and the gap between the neighborhood and the rest of Denver was narrowing and was only \$50 lower in 2016.

Average Monthly Sale Price per Square Foot, Globeville and City of Denver



Source: Urban Institute tabulations of 1996–2016 monthly Zillow sale price data.

The rapid rise in property values has placed mounting pressures on homeowners to sell. As property values increase, so do property taxes, which can be challenging for homeowners with fixed or limited income. The dramatic increase has also attracted the attention of real estate agents and speculators. Stakeholders reported that many homeowners have been approached to sell their homes. A recent survey of residents conducted by the local community organizations Front Range Economic Strategy Center and LiveWell Colorado in Globeville and adjacent Elyria Swansea found that 8 in 10 residents have no intention of leaving, and this was even higher among homeowners (nearly 9 in 10 said they either had no plans to move or no intention to sell) (FRES 2016). For homeowners, sales could result in a large windfall of cash. For those who sell their homes, stakeholders said this certainly meant these families were leaving the city (as the average-price-per-square-foot data indicate, Globeville remains more affordable than the rest of Denver). Stakeholders underscored how tight-knit the neighborhood is and that the community means more to residents than a place to live. To address the challenge of preserving affordability and the strong sense of community, stakeholders suggested a property tax moratorium for longtime homeowners. Strategies promoting homeownership for first-time buyers—such as down payment assistance and gap financing—were also recommended.

Single-Family House in Globeville



Photo credit: Tanaya Srini/Urban Institute.

Note: Sign reads “My Community Is Not For Sale.”

The sizable renter population in Globeville is particularly vulnerable to rising property values and is increasingly cost burdened. Nonprofit representatives noted that there are few multifamily developments in the neighborhood, and most renters occupy single-family homes, often managed by “mom and pop” landlords rather than large property management companies. We also heard from stakeholders that some landlords are based out of state and may be less invested in preserving the neighborhood’s character if approached to sell. The recent survey of Globeville and Elyria Swansea residents revealed that 61 percent of renters have a six-month lease or less (FRESC 2016). Without a formal agreement, there are no legal protections against dramatic increases in rent or short-notice evictions. Several stakeholders stressed the importance of working with mom and pop landlords to create incentives to preserve rental affordability. Certainly landlords are seeing tax bills rise, so a potential policy option would be to offer a lower rate for those who preserve affordability in their units. Stakeholders in the neighborhood also suggested that speculative buying was happening and that

vacant units were increasing, suggesting that a tax increase on vacant properties might be another strategy to preserve affordability. It was also suggested that financing for creating accessory dwelling units, or small detached units that homeowners can rent at an affordable price, would allow a revenue stream for homeowners and more affordable housing stock in the neighborhood.

Several nonprofit organizations are working in Globeville to improve services for the community and combat displacement. The Mile High United Way was referenced by many stakeholders as an organization with a strong and lengthy investment in Globeville. The organization is coordinating a United Neighborhood's collective impact strategy in Globeville and Elyria Swansea in partnership with North Denver Cornerstone Collaborative and a group of nonprofits, community members, policymakers, and other stakeholders. Their strategy in the neighborhood is still developing, but identified affordable housing as a key area of focus. A representative involved with the project indicated that the main goal of the affordable housing working group (which includes developers, Office of Economic Development staff, residents, banks, and nonprofit staff) is to help longtime residents avoid displacement and to increase affordable housing options. The Globeville Elyria Swansea Anti-Displacement Coalition, which combines nine organizations, is working with the community to organize residents in Globeville and neighboring Elyria Swansea to lobby and elevate the issue at the city level.

In addition, the Urban Land Conservancy is working on a community land trust strategy to acquire and preserve land in Globeville and Elyria Swansea for long-term affordability.ⁱ In the model, a nonprofit organization would create a trust to purchase or construct a portfolio of single-family or multifamily housing in a target area with rising property values and maintains ownership permanently. Rather than a traditional sale, perspective LMI homeowners interested in a property would enter a long-term, renewable lease with the trust. When the homeowner "sells," he or she earns only a portion of the increased property value. The rest of the equity is kept by the trust, maintaining the property's long-term affordability for future LMI families. The Urban Land Conservancy is conducting a community land trust feasibility analysis and business plan in coordination with Burlington Associates, a national consulting cooperative that supports community land trusts and other shared equity homeownership strategies. The analysis will produce recommendations on implementing a long-term viable trust, including recommendations for staffing, organizational capacity, and capital needs, as well as strategies for land acquisition, housing development, homeowner services, and long-term landholding and land leasing (ULC 2017).

The issues facing Globeville are not unique. As the city continues to boom and attract people from across the country, many residents are experiencing housing pressures. But with the coordinated focus on Globeville, city and community groups have a unique opportunity to work together to address housing affordability issues and curtail displacement. The Globeville Neighborhood Plan has introduced recommendations to preserve and produce additional affordable housing, representing an important acknowledgement of the challenges facing longtime residents. If implemented, it would be a significant commitment to preserve affordability for the neighborhood's residents. In addition to these strategies, stakeholders recommended policies aimed at targeting homeowners and landlords, such as property tax moratoriums and financing and zoning accommodations to assist with creating accessory dwelling units. Stakeholders also recommended promoting down payment assistance and gap financing programs for first-time buyers who may have difficulty purchasing homes in the competitive market.

With very low-income families making up 62 percent of households in Globeville, improving resident economic opportunity is also necessary to promote the community's long-term sustainability. The neighborhood plan outlines strategies aimed at expanding job growth within Globeville, including job training and workforce development, retaining industrial jobs, and attracting small businesses. Helping residents boost their income not only addresses their abilities to cope with housing cost burdens in the short term, but makes them better able to live and thrive in the city over the long term.

^a See "About the North Denver Cornerstone Collaborative," City of Denver, North Denver Cornerstone Collaborative, accessed May 4, 2017, <https://www.denvergov.org/content/denvergov/en/north-denver-cornerstone-collaborative/about-ndcc.html>; and City of Denver (2016).

^b See the blog *Globeville Story* for more on the history of the neighborhood: <http://globevillestory.blogspot.com/>.

^c Natasha Gardner and Matt Slaby, "Welcome to Globeville," 5280, November 2014, <http://www.5280.com/globeville/>.

^d Jon Murray, "Globeville site nears turning point as Asarco cleanup approaches end," *Denver Post*, July 5, 2014, <http://www.denverpost.com/2014/07/05/globeville-site-nears-turning-point-as-asarco-cleanup-approaches-end/>.

^e Sophie Quinton, "Why Marijuana Businesses Still Can't Get Bank Accounts," The Pew Charitable Trusts, March 22, 2016, <http://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2016/03/22/why-marijuana-businesses-still-cant-get-bank-accounts>.

^f The Urban Institute research team could not verify this with data.

^g "About the North Denver Cornerstone Collaborative," City of Denver, North Denver Cornerstone Collaborative, accessed May 4, 2017, <https://www.denvergov.org/content/denvergov/en/north-denver-cornerstone-collaborative/about-ndcc.html>.

^h Steve Raabe, "Trammell Crow Signs On to Redevelop Asarco Smelter Site in Globeville," *Denver Post*, October 29, 2014, <http://www.denverpost.com/2014/10/29/trammell-crow-signs-on-to-redevelop-asarco-smelter-site-in-globeville/>.

ⁱ See community land trust discussion in the LMI Affordable Housing Program Recommendations in the Denver Context section of this report.

The Denver Community: Policies and Practices for Inclusive Neighborhoods

The previous section established that Denver neighborhoods are going through radical changes in the composition of the population, the diminishing availability of affordable housing, and the prospects for preserving such housing. The city is experiencing such rapid population growth that it must balance the need to preserve an inclusive community for all households across the income distribution and the economic development that accompanies the arrival of new residents. This section addresses how policies and practices within the city and county can move low- and middle-income affordable housing forward by describing existing affordable housing policies in Denver; community and nongovernmental resources; the voices of affordable housing stakeholders; and the interventions that could make sense within the local context. Through a deeper understanding of the opportunities and constraints within Denver, there is promise to promote programs and policies that can create and preserve an inclusive community, ensuring that LMI households can continue to thrive.

Current LMI Affordable Housing Policies Employed by Denver Leadership

Denver's leadership is aware of and proactive about meeting the affordable housing challenges. The city is at the vanguard of policy innovations that address LMI affordable housing issues, but state policies pose some constraints on implementing key corrective actions to preserve and expand the availability of such housing. Much of the city's innovative vision around affordable housing has been articulated in *Housing Denver: A Five-Year Plan*. The document outlines the city's priorities and policies as they pertain to the city's housing needs (City of Denver 2014). At a high level, the city's priorities around affordable housing revolve around eight areas:

1. Increasing housing resources
2. Revising and articulating the city funding process
3. Reducing the regulatory burden of subsidized housing development
4. Providing additional critical needs and homeless housing

5. Increasing housing diversity
6. Preserving workforce and critical needs housing
7. Providing greater homeownership opportunities
8. Encouraging sustainable housing development (City of Denver 2014)

Furthermore, the newly created Office of Housing and Opportunities for People Everywhere (HOPE) will “craft a coordinated and comprehensive strategic road map for the city’s policies, programs, and projects along the full homeless-to-homeownership spectrum.”²²

This section highlights the Affordable Housing Trust Fund and a few of Denver’s other laudable policies and illustrates some of the ways the city is working to maintain and create a sufficient supply of affordable housing for LMI families.

Affordable Housing Trust Fund. Denver’s city council approved the creation of a dedicated trust fund for affordable housing in the fall of 2016. The trust fund, which is expected to raise \$150 million over the next 10 years, will make available funding for the development and preservation of affordable housing that meet the needs of various populations, including LMI families. The trust fund’s revenues will come from a portion of a property tax of 0.5 mills and a one-time impact fee on commercial and residential development. The stated uses of the money from this trust fund include preserving permanent supportive housing for homeless people, workforce rental housing, and for-sale housing. As designed, the revenues from the trust fund can serve rental households earning up to 80 percent of the AMI and for-sale housing investments up to the AMI. Although a positive step, this new Affordable Housing Trust Fund is unlikely to provide all the funding needed to address the growing gap in affordability. Further, the trust fund replaces the city’s long-standing Inclusionary Zoning Ordinance, which used to require developers to include affordable units in projects with more than 30 units. This new fund intends to distribute the responsibility of affordable housing creation and preservation more broadly.²³

Tax credits. Denver’s Office of Economic Development (OED) has long depended on the Low-Income Housing Tax Credit (LIHTC) to assist developers with gap financing that is often necessary for developing affordable housing units. The LIHTC credits are distributed by the Colorado Housing and Finance Authority, and Denver’s OED provides additional funding support for 4 percent tax credit developments. The revolving affordable housing loan fund and the state low-income housing tax credits are usually used for this additional financing.

Acquisition capital. Denver’s OED provides balloon payment loans that can be used to acquire land or property. The maximum size of these loans are \$2.5 and \$3 million, respectively. These loans assist

with developing affordable housing. Projects financed with land acquisition loans must reserve at least 51 percent of units developed for households earning less than 80 percent of the AMI. The property acquisition capital can only be used for income-restricted units.²⁴

Metro Mortgage Assistance Plus Program. This program provides down payment assistance for LMI families who want to apply for 30-year, fixed-rate mortgages. The city will provide down payment assistance and closing costs assistance for up to 4 percent of a loan package. The program was established in 2013 and has assisted in almost 600 home sales since 2013 (City of Denver 2014).

The Affordable Housing Revolving Housing Fund. Since its incorporation in the fiscal year 2014 budget, the revolving housing loan fund has provided gap financing for acquiring and rehabilitating affordable housing units, particularly for the workforce rental population. Although the 2014 budget included a \$3 million allocation to this fund, the 2017 budget does not include any additional transfers to this fund. The 2017 estimated expenditures for this fund are \$2.8 million.

Although these plans and actions are promising, there remains a great need for large-scale efforts to preserve and expand the availability of affordable housing.

Community and Nongovernmental Affordable Housing Resources in Denver

In addition to a strong governmental presence on LMI affordable housing issues, Denver has an extensive network of community and nongovernmental organizations ensuring that all families can afford to live in Denver. This section describes a few of these organizations and their role in moving policies and the discussion surrounding LMI affordable housing issues forward.

Local nonprofits and community development organizations, such as the members of the Neighborhood Development Collaborative, are important partners in developing and protecting affordable housing. Founded in 2009 to jointly manage a large Neighborhood Stabilization Program grant, the collaborative is composed of 12 Denver-based community-based organizations working in the affordable housing space and spanning the housing continuum, from organizations working on homelessness to those focused on public housing to neighborhood-based community development corporations. The collaborative builds partnerships with agencies at all levels of government and private investors and leverages resources for investment in various strategies to promote affordable housing. The strategies range from direct creation of affordable for-sale and rental units to community

development services such as housing counseling to more traditional advocacy and fundraising efforts. Since beginning its work, the collaborative has created over 4,000 affordable units and invested over \$660 million in the affordable housing market and has created over 5,000 jobs for Denver residents via its new construction and programs, which speaks to an important link between housing affordability and other interventions to improve the lives of LMI families.²⁵

Another important organization is Mile High Connects, whose collaborative structure is focused on building equity into Denver's transit system. Mile High Connects is a leader in transit-oriented design advocacy throughout the city. Recently, the organization has been involved with passing the affordable housing revolving fund, continued work with Regional Transportation District to develop low-income discount fare programs, and convened various stakeholders around the need for more robust training opportunities and local hiring quotas. Aside from these policy-specific activities, Mile High Connects engages in data collection to better identify and amplify community needs (Mile High Connects 2016). Last year, it completed a survey of Globeville and Elyria Swansea residents regarding barriers to employment and workforce development needs and began a study of public investment in first- and last-mile connections to transit in its effort to improve access to Denver's growing public transit system. In addition to these important policy and advocacy efforts, Mile High Connects also helps manage the Denver Regional Transit Oriented Development Fund, a financing tool that supports preservation and creation of affordable housing near transit (Mile High Connects 2016).

One member of both Neighborhood Development Collaboration and Mile High Connects is the Denver chapter of Urban Land Conservancy (ULC), a key developer of affordable housing. As a master developer, ULC leverages partnerships with the city government and other organizations to operate various sites across the city. These projects are in line with Denver's TOD standards and establish long-term or permanent affordable units at transit sites. As a real estate steward, ULC intervenes before affordable properties are lost to the market and supports the transition of these sites into community land trust or other models that promote permanent affordability (ULC, n.d.). Urban Land Conservancy is also engaged in community asset development via its Ours to Own Platform that operates as a microinvestment platform where Denver citizens can invest small amounts of money into (and earn returns on) a greater fund that small businesses and nonprofits can use for development. The platform—through which ordinary Denver residents are financially involved in community development—has supported over 400 businesses and nonprofits, many of which are located in ULC's strategic focus areas of the city, including Northeast and West Denver (Ours to Own, n.d.).

These three organizations, along with others working on specific issues across the continuum of affordable housing needs or focusing on rapidly changing neighborhoods, agree on many policy

perspectives that were repeated frequently during our conversations with Denver community members and stakeholders. Perhaps most frequently raised was that although creating the affordable housing revolving fund is a good start, its initial \$10 million investment is hardly sufficient to address the enormous mismatch between limited supply and growing demand. Thus, many organizations are seeking innovative financial tools that can help close the financing gap for developers or preserve affordable units for the long term. Although Denver is on the forefront of cities establishing innovative funds for such work, with its trust fund and TOD fund, the desire to push this work further clearly exists among nongovernmental organizations and community-based organizations. The organizations also agree that although affordability requirements for developers need to be more rigorous, developers also need better incentives to meet such requirements. Finally, every organization knows that affordable housing cannot happen in a bubble. Many are pursuing additional community development initiatives with an eye toward employment. Between advocating for higher local hiring standards and dedicating funds to apprenticeships and other training programs during the construction of new affordable units, workforce development should to be pursued in conjunction with affordable housing solutions.

Denver Stakeholders: Themes from Conversations about LMI Affordable Housing Issues

The Urban Institute met with affordable housing stakeholders and government officials in Denver on February 2 and 3, 2017, to discuss the landscape and potential for advancing programs in the interest of preserving and creating LMI housing. This section documents the overarching themes that emerged from our conversations:

1. Extraordinary population growth—fueled by rapid in-migration from other areas—is changing the population of the city and increasing the demand for housing and the cost of it.
2. Displacement is growing among LMI renters and intersects with race and equity.
3. Denver is innovative with respect to LMI affordable housing policies and programs, but stakeholders sense that the city cannot keep pace with demand and funding shortfalls.
4. Market-rate rental development has flourished while affordable housing development has languished, in part because of insufficient incentives and unintended policy obstacles.

This section explores these themes in detail, with consideration for Denver’s unique affordable housing culture and the barriers and opportunities for retaining LMI families.

Extraordinary population growth is changing the city and housing landscape. Repeatedly, we heard that rapid growth, particularly in-migration from other areas, was changing the city’s fabric and housing availability. There was speculation that migration has been fueled by young white people coming to Denver from the East and West Coasts, drawn to the area because of high-tech jobs, the lower cost of living, the weather, access to the outdoors, and legal marijuana. Looking at migration data in the 2011–15 American Community Survey, 14,354 householders moved to the Denver area from out of state in 2015. Furthermore, among those new householders in 2015, 5,103, or 36 percent, were white, non-Hispanic people under age 30 moving into the area from out of state.²⁶ This is an uptick from 2005–09, when 8,803 householders moved to the Denver area from out of state and 2,828 (32 percent) were non-Hispanic white people under age 30. But the notion that new arrivals to Denver were disproportionately coming from either the East or West Coast was not evident in the American Community Survey data. Nonetheless, stakeholders’ assessments about population change in Denver is upheld in the data—there is a disproportionate influx of young, white householders moving into Denver from out of state.

Newcomers are affecting the affordable housing landscape.²⁷ Denver stakeholders told us that developers have primarily created new, high-end, market-rate rentals in recent years in response to population growth and the demand for housing. This trend is a national trend not unique to Denver (Williams 2015) and it is putting upward pressure on rental prices. Economic theory supports “filtering,” in that producing new market-rate units in a city creates low-income housing at a rate of 2.5 percent a year for rentals and 0.5 percent a year for owner-occupied homes (Rosenthal 2014). But developing high-end rental units can inflate rents throughout the market, especially at the lower end. As new high-end rental units are developed, rental units that were previously high-end in that market become part of the moderate- to lower-priced housing stock—yet maintain above-average rents relative to existing units—meaning that low- and middle-income renters also start paying more for their housing.²⁸ Until more LMI rentals are developed in Denver, rent inflation at the lower end of the market seems likely to continue.

Displacement is growing among LMI renters and may intersect with race and equity concerns. New arrivals and rising rents cause displacement of longtime and low-income residents. Stakeholders mentioned displacement in nearly every conversation, and despite incredible awareness of the issue, policymakers and affordable housing advocates have found it to stem this trend. Displacement is especially notable in majority black and Latino neighborhoods and among LMI families. This raises

important race, ethnicity, and income equity challenges for the city, as its growth and economic opportunities continue to develop.

Neighborhoods are particularly important for children's long-term outcomes. Recent research finds that low-income Latino and black adolescents assigned at random to different neighborhoods via Denver Housing Authority's public housing program had better educational outcomes when placed in more economically secure neighborhoods (Galster et al. 2016). But displacement means that few LMI families from traditionally disadvantaged neighborhoods in Denver are moving to more economically secure neighborhoods. Gentrification is causing low-income families to move to areas with the lowest rents they can find, which research shows only further concentrates disadvantage (Chizeck 2017). Stakeholders said it is nearly impossible to know where families are moving, but anecdotal reports suggest they are leaving Denver for the less expensive inner- and outer-ring suburbs, particularly areas north of the city. One community-based stakeholder in Globeville suggested that their program is considering following displaced families to their new communities in the suburbs to continue helping them. The situation in Denver suggests that the concentrated neighborhood disadvantage and fragile financial security of LMI renters in the city may be increasingly becoming a suburban and regional issue, too.

Regional coordination for affordable housing may be more important than ever. One stakeholder suggested that economic development has been the focus of a more regional coordinated effort, but affordable housing has yet to receive the same attention. But promising developments may be on the horizon. The Denver TOD fund was expanded in 2014 to include regional issues, and plans are to develop a larger plan surrounding affordable housing along transit lines.²⁹ In nearby Boulder, a draft plan for regional housing includes both locally based and regionally based strategies for expanding affordable housing throughout municipalities (BCRHP 2017). Although Denver and Boulder have made commitments to increase their funding and supply of affordable housing, other nearby municipalities have not fully addressed these needs.³⁰ The Denver Regional Council of Governments lists housing opportunity as a regional goal, but the strategies for achieving this goal are not well defined (DRSCI, n.d.). As the issue of housing affordability continues to spill over into surrounding areas, a more concerted regional planning effort will be needed.

Meanwhile, the stress of financial disadvantage and rising rents for LMI families is taking its toll on residents and families before displacement. Stakeholders in Globeville reported that school officials are seeing heightened signs of stress among their students because of the financial troubles their families are experiencing from rising rents. One community-based organization in Globeville recently dedicated its first funding stream in the neighborhood to hire a school psychologist to work with children, in part

because of the stress of their families' rental situations. We heard from Globeville stakeholders that some landlords raise rents on tenants by hundreds of dollars, and because few renters in the neighborhood have long-term contracts, there is little recourse. Although renters have the legal right of first refusal to purchase their homes, one stakeholder told us that the down payment that renters in Globeville would need to purchase the home is often more than they can afford. These factors are contributing to displacement among LMI renters in Globeville and perhaps out of Denver permanently. Globeville is a majority Latino and LMI neighborhood and reflects trends happening throughout the city—displacement intersects with equity issues in Denver and the region overall and raises important questions about who is benefitting from the city's prosperity.

Denver is innovative with respect to LMI affordable housing policies and programs, but is struggling with the rate of change. Denver has several innovative approaches to affordable housing and is thinking creatively about future policies. Furthermore, an Affordable Housing Trust Fund was passed by the city council in fall 2016,³¹ and the new Office of Housing and Opportunities for People Everywhere—an initiative to address the continuum of housing issues from homelessness to homeownership in Denver—was started by the mayor in January 2017.³² The city has also been recognized as a national leader in TOD, having initiated affordable housing projects along its successful light rail system.³³

Despite these strategic initiatives for creating and preserving affordable housing, stakeholders said that funding is only allowing them to replace units disappearing from the market rather than to meet the rising demand. Stakeholders expressed concern that the new federal climate could affect LIHTC funding, a concern substantiated in the national conversation about likely changes affecting the credits and prospective affordable housing projects in the pipeline.³⁴ Stakeholders are concerned that piecing together funding is going to be challenging for affordable housing projects moving forward, only adding to the timeline, fees, and complexity of securing financing. One stakeholder remarked that he used to close his affordable housing financing deals with just one attorney present, but now needs as many as seven. This is not necessarily because of processes within Denver, but reflective of challenges faced nationwide. One developer reported that Denver stands out for its knowledge and ability to secure funding for affordable housing development. But another developer reported that the cost of land makes affordable housing in Denver a challenge.

Stakeholders directly involved in developing affordable housing are grappling with how to find new funding sources. Some of the ideas suggested at the convening of affordable housing stakeholders included dedicated social impact bonds, greater involvement of mission-oriented philanthropies in funding initiatives, and intentional collaboration between nonprofit and for-profit developers on

projects. New innovations in funding for Denver's LMI affordable housing needs may rest in creative innovations outside of government or through public-private partnerships.

The city is contemplating innovative public-private ventures to increase LMI affordable housing. One innovation we heard from city leaders is a proposal that the Apartment Association of Metro Denver brought to the city. The proposal would designate selected vacant apartments in large developments to be guaranteed affordable housing units for 10- to 20-year terms.³⁵ The city would provide financial compensation to apartment owners, perhaps from the Affordable Housing Trust Fund. It is unclear how much support there would be among apartment building owners, how accepting current market-rate apartment dwellers would be of living among affordable housing recipients, and if the city would be indirectly subsidizing market-rate units. But it could also be an immediate and cost-efficient solution to the shortage of immediate LMI affordable units. Chicago's Low-Income Housing Trust Fund operates in a similar manner and offers landlords a one-year rental subsidy to provide housing at an affordable rent to very low-income tenants.³⁶

Denver is also coordinating a project with a condominium developer to create units on city-owned land. This proposal would address the need for condominium units—a need created indirectly by the Colorado construction defect law, which makes developers susceptible to lawsuits from homebuyers for up to seven years after construction. With this proposal, the city as the landowner would shield the developer from risk of arbitration in the arrangement. While the idea is nascent, it illustrates the creativity with which Denver is seeking solutions to complicated hurdles in the affordable housing landscape.

Market-rate rental development has flourished in recent years. Multiple stakeholders reported that the housing market in Denver was imbalanced, such that market-rate rental units dominated the development landscape in recent years. This is not solely because of the demographic shifts previously mentioned, but also because of policy decisions including the construction defect law, state property tax and rent control laws, and indirect consequences of marijuana legalization.

Colorado's construction defect law came up repeatedly among stakeholders as an issue preventing condos from being built and thus inflating the supply, demand, and cost of market-rate apartments. The construction defect law allows homebuyers to sue developers for up to seven years after the project is complete. But the law is broad in its definition of defect, meaning that minor issues can be brought to suit. For example, rulings had to be changed so that developers at TOD sites could no longer be sued for noise-related issues, an inadvertent consequence of developing housing near public transportation.³⁷ One study cites developers believing there is a near 100 percent chance they will be sued if the

condominium development has a homeowners association and that condominiums cost \$15,000 more per unit because of the additional related fees.³⁸ This legislation was created to protect homebuyers on their purchase, but it has inadvertently created a disincentive for developers to create condominiums in Denver. Many stakeholders said that the construction defect law and the dampening of the condominium market created unmet demand for entry-level homebuyers in the market, pushing them into market-rate rentals. Developers only had further incentive to create more market-rate apartments at the expense of affordable housing, causing rents to increase at all levels throughout Denver's housing market.³⁹ Even if developers were provided incentives to create condominiums to meet this need, we heard from stakeholders that insurers perceived great risk for potential lawsuits, making insurance costly and difficult to attain. Some stakeholders cast some doubt, however, on assessments that the construction defect law was holding developers back and that the demand in the market for condominiums is so high that it could be profitable. We heard from other stakeholders that the city had leverage to ask more from developers with respect to creating affordable housing when deals were being negotiated. Recent indications suggest there may now be sufficient market-rate rental units available to meet consumer demand,⁴⁰ so opportunities to negotiate with developers may be waning.

In addition to the construction defect law, other state laws may pose barriers to Denver's affordable housing challenges. Because the state has a law that limits tax increases to prevent government from growing too large, or the Taxpayers Bill of Rights,⁴¹ potential funding streams for preserving and creating affordable housing are limited. The Affordable Housing Trust Fund had to be created via a property tax mill and a one-time fee paid by developers of new construction because of this limitation.⁴² Stakeholders reported that this law has held them back from sufficiently funding affordable housing programs, leading them toward creative and hard-won solutions such as the Affordable Housing Trust Fund.

Another impediment to the affordable housing situation is Colorado's state ban on rent control, or the Telluride decision, which forbids local jurisdictions from creating affordable housing that regulates rent.⁴³ Mandatory inclusionary zoning policies on rental properties, for example, would be considered rent control under Colorado state law. Because of the Telluride decision, Denver would violate Colorado state law if it attempted to implement such a policy. Mandatory inclusionary zoning policies, which would have secured the creation of some affordable housing units in the apartment building boom in Denver in recent years, were not possible. This has also put renters in a more tenuous position and makes them vulnerable to extraordinary increases in rent. This is a contributing factor to the displacement of LMI families. In nearly every conversation we had with stakeholders, tenants' rights came up as the next most important challenge facing those working on Denver's affordable housing

issues. Whether this is to be achieved through changing state legislation or creating provisions at the local level is yet to be determined.

Finally, marijuana legalization has had an indirect effect on the affordable housing landscape. The legal marijuana industry was referenced with respect to inflating housing costs. In stakeholder meetings, we heard speculation that those in the marijuana-growing industry were purchasing homes in cash to invest money that could not be deposited in banks because of restrictions in the federal banking laws.⁴⁴ The Urban team could not confirm anecdotal reports with data that those employed in the legal marijuana industry were fueling all-cash sales of property, but more than one stakeholder made reference to this. There was some suggestion that buyers involved in such all-cash sales could sometimes remain hidden within the system. We heard reference to the city creating a more transparent system for foreclosures and auction sales online,⁴⁵ so this could curb all-cash sales moving forward.

LMI Affordable Housing Program Recommendations in the Denver Context

Each city has a unique cultural and political context in which programmatic recommendations may fail or flourish, and Denver is no different. The following ideas reflect suggestions from stakeholders and any of them could be successful in Denver. The following section explores ways to enhance the state of LMI affordable housing in Denver and why these recommendations may have traction.

Consider piloting more accessory dwelling unit programs. During the stakeholder meetings, we heard that accessory dwelling units, or ADUs, could both increase affordable housing within the city and boost homeowners' incomes. Accessory dwelling units are secondary units to a main house that generally contain their own sleeping room, kitchen, and bathrooms and may be either attached or detached.⁴⁶ There are plans to pilot an ADU program in West Denver to stem displacement in these primarily LMI neighborhoods as a way to add affordable housing and support multigenerational families.⁴⁷ There are some questions, however, about how this might work within the city's regulations, considering that plans for such units, or carriage houses in Denver's code, are considered case by case with respect to utilities, proximity to driveways, building code, and historic preservation.⁴⁸

But other municipalities offer a potential road map for how Denver could develop a more concerted plan for ADUs. In 2014, Minneapolis passed an ADU ordinance with significant input from the community to address concerns including absentee landlords, safety, and the look and character of the

units relative to the rest of the neighborhood. Legislators passed regulations to ensure these concerns were addressed, including making sure that one of the units was owner-occupied, that units went through inspection, and that the look of the units fit design standards set by the city. Santa Cruz, California, offers seven preapproved plans for ADUs that conform to the city's standards, making it easier for homeowners to select a compliant design.⁴⁹ Given the appetite for ADUs in the stakeholder conversations, this idea could garner public support to not only create additional affordable housing and boost the potential income of homeowners, but allow multiple family members, including older residents and young families, to stay in place.

Help community land trusts be better used. Community land trusts (CLTs) are an affordable housing strategy that several stakeholders suggested had gained traction. In the model, a nonprofit, community-based organization creates a trust that purchases land and maintains ownership of it permanently. Perspective homeowners enter into a long-term, renewable lease with the trust rather than a traditional sale. When homeowners sell, they earn only a portion of the increased property value. The rest of the equity is kept by the trust, maintaining the long-term affordability of the property for future LMI families.⁵⁰ The projects are attractive because they promote LMI homeownership and require a one-time investment of private and public funds that can be used to maintain affordable units in perpetuity. A few small CLT operate in Denver. The Colorado Community Land Trust, founded in 2002, maintains around 180 CLT properties in the Lowry Field neighborhood in East Denver and has additional developments planned in other neighborhoods.⁵¹ The Urban Land Conservancy is exploring the possibility of developing a CLT in the Globeville and Elyria Swansea neighborhoods, which would be a first for the area. The initiative would involve an alternative strategy of purchasing single-family homes across the area that are not necessarily contiguous. The prospective project would aim to purchase a few hundred homes over several years, rather than all at once.⁵²

But CLTs are highly capital intensive. The projects require nonprofits to purchase land and, in many cases, construct or rehab homes before being sold at reduced market prices. Stakeholders noted that in many Denver neighborhoods (Globeville and Elyria Swansea, in particular), developers have already secured much of the land that would be available for these developments and that the asking price would be too expensive to make the projects viable. A possible solution would be to transfer former public land—such as closing school facilities and bus depots—to nonprofit trusts for CLT development. The direct transfer or reduced market sale would reduce the significant barrier that land purchase prices pose to CLT development. Alternatively, partial funding for CLTs could come from the city's affordable housing fund, which is projected to raise \$150 million over the next decade.

Provide better incentives for developers to create affordable housing. Stakeholders, including developers, reported that the incentives to create affordable housing are not often attractive enough. In part, this is because developers and others reported that construction costs are high and land is expensive, making it a challenge for developers to create units that are both affordable and yield a return on their investments.

There are incentives, however, that could encourage more affordable housing to be created and save developers money. For example, developers reported that permitting was a challenge, and there could sometimes be a five- to six-month lag time from permitting start to issuance. Expedited permitting and approvals could be an additional incentive for developers and is an important cost-cutting mechanism for affordable housing development (Jakabovics et al. 2014). A model in Pinellas County, Florida, offers affordable housing development an expedited permitting process with a two-week turnaround (Lubell 2016). A shorter permitting process could be sufficiently motivating for developers because of the cost savings, and also offers benefits to the city and its residents by creating a faster pipeline for the production of LMI affordable housing units.

We also heard from developers that the city's fees for factors such as utilities, storm retention, and other development often detracted from their bottom lines. This is confirmed in other research which finds that nationally, fees can make affordable housing development financially challenging, particularly if they are flat fees that disfavor smaller projects (Jakabovics et al. 2014). Some of Denver's fees are flat⁵³ and adjusting them to the size of the project could be an important difference in whether a small affordable housing development project is viable.

Finally, developers and other stakeholders underscored the rising cost of land in Denver being a challenge for affordable housing projects. To the extent that the city has underutilized public lands that could be given to developers for LMI affordable housing projects or to land trusts for future partnerships with developers to create affordable housing, this could also be another important strategy.

Social impact investing to fund affordable housing. Despite Denver's innovative and proactive steps to preserve and expand the stock of affordable housing, it has become clear that the public sector cannot meet the great demand for affordable housing. Tax credits and other inducements have proven effective but insufficient. For this reason, stakeholders raised the notion of increased private-sector involvement in addressing this challenge. Although traditional tax credits such as LIHTC are designed to induce private investment in producing below-market-rate housing, the city can consider other innovative strategies that work toward this end.

One of the ideas mentioned in the stakeholder convening was that social impact investing could be a future funding source for affordable housing. The city is investing in the Denver Social Impact Bond Initiative that is providing supportive housing for people who are chronically homeless and frequent users of the emergency medical and criminal justice systems through an Assertive Community Treatment and Housing First model (Cunningham et al. 2016). The program has been nationally recognized for its innovative and rigorous design and for its potential to contribute to the growing body of evidence around the “pay for success” financing mechanism.

Because of the city’s ongoing leadership and capacity building in this emerging field, there may be a unique possibility and appetite for leveraging private-sector commitments for financing affordable housing through impact investing. *Impact investing* refers to a class of financing that aims to generate a social impact in addition to a financial return on investment. There is an emerging field of “social impact investors” who are increasingly willing to place equity in investments, such as affordable housing, that have socially desirable outcomes. One use of such financing can be the acquisition of class B and C properties with expiring LIHTC income restrictions. The Denver Foundation is charting the way forward through its Impact Investing Fund.⁵⁴ The fund and its impact investment committee have made investments in transit-oriented development, the Denver Social Impact Bond, and other community development projects. There is potential to continue to leverage private and philanthropic capital to invest in this emerging asset class of low-income housing that investors can use to hedge far riskier investments.

A similar example is the San Francisco Housing Accelerator Fund that is a collaborative public-private partnership that aims to be a “one-stop shop for housing investment.” The fund aims to employ a fast-response model, build equity, and efficiently assemble private and public bridge financing necessary for deals to “pencil out.” Another such innovative model is the Housing Partnership Equity Trust, a socially minded real estate investment trust. The Housing Partnership Equity Trust operates as a “quick, flexible, and reliable investment platform to compete directly with for-profit, market-rate housing buyers looking to ‘acquire, reposition, and spike rents.’”⁵⁵ The trust operates as a collaboration between investment firms, nonprofit affordable housing providers, and foundations. The nonprofit partners typically are used for identifying opportunities for investment by the for-profit investors. The Housing Partnership Equity Trust encourages investors who are “looking for market returns that mesh with the low level of risk inherent in its portfolio.” Affordable housing aimed at workforce populations are typically in high demand, so the investment risk tends to be lower than in other investment classes. Although the Housing Partnership Equity Trust operates across the nation, the organization’s

collaborative model and operating strategy may be a worthwhile model for a local, Denver-specific model for cross-sector partnerships in affordable housing development.

Explore ways to expand tenants' rights. Because of state policy with respect to the Telluride decision, which restricts local jurisdictions from creating rent stabilization policies in conflict with state law, Denver faces challenges in curtailing rental increases on its residents. Colorado is a pro-business state in its tenant rights and is less likely to adopt tenant-friendly laws. The laws that are adopted tend to be pro-landlord, leaving renters with few protections (Hatch 2017). But there are ways Denver could bolster tenants' rights through other legal mechanisms.

For example, the city can control the rent of publicly owned and subsidized rental units. So, efforts for Denver to more actively preserve affordable housing as it comes up for sale through right of first refusal laws, allowing the city's purchase, is increasingly important, especially if the city can maintain such rentals as publicly owned (City and County of Denver 2016). In the right of first refusals for tenants who live in the homes they rent, however, one of the challenges is coming up with a down payment in an increasingly costly housing market. One stakeholder shared an example of a renter in Globeville who works in the community and tried to purchase the home she was renting when it went on the market. Because of her challenges coming up with the down payment and finding a lender who could accommodate her needs, she could not purchase her home. In this case, a program that could have granted her the money and could have worked with her on a creative mortgage would have been useful. This could be a role for philanthropies or community development financial institutions to work with renters in this capacity in a quick-response way. For example, the Texas State Affordable Housing Corporation is a nonprofit that grants renters facing displacement 5 percent of the home's value to purchase it from landlords when the home is put up for sale. A similar program could be initiated by a nonprofit or philanthropy focused on displacement in Denver. Community land trusts provide another opportunity to assist families in making the transition from renting to owning. If sufficiently capitalized, the CLT can purchase properties that have increasing rental costs and then work with the renters to negotiate mortgages under the more affordable land trust terms. Although these strategies do not necessarily promote tenants' rights, they enable tenants to stay in their homes, avoid displacement, and start gaining wealth and equity.

Incorporate an equity lens into discussions of housing and displacement. The changes in Denver's population over the last 15 years reveal that many neighborhoods that experienced rapid increases in rent, home prices, and cost burden were historically inhabited by higher shares of the city's black and Latino residents. Meanwhile, shares of white and affluent residents have increased, reflecting who has been drawn to Denver. Denver's community engagement strategies (e.g., through the North Denver

Cornerstone Collaborative strategy and the Globeville neighborhood plan) have robust community engagement strategies incorporated into their plans. But considering the rapid changes in affordability and displacement across many Denver neighborhoods and not just Globeville and Elyria Swansea, there is space at the governmental level for a more coordinated racial and social equity platform, particularly with regard to community engagement.

For example, the city of Portland, Oregon, and King County in Washington have explicit racial and social equity platforms that undergird their governance.⁵⁶ Although such explicit platforms may not be right for Denver, ensuring that housing strategies are mindful of issues related to race and social equity could create more inclusive conversations; preserve historic, cultural, and social connections; and slow down residential displacement. Key to the strategy is more intentional inclusion of community voices. For example, King County's Communities of Opportunity Initiative has focused investments on select neighborhoods where economic, health, housing, and social needs among residents were higher than in the rest of the county.⁵⁷ The county's investments through the initiative are driven by the communities' decisionmaking and the issue areas that they collectively decide they need. This is not unlike what the United Way is doing via the United Neighborhoods project in Globeville and Elyria Swansea, where the communities have identified the gaps and needs they would like to see filled, and the United Way's investments will be directed accordingly.⁵⁸ By intentionally building more opportunities for community-led initiatives into housing and economic development plans in the city government, Denver can stand at the national forefront of cities that incorporate equity into economic growth and development strategies to ensure all residents prosper.

Create more apprenticeship opportunities for LMI families, especially in construction work.

Housing cost burden is a function of rising rents and home prices and of stagnant or declining income. Median income by neighborhood shows that when inflation is factored in, the typical household in many of Denver's neighborhoods has experienced declines in income since 2000, which contributes to housing cost burden (table 5). One important way LMI families' incomes could be boosted is through higher-paying work, for example, in the construction industry.

We heard from stakeholders that state-funded construction apprenticeships held promise for training future workers in the building industry, yet the take-up rate on training and ultimate placement into jobs was low. A joint program funded through the 2015 state Work Act⁵⁹ and offered by the Associated General Contractors of Colorado and the Colorado Contractors Association, or Build Colorado, offers a no-cost four-week training program to introduce participants to the construction trades with a hiring fair at the end. Despite these efforts, there may still not be enough incentives for employers to hire apprenticeships. For example, less than 5 percent of the city's construction hours

went to apprenticeships in recent years, prompting some city councilmembers to create a mandate that requires contractors on the National Western redevelopment project to hire apprentices. But even with mandates, potential construction workers may face such barriers as documentation, child care constraints, and transportation.⁶⁰ Understanding the nature of the barriers—among contractors not providing enough training opportunities and potential construction workers who are not pursuing these opportunities—may be needed to address this mismatch. For example, if a barrier for employees is the inability to balance a construction job with child care demands, programs in other areas of the country could be introduced and adapted to the Build Colorado program.⁶¹ As Denver considers expanding opportunities for apprenticeships, it can consider using a pay for success model for engaging and leveraging private-sector resources. Utah has begun exploring how pay for success can be used to tie outcomes around employment and earnings to a workforce development program targeted at high school dropouts and could be a potential model.

Help LMI families stay in gentrifying neighborhoods with tax increment financing. Tax increment financing is a mechanism through which increases in property values are leveraged by the city toward community redevelopment or other reinvestments, often in a specific gentrifying neighborhood. Tax increment financing was referenced in Denver as a mechanism to incorporate affordable housing issues into larger community redevelopment plans (Denver Office of Economic Development 2015a). One example of how this could be implemented comes from Texas's Homestead Preservation Reinvestment Zone regulation, legislation directed toward locally designated areas of Austin and Dallas experiencing rapid changes in property values (Lubell 2016). The legislation allows a portion of increasing property tax valuations in designated areas to be applied toward preserving low- and middle-income housing in those same places (Erickson 2011). Denver could create designated tax increment financing zones in gentrifying neighborhoods (e.g., all or part of Globeville or Elyria Swansea) and could then specify that a certain percentage of increasing property taxes collected within such zones be dedicated toward encouraging first-time LMI homebuyers, deferring property tax burdens on longtime homeowners, or preserving and creating affordable LMI rental housing. Property taxes yielded from newer market-rate developments in the River North Art District area of Globeville could be redirected to preserve affordability in proximal areas of the neighborhood on the verge of gentrification. By harnessing increased property tax money from new high-income homebuyers and the high-value homes they purchase, such funds could be directed toward LMI affordability.

Provide incentives for property owners to preserve affordability with tax abatements. An important element of preserving LMI affordable housing is to facilitate incentives for landlords to keep their existing NOAH rentals at below-market rates. Preserving affordable housing that is not protected

by covenants is a strategic goal of Denver's leadership, especially in gentrifying neighborhoods (Denver Office of Economic Development 2015a). But the specific policies and strategies to do so are only beginning to be formulated.

We heard from stakeholders that programs that help landlords with repairs on LMI rental units has not been a strong incentive for maintaining affordability. But stakeholders felt that tax abatements could be a stronger incentive. One strategy employed in Chicago coupled tax abatements for rental property owners with the repair and rehabilitation of units, as long as a certain percentage of units were set aside to be affordable for a fixed period (e.g., 10 or 15 years) (Lubell 2016). The Cook County Class 9 program cuts assessments and taxes in half and in exchange, developers agree to keep a certain share of newly rehabilitated rental units affordable.⁶² This could be a way for Denver to provide incentives for preserving LMI affordable housing units without violating the Telluride rule that forbids local jurisdictions from mandating affordable rentals. Multifamily rental property owners would be opting into the program in exchange for tax abatements. Given the rapid changes in Denver, such a program could maintain LMI affordability in certain neighborhoods in the short term while long-term LMI housing strategies were being developed and LMI housing units were being created.

Renew regional conversations about affordable housing. Although Denver is making a concerted effort to fund affordable housing and create innovative policy strategies to help LMI families stay, the city cannot solve this regional problem on its own. Nearby Boulder has recently developed a plan for affordable housing that incorporates both a local and regional set of strategies.⁶³ Expanding the conversation regionally is a potential area of exploration for the larger Denver region. We heard from numerous stakeholders that displacement of LMI families out of Denver and into nearby counties is occurring in the wake of rapidly rising rental prices. Stakeholders who work with LMI families reported anecdotes of families having to move to more affordable suburbs, only to be displaced soon after because of rising housing costs there, too. This suggests that issues of affordability extend beyond the city limits. The Denver region has demonstrated that it can create an innovative public transit system. Affordable housing, especially coalescing around displacement, can be the next large issue ripe for regional thought and collaboration.

Denver and surrounding counties and municipalities have engaged in conversations about various regional challenges through the Metro Mayors Caucus. Regional coordination has been fruitful around housing and transportation issues and for moving TOD efforts forward.⁶⁴ Either through the caucus or otherwise, the city can renew a focus on addressing regional affordable housing issues and drawing upon its history of regional leadership and collaboration.

But this could be a challenging task in light of funding challenges and potentially disproportionate funding being directed toward preserving and creating affordable housing in different municipalities. In California, the state legislated in 1980 that regions had to meet their “fair share” of housing across the spectrum of affordability based on population estimates and that municipalities would share this responsibility. But nearly 40 years later, challenges remain and regional coordination on incentives, program and policy levers, and funding and taxes continue to be goals for best practices (Wiener and Rutherford 2008). A more realistic strategy might be for Denver and local municipalities to reconsider how affordable housing fits with an already robust regional transportation planning effort and to discuss how these issues intersect with regional economic development. The risk is that without a coordinated effort to ensure affordable housing for LMI workers (e.g., administrative assistants, teachers, and service and hospitality workers; table 2) within close proximity to employment, there are ramifications for the region’s labor market, transportation and infrastructure, and future economic development. By framing the issue within the context of drawing the next wave of prospective employers to the region and ensuring that businesses that started in Denver and have since flourished can stay, there is the potential to reinvigorate regional coordination to ensure that all Denver-area workers have better access to affordable housing.

Conclusion

Denver is uniquely situated to address low- and middle-income affordable housing issues, principally because stakeholders from city leadership to nonprofit and community-based organizations to developers are aware of a growing shortage of housing that can accommodate families across the income spectrum. This awareness is critical because it means the issue is guided by a considerable amount of consensus and cooperation among diverse parties. Yet Denver is having trouble keeping pace with affordable housing for LMI families, in part because the population influx and the city's growth makes it hard to keep up with such dramatic and rapid change. New funding streams such as the Affordable Housing Trust Fund and policy ideas such as city-owned LMI affordable housing condominium developments are impressive examples of innovations in Denver, yet they may not be happening at the magnitude needed to keep up with the changes.

But the spirit of collaboration and innovation in Denver's approach to affordable housing holds promise for introducing pilot programs and policies that are at the leading edge. For example, creative approaches to accessory dwelling units and social impact investing for affordable housing, as well as greater use of community land trusts to maintain affordability, could gain traction in the near term because of its forward-looking approaches. In the long term, conversations about affordable housing should focus on a regional vision, one that acknowledges that this is a regional challenge and one that intersects with issues of social equity. Denver's future economic prospects are promising and will be all the more successful if all residents in the region can benefit from its growth.

BOX 5

The Urban Institute's Collaboration with JPMorgan Chase

The Urban Institute is collaborating with JPMorgan Chase over five years to inform and assess JPMorgan Chase's philanthropic investments in key initiatives. One of key initiatives is the Partnerships for Raising Opportunity in Neighborhoods (PRO Neighborhoods), which is a five-year, \$125 million effort to invest in solutions to revitalize neighborhoods by growing small businesses, creating health and social service facilities, improving access to affordable housing, and collecting better data to study changing neighborhood demographics. The goals of the collaboration include using data and evidence to inform JPMorgan Chase's philanthropic investments, assessing whether its programs are achieving desired outcomes, and informing the larger fields of policy, philanthropy, and practice. The Low- and Middle Income (LMI) Residents Housing research draws upon rich data analysis of demographic, economic, and housing trends in neighborhoods to identify where the most potential exists for maintaining and creating affordable housing for LMI households.

Appendix A. Demographic Characteristics

TABLE A.1

Population and Households in Denver

Neighborhood	Population, 2000	Population, 2011–15	Households, 2000	Households, 2011–15
Denver (total)	554,636	649,654	239,235	275,795
Athmar Park	8,664	8,659	2,880	2,937
Auraria	123	825	41	59
Baker	5,810	5,799	2,421	2,624
Barnum	6,060	6,593	1,811	1,960
Barnum West	5,558	5,860	1,788	1,725
Bear Valley	7,101	9,246	3,117	3,681
Belcaro	3,675	4,728	1,833	2,264
Berkeley	8,891	8,564	3,886	4,244
CBD	2,005	4,049	1,421	2,495
Capitol Hill	14,987	15,704	10,629	10,717
Chaffee Park	4,374	4,045	1,500	1,531
Cheesman Park	8,284	8,545	5,498	5,226
Cherry Creek	5,028	6,267	3,198	4,032
City Park	2,123	3,195	1,153	1,672
City Park West	4,286	4,583	2,249	2,536
Civic Center	619	1,769	400	1,251
Clayton	5,172	4,249	1,522	1,518
Cole	5,662	4,600	1,632	1,678
College View–South Platte	6,325	7,124	2,040	2,219
Congress Park	10,324	11,240	5,729	5,911
Cory–Merrill	3,486	4,718	1,801	1,855
Country Club	2,971	3,304	1,321	1,412
DIA	4	1,231	2	529
East Colfax	10,136	11,256	4,063	4,196
Elyria Swansea	6,708	6,676	1,741	1,736
Five Points	8,775	14,770	3,261	7,346
Fort Logan	8,769	8,777	3,279	3,214
Gateway–Green Valley Ranch	8,822	34,957	3,109	10,474
Globeville	3,454	3,551	911	1,071
Goldsmith	5,748	5,257	2,807	2,660
Hale	7,474	6,768	4,181	4,023
Hampden	18,747	18,866	9,861	9,325
Hampden South	13,578	14,838	6,889	7,381
Harvey Park	10,723	12,094	3,982	3,978
Harvey Park South	7,890	8,846	3,119	3,095
Highland	10,353	8,991	3,595	4,560
Hilltop	7,845	8,475	3,301	3,534
Indian Creek	3,341	3,512	1,967	1,938
Jefferson Park	3,330	2,827	1,065	1,418
Kennedy	3,393	4,610	2,051	2,416
Lincoln Park	6,431	6,038	2,673	2,647
Lowry Field	3,668	9,001	1,653	4,192

Neighborhood	Population, 2000	Population, 2011-15	Households, 2000	Households, 2011-15
Mar Lee	12,232	13,667	4,118	4,108
Marston	9,817	11,287	4,447	5,277
Montbello	27,914	34,483	7,972	8,484
Montclair	5,373	5,908	2,739	2,771
North Capitol Hill	4,071	5,923	2,385	3,943
North Park Hill	10,057	10,533	3,944	4,120
Northeast Park Hill	7,824	9,087	2,633	3,108
Overland	2,081	3,241	874	1,613
Platt Park	5,310	5,745	2,702	2,777
Regis	4,088	4,218	1,649	1,631
Rosedale	2,689	2,424	1,295	1,245
Ruby Hill	9,761	10,811	3,400	3,387
Skyland	3,375	3,147	1,411	1,412
Sloan Lake	8,081	7,813	3,592	3,705
South Park Hill	8,541	9,150	3,644	3,671
Southmoor Park	2,881	4,844	1,538	2,727
Speer	11,460	11,759	7,413	7,427
Stapleton	2,575	17,626	3	5,779
Sun Valley	1,496	1,438	449	475
Sunnyside	11,555	9,832	3,867	4,040
Union Station	2,225	5,060	1,588	3,437
University	8,627	9,393	3,890	3,609
University Hills	5,554	5,924	2,588	2,638
University Park	6,870	7,560	3,557	3,599
Valverde	3,980	3,750	1,225	1,165
Villa Park	9,997	9,135	2,902	2,936
Virginia Village	13,617	14,118	6,380	6,189
Washington Park	6,650	7,199	3,390	3,218
Washington Park West	6,319	7,269	3,380	3,518
Washington Virginia Vale	12,758	13,824	6,433	6,728
Wellshire	3,044	3,363	1,351	1,385
West Colfax	10,825	9,120	3,581	3,664
West Highland	8,531	9,229	3,944	4,226
Westwood	14,999	16,569	4,254	4,577
Whittier	5,462	5,989	1,927	2,162
Windsor	11,790	13,604	6,739	7,563

Source: Urban Institute tabulations of 2000 Decennial Census and 2011-15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport.

TABLE A.2

Race and Ethnicity in Denver

Neighborhood	White, 2000 (%)	Black, 2000 (%)	Other races, 2000 (%)	Hispanic, 2000 (%)	White, 2011- 15 (%)	Black, 2011- 15 (%)	Other races, 2011- 15 (%)	Hispanic, 2011-15 (%)
Denver (total)	65	11	21	32	53	9	7	31
Athmar Park	59	1	37	65	21	1	6	73
Auraria	41	13	40	58	56	3	24	18
Baker	64	3	32	54	56	3	7	34
Barnum	51	1	47	76	21	1	1	77
Barnum West	60	1	38	68	21	1	6	72
Bear Valley	80	1	13	22	47	4	6	43
Belcaro	96	1	2	3	93	1	1	5
Berkeley	74	1	24	36	71	0	3	26
CBD	80	8	9	12	75	7	8	10
Capitol Hill	82	5	10	13	79	4	7	10
Chaffee Park	53	1	45	64	37	1	3	58
Cheesman Park	84	6	7	9	84	3	5	7
Cherry Creek	93	1	3	4	87	1	6	6
City Park	79	11	8	10	81	7	4	8
City Park West	57	29	12	14	61	17	7	16
Civic Center	82	6	9	14	82	6	6	5
Clayton	21	40	37	50	29	26	3	42
Cole	34	22	44	71	32	13	3	53
College View- South Platte	57	2	34	58	18	2	7	74
Congress Park	84	7	7	9	82	5	4	10
Cory-Merrill	92	1	5	6	86	1	5	8
Country Club	96	0	2	2	90	0	7	3
DIA	50	25	25	0	32	36	11	21
East Colfax	43	32	24	32	37	25	13	25
Elyria Swansea	36	6	58	83	12	4	1	83
Five Points	43	26	30	43	65	10	5	21
Fort Logan	81	2	12	20	58	3	9	30
Gateway- Green Valley Ranch	51	31	14	16	23	27	9	41
Globeville	51	3	46	77	33	3	3	61
Goldsmith	71	8	16	22	55	10	10	26
Hale	79	7	8	10	74	5	8	12
Hampden	78	10	8	10	62	15	9	13
Hampden South	84	7	6	7	72	9	8	12
Harvey Park	70	1	24	43	31	2	8	59
Harvey Park South	74	1	19	32	40	2	10	49
Highland	54	2	43	67	66	4	4	27
Hilltop	88	5	4	5	90	3	5	2
Indian Creek	86	6	5	6	64	14	7	14
Jefferson Park	53	1	45	83	39	5	4	51
Kennedy	68	10	11	12	33	15	23	29
Lincoln Park	54	8	34	52	43	10	4	43
Lowry Field	72	15	10	10	79	5	6	10

Neighborhood	White, 2000 (%)	Black, 2000 (%)	Other races, 2000 (%)	Hispanic, 2000 (%)	White, 2011- 15 (%)	Black, 2011- 15 (%)	Other races, 2011- 15 (%)	Hispanic, 2011-15 (%)
Mar Lee	62	2	32	55	22	1	8	70
Marston	87	1	9	13	72	0	12	16
Montbello	25	45	27	37	11	24	4	61
Montclair	83	9	6	8	79	2	4	14
North Capitol Hill	70	10	16	22	78	6	8	8
North Park Hill	32	57	10	11	53	29	7	11
Northeast Park Hill	16	70	14	24	20	42	8	30
Overland	76	2	20	30	56	11	6	27
Platt Park	91	1	7	8	89	1	4	5
Regis	76	1	20	30	67	1	3	29
Rosedale	89	1	8	10	88	2	3	7
Ruby Hill	62	2	30	59	21	4	8	66
Skyland	18	65	16	22	41	38	4	17
Sloan Lake	69	2	26	43	58	8	5	30
South Park Hill	79	13	6	8	76	7	6	11
Southmoor Park	91	2	5	5	87	4	6	4
Speer	85	3	11	14	86	2	4	8
Stapleton	44	33	22	34	71	8	9	12
Sun Valley	30	18	39	53	16	26	12	46
Sunnyside	49	2	48	72	43	3	4	50
Union Station	80	3	7	9	83	1	7	9
University	87	2	6	6	78	3	12	7
University Hills	90	2	5	7	77	7	6	10
University Park	89	2	5	6	84	2	9	6
Valverde	51	3	44	75	11	3	8	77
Villa Park	51	2	46	80	24	2	2	72
Virginia Village	79	6	11	17	68	6	6	19
Washington Park	95	1	3	3	90	0	5	5
Washington Park West	91	1	6	8	85	1	7	7
Washington Virginia Vale	74	11	9	11	56	18	11	15
Wellshire	95	1	3	4	92	1	2	5
West Colfax	51	3	43	68	34	9	5	51
West Highland	79	1	18	31	79	3	2	15
Westwood	47	2	48	76	11	3	6	80
Whittier	31	45	24	33	50	24	3	23
Windsor	69	11	16	19	51	19	7	22

Source: Urban Institute tabulations of 2000 Decennial Census and 2011-15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport. Blacks and whites are non-Hispanic. Hispanics are any race.

TABLE A.3

Households in Denver by Age and Education

Neighborhood	Households with at least 1 person under 18, 2000 (%)	Households with at least 1 person under 18, 2011–15 (%)	Households with at least 1 person over 65, 2000 (%)	Households with at least 1 person over 65, 2011–15 (%)	People over 25 with a bachelor's degree, 2000 (%)	People over 25 with a bachelor's degree, 2011–15 (%)
Denver (total)	26	26	19	19	22	27
Athmar Park	43	36	23	16	6	12
Auraria	52	0	18	7	4	40
Baker	24	17	12	16	23	32
Barnum	50	50	18	18	6	5
Barnum West	42	45	27	27	5	8
Bear Valley	27	30	25	22	20	16
Belcaro	18	19	36	29	34	38
Berkeley	26	21	23	21	17	34
CBD	3	1	13	7	33	44
Capitol Hill	4	4	7	8	30	42
Chaffee Park	37	28	27	19	11	16
Cheesman Park	7	6	13	22	34	45
Cherry Creek	7	11	24	30	38	34
City Park	11	13	14	13	27	46
City Park West	14	12	18	14	21	36
Civic Center	5	2	6	12	30	37
Clayton	49	32	24	22	7	19
Cole	49	42	22	14	8	17
College View–South Platte	46	40	15	17	6	6
Congress Park	15	16	10	11	34	44
Cory–Merrill	17	37	24	20	40	38
Country Club	28	26	15	27	34	43
DIA	50	40	0	7	0	13
East Colfax	36	29	11	15	13	21
Elyria Swansea	60	56	22	17	3	8
Five Points	30	15	17	7	14	36
Fort Logan	32	29	26	32	23	22
Gateway–Green Valley Ranch	48	56	4	11	22	15
Globeville	52	35	21	17	3	12
Goldsmith	18	23	20	17	25	21
Hale	16	14	13	14	33	34
Hampden	19	22	22	27	29	29
Hampden South	19	17	23	24	32	33
Harvey Park	37	42	27	20	10	13
Harvey Park South	32	33	31	27	18	12
Highland	35	18	19	14	16	39
Hilltop	31	33	31	31	33	40
Indian Creek	14	16	8	22	37	31
Jefferson Park	46	20	9	7	10	23
Kennedy	16	25	3	3	29	27
Lincoln Park	30	21	17	17	16	20
Lowry Field	27	27	19	18	28	35

Neighborhood	Households with at least 1 person under 18, 2000 (%)	Households with at least 1 person under 18, 2011–15 (%)	Households with at least 1 person over 65, 2000 (%)	Households with at least 1 person over 65, 2011–15 (%)	People over 25 with a bachelor's degree, 2000 (%)	People over 25 with a bachelor's degree, 2011–15 (%)
Mar Lee	42	43	22	23	7	11
Marston	28	25	12	22	28	27
Montbello	56	58	11	19	8	6
Montclair	20	26	18	18	36	41
North Capitol Hill	7	4	14	8	22	42
North Park Hill	36	34	27	27	23	35
Northeast Park Hill	45	34	24	26	7	14
Overland	28	14	15	10	16	24
Platt Park	20	21	12	13	34	45
Regis	24	20	26	21	16	26
Rosedale	17	18	24	23	23	36
Ruby Hill	39	41	30	24	4	9
Skyland	31	18	35	27	15	29
Sloan Lake	26	22	25	22	22	34
South Park Hill	31	29	15	28	34	33
Southmoor Park	13	15	28	19	41	43
Speer	8	7	11	12	37	48
Stapleton	0	50	33	8	6	31
Sun Valley	75	63	10	16	0	4
Sunnyside	41	28	22	21	9	21
Union Station	2	4	28	14	30	35
University	14	20	13	13	37	35
University Hills	22	26	26	27	32	33
University Park	18	17	25	17	32	40
Valverde	51	50	20	17	2	9
Villa Park	53	41	18	19	4	11
Virginia Village	22	22	21	18	27	30
Washington Park	17	24	19	26	41	42
Washington Park West	15	17	12	14	43	42
Washington Virginia						
Vale	20	22	20	23	29	26
Wellshire	26	33	40	40	40	39
West Colfax	43	24	22	23	8	15
West Highland	21	21	19	17	26	38
Westwood	54	54	17	18	3	5
Whittier	38	32	19	13	16	32
Windsor	13	14	42	37	24	22

Source: Urban Institute tabulations of 2000 Decennial Census and 2011–15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport.

TABLE A.4

Employment, Poverty, and Public Assistance Rates in Denver

Neighborhood	Labor force unemployed, 2000 (%)	Labor force unemployed, 2011–15 (%)	Poverty rate, 2000 (%)	Poverty rate, 2011–15 (%)	Households receiving public assistance, 2000 (%)	Households receiving public assistance, 2011–15 (%)
Denver (total)	6	6	14	17	3	3
Athmar Park	6	6	13	17	4	4
Auraria	20	9	48	8	9	0
Baker	4	4	24	26	5	3
Barnum	3	13	13	33	7	6
Barnum West	7	8	13	28	3	6
Bear Valley	4	6	6	10	1	2
Belcaro	4	5	1	3	0	0
Berkeley	6	6	8	9	2	3
CBD	6	4	21	21	7	3
Capitol Hill	5	5	18	16	2	2
Chaffee Park	10	6	16	10	5	3
Cheesman Park	3	6	11	13	3	2
Cherry Creek	2	4	8	10	6	2
City Park	7	4	10	13	3	3
City Park West	12	8	29	28	4	4
Civic Center	6	7	29	14	6	5
Clayton	11	12	28	25	8	8
Cole	19	10	26	25	10	3
College View–South Platte	8	15	20	45	8	6
Congress Park	3	4	11	11	2	3
Cory–Merrill	2	4	6	7	0	1
Country Club	2	3	1	3	0	1
DIA	67	4	0	19	0	1
East Colfax	6	11	22	37	2	5
Elyria Swansea	12	11	28	31	8	4
Five Points	13	6	32	23	8	4
Fort Logan	5	6	8	11	1	3
Gateway–Green Valley Ranch	4	6	4	8	2	3
Globeville	12	11	23	35	6	5
Goldsmith	8	12	15	18	1	2
Hale	3	4	14	11	2	1
Hampden	3	6	7	11	2	2
Hampden South	4	4	7	5	1	2
Harvey Park	3	7	9	21	3	2
Harvey Park South	3	6	8	15	3	4
Highland	13	4	24	15	4	4
Hilltop	2	4	5	5	1	1
Indian Creek	4	5	4	7	0	0
Jefferson Park	7	6	35	28	8	2
Kennedy	4	13	10	20	2	2
Lincoln Park	10	13	38	34	5	5
Lowry Field	5	4	10	8	2	1
Mar Lee	7	6	14	17	5	2
Marston	2	5	3	6	1	1

Neighborhood	Labor force unemployed, 2000 (%)	Labor force unemployed, 2011–15 (%)	Poverty rate, 2000 (%)	Poverty rate, 2011–15 (%)	Households receiving public assistance, 2000 (%)	Households receiving public assistance, 2011–15 (%)
Montbello	7	9	14	26	4	4
Montclair	2	3	4	8	1	1
North Capitol Hill	14	5	35	21	5	4
North Park Hill	5	4	9	12	3	1
Northeast Park Hill	7	12	24	27	9	6
Overland	9	3	11	21	4	4
Platt Park	4	7	6	8	1	3
Regis	5	6	7	13	2	3
Rosedale	2	3	7	9	2	2
Ruby Hill	7	6	18	24	9	4
Skyland	6	5	15	12	4	4
Sloan Lake	6	7	12	21	5	5
South Park Hill	3	4	7	6	2	0
Southmoor Park	5	3	2	7	1	1
Speer	4	6	12	14	2	1
Stapleton		3		3	0	0
Sun Valley	18	34	72	86	30	26
Sunnyside	8	8	19	21	7	5
Union Station	4	7	20	19	4	3
University	13	7	14	21	1	1
University Hills	2	6	4	7	2	1
University Park	4	6	11	20	1	0
Valverde	7	4	28	30	10	6
Villa Park	9	10	20	31	6	4
Virginia Village	4	7	11	15	2	2
Washington Park	2	3	2	5	0	1
Washington Park West	3	4	7	8	1	0
Washington Virginia						
Vale	2	9	10	20	3	4
Wellshire	4	4	2	5	1	0
West Colfax	14	11	29	39	9	6
West Highland	5	6	9	9	2	0
Westwood	8	5	24	32	7	3
Whittier	6	8	29	26	7	4
Windsor	4	5	9	19	2	3

Source: Urban Institute tabulations of 2000 Decennial Census and 2011–15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport.

TABLE A.5

Very Low–Income and Low- and Middle-Income Households in Denver

Neighborhood	VLI households, 2000 (%)	VLI households, 2011–15 (%)	LMI households, 2000 (%)	LMI households, 2011–15 (%)	VLI and LMI households, 2000 (%)	VLI and LMI households, 2011–15 (%)
Denver (total)	44	38	35	38	79	75

Neighborhood	VLI households, 2000 (%)	VLI households, 2011–15 (%)	LMI households, 2000 (%)	LMI households, 2011–15 (%)	VLI and LMI households, 2000 (%)	VLI and LMI households, 2011–15 (%)
Athmar Park	47	44	41	45	88	88
Auraria	75	7	20	63	95	69
Baker	53	41	32	32	85	73
Barnum	50	51	36	45	86	95
Barnum West	46	41	45	47	91	88
Bear Valley	34	31	42	45	76	76
Belcaro	17	9	20	26	37	35
Berkeley	43	31	42	35	84	66
CBD	56	34	21	36	77	70
Capitol Hill	61	48	30	41	91	88
Chaffee Park	53	41	36	41	89	83
Cheesman Park	52	36	31	45	84	81
Cherry Creek	30	26	29	25	59	52
City Park	47	39	37	32	83	71
City Park West	64	50	26	31	90	80
Civic Center	56	34	12	31	68	66
Clayton	63	51	28	37	91	88
Cole	58	54	34	34	92	89
College View–South Platte	49	65	40	30	89	94
Congress Park	45	35	29	33	75	68
Cory–Merrill	27	14	39	41	66	55
Country Club	12	12	26	23	39	34
DIA	100	43	0	42	100	85
East Colfax	60	49	31	40	91	88
Elyria Swansea	55	51	35	42	91	93
Five Points	63	37	27	36	90	73
Fort Logan	31	31	36	39	67	69
Gateway–Green Valley Ranch	19	21	51	54	70	76
Globeville	56	62	35	30	91	93
Goldsmith	51	63	33	27	85	90
Hale	45	35	34	41	79	76
Hampden	39	41	38	40	76	81
Hampden South	31	28	40	42	72	70
Harvey Park	39	40	47	52	86	92
Harvey Park South	35	41	44	35	79	76
Highland	53	31	33	36	86	67
Hilltop	21	16	26	25	47	42
Indian Creek	20	31	50	46	70	78
Jefferson Park	57	49	34	34	91	83
Kennedy	56	60	31	33	87	93
Lincoln Park	61	55	28	31	89	86
Lowry Field	34	25	32	35	66	60
Mar Lee	47	42	41	48	88	89
Marston	24	29	44	50	68	79
Montbello	36	43	45	48	82	91
Montclair	26	24	39	34	65	59
North Capitol Hill	67	40	25	36	92	76
North Park Hill	38	27	38	37	75	63
Northeast Park Hill	57	55	34	34	91	89

Neighborhood	VLI households, 2000 (%)	VLI households, 2011–15 (%)	LMI households, 2000 (%)	LMI households, 2011–15 (%)	VLI and LMI households, 2000 (%)	VLI and LMI households, 2011–15 (%)
Overland	44	39	44	46	88	86
Platt Park	29	21	44	31	73	51
Regis	39	32	42	44	81	76
Rosedale	36	35	42	41	78	77
Ruby Hill	54	53	35	37	89	90
Skyland	57	36	28	33	85	68
Sloan Lake	47	37	35	28	82	65
South Park Hill	28	17	30	32	57	49
Southmoor Park	26	24	39	50	65	74
Speer	50	38	33	38	84	76
Stapleton		13		25		38
Sun Valley	96	99	4	1	100	100
Sunnyside	54	43	34	37	88	80
Union Station	50	31	17	29	67	60
University	46	46	31	29	77	75
University Hills	30	32	48	39	78	71
University Park	43	42	34	30	76	72
Valverde	59	62	34	35	93	97
Villa Park	55	58	35	35	90	93
Virginia Village	42	40	38	41	79	80
Washington Park	17	15	30	30	47	46
Washington Park West	31	18	35	40	66	58
Washington						
Virginia Vale	42	49	39	36	81	84
Wellshire	17	17	34	33	50	50
West Colfax	62	65	32	26	94	91
West Highland	42	24	39	32	80	56
Westwood	58	61	34	33	92	93
Whittier	54	37	31	36	85	73
Windsor	51	56	33	35	84	91

Source: Urban Institute tabulations of 2000 Decennial Census and 2011–15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport; LMI = low and middle income; VLI = very low income.

TABLE A.6

Renters in Denver

Neighborhood	Renter-occupied units, 2000 (%)	Renter-occupied units, 2011–15 (%)	VLI renters, 2000 (%)	VLI renters, 2011–15 (%)	LMI renters, 2000 (%)	LMI renters, 2011–15 (%)
Denver (total)	48	51	61	48	30	41
Athmar Park	29	39	64	49	26	44
Auraria	73	73	89	0	10	86
Baker	60	63	68	52	23	28
Barnum	33	45	60	62	34	37

Neighborhood	Renter-occupied units, 2000 (%)	Renter-occupied units, 2011-15 (%)	VLI renters, 2000 (%)	VLI renters, 2011-15 (%)	LMI renters, 2000 (%)	LMI renters, 2011-15 (%)
Barnum West	21	34	63	59	32	40
Bear Valley	35	43	51	39	40	57
Belcaro	8	19	39	10	29	39
Berkeley	32	34	69	52	26	35
CBD	74	66	66	44	19	38
Capitol Hill	82	79	68	47	27	47
Chaffee Park	23	26	69	54	21	40
Cheesman Park	74	61	62	40	30	51
Cherry Creek	53	52	45	35	32	33
City Park	67	58	60	54	34	34
City Park West	78	70	73	62	23	31
Civic Center	56	73	89	45	7	25
Clayton	43	44	72	62	25	35
Cole	52	49	67	62	26	36
College View-South Platte	54	65	65	74	29	22
Congress Park	60	56	61	42	30	48
Cory-Merrill	19	27	32	15	33	57
Country Club	19	20	33	30	35	33
DIA	50	40		46		35
East Colfax	59	65	69	50	26	45
Elyria Swansea	39	55	69	54	27	42
Five Points	69	70	75	37	21	41
Fort Logan	20	22	57	48	32	42
Gateway-Green Valley Ranch	22	32	39	41	48	45
Globeville	37	64	57	65	34	25
Goldsmith	68	76	64	67	30	31
Hale	56	56	63	43	32	46
Hampden	50	53	50	47	40	47
Hampden South	39	43	44	34	44	54
Harvey Park	27	44	61	53	33	44
Harvey Park South	34	35	56	61	36	38
Highland	57	53	69	45	25	35
Hilltop	27	26	42	23	38	35
Indian Creek	21	33	29	42	48	50
Jefferson Park	77	71	66	54	30	36
Kennedy	100	100	56	56	32	37
Lincoln Park	80	72	66	61	26	29
Lowry Field	59	50	45	38	37	44
Mar Lee	31	46	69	43	28	49
Marston	33	40	45	37	41	59
Montbello	27	39	61	54	33	40
Montclair	29	33	49	36	43	45
North Capitol Hill	92	85	72	42	23	39
North Park Hill	17	15	58	49	33	42
Northeast Park Hill	52	55	71	66	23	26
Overland	44	73	64	30	27	56
Platt Park	35	31	40	35	43	40
Regis	28	29	61	43	35	49
Rosedale	50	53	50	33	37	50

Neighborhood	Renter-occupied units, 2000 (%)	Renter-occupied units, 2011-15 (%)	VLI renters, 2000 (%)	VLI renters, 2011-15 (%)	LMI renters, 2000 (%)	LMI renters, 2011-15 (%)
Ruby Hill	41	49	81	73	14	23
Skyland	37	35	74	58	18	22
Sloan Lake	44	43	68	62	29	26
South Park Hill	23	18	65	30	23	59
Southmoor Park	49	64	28	22	43	61
Speer	75	73	59	39	31	46
Stapleton	100	28		27		40
Sun Valley	95	96	95	99	5	1
Sunnyside	41	44	69	59	24	38
Union Station	56	64	76	36	13	32
University	55	57	59	62	29	31
University Hills	27	33	46	42	43	44
University Park	57	61	59	49	30	41
Valverde	49	57	75	75	24	25
Villa Park	49	58	65	64	28	31
Virginia Village	54	56	59	51	34	40
Washington Park	21	24	17	25	40	46
Washington Park West	42	37	48	23	36	50
Washington Virginia Vale	57	65	55	54	36	41
Wellshire	8	12	33	32	17	55
West Colfax	71	77	72	71	24	25
West Highland	36	38	57	34	34	44
Westwood	45	61	73	59	24	37
Whittier	47	44	68	46	25	42
Windsor	48	57	49	52	34	41

Source: Urban Institute tabulations of 2000 Decennial Census and 2011-15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport; LMI = low and middle income; VLI = very low income.

TABLE A.7

Housing Cost–Burdened Households in Denver

Neighborhood	Cost-burdened renters, 2000 (%)	Cost-burdened renters, 2011–15 (%)	VLI cost-burdened renters, 2000 (%)	VLI cost-burdened renters, 2011–15 (%)	LMI cost-burdened renters, 2000 (%)	LMI cost-burdened renters, 2011–15 (%)
Denver (total)	39	47	60	82	7	26
Athmar Park	41	49	59	84	13	29
Auraria	45	0	50		0	0
Baker	35	36	52	65	0	10
Barnum	42	59	66	90	7	8
Barnum West	40	58	64	82	0	26
Bear Valley	38	42	68	93	7	15
Belcaro	32	42	46	100	46	77
Berkeley	40	34	56	61	5	22
CBD	35	45	51	84	4	34
Capitol Hill	38	42	55	78	2	16
Chaffee Park	63	73	86	93	19	59
Cheesman Park	36	39	55	83	4	13
Cherry Creek	30	48	56	76	14	58
City Park	29	52	48	88	2	18
City Park West	34	38	44	58	6	18
Civic Center	43	48	45	83	0	49
Clayton	42	63	58	91	0	27
Cole	33	56	47	83	6	22
College View–South Platte	36	60	54	80	2	15
Congress Park	33	38	52	75	2	18
Cory–Merrill	25	30	64	100	14	29
Country Club	24	28	41	100	22	20
DIA		52		100		16
East Colfax	45	52	64	94	3	17
Elyria Swansea	49	54	67	85	9	27
Five Points	47	38	61	77	7	26
Fort Logan	32	29	51	48	11	23
Gateway–Green Valley Ranch	38	58	84	99	11	41
Globeville	43	63	71	91	7	24
Goldsmith	39	61	61	90	0	5
Hale	41	39	61	79	10	15
Hampden	42	50	75	86	9	24
Hampden South	34	39	67	75	10	30
Harvey Park	36	44	56	76	7	16
Harvey Park South	28	57	47	70	5	44
Highland	45	53	63	93	5	42
Hilltop	38	31	78	100	15	36
Indian Creek	27	46	88	100	5	31
Jefferson Park	36	53	53	87	2	24
Kennedy	39	62	68	91	4	31
Lincoln Park	39	45	57	64	7	31
Lowry Field	43	45	81	83	17	36
Mar Lee	47	43	64	72	8	32
Marston	43	48	83	100	13	24
Montbello	43	55	66	89	6	32

Neighborhood	Cost-burdened renters, 2000 (%)	Cost-burdened renters, 2011-15 (%)	VLI cost-burdened renters, 2000 (%)	VLI cost-burdened renters, 2011-15 (%)	LMI cost-burdened renters, 2000 (%)	LMI cost-burdened renters, 2011-15 (%)
Montclair	35	49	60	93	13	39
North Capitol Hill	39	42	53	81	4	26
North Park Hill	44	59	68	92	15	37
Northeast Park Hill	53	63	71	88	10	43
Overland	36	35	55	81	0	21
Platt Park	27	47	55	96	13	37
Regis	39	42	53	59	16	33
Rosedale	47	39	69	90	35	21
Ruby Hill	36	59	42	76	12	33
Skyland	44	41	58	82	8	0
Sloan Lake	38	42	55	64	4	18
South Park Hill	45	33	60	90	24	15
Southmoor Park	41	38	97	96	28	30
Speer	39	36	63	82	4	14
Stapleton		40		97		46
Sun Valley	37	53	38	55	0	0
Sunnyside	38	43	53	64	6	23
Union Station	47	38	55	65	42	51
University	36	58	57	89	8	43
University Hills	33	62	60	90	13	54
University Park	42	52	64	96	12	27
Valverde	46	61	59	72	5	49
Villa Park	42	56	63	87	4	17
Virginia Village	37	46	61	84	4	17
Washington Park	17	38	61	95	17	42
Washington Park West	31	36	56	100	13	30
Washington Virginia Vale	37	56	65	90	4	23
Wellshire	26	45	62	100	35	61
West Colfax	43	57	57	76	8	31
West Highland	35	40	59	93	5	27
Westwood	45	54	61	87	2	26
Whittier	40	40	58	69	3	25
Windsor	34	48	63	84	9	17

Source: Urban Institute tabulations of 2000 Decennial Census and 2011-15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport; LMI = low and middle income; VLI = very low income.

Appendix B. Housing Characteristics

TABLE B.1

Occupied Housing Units in Denver

Neighborhood	Housing units, 2000	Housing units, 2011–15	Occupied units, 2000 (%)	Occupied units, 2011–15 (%)
Denver (total)	251,435	294,191	95	94
Athmar Park	2,880	3,055	98	96
Auraria	41	67	94	88
Baker	2,421	2,755	95	95
Barnum	1,811	1,998	97	98
Barnum West	1,788	1,847	98	93
Bear Valley	3,117	3,838	97	96
Belcaro	1,833	2,459	95	92
Berkeley	3,886	4,378	97	97
CBD	1,421	3,403	75	73
Capitol Hill	10,629	11,512	94	93
Chaffee Park	1,500	1,580	98	97
Cheesman Park	5,498	5,740	93	91
Cherry Creek	3,198	4,318	92	93
City Park	1,153	1,858	92	90
City Park West	2,249	2,766	88	92
Civic Center	400	1,406	90	89
Clayton	1,522	1,661	97	91
Cole	1,632	1,843	95	91
College View–South Platte	2,040	2,274	97	98
Congress Park	5,729	6,124	96	97
Cory–Merrill	1,801	1,903	97	97
Country Club	1,321	1,446	96	98
DIA	2	628	67	84
East Colfax	4,063	4,553	96	92
Elyria Swansea	1,741	1,901	96	91
Five Points	3,261	7,966	91	92
Fort Logan	3,279	3,374	98	95
Gateway–Green Valley Ranch	3,109	10,735	86	98
Globeville	911	1,193	95	90
Goldsmith	2,807	2,843	97	94
Hale	4,181	4,322	96	93
Hampden	9,861	10,036	95	93
Hampden South	6,889	7,855	96	94
Harvey Park	3,982	4,085	98	97
Harvey Park South	3,119	3,286	98	94
Highland	3,595	4,969	95	92
Hilltop	3,301	3,632	96	97
Indian Creek	1,967	2,025	98	96
Jefferson Park	1,065	1,536	94	92
Kennedy	2,051	2,643	95	91
Lincoln Park	2,673	2,942	93	90
Lowry Field	1,653	4,551	86	92
Mar Lee	4,118	4,297	98	96
Marston	4,447	5,617	95	94
Montbello	7,972	8,713	97	97

Neighborhood	Housing units, 2000	Housing units, 2011–15	Occupied units, 2000 (%)	Occupied units, 2011–15 (%)
Montclair	2,739	2,886	96	96
North Capitol Hill	2,385	4,269	92	92
North Park Hill	3,944	4,180	98	99
Northeast Park Hill	2,633	3,236	97	96
Overland	874	1,709	97	94
Platt Park	2,702	2,890	97	96
Regis	1,649	1,667	97	98
Rosedale	1,295	1,398	97	89
Ruby Hill	3,400	3,598	97	94
Skyland	1,411	1,493	95	95
Sloan Lake	3,592	3,848	95	96
South Park Hill	3,644	3,772	97	97
Southmoor Park	1,538	2,974	89	92
Speer	7,413	8,050	94	92
Stapleton	3	6,018	100	96
Sun Valley	449	499	94	95
Sunnyside	3,867	4,211	97	96
Union Station	1,588	4,009	86	86
University	3,890	3,795	94	95
University Hills	2,588	2,777	98	95
University Park	3,557	4,007	96	90
Valverde	1,225	1,259	99	93
Villa Park	2,902	3,159	97	93
Virginia Village	6,380	6,607	97	94
Washington Park	3,390	3,512	96	92
Washington Park West	3,380	3,629	95	97
Washington Virginia Vale	6,433	7,151	97	94
Wellshire	1,351	1,415	96	98
West Colfax	3,581	4,055	95	90
West Highland	3,944	4,508	96	94
Westwood	4,254	4,856	97	94
Whittier	1,927	2,183	92	99
Windsor	6,739	8,420	92	90

Source: Urban Institute tabulations of 2000 Decennial Census and 2011–15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport.

TABLE B.2

Renter- and Owner-Occupied Units in Denver

Neighborhood	Renter- occupied units, 2000 (%)	Renter- occupied units, 2011–15 (%)	Owner- occupied units, 2000 (%)	Owner- occupied units, 2011–15 (%)
Denver (total)	51	48	52	49
Athmar Park	29	39	71	61
Auraria	73	73	27	27
Baker	60	63	40	37
Barnum	33	45	67	55
Barnum West	21	34	79	66
Bear Valley	35	43	65	57
Belcaro	8	19	92	81

Neighborhood	Renter- occupied units, 2000 (%)	Renter- occupied units, 2011–15 (%)	Owner- occupied units, 2000 (%)	Owner- occupied units, 2011–15 (%)
Berkeley	32	34	68	66
CBD	74	66	26	34
Capitol Hill	82	79	18	21
Chaffee Park	23	26	77	74
Cheesman Park	74	61	26	39
Cherry Creek	53	52	47	48
City Park	67	58	33	42
City Park West	78	70	22	30
Civic Center	56	73	44	27
Clayton	43	44	57	56
Cole	52	49	48	51
College View–South Platte	54	65	46	35
Congress Park	60	56	40	44
Cory–Merrill	19	27	81	73
Country Club	19	20	81	80
DIA	50	40	50	60
East Colfax	59	65	41	35
Elyria Swansea	39	55	61	45
Five Points	69	70	31	30
Fort Logan	20	22	80	78
Gateway–Green Valley Ranch	22	32	78	68
Globeville	37	64	63	36
Goldsmith	68	76	32	24
Hale	56	56	44	44
Hampden	50	53	50	47
Hampden South	39	43	61	57
Harvey Park	27	44	73	56
Harvey Park South	34	35	66	65
Highland	57	53	43	47
Hilltop	27	26	73	74
Indian Creek	21	33	79	67
Jefferson Park	77	71	23	29
Kennedy	100	100	0	0
Lincoln Park	80	72	20	28
Lowry Field	59	50	41	50
Mar Lee	31	46	69	54
Marston	33	40	67	60
Montbello	27	39	73	61
Montclair	29	33	71	67
North Capitol Hill	92	85	8	15
North Park Hill	17	15	83	85
Northeast Park Hill	52	55	48	45
Overland	44	73	56	27
Platt Park	35	31	65	69
Regis	28	29	72	71
Rosedale	50	53	50	47
Ruby Hill	41	49	59	51
Skyland	37	35	63	65
Sloan Lake	44	43	56	57
South Park Hill	23	18	77	82
Southmoor Park	49	64	51	36
Speer	75	73	25	27
Stapleton	100	28	0	72

Neighborhood	Renter- occupied units, 2000 (%)	Renter- occupied units, 2011–15 (%)	Owner- occupied units, 2000 (%)	Owner- occupied units, 2011–15 (%)
Sun Valley	95	96	5	4
Sunnyside	41	44	59	56
Union Station	56	64	44	36
University	55	57	45	43
University Hills	27	33	73	67
University Park	57	61	43	39
Valverde	49	57	51	43
Villa Park	49	58	51	42
Virginia Village	54	56	46	44
Washington Park	21	24	79	76
Washington Park West	42	37	58	63
Washington Virginia Vale	57	65	43	35
Wellshire	8	12	92	88
West Colfax	71	77	29	23
West Highland	36	38	64	62
Westwood	45	61	55	39
Whittier	47	44	53	56
Windsor	48	57	52	43

Source: Urban Institute tabulations of 2000 Decennial Census and 2011–15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport.

TABLE B.3

Single- and Multifamily Housing Units in Denver

Neighborhood	Single-family housing units, 2000 (%)	Single-family housing units, 2011–15 (%)	Multifamily housing units, 2000 (%)	Multifamily housing units, 2011–15 (%)
Denver (total)	55	54	45	46
Athmar Park	82	82	15	15
Auraria	58	42	42	58
Baker	51	50	49	50
Barnum	86	91	14	9
Barnum West	91	91	9	8
Bear Valley	58	55	42	45
Belcaro	83	67	17	33
Berkeley	81	82	19	17
CBD	1	1	98	99
Capitol Hill	5	7	95	92
Chaffee Park	91	91	9	8
Cheesman Park	9	15	91	85
Cherry Creek	45	38	55	61
City Park	33	19	67	81
City Park West	26	27	74	73
Civic Center	7	1	93	99
Clayton	78	86	21	14
Cole	63	69	36	30
College View–South Platte	57	51	39	44
Congress Park	43	47	57	53
Cory–Merrill	99	95	1	5

Neighborhood	Single-family housing units, 2000 (%)	Single-family housing units, 2011–15 (%)	Multifamily housing units, 2000 (%)	Multifamily housing units, 2011–15 (%)
Country Club	84	92	16	8
DIA	100	57	0	43
East Colfax	56	55	44	45
Elyria Swansea	83	85	13	13
Five Points	39	24	61	76
Fort Logan	75	74	25	26
Gateway–Green Valley Ranch	74	82	26	18
Globeville	93	74	7	26
Goldsmith	25	22	75	78
Hale	44	50	55	50
Hampden	36	35	64	65
Hampden South	52	51	48	49
Harvey Park	84	79	16	21
Harvey Park South	68	70	32	30
Highland	53	49	47	51
Hilltop	79	82	21	17
Indian Creek	70	52	30	48
Jefferson Park	35	33	65	67
Kennedy	0	1	100	99
Lincoln Park	41	34	59	66
Lowry Field	39	50	61	50
Mar Lee	80	75	20	25
Marston	56	51	44	49
Montbello	85	84	15	15
Montclair	82	87	18	13
North Capitol Hill	6	3	94	97
North Park Hill	96	98	4	2
Northeast Park Hill	66	67	34	33
Overland	87	49	13	50
Platt Park	84	84	15	16
Regis	83	88	17	11
Rosedale	77	70	23	30
Ruby Hill	67	70	32	30
Skyland	76	86	24	14
Sloan Lake	66	69	34	31
South Park Hill	86	85	13	15
Southmoor Park	39	26	61	74
Speer	24	25	76	75
Stapleton		75		25
Sun Valley	27	32	73	65
Sunnyside	76	78	24	22
Union Station	11	7	89	93
University	60	64	40	36
University Hills	87	86	13	14
University Park	50	46	50	54
Valverde	77	80	22	19
Villa Park	67	68	33	32
Virginia Village	53	52	47	48
Washington Park	80	78	20	22
Washington Park West	72	77	28	22
Washington Virginia Vale	37	35	62	65
Wellshire	98	99	1	1
West Colfax	44	40	56	60

Neighborhood	Single-family housing units, 2000 (%)	Single-family housing units, 2011–15 (%)	Multifamily housing units, 2000 (%)	Multifamily housing units, 2011–15 (%)
West Highland	75	76	24	24
Westwood	75	69	21	28
Whittier	72	76	28	24
Windsor	11	10	89	90

Source: Urban Institute tabulations of 2000 Decennial Census and 2011–15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport.

TABLE B.4

Rental Units by Monthly Cost in Denver

Neighborhood	Rental units with gross rent less than \$1,000/month, 2000 (%)*	Rental units with gross rent less than \$1,000/month, 2011–15 (%)*	Rental units with gross rent more than \$1,000/month, 2000 (%)	Rental units with gross rent more than \$1,000/month, 2011–15 (%)
Denver (total)	67	54	33	46
Athmar Park	66	53	34	47
Auraria	89	33	11	67
Baker	77	69	23	31
Barnum	60	53	40	47
Barnum West	60	39	40	61
Bear Valley	53	58	47	42
Belcaro	60	8	40	92
Berkeley	67	59	33	41
CBD	59	43	41	57
Capitol Hill	86	69	14	31
Chaffee Park	51	37	49	63
Cheesman Park	74	59	26	41
Cherry Creek	50	28	50	72
City Park	79	60	21	40
City Park West	84	74	16	26
Civic Center	88	39	12	61
Clayton	71	71	29	29
Cole	82	71	18	29
College View–South Platte	83	78	17	22
Congress Park	76	64	24	36
Cory–Merrill	19	12	81	88
Country Club	41	28	59	72
DIA	0	28	0	72
East Colfax	77	56	23	44
Elyria Swansea	71	62	29	38
Five Points	80	37	20	63
Fort Logan	54	57	46	43
Gateway–Green Valley Ranch	8	20	92	80
Globeville	72	64	28	36
Goldsmith	80	89	20	11
Hale	75	70	25	30
Hampden	47	65	53	35
Hampden South	41	41	59	59

Neighborhood	Rental units with gross rent less than \$1,000/month, 2000 (%)*	Rental units with gross rent less than \$1,000/month, 2011–15 (%)*	Rental units with gross rent more than \$1,000/month, 2000 (%)	Rental units with gross rent more than \$1,000/month, 2011–15 (%)
Harvey Park	69	64	31	36
Harvey Park South	69	51	31	49
Highland	72	34	28	66
Hilltop	23	20	77	80
Indian Creek	16	18	84	82
Jefferson Park	92	76	8	24
Kennedy	77	61	23	39
Lincoln Park	56	62	44	38
Lowry Field	24	30	76	70
Mar Lee	70	56	30	44
Marston	33	44	67	56
Montbello	62	46	38	54
Montclair	62	33	38	67
North Capitol Hill	80	49	20	51
North Park Hill	56	41	44	59
Northeast Park Hill	72	60	28	40
Overland	70	32	30	68
Platt Park	57	59	43	41
Regis	63	49	37	51
Rosedale	44	36	56	64
Ruby Hill	85	67	15	33
Skyland	67	44	33	56
Sloan Lake	72	66	28	34
South Park Hill	62	51	38	49
Southmoor Park	2	6	98	94
Speer	74	60	26	40
Stapleton	0	15	0	85
Sun Valley	100	95	0	5
Sunnyside	75	71	25	29
Union Station	75	31	25	69
University	71	56	29	44
University Hills	40	28	60	72
University Park	62	61	38	39
Valverde	78	70	22	30
Villa Park	73	70	27	30
Virginia Village	70	71	30	29
Washington Park	25	25	75	75
Washington Park West	56	38	44	62
Washington Virginia Vale	66	68	34	32
Wellshire	34	19	66	81
West Colfax	76	77	24	23
West Highland	70	39	30	61
Westwood	73	70	27	30
Whittier	76	62	24	38
Windsor	62	59	38	41

Source: Urban Institute tabulations of 2000 Decennial Census and 2011–15 American Community Survey data.

Notes: CBD = Central Business District; DIA = Denver International Airport. Dollar figures from the 2000 Decennial Census are inflation adjusted to constant 2015 dollars.

* Includes rental units with no cash rent.

TABLE B.5

Housing Units by Property Value and Age in Denver

Neighborhood	Owner-occupied units with property values less than \$200K, 2000 (%)	Owner-occupied units with property values less than \$200K, 2011- 15 (%)	Housing units built before 1980, 2000 (%)	Housing units built before 1980, 2011-15 (%)
Denver (total)	40	32	84	58
Athmar Park	84	78	97	86
Auraria	59	0	73	80
Baker	44	19	97	23
Barnum	88	86	96	60
Barnum West	79	79	92	76
Bear Valley	18	21	79	92
Belcaro	1	5	83	53
Berkeley	45	13	96	30
CBD	0	28	76	46
Capitol Hill	7	46	96	51
Chaffee Park	86	54	91	77
Cheesman Park	4	32	98	57
Cherry Creek	3	2	49	53
City Park	22	15	97	21
City Park West	20	13	90	41
Civic Center		3	57	20
Clayton	86	59	94	57
Cole	85	48	88	27
College View-South Platte	74	69	81	83
Congress Park	6	11	96	37
Cory-Merrill	8	3	89	60
Country Club	1	3	99	17
DIA	100	91	100	11
East Colfax	87	66	94	76
Elyria Swansea	92	85	96	58
Five Points	51	15	87	17
Fort Logan	14	27	80	81
Gateway-Green Valley Ranch	35	51	3	22
Globeville	94	71	88	26
Goldsmith	20	32	87	98
Hale	8	32	97	57
Hampden	14	33	70	95
Hampden South	27	35	72	89
Harvey Park	59	50	94	97
Harvey Park South	34	26	80	92
Highland	50	12	91	30
Hilltop	4	5	92	61
Indian Creek	48	46	9	83
Jefferson Park	61	26	90	36
Kennedy			68	73
Lincoln Park	75	34	53	49
Lowry Field	10	15	48	26
Mar Lee	77	87	91	95
Marston	24	35	20	63
Montbello	67	77	61	75
Montclair	17	12	92	59

Neighborhood	Owner-occupied units with property values less than \$200K, 2000 (%)	Owner-occupied units with property values less than \$200K, 2011-15 (%)	Housing units built before 1980, 2000 (%)	Housing units built before 1980, 2011-15 (%)
North Capitol Hill	28	10	83	28
North Park Hill	46	19	99	63
Northeast Park Hill	63	56	96	82
Overland	90	59	97	25
Platt Park	22	3	99	18
Regis	50	25	93	45
Rosedale	29	9	91	58
Ruby Hill	79	81	94	90
Skyland	65	28	96	67
Sloan Lake	34	13	88	61
South Park Hill	9	7	99	27
Southmoor Park	8	22	51	51
Speer	19	20	89	58
Stapleton		7		4
Sun Valley	100	75	89	67
Sunnyside	67	19	95	43
Union Station	0	2	63	31
University	24	11	98	66
University Hills	38	15	95	90
University Park	9	9	84	67
Valverde	91	66	95	77
Villa Park	86	81	96	72
Virginia Village	26	13	91	95
Washington Park	3	6	96	26
Washington Park West	11	6	99	18
Washington Virginia Vale	33	29	78	92
Wellshire	9	3	98	95
West Colfax	64	39	95	66
West Highland	29	10	99	26
Westwood	92	85	93	75
Whittier	44	8	99	22
Windsor	29	80	67	89

Source: Urban Institute tabulations of 2000 Decennial Census and 2011–15 American Community Survey data.

Notes: CBD = Central Business District. DIA = Denver International Airport.

Appendix C: Neighborhood Change Typology Indexes

TABLE C.1

Unemployment and Poverty Rates by Neighborhood

Neighborhood	RES 1: Unemploy- ment Rate (%), 2000	RES 1: Unemploy- ment Rate (%), 2015	RES 1: Change, 2000–15	RES 2: Poverty Rate (%), 2000	RES 2: Poverty Rate (%), 2015	RES 2: Change, 2000–15
Athmar Park	6	6	0	13	17	4
Auraria	20	9	-11	47	8	-39
Baker	4	4	0	24	26	2
Barnum	3	13	10	13	33	20
Barnum West	7	8	1	13	28	15
Bear Valley	4	6	2	6	10	4
Belcaro	4	5	1	1	3	2
Berkeley	6	6	0	8	9	1
Capitol Hill	5	5	0	18	16	-2
CBD	6	4	-2	21	21	0
Chaffee Park	10	6	-4	17	10	-7
Cheesman Park	3	6	3	11	13	2
Cherry Creek	2	4	2	8	10	2
City Park	7	4	-3	10	13	3
City Park West	12	8	-4	29	28	-1
Civic Center	6	7	1	29	14	-15
Clayton	11	12	1	28	25	-3
Cole	19	10	-9	26	25	-1
College View–South Platte	8	15	7	20	45	25
Congress Park	3	4	1	11	11	0
Cory–Merrill	2	4	2	6	7	1
Country Club	2	3	1	1	3	2
DIA	75	4	-71	20	19	-1
East Colfax	6	11	5	22	37	15
Elyria Swansea	12	11	-1	28	31	3
Five Points	13	6	-7	31	23	-8
Fort Logan	5	6	1	8	11	3
Gateway–Green Valley Ranch	4	6	2	4	8	4
Globeville	12	11	-1	23	35	12
Goldsmith	8	12	4	15	18	3
Hale	3	4	1	14	11	-3
Hampden	3	6	3	7	11	4
Hampden South	4	4	0	7	5	-2
Harvey Park	3	7	4	9	21	12
Harvey Park South	3	6	3	8	15	7
Highland	13	4	-9	24	15	-9
Hilltop	2	4	2	5	5	0
Indian Creek	4	5	1	4	7	3
Jefferson Park	7	6	-1	35	28	-7

Neighborhood	RES 1: Unemploy- ment Rate (%), 2000	RES 1: Unemploy- ment Rate (%), 2015	RES 1: Change, 2000–15	RES 2: Poverty Rate (%), 2000	RES 2: Poverty Rate (%), 2015	RES 2: Change, 2000–15
Kennedy	4	13	9	10	20	10
Lincoln Park	9	13	4	35	34	-1
Lowry Field	6	4	-2	11	8	-3
Mar Lee	7	6	-1	14	17	3
Marston	2	5	3	3	6	3
Montbello	7	9	2	14	26	12
Montclair	2	3	1	4	8	4
North Capitol Hill	14	5	-9	35	21	-14
North Park Hill	5	4	-1	9	12	3
Northeast Park Hill	7	12	5	24	27	3
Overland	9	3	-6	11	21	10
Platt Park	4	7	3	6	8	2
Regis	10	6	-4	7	13	6
Rosedale	2	3	1	7	9	2
Ruby Hill	7	6	-1	18	24	6
Skyland	6	5	-1	15	12	-3
Sloan Lake	6	7	1	12	21	9
South Park Hill	3	4	1	7	6	-1
Southmoor Park	5	3	-2	2	7	5
Speer	4	6	2	12	14	2
Stapleton	5	3	-2	13	3	-10
Sun Valley	18	34	16	72	86	14
Sunnyside	8	8	0	19	21	2
Union Station	4	7	3	20	19	-1
University	13	7	-6	14	21	7
University Hills	2	6	4	4	7	3
University Park	4	6	2	11	20	9
Valverde	7	4	-3	28	30	2
Villa Park	9	10	1	20	31	11
Virginia Village	4	7	3	12	15	3
Washington Park	2	3	1	2	5	3
Washington Park West	3	4	1	7	8	1
Washington Virginia Vale	2	9	7	10	20	10
Wellshire	4	4	0	2	5	3
West Colfax	14	11	-3	29	39	10
West Highland	5	6	1	9	9	0
Westwood	8	5	-3	24	32	8
Whittier	6	8	2	29	26	-3
Windsor	4	5	1	9	19	10

Source: Urban Institute tabulations of 2011–15 American Community Survey and 2000 Decennial Census data.

Notes: CBD = Central Business District; DIA = Denver International Airport; RES = resident economic success.

TABLE C.2

Commute Time and Entropy Index by Neighborhood

Neighborhood	RES 3: Share with 45-minute commute or longer, 2000 (%)	RES 3: Share with 45-minute commute or longer, 2015 (%)*	RES 3: Change, 2000–15	RES 4: Entropy index, 2000	RES 4: Entropy index, 2015	RES 4: Change, 2000–15
Athmar Park	12	22	10	0.94	0.98	4
Auraria	9	32*	24	0.66	0.71	5
Baker	13	22	9	1.04	1.09	5
Barnum	18	44	26	0.98	0.83	-15
Barnum West	16	30	14	0.90	0.97	7
Bear Valley	19	32	13	0.98	1.08	10
Belcaro	7	22*	15	0.63	0.71	8
Berkeley	10	30	20	0.95	1.02	7
Capitol Hill	11	27	16	1.02	1.01	-1
CBD	9	37	28	1.08	0.91	-17
Chaffee Park	14	25	11	0.97	1.06	9
Cheesman Park	9	27	18	1.08	1.06	-2
Cherry Creek	6	20	14	0.87	0.68	-19
City Park	11	31	20	1.06	0.98	-8
City Park West	9	29	20	1.01	1.08	7
Civic Center	9	28*	19	0.88	0.86	-2
Clayton	14	37	23	0.92	0.95	3
Cole	14	43	29	0.93	0.96	3
College View– South Platte	16	47	31	0.91	0.82	-9
Congress Park	9	17	8	1.06	0.83	-23
Cory–Merrill	8	29	21	0.98	0.97	-1
Country Club	7	31	24	0.72	0.56	-16
DIA	50	33*	-17	1.07	1.02	-5
East Colfax	12	34	12	0.94	0.95	1
Elyria Swansea	14	37*	23	0.92	0.86	-6
Five Points	13	33	20	0.88	1.07	19
Fort Logan	13	40	27	1.03	1.08	5
Gateway–Green Valley Ranch	14	44	30	0.93	1.01	8
Globeville	17	41	24	0.91	0.98	7
Goldsmith	12	25	13	1.06	1.00	-6
Hale	7	28	21	1.04	1.02	-2
Hampden	9	28	19	1.07	1.08	1
Hampden South	7	25	18	1.03	1.02	-1
Harvey Park	17	28	11	0.96	0.94	-2
Harvey Park South	11	31	20	1.02	1.09	7
Highland	13	23	10	1.01	1.06	5
Hilltop	6	28	22	0.90	0.74	-16
Indian Creek	6	23	17	0.93	1.07	14
Jefferson Park	23	34	11	0.85	1.04	19
Kennedy	9	40	31	0.97	0.86	-11
Lincoln Park	8	24	16	0.91	0.94	3
Lowry Field	13	28	15	1.06	0.97	-9
Mar Lee	14	34	20	0.99	0.97	-2
Marston	18	41	23	0.95	1.01	6
Montbello	15	40	25	0.99	0.92	-7
Montclair	8	20	12	1.03	0.98	-5

Neighborhood	RES 3: Share with 45-minute commute or longer, 2000 (%)	RES 3: Share with 45-minute commute or longer, 2015 (%)*	RES 3: Change, 2000–15	RES 4: Entropy index, 2000	RES 4: Entropy index, 2015	RES 4: Change, 2000–15
North Capitol Hill	8	29	21	0.90	1.04	14
North Park Hill	14	25	11	1.06	1.04	-2
Northeast Park Hill	11	35	24	0.95	0.97	2
Overland	9	27	18	0.98	1.10	12
Platt Park	10	11	1	1.00	0.91	-9
Regis	12	29	17	0.97	1.06	9
Rosedale	9	20	11	1.07	0.95	-12
Ruby Hill	13	35	22	0.97	0.98	1
Skyland	13	39	26	1.06	1.05	-1
Sloan Lake	13	24	11	1.04	1.05	1
South Park Hill	8	22	14	0.99	0.84	-15
Southmoor Park	7	23	16	0.92	0.93	1
Speer	11	23	12	1.08	1.00	-8
Stapleton	11	20	9	0.98	0.69	-29
Sun Valley	24	31*	8	0.16	0.03	-13
Sunnyside	15	33	18	0.97	1.07	10
Union Station	11	34*	23	1.04	0.94	-10
University	7	29	22	1.06	1.04	-2
University Hills	8	25	17	0.92	1.06	14
University Park	7	26	19	1.04	0.97	-7
Valverde	20	28*	8	0.87	0.79	-8
Villa Park	20	30	10	0.93	0.92	-1
Virginia Village	11	35	24	1.05	1.09	4
Washington Park	7	18	11	0.85	0.75	-10
Washington Park West	6	34	28	1.01	0.98	-3
Washington						
Virginia Vale	12	33	21	1.06	1.06	0
Wellshire	7	18	11	0.87	0.86	-1
West Colfax	15	28	13	0.88	0.89	1
West Highland	11	32	21	1.03	0.95	-8
Westwood	17	42	25	0.91	0.88	-3
Whittier	14	25	11	1.00	1.09	9
Windsor	11	34	23	1.05	0.98	-7

Source: Urban Institute tabulations of 2011–15 American Community Survey and 2000 Decennial Census data.

Notes: CBD = Central Business District; DIA = Denver International Airport; RES = resident economic success.

* denotes values for which tract-level data was not available from Census. We imputed these values by averaging surrounding tracts.

TABLE C.3

Median Home Values and Vacancy Rates by Neighborhood

Neighborhood	HMH 1: Median Home value (\$), 2000	HMH 1: Median Home value (\$), 2015*	HMH 1: Change, 2000–15 (\$)	HMH 2: Vacancy rate (%), 2000	HMH 2: Vacancy rate (%), 2015	HMH 2: Change, 2000–15
Athmar Park	171,305	155,111	-16,194	1	3	2
Auraria	183,166	450,000	266,835	5	6	1
Baker	208,290	312,100	103,810	4	1	-3
Barnum	148,030	144,800	-3,230	3	1	-2
Barnum West	162,047	156,100	-5,947	1	1	0
Bear Valley	235,221	243,165	7,943	2	2	0
Belcaro	571,684	742,600	170,916	3	4	1
Berkeley	203,332	349,602	146,270	3	3	0
Capitol Hill	307,787	223,704	-84,082	5	4	-1
CBD	227,154	268,100	40,946	11	14	3
Chaffee Park	157,356	194,600	37,244	2	3	1
Cheesman Park	500,592	276,896	-223,696	4	4	0
Cherry Creek	543,650	645,300	101,650	5	5	0
City Park	262,000	343,600	81,600	7	5	-2
City Park West	255,789	327,153	71,364	9	6	-3
Civic Center	0	372,100	372,100	8	5	-3
Clayton	138,991	169,000	30,009	3	7	4
Cole	137,943	206,600	68,657	4	3	-1
College View– South Platte	163,176	166,800	3,624	3	2	-1
Congress Park	347,222	452,931	105,709	3	2	-1
Cory–Merrill	281,257	424,000	142,743	3	0	-3
Country Club	676,222	824,500	148,278	2	0	-2
DIA	138,348	124,200	-14,148	33	4	-29
East Colfax	150,622	169,621	19,000	4	5	1
Elyria Swansea	127,332	131,000	3,668	4	3	-1
Five Points	172,411	301,265	128,854	6	5	-1
Fort Logan	261,535	274,261	12,726	1	3	2
Gateway–Green Valley Ranch	211,756	200,287	-11,470	14	1	-13
Globeville	122,092	131,900	9,808	3	3	0
Goldsmith	267,633	275,400	7,767	3	4	1
Hale	308,436	283,993	-24,443	4	3	-1
Hampden	259,542	245,527	-14,015	4	5	1
Hampden South	289,139	300,026	10,887	4	4	0
Harvey Park	191,033	193,929	2,895	1	2	1
Harvey Park South	210,679	230,033	19,354	2	5	3
Highland	196,993	370,013	173,019	4	6	2
Hilltop	465,120	698,034	232,915	3	1	-2
Indian Creek	201,609	211,600	9,991	1	2	1
Jefferson Park	166,632	\$294,000	127,368	4	6	2
Kennedy	0	213,233*	213,233	4	4	0
Lincoln Park	142,348	225,570	83,222	6	6	0
Lowry Field	399,763	450,203	50,440	10	6	-4
Mar Lee	167,185	146,676	-20,510	1	3	2
Marston	258,027	258,235	208	4	3	-1
Montbello	181,958	158,244	-23,714	3	1	-2
Montclair	261,607	348,600	86,993	3	2	-1

Neighborhood	HMH 1: Median Home value (\$), 2000	HMH 1: Median Home value (\$), 2015*	HMH 1: Change, 2000–15 (\$)	HMH 2: Vacancy rate (%), 2000	HMH 2: Vacancy rate (%), 2015	HMH 2: Change, 2000–15
North Capitol Hill	434,513	316,646	-117,867	6	5	-1
North Park Hill	211,684	327,419	115,735	2	0	-2
Northeast Park Hill	177,100	191,173	14,073	2	2	0
Overland	153,663	180,400	26,737	3	4	1
Platt Park	252,306	423,500	171,194	2	2	0
Regis	195,161	238,700	43,539	1	1	0
Rosedale	222,700	342,700	120,000	3	5	2
Ruby Hill	165,745	165,867	121	2	4	2
Skyland	162,047	270,400	108,353	2	2	-0
Sloan Lake	221,694	353,803	132,109	4	4	0
South Park Hill	352,113	463,050	110,937	1	1	0
Southmoor Park	396,905	345,270	-51,635	9	5	-4
Speer	283,569	349,680	66,110	4	4	0
Stapleton	131,399	445,312	313,914	0	3	3
Sun Valley	111,350	137,500	26,150	5	2	-3
Sunnyside	169,312	277,265	107,953	2	3	1
Union Station	462,037	496,900	34,863	5	5	0
University	236,938	352,721	115,783	5	0	-5
University Hills	209,515	259,614	50,099	2	2	0
University Park	334,063	621,644	287,581	3	6	3
Valverde	146,720	157,900	11,180	1	6	5
Villa Park	153,290	147,328	-5,962	3	5	2
Virginia Village	216,842	281,636	64,794	2	4	2
Washington Park	402,307	578,339	176,032	3	6	3
Washington Park West	310,819	449,087	138,268	3	1	-2
Washington Virginia Vale	243,336	293,193	49,858	3	4	1
Wellshire	391,821	533,000	141,179	4	1	-3
West Colfax	173,482	248,561	75,079	5	5	0
West Highland	234,044	378,663	144,619	4	2	-2
Westwood	140,483	129,469	-11,014	2	5	3
Whittier	205,539	325,900	120,361	5	0	-5
Windsor	293,117	173,457	-119,660	5	5	0

Source: Urban Institute tabulations of 2011–15 American Community Survey and 2000 Decennial Census data.

Notes: CBD = Central Business District; DIA = Denver International Airport; HMH = housing market health.

* denotes values for which tract-level data was not available from Census. We imputed these values by averaging surrounding tracts.

TABLE C.4

Housing Cost Burden and Homeownership Rate by Neighborhood

Neighborhood	HMH 3: Percentage housing cost- burdened (%), 2000	HMH 3: Percentage housing cost- burdened (%), 2015	HMH 3: Change, 2000–15	HMH 4: Homeownership rate (%), 2000	HMH 4: Homeownership rate (%), 2015	HMH 4: Change, 2000–15
Athmar Park	34	28	-6	64	61	-3
Auraria	39	7	-2	21	27	6
Baker	28	33	5	33	37	4
Barnum	31	35	4	62	55	-7
Barnum West	32	34	2	74	66	-8
Bear Valley	23	27	4	55	57	2
Belcaro	18	24	6	77	81	4
Berkeley	29	23	-6	63	66	3
Capitol Hill	32	31	-1	3	21	8
CBD	30	43	13	1	34	33
Chaffee Park	41	36	-5	75	74	-1
Cheesman Park	28	27	-1	7	39	32
Cherry Creek	21	30	9	34	48	14
City Park	21	37	16	25	42	17
City Park West	27	25	-2	16	30	14
Civic Center	36	35	-1	0	27	27
Clayton	36	44	8	53	56	3
Cole	31	32	1	44	51	7
College View– South Platte	32	49	17	41	35	-6
Congress Park	23	28	5	34	44	10
Cory–Merrill	21	19	-2	79	73	-6
Country Club	20	19	-1	76	80	4
DIA	55	45	-10	100	60	-40
East Colfax	35	39	4	38	35	-3
Elyria Swansea	37	34	-3	55	45	-10
Five Points	39	33	-6	24	30	6
Fort Logan	25	24	-1	65	78	13
Gateway– Green Valley Ranch	37	36	-1	77	68	-9
Globeville	33	46	13	57	36	-21
Goldsmith	22	44	22	21	24	3
Hale	28	26	-2	32	44	12
Hampden	29	29	0	33	47	14
Hampden South	25	23	-2	47	57	10
Harvey Park	29	35	6	72	56	-16
South Highland	23	27	4	61	65	4
Hilltop	38	33	-5	35	47	12
Indian Creek	23	24	1	70	74	4
Jefferson Park	25	24	-1	61	67	6
Kennedy	33	42	9	22	29	7
Lincoln Park	29	57	28	0	0	0
Lowry Field	32	31	-1	16	28	12
Mar Lee	38	31	-7	40	50	10
	32	32	0	64	54	-10

Neighborhood	HMH 3: Percentage housing cost- burdened (%), 2000	HMH 3: Percentage housing cost- burdened (%), 2015	HMH 3: Change, 2000-15	HMH 4: Homeownership rate (%), 2000	HMH 4: Homeownership rate (%), 2015	HMH 4: Change, 2000-15
Marston	28	31	3	52	60	8
Montbello	36	42	6	70	61	-9
Montclair	24	29	5	65	67	2
North Capitol Hill	32	34	2	3	15	12
North Park Hill	29	24	-5	80	85	5
Northeast Park Hill	38	42	4	42	45	3
Overland	38	32	-6	56	27	-29
Platt Park	23	21	-2	61	69	8
Regis	29	22	-7	68	71	3
Rosedale	32	25	-7	48	47	-1
Ruby Hill	31	35	4	56	51	-4
Skyland	33	25	-8	61	65	4
Sloan Lake	29	23	-6	49	57	8
South Park Hill	27	20	-7	73	82	9
Southmoor Park	22	29	7	38	36	-2
Speer	30	28	-2	18	27	9
Stapleton	19	18	-1	68	72	4
Sun Valley	32	36	4	3	4	1
Sunnyside	33	28	-5	55	56	1
Union Station	37	31	-6	6	36	30
University	26	43	17	43	43	0
University Hills	28	32	4	68	67	-1
University Park	29	39	10	38	39	1
Valverde	36	47	11	49	43	-6
Villa Park	33	40	7	46	42	-4
Virginia Village	27	30	3	42	44	2
Washington Park	20	24	4	68	76	8
Washington Park West	24	19	-5	53	63	10
Washington Virginia Vale	26	38	12	32	35	3
Wellshire	15	28	13	87	88	1
West Colfax	33	42	9	24	23	-1
West Highland	28	18	-10	58	62	4
Westwood	38	40	2	50	39	-11
Whittier	35	26	-9	49	56	7
Windsor	27	36	9	9	43	34

Source: Urban Institute tabulations of 2011-15 American Community Survey and 2000 Decennial Census data.

Notes: CBD = Central Business District; DIA = Denver International Airport; HMH = housing market health.

Appendix D. Data and Methods

Neighborhood Typology

Neighborhood Change Index

To better understand changes at the neighborhood level in Denver, we used 2000 data from the Neighborhood Change Database and 2011–15 American Community Survey data to compare the change in various demographic and housing indicators. Because these data were not available at the neighborhood level, we used a weighting system to aggregate tract-level data up to the neighborhood level.

BOX D.1

Neighborhood Change Database

The national Neighborhood Change Database reconciles a neighborhood’s changing boundaries (i.e., census tracts per their boundaries in 2010) and the changing definitions of the variables collected in successive US Census Bureau surveys of households so researchers can study neighborhood changes over time with fixed boundaries. The database is compiled by GeoLytics and the Urban Institute and provides data from the US Census Bureau at the tract level back to 1970.

Neighborhood Tabulations

This analysis used a weighting strategy to produce tabulations at the neighborhood level. Because tracts do not always fall neatly into one neighborhood, tracts were weighted based on their relative geographic coverage in each neighborhood. To calculate this proportion, we began with the block-level file for Denver and neighborhood boundary file (available via the city of Denver) and assigned each block to a neighborhood based on where their centroids fell. Blocks, the smallest geography available, do not cross tract or neighborhood boundaries. We used two neighborhood boundary files and reconciled certain neighborhood boundaries between them to best represent how Denver residents think about their neighborhoods. Next, we clipped the block file to the neighborhood boundaries to exclude blocks that do not fall within Denver’s city boundaries. Using this new file, we aggregated the block population up to the tract level by neighborhood. Tracts that fall into two neighborhoods have two population records. We then merged a file with tract-level population estimates onto this block-to-

tract population file. This accounts for the full tract population without neighborhood assignment. Finally, we calculated two weights, one for count variables and another for precalculated proportion variables. The weights, defined below, were applied to tract-level data. These data were collapsed by neighborhood to create estimates at the neighborhood level.

- Count weight = (population of proportion of tract that falls into neighborhood) / (full tract population)
- Proportion weight = (population of proportion of tract that falls into neighborhood) / (full neighborhood population)

Index Creation

To characterize economic opportunity and housing accessibility in Denver neighborhoods and gauge change, we relied on the Kirwan Institute’s Opportunity Index methodology used in its Opportunity Mapping series.⁶⁵ We created three indexes: one to measure neighborhood residents’ economic success (RES index), a second to measure housing market health (HMH index), and a third composite index to examine these dimensions in concert. All data for the 2000 indexes are from the 2000 Decennial Census via the Neighborhood Change Database. The 2011–15 American Community Survey data are from the National Historic Geographic Information System. The indicators used for each index are presented in table D.1. See table D.2 for a description of each indicator.

TABLE D.1
Neighborhood Change Indicators

Composite Index	
Resident economic success index	Housing market health index
Unemployment rate	Property value (median home value)
Poverty rate	Vacancy rate
Percentage with 45-minute commute or longer	Percentage cost burdened in renting or owning
Entropy index for resident income mix	Homeownership rate

TABLE D.2

Indicator Construction

Index	Indicator	Variable construction	Sign
RES 1	Unemployment rate	(Persons 16+ years old in the civilian labor force and unemployed) / (Persons 16+ years old in the civilian labor force)	(-)
RES 2	Poverty rate	(Total persons below the federal poverty level last year) / (Total population with poverty status determined)	(-)
RES 3	Commute time	(Workers 16+ years old with travel time to work more than 45 minutes) / (Workers 16+ years old working outside the home)	(-)
RES 4	Income mix	Entropy index	(+)
HMH 1	Property value	Median value of owner-occupied housing units	(+)
HMH 2	Vacancy rate	(Total vacant housing units (minus seasonal, recreational, occasional, or migrant worker use)) / (Total housing units)	(-)
HMH 3	Cost burden	(Renters and owners whose monthly housing costs are 35% or more of last year's income) / (Total renters and owners)	(-)
HMH 4	Homeownership	(Total specified owner-occupied housing units) / (Total occupied housing units)	(+)

Notes: RES = resident economic success; HMH = housing market health.

We turn each indicator into a z-score to standardize across units of measurement. These z-scores are averaged by index to produce two component index scores and a composite index score. We multiply indicators by -1 if a higher value corresponded to a negative life outcome. The sign associated with each indicator is noted in table D.2. We do not apply weights to specific indicators. All are treated as equal in importance to their respective indexes. We assess each component index separately and together in our composite index and rank neighborhoods based on their index values in a given year, as well as their change over time.

Entropy Index for Resident Income Mix

We include a measure to capture the income mixing within the neighborhood in our resident economic success (and composite) index, as evidence suggests that income diversity in neighborhoods is associated with the economic success of residents (Chetty and Hendren 2015; Sharkey and Graham 2013). Of the measures of segregation available, we employed an entropy index to capture the spatial distribution of multiple groups (instead of just two groups, as is possible with common measures of isolation or dissimilarity). The entropy index measures the “evenness” of the population distribution based on certain identified groups. In this case, we measured the neighborhood distribution of residents with income less than \$40,000 a year, residents with income between \$40,000 and \$100,000 a year, and residents with income greater than \$100,000 a year. These buckets correspond with Denver’s area

median income (AMI) breakdowns for one-person households. The formula for calculating the entropy index is provided by Dartmouth University (Forest 2005, 3).

Demographic and Housing Indicators

Data for housing and demographic conditions (see appendixes A and B) were collected from the following data sources:

- **2000 Decennial Census.** This analysis uses data from the Summary File 1 and the Summary File 3 sample. These data were sourced from the American FactFinder's precalculated tabulations and were obtained at the census tract level and then aggregated to the geographic specifications listed below.
- **2011–15 American Community Survey five-year sample.** This analysis also uses data from the American Community Survey's (ACS) 2011–15 five-year sample, which averages data over five years. American Community Survey data were obtained at the Public Use Microdata Area and the census tract levels and then aggregated to the geographic specifications listed below.

HUD Income Limits

Identifying households at various AMI-level “bands” requires using the US Department of Housing and Urban Development's (HUD) Income Limits data to classify individual-level survey responses from the Integrated Public Use Microdata Series database into income bands for further analysis. We matched each year of HUD Income Limits data to the same year of ACS or Census data. For example, if the ACS data are from 2015, we use fiscal year 2014 HUD Income Limits. HUD Income Limits are available for download.⁶⁶

The AMI band for each household is determined by the number of people in the household and the income level of the household, as well as the county-level cutoffs for each band. We examine the AMI-band income categories defined in the HUD Income Limits section (box D.2). The middle-income and high-income categories are not included in the HUD Income Limits file, but can be generated by calculating 80 and 120 percent of AMI as $AMI * 0.8$ and $AMI * 1.2$, respectively.

For households with 9 to 30 people, we calculate the AMI level per HUD guidance.⁶⁷ The formula is (AMI-level cutoff for a four-person family * $(1 + ((\text{Number of persons in the household} - 4) * 8) / 100)$).

For a nine-person household at the 30 percent AMI level, this calculation is (30 percent of AMI-level cutoff for a four-person family * $(1 + ((9 - 4) * 8) / 100)$), or (30 percent of AMI for a four-person family * 1.4). For each person in the household, increase the factor by 0.08, or 8 percentage points, so the factor is 1.4 times the AMI level of a 4-person family for a 9-person household, 1.48 for a 10-person household, 1.56 for an 11-person household, and so on up to a 30-person household.

BOX D.2

Area Median Income Definitions

- Extremely low-income renter households: 0 to 29.9 percent of AMI
 - Very low-income renter households: 30 to 49.9 percent of AMI
 - Low-income renter households: 50 to 79.9 percent of AMI
 - Middle-income renter households: 80 to 119.9 percent of AMI
 - High-income renter households: 120 percent or more of AMI
-

Lending Activity

The data on lending activity was generated via the Home Mortgage Disclosure Act (HMDA), which requires most lending institutions to report mortgage loan applications, including the application outcome, information about the loan and applicant, property location, structure type, lien status, and if the loan had a high interest rate. The Federal Financial Institutions Examination Council collects the data to determine whether financial institutions are meeting a community's housing credit needs, to target community development funds to attract private investment, and to identify possible discriminatory lending patterns. HMDA data are not a good proxy for the general housing market in areas where cash sales make up a significant share of the home sales.

HMDA requires financial institutions with assets totaling at least \$44 million as of 2015 to report. Because not all institutions are required to file under HMDA, mortgage lending coverage for a neighborhood may be incomplete. We accessed tract-level HMDA data from 2005 to 2014 through the Consumer Protection Financial Bureau open data download portal.⁶⁸ To identify tracts within Denver, we used a tract-level crosswalk generated from the Missouri Census Data Center Geocorr Tool.

Policy Recommendations

Urban Institute researchers traveled to Denver, Colorado, in February 2017 to meet with stakeholders and community members and share findings from our empirical analysis. Policy recommendations were identified and workshopped, and the researchers used these insights to formulate the final implications section that appears in the report.

Stakeholder Meetings

On February 3, 2017, we shared insights from our empirical analysis with city government officials. These meetings were used to brainstorm policy solutions and sharpen our empirical analyses.

Stakeholder Focus Group

On February 3, 2017, the Urban Institute and JPMorgan Chase hosted a focus group for stakeholders to respond to empirical findings and brainstorm policy solutions for Denver's LMI populations. Housing developers, nonprofit affordable housing stakeholders, and philanthropic leaders were present.

Spotlight on Globeville

For our Globeville case study, we spent time in the neighborhood meeting with organizations working with residents on issues related to affordable housing and development. These organizations include Focus Points, Front Range Economic Strategy Center, Habitat for Humanity, the United Way Denver, and Zeppelin Development. We conducted interviews and site observations in Globeville on February 2, 2017.

Notes

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18. The Neighborhood Change Database (NCDB), which reconciles neighborhoods' changing boundaries over time, is used in this section. Different weighting strategies used by the NCDB versus the authors may lead to some discrepancies between sections. Because of NCDB data limitations, a slightly different threshold was used to determine which residents were cost burdened in this section. See the methodology and sources section for more.
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