Downtown Workforce Housing Study

Prepared for

Capital Crossroads

City of Des Moines

Polk County Housing Trust Fund

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Executive Summary

Key Findings

1. Most housing units in Downtown (94 percent) have two or fewer bedrooms. Seventy-eight percent of Downtown units are efficiency or one-bedroom units, typically accommodating either one or two people. Therefore, the housing stock available for families with more than two people is limited, and **households with four or more people have little to no opportunity to find a unit Downtown.**
2. Nearly 58,000 households in the Des Moines MSA are cost-burdened, spending more than 30 percent of their income on housing.
   - Nineteen percent of homeowners with mortgages, **nearly 25,000 households are cost burdened**. Ten percent of owners without a mortgage, more than 5,000 households, are cost burdened.
   - Forty percent of renters, 29,000 households, pay more than 30 percent of their income toward housing. Nearly half of these cost-burdened renters, **14,000 households, were severely cost-burdened, paying more than 50 percent of their income for rent and utilities.**
3. Polk County is expected to add 102,325 net new jobs between 2018 and 2038, an increase of 26.7 percent. The rest of the Des Moines region is expected to add 48,629 net new jobs over the same period, an increase of 51.2 percent. Thus, **Polk County will need to add 57,170 net new housing units between 2018 and 2038 to accommodate net new workers in the region.**
   - The largest share of net new working households—47.4 percent or more than 27,100 households—will have incomes between $25,000 and $49,999. The next-largest share is of households with incomes between $50,000 and $74,999, which account for 21.6 percent of net new working households or 12,332 households.
   - Polk County will need to add a total of **33,592 new owner-occupied units**. More than half of the demand for owner-occupied homes is for homes priced below $175,000. Only 12 percent of owner-occupied housing demand is for homes priced at $350,000 or more.
   - On the rental side, these employment-driven housing demand forecasts suggest a need for **23,577 new rental units** over the 2018 to 2038 period. More than three quarters of these (77.5 percent or 18,264 rental units) will need rents below $1,250. There is relatively little demand forecasted for high-end rental housing: just three percent of the forecasted rental demand is for units with rents of $2,500 or more.
4. **Downtown can help address regional affordable housing gaps by ensuring that the more than 4,000 employees that work there and earn $15,000 or less annually can live in Downtown if they choose to do so**. Furthermore, Downtown should work to ensure that new affordable units keep up with employment growth over the next 20 years.

Planning for future growth is critical to sustaining the recent economic and population expansions that Des Moines has enjoyed. As the city grows, new workers that take new jobs will need affordable, appropriate places to live. Downtown can provide that housing and attract many new and existing workers to the neighborhood at the center of Des Moines' economy. Downtown must offer housing and amenities that are attractive to a wide cross-section of household types to fully realize this opportunity. A shortage of housing for households at any income levels may adversely affect both businesses expanding in the market and economic development efforts that attract new businesses.

Living closer to work will be more advantageous for households as Des Moines grows and the neighborhood will become increasingly desirable with its planned community development efforts. However, the current housing stock in Downtown serves only a small part of the household types represented in the city and the wider market. Downtown is missing larger, 2-or-more-bedroom units and ownership opportunities; therefore, its household mix differs considerably from the rest of the market.

Downtown is already working to accommodate more household types and has some townhomes and larger units either under construction or permitted. In addition, the neighborhood has sought to identify amenities that attract a more diverse population. In the long run, Downtown should seek a mix of household types and resident incomes similar to that in the city and the entire market. However, the City must pace the addition of new units with Downtown's community development strategy to ensure adequate absorption rates.

A variety of housing in Downtown ensures that households can live near their jobs. This reduces commute times for all households and provides lower-income households access to housing with low transportation costs, increasing affordability. Furthermore, living close to work can improve the quality of life of many workers, making Downtown jobs more attractive. An increase in the number of Downtown residents with greater diversity of income and household types can then grow and broaden the market for retail and services there.

Downtown is location-efficient because it is in the city's central business district and the city is the economic center of the metro area (MSA). Nearly 20 percent of the MSA's more than 322,000 jobs are in Downtown, and 53,000 people commute into Downtown for their primary job. Therefore, Downtown has a unique opportunity and responsibility to protect and foster Des Moines' economy and quality of life.

More than 58,000 households in the Des Moines MSA (23 percent) need more affordable housing. More than 41,000 workers cannot afford to rent a unit in the MSA without sharing costs with another earner, even when they earn in the 90th percentile for their occupation. Just over 89,000 workers earning the median wage for their occupation cannot afford median owner costs, even when sharing the cost with another worker earning an equal annual wage.

A higher percentage of households in the city pay more than 30 percent of their income toward housing costs than households in the MSA at large. Downtown can play a critical role in addressing these existing needs for more affordable housing options because transportation is often the second highest household expense behind housing. The city center is among the most cost-efficient places for a median-income household in the MSA.

In addition to existing needs, the MSA can expect to add more than 150,000 new jobs over the next 20 years. Of these new workers, 120,000 (approximately 57,170 net new households) are likely to choose to live in Polk County. In addition to new homes for these households, other households requiring new units will take existing jobs as workers retire but remain in their homes.

As of 2016, Downtown provided a little more than 0.5 percent of housing in Polk County. If Downtown continues to develop at its 2013–2017 rate and adds about 600 units per year, it will compete for 20 percent of the demand from new working households. Successfully competing for these households will require Downtown Des Moines to produce a more diverse housing stock and conduct community development efforts.

Planning is a key element of Downtown’s next steps. Demand for Downtown living will increase over time in conjunction with job growth, community development, and added amenities. Demand from different types of households will increase at different rates. To foster a diverse market in Downtown, the city must have a plan to produce and preserve opportunities for the diversity of housing demanded in the future. This plan will be addressed in the next phase of the study.

This report presents an in-depth discussion of findings from the first phase, a study of the Des Moines housing market and Downtown’s role in the market. The report emphasizes current and future workforce housing needs, as Downtown is the market’s employment center and has a unique opportunity to provide location-efficient housing. In addition to evidence of housing preferences and needs, the report provides a discussion of housing units and household characteristics.

Contents

Preface

In late 2013, a consortium of community organizations released a report called The Tomorrow Plan (TTP). TTP was a comprehensive look at the growth and sustainability of Greater Des Moines through 2050. There are numerous projections included in the report, specifically, that our region will add 250,000 residents and require an additional 150,000 new homes over the next 30 years.

Since the release of TTP, those involved in local government, housing, and business have been working to find viable strategies to address both the opportunities and challenges created by this rapid growth. The short time span does not leave much margin for error in implementation. A housing shortage caused by rapid population growth will stall economic activity and inhibit workforce recruitment. Housing demand that exceeds supply will create economic pain for existing residents who can certainly expect escalating prices with little wage gain.

Strategic long-range planning based on the best data available will ensure that the region avoids the threats posed by these predictions. Therefore, the supporters of this study have funded a comprehensive housing review for Downtown Des Moines area and learned from the authors how to obtain the data and use it to create similar reports for other neighborhoods and cities in the region. Having the right housing types in the right place at the right time will permit the region to reach its economic potential with the coming trends rather than be constrained by them.

Approach

The Virginia Center for Housing Research and Capital Crossroads designed this study as collaborative effort between the Virginia Center for Housing Research (VCHR), Polk County Housing Trust Fund, Capital Crossroads, City of Des Moines staff, staff from a number of city suburbs, and consultants Lisa Sturtevant and Associates and czb, LLC. This study has benefited from subject matter expertise in housing markets, affordable housing, workforce housing, housing policy, and planning as well as local expertise in housing, planning, economic development, and community development. This unique approach allowed for a two-way knowledge transfer, where the Virginia-based consultant team provided in-depth training on housing data and analysis to local stakeholders and, in turn, local stakeholders oriented the consultant team to help them understand the nuances of the Des Moines market and important goals and challenges.

The team had three primary objectives:

- Understand market-wide housing dynamics
- Estimate future workforce housing demand
- Assess Downtown's current and future role in addressing housing needs.

This report discusses the study team's analysis and findings and draws conclusions about Downtown's role in the housing market. In addition, the report describes the importance of these findings in the context of workforce and economic development to emphasize the interconnectedness of housing issues and the implications they have for communities, businesses, and regional economies.

The analysis and conclusions discussed in this report will inform the team's forthcoming program and policy recommendations. czb, LLC will lead the team's development of an actionable strategy for Downtown to address workforce-housing challenges while promoting community development.

The team's objective for the forthcoming strategy are as follows:

- Set development goals to support neighborhood community development, help address existing housing market gaps, and meet future demand for housing.
- Pace development with jobs and community amenities.
- Plan for future job growth and associated housing.
- Create a strategy to incentivize affordable units that will not be readily provided by the market.

About VCHR, Lisa Sturtevant & Associates, and czb LLC

The Virginia General Assembly and Virginia Tech created VCHR in 1989 to respond to the housing research needs of Virginia and the nation. In its 25-year performance record, VCHR has established an unparalleled reputation for high-quality research on affordable housing that integrates policy, building technology, and the housing industry. Mel Jones, Research Scientist and Associate Director, led the project team. As a faculty member at VCHR, Ms. Jones has conducted housing studies for communities and regions throughout Virginia and beyond. Mel has developed a unique expertise in assessing housing data and applying it to help communities tackle housing affordability, community development, and economic development goals.

Lisa Sturtevant & Associates, LLC conducts in-depth analyses of economic conditions, demographic trends, and housing market performance to support better housing policy and development decisions. Dr. Lisa Sturtevant is the President and founder of Lisa Sturtevant & Associates, LLC, which is an Alexandria, Virginia-based, woman-owned consulting firm specializing in comprehensive housing market analyses, affordable housing needs assessments and housing demand forecasts, and state and local housing program and policy evaluation and development. Dr. Sturtevant forecasted workforce housing demand for the Des Moines market and Polk County.

czb is the nation's leading neighborhood planning firm, with extensive housing policy and strategy experience. Charles Buki, Principal, and Karen Beck-Pooley, czb's Senior Associate, have experience spanning work in 44 states and more than 300 communities. czb supported VCHR in this phase of work, sharing experiences and insights from a recently completed strategy for the City of Des Moines and is preparing to lead the forthcoming strategy development phase.

Data and Methodological Notes

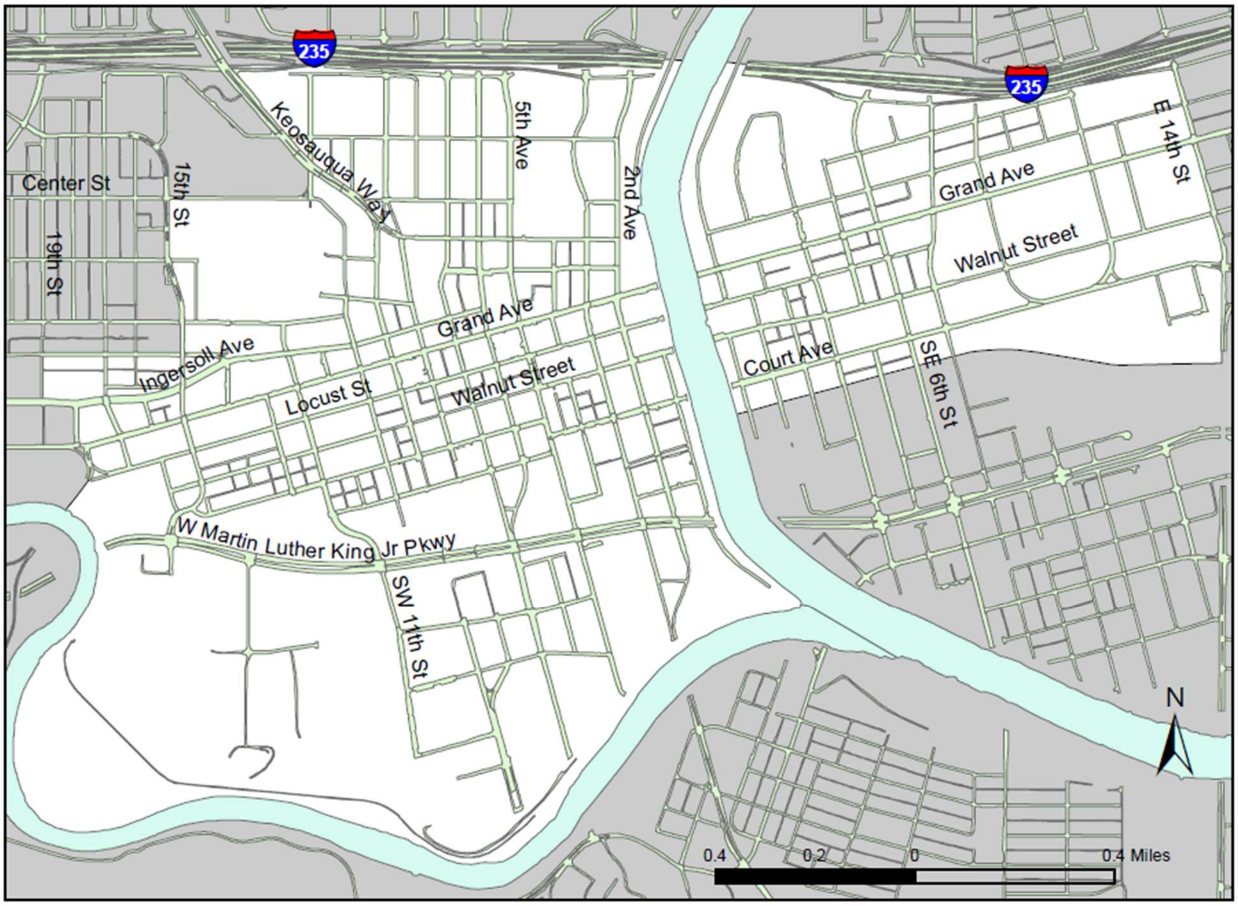
The study team analyzed market-wide housing data to understand supply and demand dynamics permeating the region. The team analyzed the role of submarkets, in particular, the housing supply available by submarket, to build the context for further analysis of Downtown's role in the market. More specifically, the team focused on workforce housing needs that Downtown could address to promote economic development and community quality of life simultaneously. Finally, the team developed workforce housing demand forecasts to help Downtown conceptualize the magnitude of future need in addition to existing needs.

Study Geography

The study team compared Downtown, the City of Des Moines, Polk County, and the MSA to focus on the general roles of the submarkets: the MSA representing the market at large; Polk County representing the core of the MSA but still dominated by the suburbs; the City representing the urban core of the MSA; and finally Downtown, which is the target neighborhood of this study.

The team used Des Moines Census Tract 51 as an approximation of Downtown (see Figure 1) and the Des Moines–West Des Moines MSA to approximate the Des Moines housing market. MSAs are a good approximation of housing markets because they are defined based on the strength of commuting patterns. Households generally choose a home within an acceptable commuting distance from their job or, alternatively, look for a job within an acceptable commuting distance of their home. In addition to the MSA, Polk County, and the City of Des Moines, the team examined data for the City of West Des Moines and a number of smaller suburb cities. Although housing costs are generally higher in the suburbs of Des Moines, the types of properties available within a reasonable commute of Des Moines make these places desirable alternatives to living in the city.

Figure 1: Census Tract 51, Polk County, Iowa



Methods

Data Analysis

The data used in this study comes from three main sources: American Community Survey (ACS) published tables, ACS Public Use Microdata Sample (PUMS) files, and Department of Housing and Urban Development's Comprehensive Housing Affordability Strategy (CHAS) data. VCHR calculated the reliability of ACS estimates and used only reliable estimates when performing the analysis. Although reliable 1-year ACS estimates are available for much of the study area, they are not available at the level of individual census tracts; therefore, VCHR used 5-year estimates when comparing Downtown Des Moines to other submarkets and the MSA at large. When examining trends within the city of Des Moines or the whole MSA, VCHR opted to used 1-year estimates where possible. The latest ACS estimates available during the initial data collection by VCHR were from 2016. The latest estimates available from the PUMS files are from 2012–2016, whereas those for CHAS data are from 2011–2015. PUMS data is available for Public Use Microdata Areas (PUMAs), each representing an area with at least 100,000 residents that may include complete or a portion of cities and/or counties in the study area. VCHR combined four of these unique geographies to produce PUMS estimates for the full Des Moines–West Des Moines MSA.

The team used US Bureau of Labor Statistics (BLS) earnings by occupation data as well as the 2015 OnTheMap data from the US Census Bureau Center for Economic Studies to assess housing needs for workers. The team used the most recent earnings data available from May 2017 to evaluate whether workers can afford the prevailing rents in the market. Trend data from 2010–2017 were used to understand changes in wages by occupation compared to changes in housing costs. The team used OnTheMap to provide limited information about the earnings, ages, and industry of workers living in Downtown.

Finally, the team used the 2008–2012 Location Affordability Index (LAI) data, which is the latest available, to demonstrate location efficiencies of living close to the employment center in Downtown Des Moines. Although this data is dated, we can apply it in the context of later changes in employment patterns provided by OnTheMap. That context is later described in the analysis of the LAI data.

Focus Groups

The study team conducted seven focus groups to gain a better understanding of the market. Realtors, developers, builders, housing providers, local government staff, elected officials, residents, and other stakeholders offered detailed insights that helped the team understand the complexities of the market. The data collected from focus groups helped the team interpret quantitative data and test its validity. Focus group data is included throughout this report, providing examples of real-life experiences that make the data conclusions more concrete and comprehendible.

Important Terms and References

Tenure – The method by which a household possesses their home: renting, fully owned with no home loan, or owned with a mortgage or other home loan.

Cost-burdened Households – The US Department of Housing and Urban Development (HUD) established the term "cost-burdened" to describe households that need more affordable housing. HUD defines cost-burdened households as "families who pay more than 30 percent of their income for housing… and may have difficulty affording necessities such as food, clothing, transportation, and medical care." Severely cost-burdened households pay 50 percent or more of their income for housing and are likely to be making tough choices between housing and other necessities.

Percent of Area Median Income (AMI) – HUD sets income limits by household size that determine eligibility for assisted housing programs. HUD develops these income limits based on Median Family Income estimates and Fair Market Rent area definitions for each metropolitan area, parts of some metropolitan areas, and each non-metropolitan county. These income limits are useful tools for housing needs assessments because they are a common standard with which to categorize households based on income considering household size. Although HUD publishes only median family incomes for families of four and income limits at 30, 50, and 80 percent of the median for households of up to eight people, HUD offers documented formulas for calculating limits at other income levels as a percent of the median and for larger household sizes. VCHR follows this methodology for calculating limits at other, unpublished levels such as 100 and 120 percent of AMI.

Housing Affordability – *Housing affordability* is a broad term used to discuss the degree to which housing units in a market or submarket meet the income-based needs of households in that market. Researchers and practitioners generally consider housing affordability for income groups that may face challenges related to affording housing, including the following:

- extremely low-income households that do not make enough money to obtain decent housing;
- young professionals who wish to become homeowners but cannot find a starter home with associated costs within their budget; and
- established owners who cannot find an appropriate home to “upgrade” to as their families grow and they enter their professional prime.

Housing affordability is not usually a concern for higher-income households that can obtain their desired housing without sacrificing other household needs such as safety, transportation, medical care, food, education, and childcare. However, a shortage of housing for households at any income level may affect businesses expanding in the market or economic development efforts for attracting new businesses.

Householder – This report refers to “householder” when the available data pertains to the householder as defined by the US Census. According the Census subject definitions, “the householder refers to the person (or one of the people) in whose name the housing unit is owned or rented (maintained) or, if there is no such person, any adult member, excluding roomers, boarders, or paid employees. If the house is owned or rented jointly by a married couple, the householder may be either the husband or the wife. The person designated as the householder is the ‘reference person’ to whom the relationship of all other household members, if any, is recorded[i].”

Introduction

Housing plays an important role in economic opportunity for individual workers and their families, affecting current and future workers, employers, communities, and regional markets. Benefits of appropriate, affordable housing and consequences when such housing is unavailable are most concrete at the individual and neighborhood level. However, as demand for housing increases and housing becomes more expensive to produce, its availability and affordability have distinct effects on businesses and markets. This overview of the economic importance of housing illuminates some of the connections between housing, individual economic opportunity, workforce, and economic development that have been explored by researchers. Nonetheless, the influences of one's home—for example, its size, quality, location, and cost—extend well beyond the examples given here.

Individuals and families that select a home choose a host of related features, resources, amenities, and opportunities. For instance, they choose access to specific schools, proximity to grocers and other shopping, proximity to family and other important social networks, and opportunities for recreation and exercise. Households choose the best housing they can afford and gravitate toward markets that offer a better housing "package" for less. Housing costs are among the top five factors affecting where households choose to live and work[ii].

The Des Moines market has enjoyed this "gravity" in recent years, attracting talent in part because of the relatively affordable cost of living and high quality of life. However, as the city grows, so does the need for more services and workers. A community that lacks affordable housing also often lacks housing for the community's essential, low-income workers. To maintain a high quality of life for households at every income level, the region and its jurisdictions must enable developers and builders to produce housing that is appropriate and affordable for households at every income level.

Although high housing prices often reflect local amenities and economic opportunities in the area[iii], research suggests that high housing prices and few affordable options may constrain economic growth. Saks (2008) argues that when the supply of affordable housing is restricted (often by land use controls), labor migration patterns change, resulting in lower employment growth[iv]. Slowed, stalled, or negative employment growth can hurt businesses and communities. Jonas, While, and Gibbs (2010) suggest that workforce housing and other major infrastructure are common problems for city regions that are growth "hotspots." Workforce housing[1] supports successful economic development, as businesses may have trouble attracting or retaining workers without nearby affordable housing options and/or convenient and affordable transportation. This job–housing imbalance can impede economic development by making it difficult for businesses to recruit and retain employees[v].

Housing affordability, stability, quality, tenure, and location have been shown to impact child development and opportunities for individuals and households. Housing has been established as the foundation for family wellbeing[vi], and housing unaffordability is often why individuals and families experience instability in housing, accept sub-standard housing, or sacrifice other critical needs like child educational enrichment, medical attention, or food. Strained finances and substandard or unstable housing may lead to negative economic consequences for both individuals and households.

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[1] Workforce housing is generally described as the housing that is affordable to households earning less than 120% of AMI (Cohen & Wardrip, 2011).

Many aspects of substandard housing affect the health of residents. Poor housing quality often induces stress and inhibits the home from providing a peaceful or restorative space. Jones-Rounds et al. (2014) found that psychological wellbeing correlated with housing quality. People in high-quality housing were less depressed and more energetic and peaceful than those living in low-quality housing[vii]. Substandard housing represents a potential psychological detriment by causing low self-esteem and hindering family self-sufficiency[viii]. For example, residents of low-quality housing worry about the integrity of the home's structural components. Housing-related stress or anxiety has been shown to lead to depression and stress-related mental illness[ix]. Children in low-income families that receive housing subsidies are more likely to be classified as having "good" or "excellent" health than children in low-income families who are on the waiting list for assistance[x]. Furthermore, adults who are housing cost-burdened are less likely to fill a prescription, follow healthcare treatments, or purchase health insurance because of the costs.

Health problems, when persistent, present significant employment and productivity problems. Businesses impacted by poor employee health may experience high rates of turnover that manifest unfilled positions, lower productivity, and lost profits. Employee turnover generates costs related to finding replacement workers, temporarily covering vacancies, training replacements, and loss of knowledge and skills. In total, the costs of turnover can be upwards of 30 percent of annual salary for lower-level employees and up to 250 percent of annual salary for highly skilled ones[xi]. Health conditions also pose a barrier for those who are currently unemployed and can lead to both temporary and permanent medically induced unemployment (i.e., the inability to work owing to a medical condition)[xii].

Cohen and Wardrip (2011) found that low-income families occupying substandard homes moved more often than middle- and high-income families did, often owing to problems associated with high housing costs and changes in income. In addition, forced displacement (e.g., eviction, foreclosure, or building condemnation) often results in subsequent unforced moves because households have no choice other than substandard and/or temporary housing (Desmons, Gershenson, & Kiviat, 2015). Children in families with housing instability or substandard housing experience health, behavioral, and developmental educational consequences.

Unaffordable housing contributes to poor attendance and performance of children in school[xiii]. Gagne and Ferrer (2006) find that major home repair requirements and short length of residence negatively affect children's math scores. Newman and Holupka (2013) find that families who are not cost-burdened are more likely to spend a portion of their income on child enrichment, affecting children's cognitive achievement. These developmental and educational consequences associated with student mobility and inadequate housing may have economic implications for individuals and the community's workforce. Many studies have shown that educational attainment—the number of school years completed—closely correlates with both individual earnings and economic growth rates[xiv]. The amount of education is typically positively associated with higher individual earnings. Studies within and across nations have found that 1 additional year of schooling translates into an approximately 10 percent increase in annual individual earnings[xv].

Beyond this individual benefit, further evidence exists that additional years of schooling provide social benefits in the form of improved health, higher levels of civic participation, lower crime rates, and—most importantly for this analysis—greater economic growth[xvi]. Educational attainment increases human capital, resulting in the enhanced productivity of a nation's workforce, an increase in the rate of technological innovation, and the diffusion and adoption of new production processes and technologies, all of which help boost economic growth[xvii]. Each additional year of schooling within a population is also associated with greater long-run economic growth[xviii]. Because schools and neighborhoods are so closely interconnected, providing equitable and affordable housing opportunities across a jurisdiction can provide more equitable educational opportunities[xix], leading to greater and more sustainable economic growth[xx]. Increasing skills for low-income individuals improves economic growth more than it does for those with high incomes (as measured by GDP and tax revenue growth), suggesting that educational opportunities should be improved for low-income individuals[xxi]. Furthermore, closing educational-achievement gaps may reduce income inequality by increasing the lifetime earnings of the poorest 75 percent of children more than those of the richest 25 percent. Lynch (2015) concluded that improving the education of all future workers "accelerates economic growth and can promote more equal opportunity over the long run resulting in stronger, more broadly shared economic growth, which in turn raises national income and increases government revenue, providing the means by which to invest in improving our economic future[xxii]."

Finally, the location, tenure, and type of housing can affect a household's economic opportunities. For example, Kleit (2002) found evidence that households living in areas with more income diversity have more diverse job-search networks. White and Saegert (1997) showed evidence that co-op ownership of low-income housing is associated with increased skills and self-confidence as well as wider job networks among tenants. A number of studies have shown that homeownership provides considerable access to opportunity. The simplest connection between homeownership and opportunity is the ability to build wealth and use home equity. Homeowners can elect to borrow against the equity they have built on their home through a home equity line of credit (HELOC). Home equity lines can act as a financial buffer against unexpected expenses, smooth consumption over time, or allow households to invest in education, job training, or a small business[xxiii].

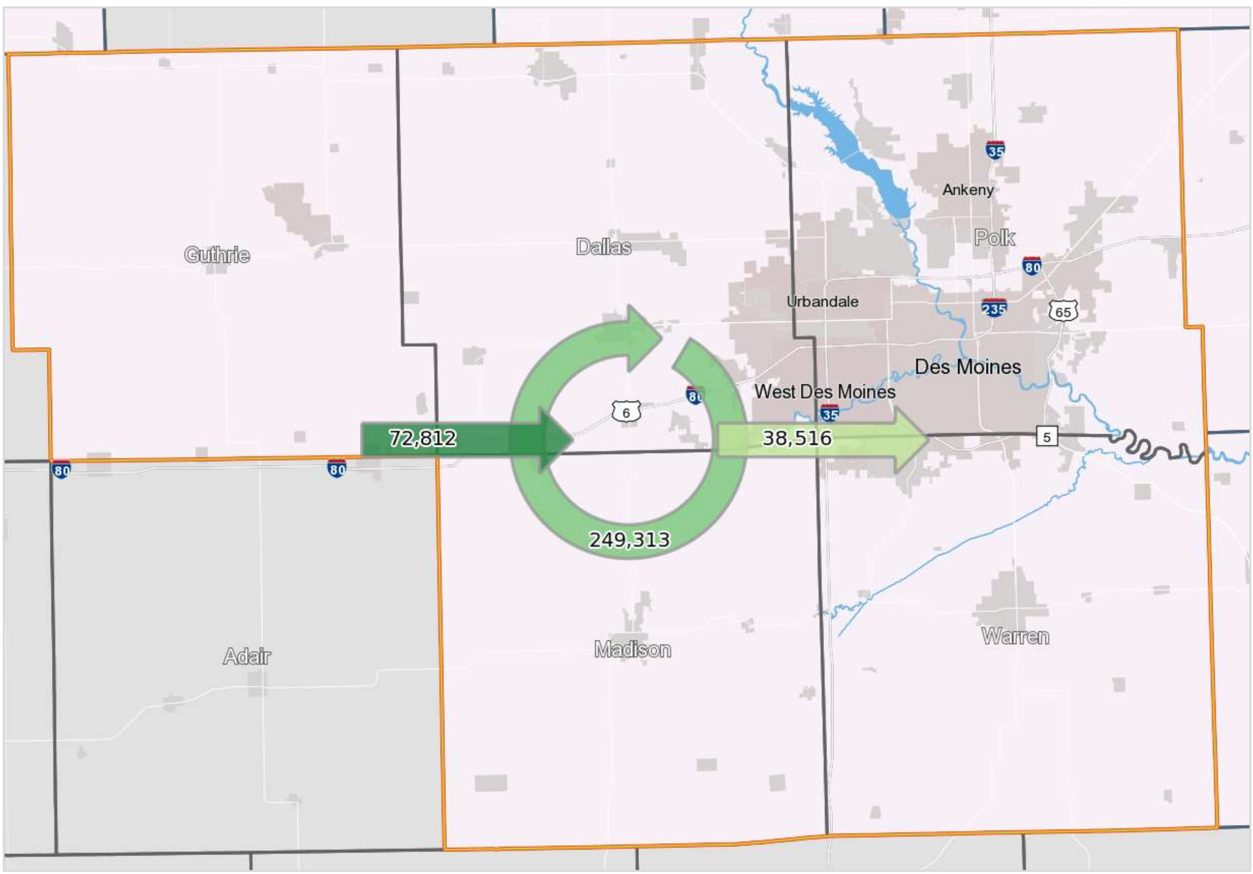
As a growth "hot spot" and also as submarket that has the potential to provide appropriate, affordable housing to a diverse mix of households, Downtown can protect and foster Des Moines' economy and quality of life. Downtown will benefit from diversifying its housing stock to help more workers access location efficiencies, and, in turn, expect to become a submarket that is more representative of the diversity of households throughout the market. A more diverse neighborhood can better support both traditional economic development for Downtown and the region by providing choice housing for workers, and "main-street" style community and economic development in the city's core by increasing the number and variety of Downtown residents who shop and dine regularly in the neighborhood. Housing diversification and community development will require strategy and stewardship. The data provided here is the foundation for those efforts.

Des Moines' Housing Market

The Des Moines–West Des Moines Metropolitan Statistical Area (MSA) is a good approximation of the Des Moines Housing market because strong commuting patterns to and from the city exist throughout the MSA, except for Guthrie County. Commuting patterns help establish a housing market, because households tend to look for work within a reasonable commute of their home or, vice versa, look for a home within a reasonable commute of their job. We examine inflows and outflows of workers to demonstrate this connection: 77 percent of workers employed in the MSA live in the MSA, 63 percent of workers employed in Polk County live in the county, 34 percent of workers employed in Des Moines live in the city, and only 2 percent of workers employed in Downtown live there. The MSA geography includes both residential and work locations for most workers. More than one third of workers employed in Polk County have chosen to live somewhere else, demonstrating that the market is wider than the County geography is.

Figure 2: 2015 Inflow and Outflow of Workers for the Des Moines–West Des Moines MSA

Source: US Census Bureau, Center for Economic Studies, OnTheMap

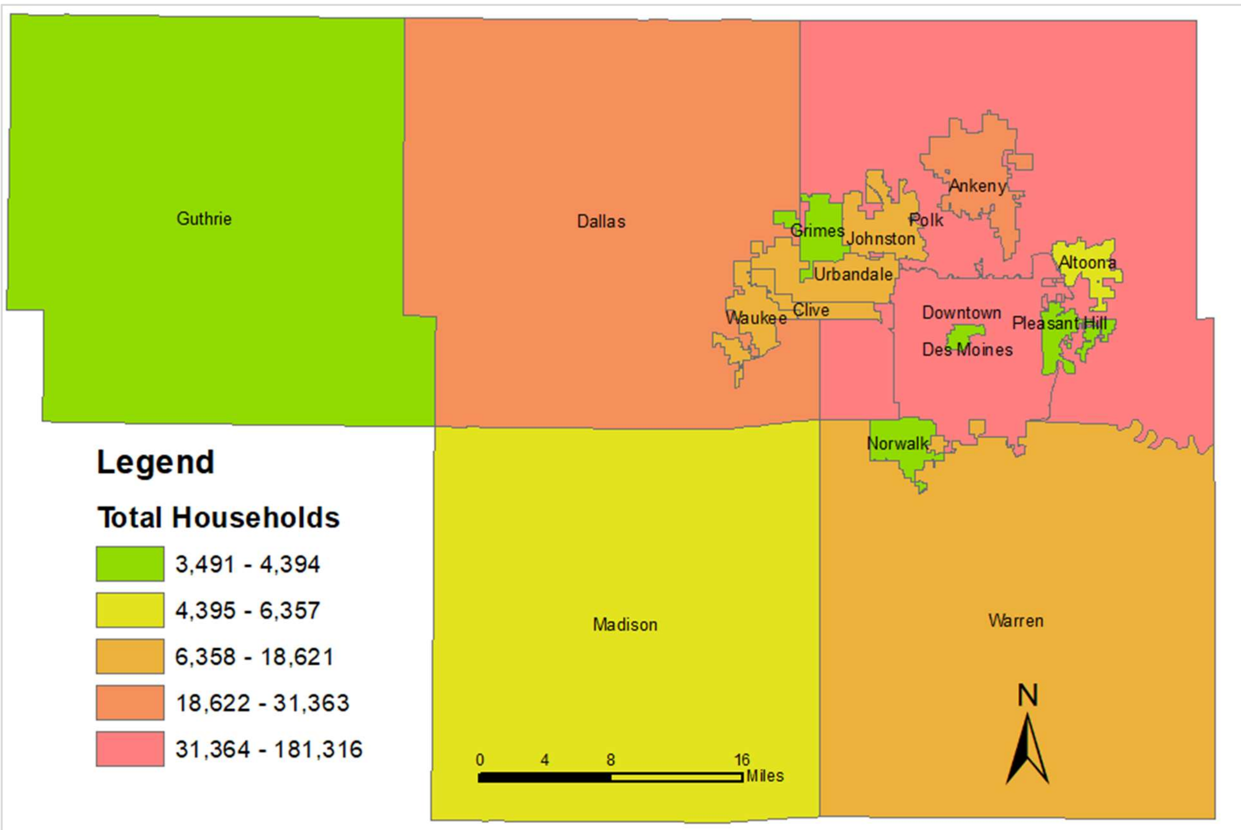


Household Characteristics

611,755 people comprise 237,527 households in the MSA. Three quarters of households in the Des Moines–West Des Moines market live in Polk County, many of whom live in the City of Des Moines and the surrounding city suburbs. As of 2016, about 3,000 households live in Downtown, which is comparable to the number of households in the cities of Grimes and Pleasant Hill, two Des Moines suburbs. The 2017 ACS estimates suggest that the number of households increased at least 14 percent from 2016 to 2017. Just over 3,000 units were added in Downtown in 2017 and 2018, allowing the number of households living in Downtown to double.

Figure 3: Number of Households by Jurisdiction

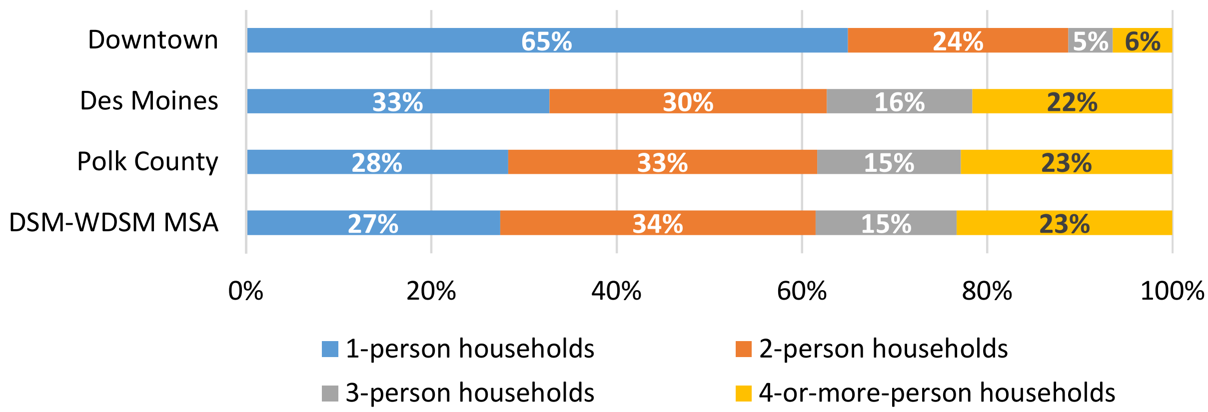
Source: 2016 ACS 5-year Estimates



Characteristics of Downtown households suggest that the submarket is accessible and appealing to a small minority of households—primarily one- or two-person renter households. Compared to the city, Polk County, and the MSA, households living in Downtown are younger and include fewer people. Accordingly, few families live in Downtown relative to the wider market, and the vast majority of households in Downtown rent whereas more households own in the rest of the market.

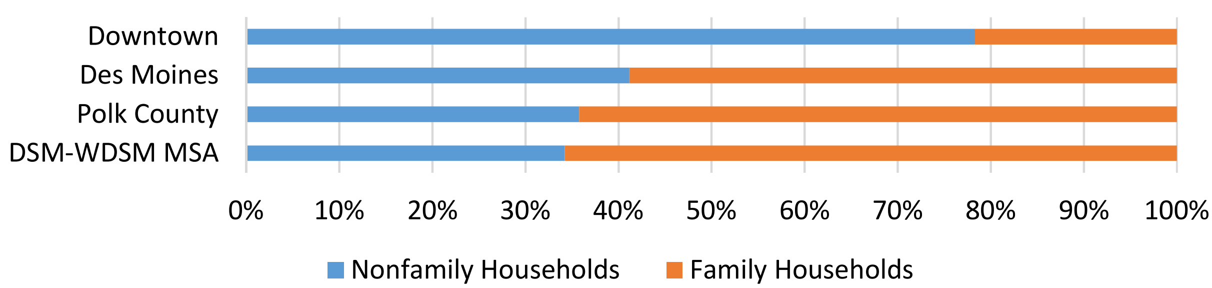
Just over one third of households in the MSA are one-person households, more than one quarter (27 percent) are one-person households, 23 percent are four-or-more-person households, and 15 percent are three-person households. Polk County has a nearly identical distribution of household sizes to that of the MSA. In Des Moines, one-person households make up a larger proportion and two-person households make a smaller portion than these. Larger households (three- and four-or-more-person) are more prevalent in the suburbs, especially in Grimes, where four-or-more-person households are more common than any other size. More than half of the households in Downtown (65 percent) are one-person households—a disproportionately large number compared to the city, county, and MSA—and disproportionately fewer two-, three-, and four-or-more person households. Figure 4 shows the difference between household sizes in each of these geographies.

Figure 4: Households by Size
Source: 2016 ACS 5-year Estimates

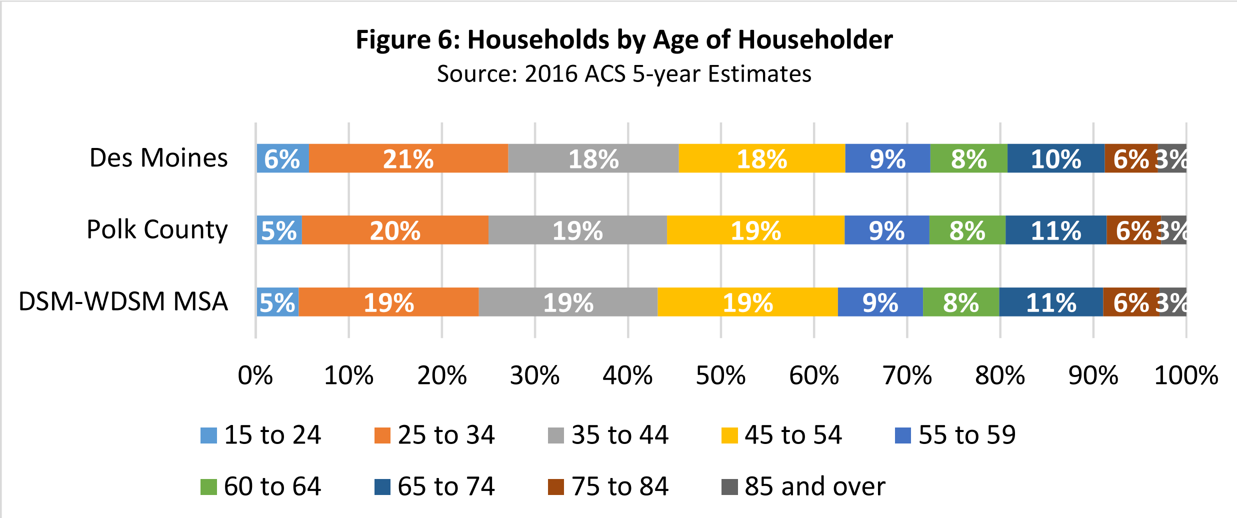


Around 80 percent of Downtown households are non-family households—about 40% more than in the MSA at large. Family households are typically larger households that need larger units that may not be affordable or even exist in Downtown. At least 20 percent of family households in Downtown (about 130 households) have children.

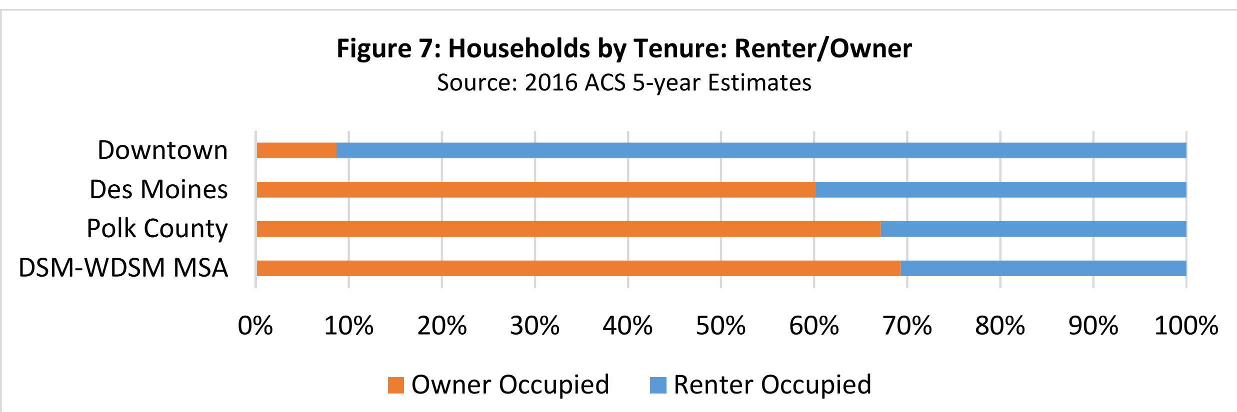
Figure 5: Family vs. Nonfamily Households
Source: 2016 ACS 5-year Estimates



Almost half the householders living in Downtown are younger than 34, a proportion much larger than those in Des Moines, Polk County, and the MSA. Householders in Des Moines and Polk County are younger than those in the MSA at large, but their proportions by age are comparable. Approximately one quarter of householders in Des Moines are younger than 34.



Homeowners comprise most households in the MSA (nearly 70 percent), and most homes in city suburbs like Urbandale, Clive, Ankeny, and Norwalk are owner-occupied. About 50 percent of renters in the region live in Des Moines, but the city has more homeowners than renters. By contrast, nearly all households in Downtown rent their home. Figure 7 compares the percent of renters and owners in the MSA to the submarket: Polk County, the City of Des Moines, and Downtown. The graph highlights that a far larger proportion of households living in Downtown choose to rent whether out of preference, need, or because there are few ownership opportunities in Downtown, leading households to rent. Some Downtown residents that participated in focus groups said that they would like to buy if they found a home in Downtown that matched their preferences and needs, and nearly all renters indicated that they face economic barriers to buying in Downtown based on either affordability or willingness to invest.



Median household income for the MSA is $63,534. All of the suburbs included in the study have a higher median income than the MSA, typically ranging from $70,000 to $85,000. The city of Clive has a median household income more than 40 percent higher than the MSA median ($90,502) and the median household income in Johnston is 50 percent higher than the MSA median at $95,565. Median income in Des Moines is $48,088, far lower than neighboring localities. Given the small sample size of Downtown households, it is not possible to estimate median income reliably; however, reliable data from the other nearby tracts suggests that the center of the city (surrounding the Downtown area) has some tracts with household income ranging from $33,000 (Tract 52) to $42,000 (Tract 27).

The difference between income in owner-occupied households and renter-occupied ones is significant. Owner-occupied households earned a median income of $79,089 in the MSA and $62,227 in the city of Des Moines, whereas renter-occupied ones earned significantly less: $36,483 in the MSA and $30,436 in Des Moines.

Housing Stock

The housing stock in Downtown is dominated by efficiency and one-bedroom units in multifamily developments, practically excluding households with more than two people. Combined with few opportunities to buy, Downtown's residents are likely to move when their families grow or when investing in a home becomes affordable. However, comparisons of Downtown to the city and the city to the MSA indicate that Downtown can expand the types of households that live in the neighborhood.

Three quarters of housing units in the MSA are single-family units: single-family detached, town homes, or duplexes. Des Moines and West Des Moines are the MSA's primary cities, and, along with a number of adjacent suburb cities, comprise the relatively densely developed southwestern portion of Polk County. Three quarters of the MSA's housing stock is in Polk County.

Twenty percent of the MSA's housing units are in multifamily buildings with three or more units. Although more densely developed, Polk County and the City of Des Moines have similar rates of units in multifamily buildings (23 and 25 percent, respectively). Six percent of the MSA's multifamily housing is in Downtown, as nearly all units there (96 percent) are in multifamily buildings. The size of buildings ranges from 3–4-unit buildings to those with more than 50 units. Most units are in larger buildings with more than 20 units.

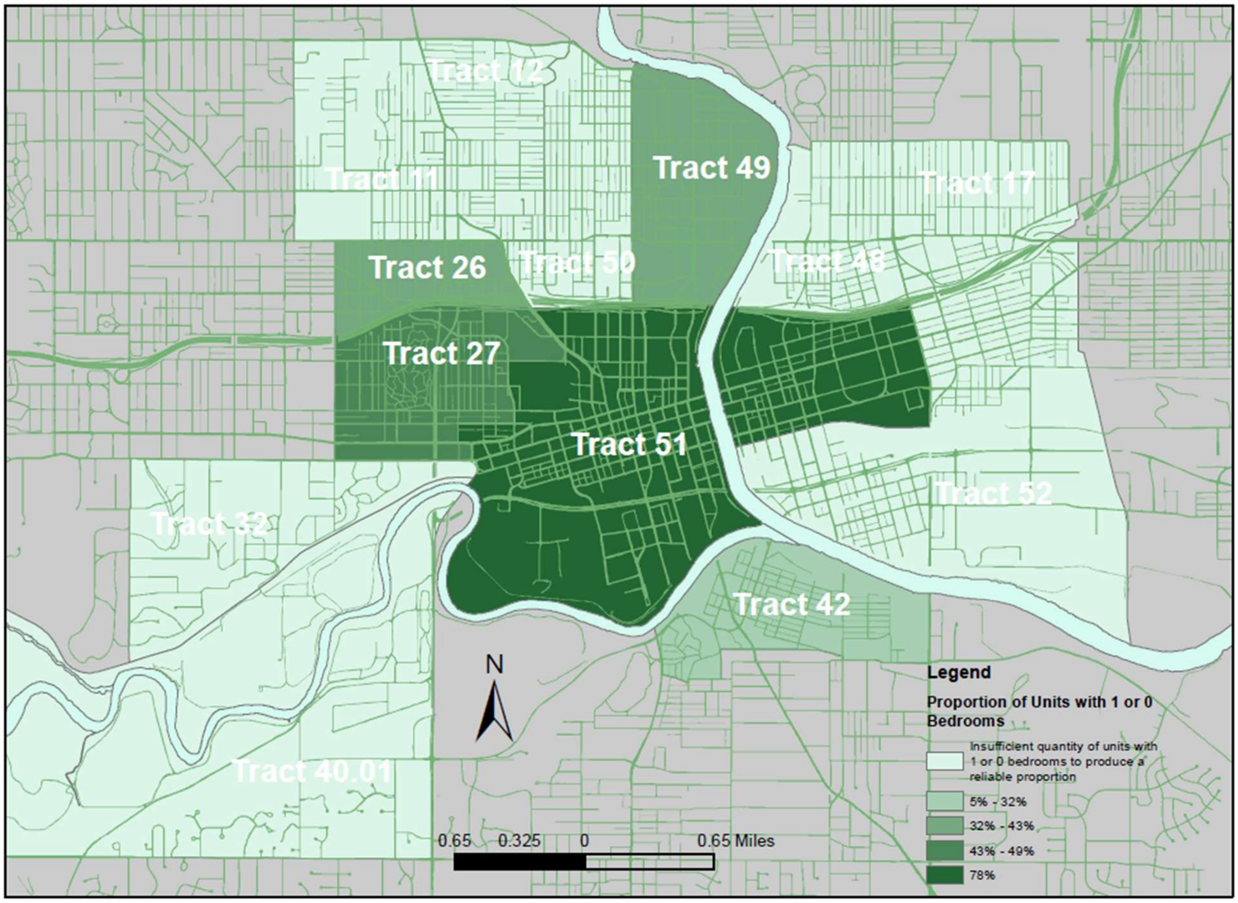
Attached housing units (i.e., townhomes and duplexes) are most common in the suburbs and in West Des Moines. In several of the suburbs (Altoona, Grimes, Pleasant Hill, and Waukee), the number of single-family attached units is almost the same as that of multi-family units, which does not match the ratio in the MSA. In comparison, Des Moines has a small number of attached, townhome-style units.

Across the MSA, three-bedrooms units are the most prevalent, followed by two-bedroom units and four-bedroom ones. In general, four-bedroom units are more prevalent in the suburbs, especially in places like Clive, Johnston, and Waukee. West Des Moines is the only locality with more two-bedroom units than three-bedroom ones. In Des Moines, there are 34 percent and 35 percent of two- and three-bedroom units, respectively.

These trends follow ones in household sizes across the region: larger families and larger units tend to be more widespread in the suburbs and vice versa. However, this trend is not linear. Both Des Moines and West Des Moines have a significantly larger proportion of one-person households, but the quantity of zero- or one-bedroom units is only slightly higher than in the rest of the MSA. Because Des Moines and the MSA have comparable numbers of larger units but fewer larger households live in Des Moines, two- and three-person households may find other parts of the MSA to be more desirable than the city.

Most housing units in Downtown, 94 percent, have two-or-fewer bedrooms. Seventy-eight percent of units Downtown are efficiency or one-bedroom units, which usually accommodate either one or two people. Therefore, the housing stock available for families with more than two people is limited, and households with four-or-more people have little to no opportunity to find a unit Downtown. Compared to other nearby tracts, Downtown has an unusually high proportion of efficiency and one-bedroom units. Even when accounting for existing preference for living outside the city, Downtown may be able to attract more family households with more appropriately sized units and be more reflective of the household size and family makeup of the city.

Figure 8: Proportion of Units with 1 or 0 Bedrooms
Source: 2016 ACS



Housing Costs

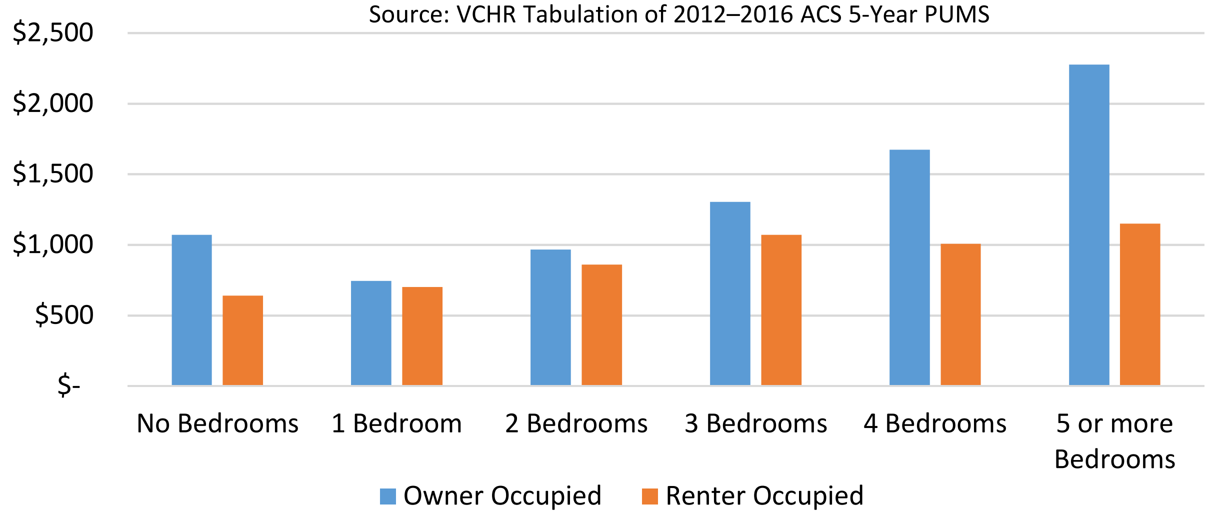
Median monthly housing costs, including both renter and owner households within the Des Moines–West Des Moines MSA, range from $862 in the City of Des Moines to $1,358 in the City of Clive. Although median monthly housing costs in other suburbs like Ankeny and Urbandale are not as high as in Clive, they are still higher than $1,000.

Median selected owner costs include mortgage payments, real estate taxes, various forms of insurance, utilities, fuels, mobile home costs, and/or condominium fees. Median selected costs for owners with a mortgage range from $1,165 in Des Moines to $1,696 in Clive. Ankeny and Urbandale have owner costs just above $1,500, whereas owner costs in Norwalk are lower, at $1,361. Polk county has a median owner cost (with a mortgage) of $1,359, which is comparable to that in Madison and Warren Counties. The other two counties in the MSA, Guthrie ($1,107) and Dallas ($1,519), significantly differ from the MSA median owner cost of $1,374.

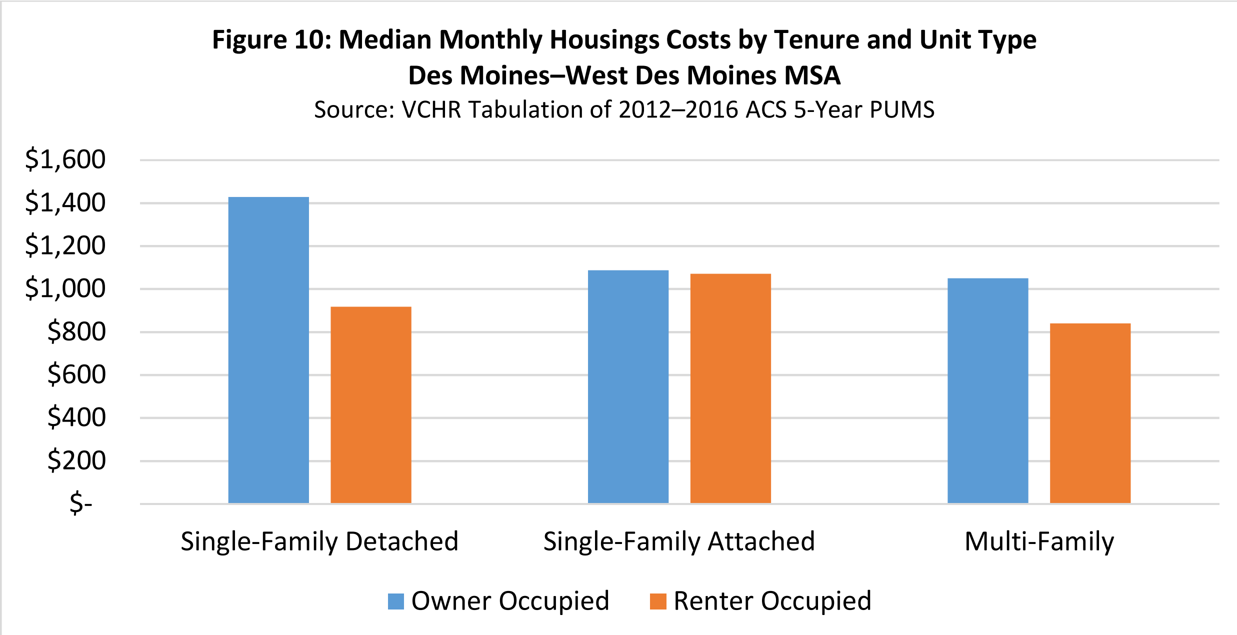
The range of median gross rents across the MSA is smaller. Clive and West Des Moines have the two highest median rents with costs of $933 and $934, respectively. The city of Des Moines has the lowest median monthly gross rent at $775.

Downtown has a median monthly gross rent cost of $705, lower than that of the city ($775). However, the median monthly owner cost with a mortgage for Downtown Des Moines ($1,520) is significantly higher than within the whole city ($1,165). Nonetheless, housing costs suggest a very different type of housing market in Downtown for those renting compared to those who own their housing unit. Few opportunities for homeownership may also influence household types that choose to live Downtown. Homeownership or some other mechanism for building equity through investments in a primary residence are an important part of a household's long-term well-being and factor into housing choices.

Figure 9: Median Monthly Housing Costs by Unit Size and Tenure
Des Moines–West Des Moines MSA
Source: VCHR Tabulation of 2012–2016 ACS 5-Year PUMS



Monthly housing costs tend to increase with unit size, especially in the instance of owner-occupied units. Units with 4 or more bedrooms cost significantly more to own than to rent, but the cost for 1- and 2-bedroom units is comparable between owners and renters.



Median owner costs for single-family detached units are significantly higher than for other housing types, and owners who live in single-family detached units have significantly higher costs than renters who do so. Similarly, owners in multifamily units have higher housing costs than renters in similar units. In contrast, the costs for single-family attached units are similar for both owners and renters. Downtown's costs are reflective of these trends, as most units there are multifamily and renter-occupied.

Role of Downtown in the Des Moines Housing Market

Downtown offers housing in Des Moines' central business district close to the city's cultural amenities and some of the market's prominent public schools. Downtown has well-connected public transit and pedestrian networks, allowing residents to access amenities and limited shopping without a car. However, Downtown lacks the diversity of housing stock that would attract a more diverse community of households that is representative of the city or MSA. Downtown needs more two-, three- and four-bedroom housing units as well as ownership opportunities to attract a more diverse community of households that reflects the city and MSA.

Downtown's abundance of small rental units has primarily attracted younger, non-family households. Furthermore, Downtown offers opportunities for these often lower-income households to benefit from location efficiencies. However, without opportunities to "upgrade" and invest, many of these households will likely leave as their incomes increase and they make longer-term housing choices. These and other housing needs, such as housing affordability in Downtown, are discussed in the following section.

Housing Needs

This section reports existing need and demand for affordable housing using levels of cost burden, the most appropriate measure for affordable housing. A household is considered cost-burdened when housing costs exceed 30 percent of the household's income. Next, a housing gap analysis is presented, which is a technique for comparing the need for affordable housing to the stock of affordable housing in the market and the households that occupy that stock. This analysis is conducted to understand why households may have trouble accessing affordable housing and where "gaps" exist in the housing stock. Last, we focus on housing needs of working households by occupation. The analysis for workforce housing needs connects housing need to specific occupations, suggesting how of a lack of affordable housing may affect Des Moines' workforce and economy.

More than 58,000 households (23%) in the market need more affordable housing despite that affordability has improved in recent years. Housing shortages for households with low and moderate incomes impact workers in 66 occupations, more than 4,000 of whom work in Downtown. More Downtown housing may be the most impactful affordability solution for existing housing needs among workers there and their families because location efficiency can curb transportation costs in addition to providing affordable housing. This impact will only be enhanced as Downtown become more vibrant with more recreational and retail amenities.

Cost Burden

Households are housing cost-burdened when they spend more than 30 percent of their income on housing costs, utilities, rent or mortgage payments, taxes, and insurance. Households that pay more than 30 percent their income for housing, particularly those with low and moderate incomes, may not have sufficient money to pay for other needs such as transportation, health care, food, and education.[xxiv] Therefore, the number of cost-burdened households is a good indicator of the number of households that need more affordable housing.

Affordability in the market has improved since the 2008 recession. This is in part because most households own their homes and have benefited from historically low interest rates in the aftermath of the Great Recession, which is reflected in decreasing owner costs shown in Figure 11. Rates of cost burden decreased over the last 7 years for owner-occupied households with a mortgage from a peak in 2010, when 28 percent of households were cost-burdened. Nonetheless, 19 percent of homeowners with a mortgage (nearly 25,000 households) were cost-burdened in 2017.

Table 1: Cost Burden by Tenure: Des Moines–West Des Moines MSA

Source: 2017 ACS 1-year Estimates

Degree of Cost Burden	Renter	Owner (with Mortgage)
>30% of Household Income	39.5%	19.2%
>50% of Household Income	19.1%	6.5%

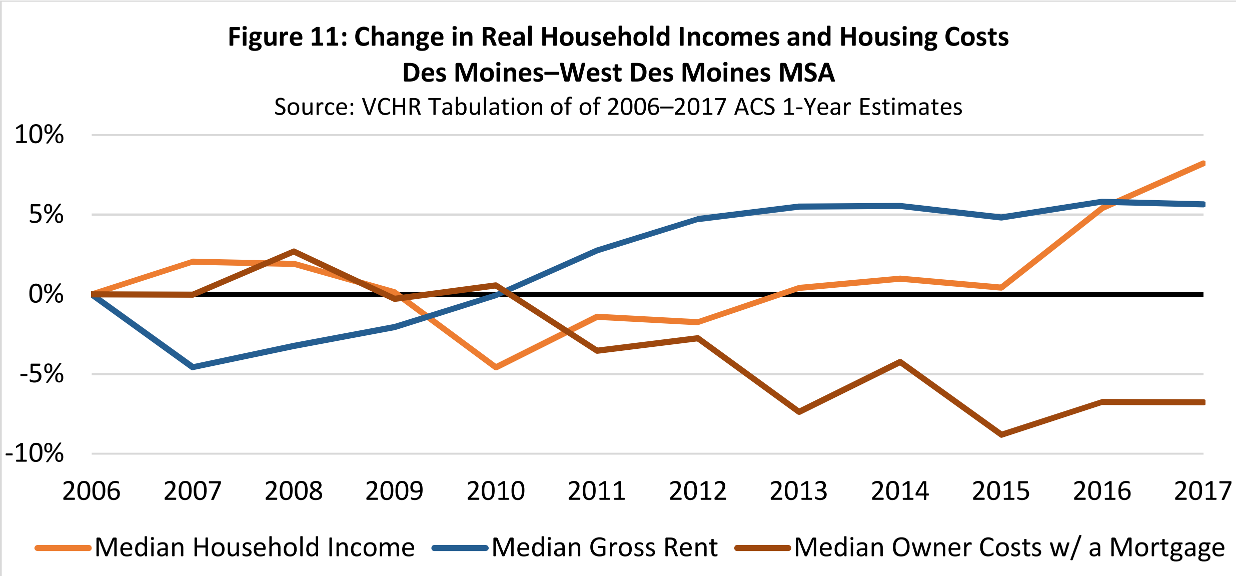
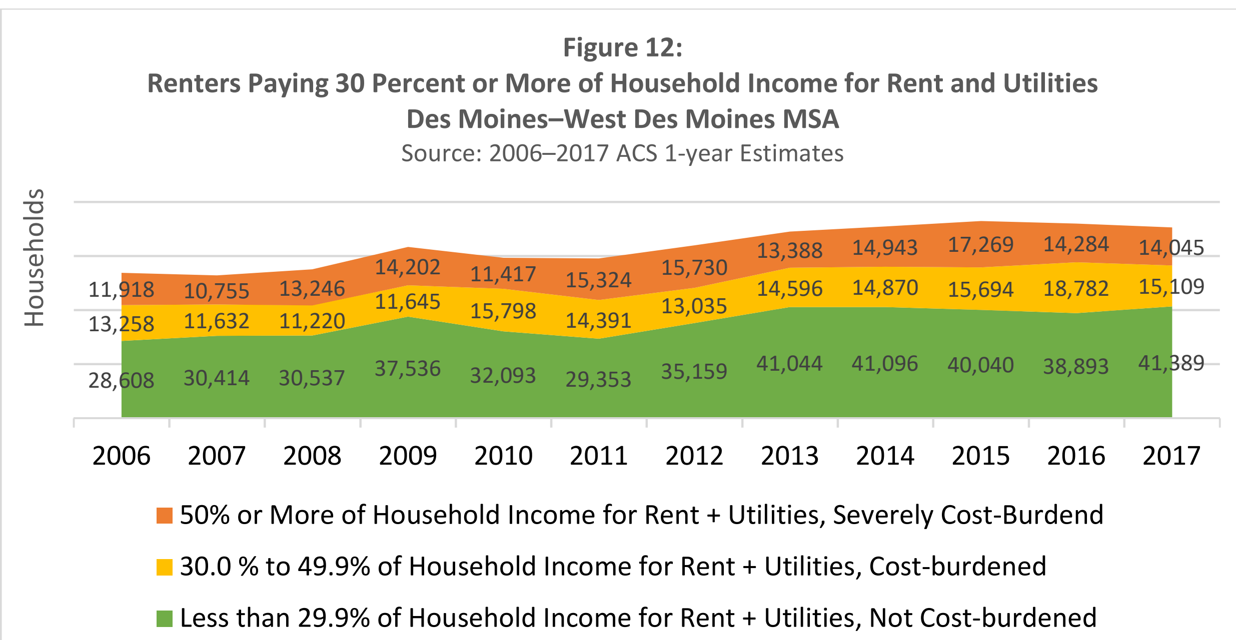
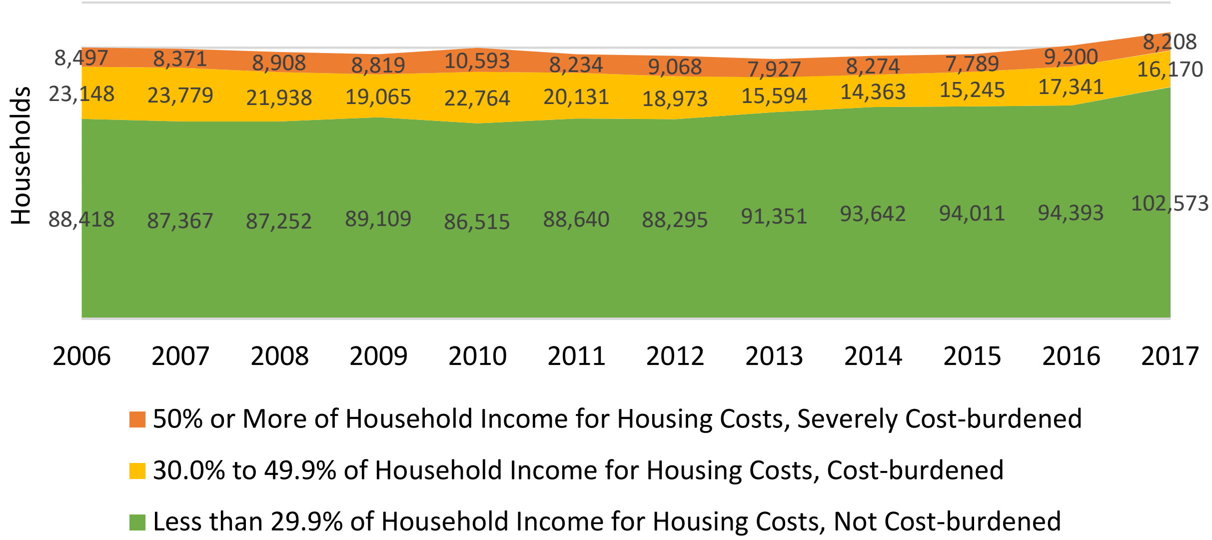


Figure 12 shows that affordability among renters has fluctuated since 2006. Levels of housing cost burden among renters peaked in 2011, when 47 percent of renters paid more than 30 percent of their income for housing. Forty percent of renters (i.e., 29,000 households) paid more than 30 percent of their income for housing in 2017 after 43 percent in 2015 and 44 percent in 2016. Nearly half of cost-burdened renters in 2017 (14,000 households) were severely cost-burdened, paying more than 50 percent of their income for rent and utilities. Renters tend to be cost-burdened at higher rates than homeowners, because they have lower incomes and are exposed to more variability in housing costs.

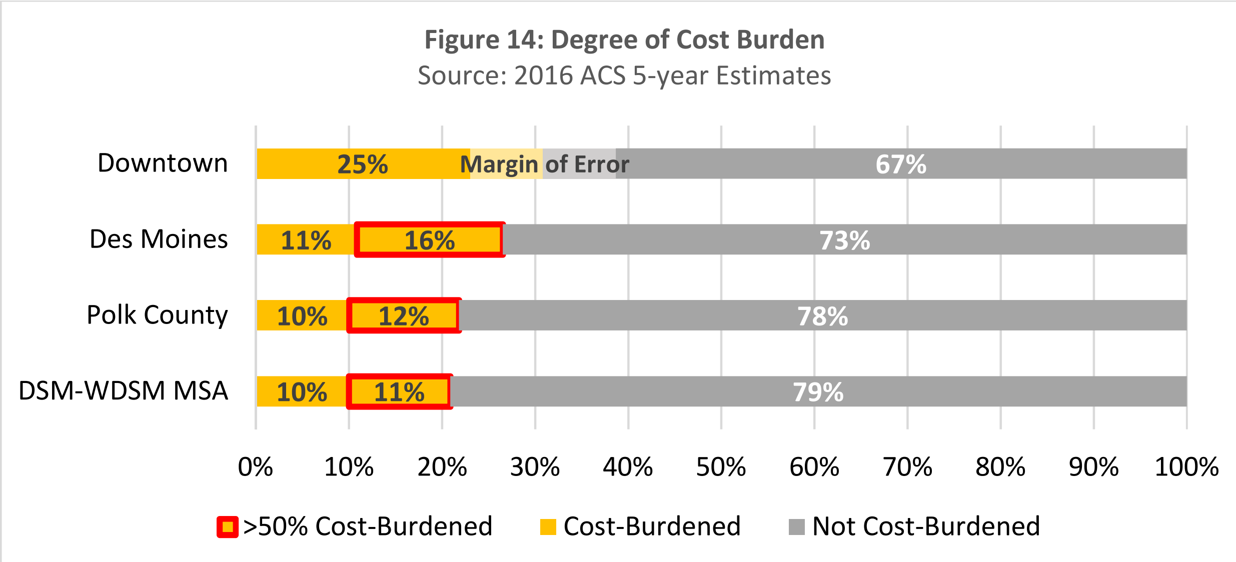


Nineteen percent of owners spend more than 30 percent of their income on housing costs, and one third of those households are severely cost-burdened, spending more than 50 percent of their income on housing. The mortgage financing process generally ensures that homeowners can afford their housing costs at the time of purchase, so homeowners cannot "choose" to be cost-burdened. Instead, they become cost-burdened when their circumstances change. Because owner occupancy is usually a longer-term tenure choice, some homeowners become cost-burdened because of changes in costs such as increased taxes (stemming from increased value or tax rate increases), increased utility costs, and changes in mortgage interest rates or income.

Figure 13: Owners (with a Mortgage) Paying 30 Percent or more of Household Income for Housing Costs (Mortgage, Insurance, Taxes, Fees, and Utilities)
Des Moines–West Des Moines MSA
Source: 2006–2017 ACS 1-year Estimates



The median household income in Des Moines is lower than that in the MSA, whereas the rate of cost burden is higher. The amount of severely cost-burdened households (those paying more than 50 percent of household income for housing) is significantly higher in Des Moines than in the MSA. Roughly 40 percent of renters in Downtown are cost-burdened, which is comparable to the rest of the MSA despite that median gross rent in Downtown is significantly less than that in the MSA. More than 90 percent of households in Downtown are renter-occupied, which implies that the overall rate of cost burden in Downtown is greater than in the city and MSA.



Households with lower incomes are cost-burdened at a higher rate and therefore overrepresented in the population of those with cost burden. Nearly all cost-burdened households in Des Moines have low incomes less than 80 percent of the AMI[2]. However, even among extremely low-income populations, households are more likely to be cost-burdened in Des Moines. There, nearly 73 percent of households earning less than 30 percent AMI (9,700 households) are severely cost-burdened, representing about 12.1 percent of all households in the city. In addition, 7.5 percent of households (17,230) in the MSA are severely cost-burdened and earn less than 30% of the AMI. Households with extremely low income that face housing cost burdens are extremely vulnerable, often unable to respond to unexpected expenses. Those who are severely cost-burdened are at-risk populations that may become homeless in the event of emergency or other unexpected expenses.

At least one quarter of Downtown residents and possibly as many as one third[3] of Downtown residents are cost-burdened. Higher rates of cost burden in the city may be related to households accepting higher housing costs to save on transportation, resulting in an overall more affordable living situation. The trade-off between transportation and housing costs and its importance to the city and Downtown is detailed later.

[2] 2018 HUD Income Limits are provided in Table 2 for reference. Income limits for 2015 and 2016, which correspond to the data presented in this report, are included in the Appendix.

[3] The margin of error for the estimate of cost-burdened households living in Downtown indicates that the number of cost-burdened households represents between 25 and 33 percent of households. VCHR introduced the margin of error into Figure 14 because the estimate of the number of cost-burdened households is not reliable.

Figure 15: Proportion of Cost-burdened Households by Income Levels
Des Moines

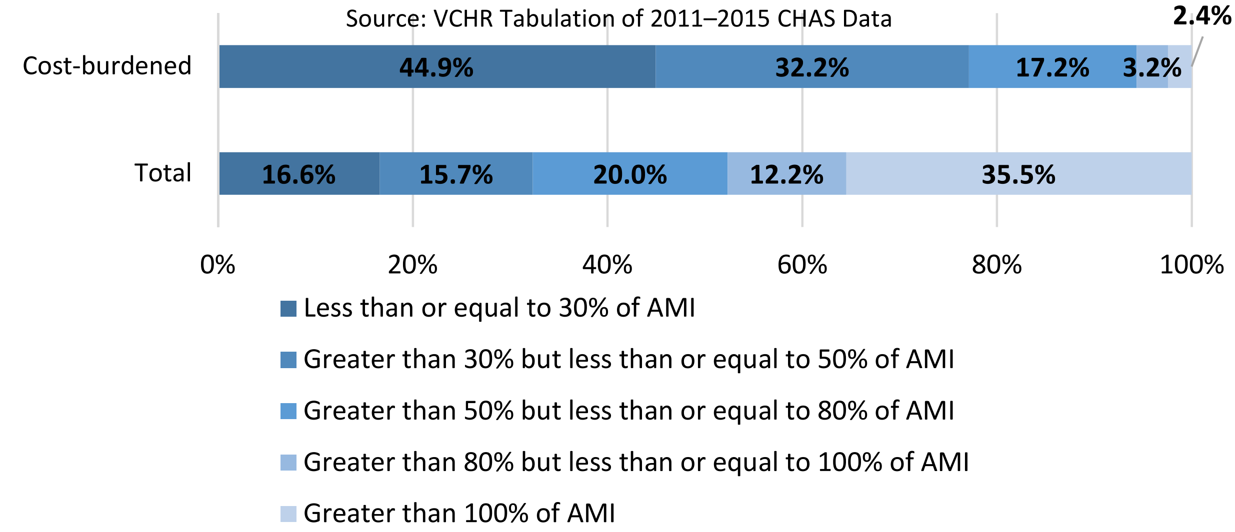
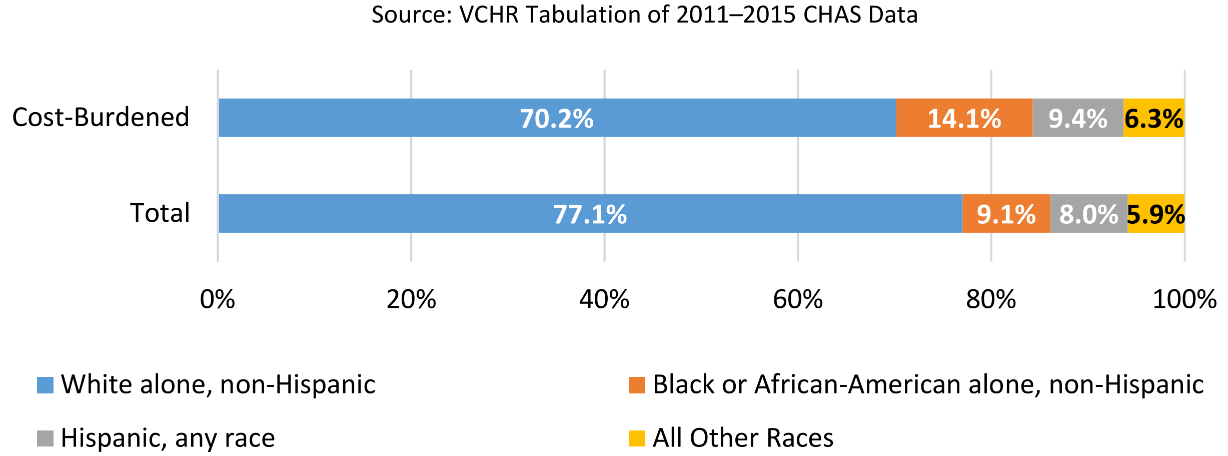


Table 2: 2018 HUD Income Limits by Percent of AMI and Household Size

	1-person	2-person	3-person	4-person
30	$16,750	$19,150	$21,550	$25,100
50	$27,900	$31,850	$35,850	$39,800
80	$44,600	$51,000	$57,350	$63,700
100	$55,750	$63,700	$71,650	$79,600

Minority households are overrepresented in the cost-burdened population in both Des Moines and the MSA. Hispanic households are slightly more likely to face some form of cost burden than white households are. Nearly half of all black households do. The number of black households facing severe cost burden is significantly higher than that of any other race. At the MSA level, the amount of cost burden is slightly lower for all races.

Figure 16: Cost-burdened Households Comapred to Total Households by Race
City of Des Moines



Housing and Transportation Cost Burden

Households that face high housing costs relative to their income may make tradeoffs, choosing housing that is far from employment centers or increasing the percentage of income that a household dedicates to transportation to obtain their desired housing while curbing high housing costs.[4] Alternatively, households that can afford higher-cost housing may choose such housing to save on transportation costs. For example, high-income households tend to locate in suburbs near employment centers and alternative transportation means. As regulatory and other factors continue to constrain the housing supply, metropolitan areas are stretching further outward. Those who wish to live close to job centers must pay a premium, ultimately resulting in the displacement of low-wage workers to more distant or otherwise less-desirable housing units.[5]

Transportation costs are often overlooked as a household expense, although the inclusion of transportation costs affects the relative affordability of many metropolitan areas.[6] For all households including homeowners who have paid off their mortgage, housing and transportation together consumed an average of 48 percent of the median household's income during the 2000s. For households earning 50 to 100 percent of the median income of their metropolitan area, nearly 59 percent of their income goes to housing and transportation costs. Without an adequate supply of housing, indefensible stresses on the region's transportation and transit networks and an erosion of the region's economic base may occur. [7]

A housing unit's location likely influences the unit's cost as well as the amount the occupying household spends on transportation. The LAI, produced by HUD, provides a combined estimate of household housing and transportation costs. The LAI measures the housing and transportation costs as a percentage of household income at the census block group level.

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[4] Cohen, R., & Wardrip, K. (2011). The Economic and Fiscal Benefits of Affordable Housing. Planning Commissioners Journal (89).

[5] Strengthening the Workforce and Communities through Housing Solutions. (2005): Joint Center for Housing Studies and Center for Workforce Preparation.

[6] Hickey, R., Lubell, J., Haas, P., and Morse, S. (2012). Losing Ground: The Struggle of Moderate-Income Households to Afford the Rising Costs of Housing and Transportation.

[7] Sturtevant, L., & Chapman, J. (2013). Housing the Regions Future Workforce, 2012–2032. Arlington, Virginia: George Mason University Center for Regional Analysis.

Figure 17: Housing and Transportation Costs as a Percentage of Household Income for the Median-Income Family
Source: HUD 2008–2012 LAI Data

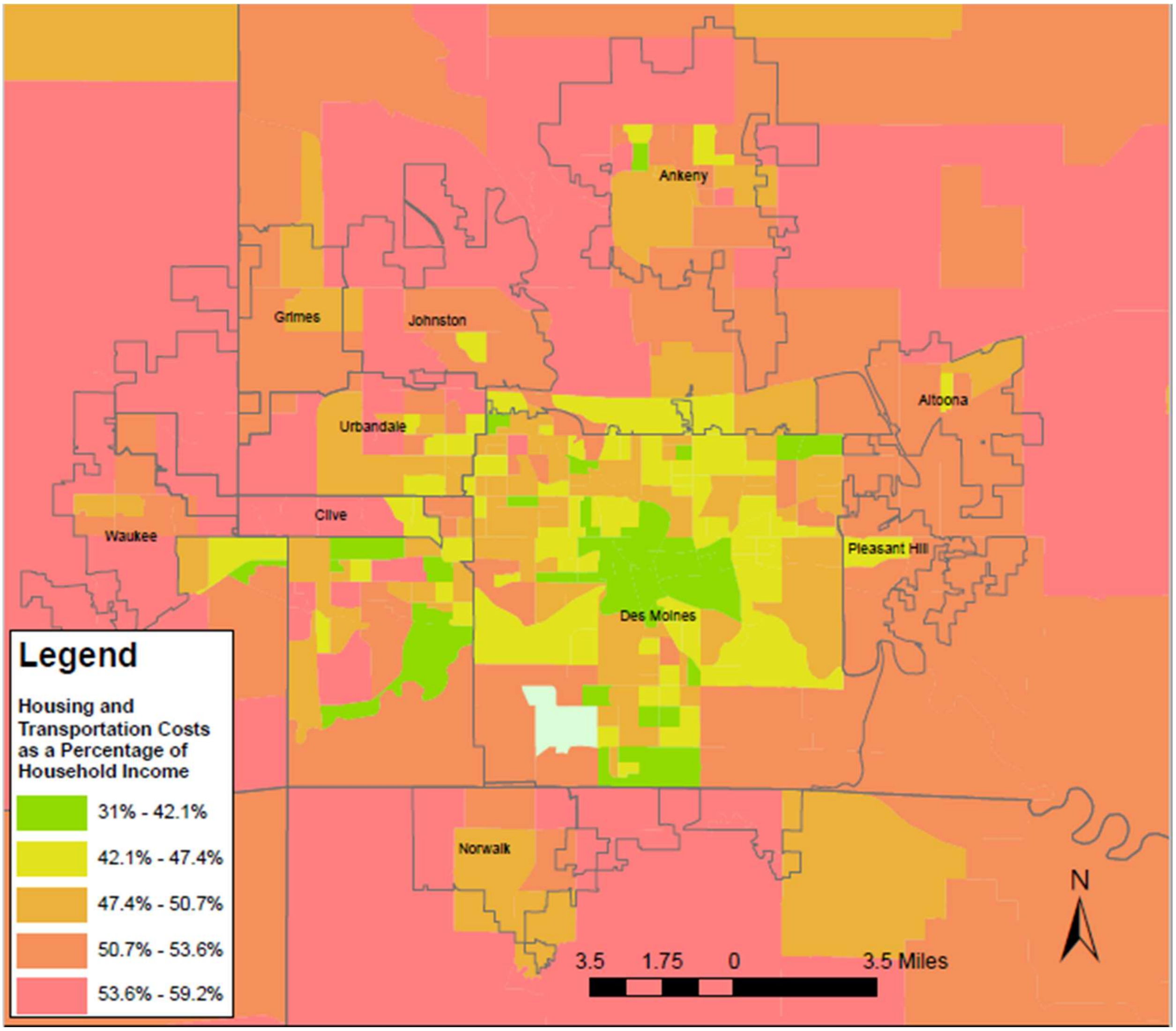
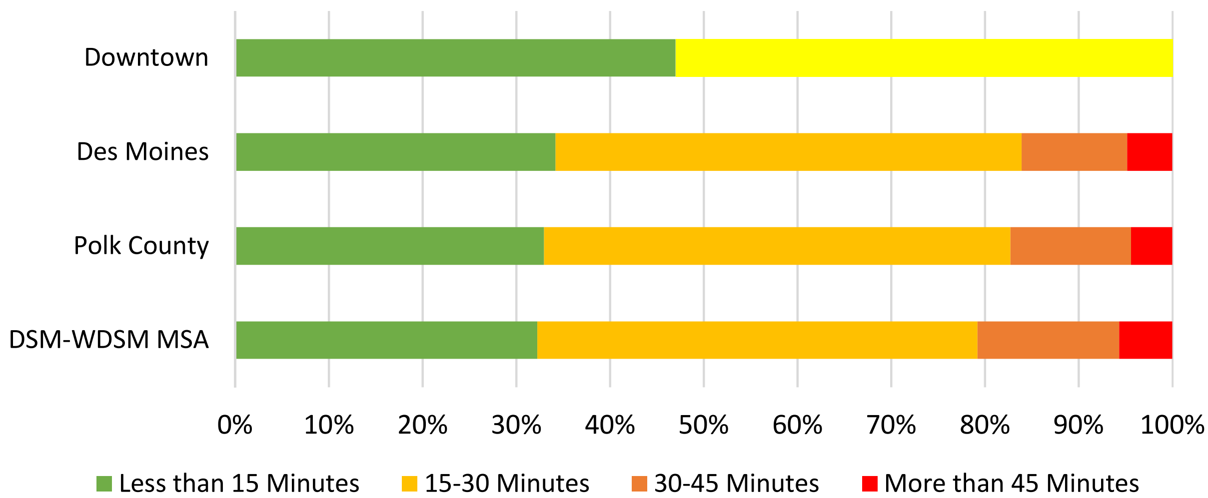


Figure 17 illustrates housing and transportation costs as a percentage of total household income for a median-income family. The orange and light red indicate the areas with the highest combined housing and transportation costs, whereas the green and yellow indicate the areas with the lowest combined costs. The center of Des Moines is the most affordable; in contrast, in the outlying suburbs, the median-income household pays more than 50 percent of household income towards housing and transportation. In each suburb, there are some block groups with lower combined costs; however, these areas are still more expensive than central Des Moines.

Location efficiency is a primary reason to plan for more housing in the core of Des Moines as the region grows. OnTheMap data (a product of the Census) indicates that there are 54,588 jobs within Downtown Des Moines. Of these, only 998 workers live in Downtown and the remaining 53,590 workers commute there. Although MSA commute times are relatively short compared to some larger markets (see Figure 18), LAI data demonstrates that the costs associated with commutes have important affordability implications for median- and low-income households. Efforts to build location-efficient housing options have likely helped keep in-commuting in check. The inflow of workers to Downtown remained nearly the same from 2012 to 2015, increasing from 51,600 to 51,770. Concurrently, the number of workers living and working in Downtown has increased by nearly 50 percent, indicating that many workers find value in the location efficiency, short commutes along with increasing access to amenities, offered by the increasing number of Downtown residential units.

Figure 18: Workers by Length of Commute

Source: VCHR tabulation of 2016 ACS 5-year Estimates



Workers at each earning level shown in Table 3 commute to Downtown at nearly identical rates (97–98 percent), although most workers earn more than $40,000 per year. Downtown residents with lower incomes commute out of Downtown at a higher rate than those with higher incomes: 77 percent of residents who earn $1,250 per month or less commute out of Downtown, 69 percent of residents who earn $1,251–$3,333 out commute, and 56 percent of those earning more than $3,333 out commute. A much smaller portion of Des Moines residents commute out of the city and the difference among earnings groups is less pronounced; therefore, although residents commute out of the Downtown neighborhood, they may still live near their jobs.

Table 3: Downtown Commuting by Monthly Earnings

Source: 2015 US Census Bureau, Center for Economic Studies, OnTheMap

	Workers by Monthly Earnings			Total
	$1,250 or less	$1,251 to $3,333	More than $3,333	
Downtown Jobs	4,114	13,294	37,180	54,588
In-commuters	4,005	12,981	36,604	53,590
Out-commuters	365	704	747	1,816
Downtown Residents	474	1,017	1,323	2,814
Live and Work Downtown	109	313	576	998

Regional housing and transportation development patterns are a primary determinant of regional economic efficiency[xxv]. How and where we build homes determine the need for and costs associated with transportation. Sprawling development increases infrastructure costs, congestion causes greater levels of pollution, and long commutes negatively impact businesses through lost productivity, greater levels of absenteeism and tardiness, and, ultimately, turnover when a worker leaves in search of a shorter commute[xxvi]. High-quality public transit can increase labor participation, and improving transport-system diversity increases productivity and economic development[xxvii]. In high-income cities, the availability of affordable rental housing in locations served by fast and frequent public transportation provides low-income households with greater access to employment opportunities without the costs of owning and operating automobiles[xxviii]. Moreover, an area's location efficiency plays a large factor in attracting employees and talent to a region. Location affordability factors, including regional wages and economic vitality, the costs of commuting to employment opportunities, and overall housing affordability inform a household's decision to move[xxix]. Studies have shown that increasing access to employment centers throughout a region leads to better employment opportunities and increased earnings[xxx].

Housing Affordability Gap Analysis

While the majority of households in the Des Moines MSA have housing that they can afford without sacrificing other necessities, a significant portion of the population lives in unaffordable housing. About 29,154 households renting and 29,516 owner-occupied households are cost-burdened, comprising 39.5% and 19.2% of households renting and owner-occupied respectively. These households are shown in dark blue in Figures 19 and 20.

VCHR's gap analysis for low- and moderate-income households indicates a shortage of units affordable to renters with extremely low incomes of less than 30 percent of AMI. As shown in the two leftmost columns of Figure 19, more households exist with incomes less than or equal to 30 percent of AMI than rental units within this affordable range. Households with incomes greater than 30 percent of AMI occupy more than half of the units that are affordable to extremely low-income renters. Households with higher incomes often compete better for housing units because they are more attractive to landlords and finance agencies. Households with higher incomes than they need to afford their unit occupy 46 percent of rental units affordable to households with low incomes. Because lower-income households must compete with higher-income households for affordable units, many accept a housing cost burden to obtain a home. For example, there exists enough stock to accommodate renters with very low (30 to 50 percent of AMI) and low incomes (50 to 80 percent of AMI), respectively, but households with higher incomes occupy much of that stock. Therefore, many households in these two low-income groups must accept housing that they likely struggle to afford. Households with income less than needed to afford their unit (shown in orange) occupy 25 percent of units affordable to households with very low and low incomes.

There are 3,000 vacant units that would be affordable to renters with incomes below 80 percent of AMI. Most of these units are affordable to households with income between 30 and 50 percent of AMI. However, there are almost 4,000 households with incomes below 80 percent of AMI that could benefit from an affordable unit. These units may not be occupied because they do not match households' other criteria for appropriateness such as size, location or quality.

Most households living in owner-occupied units affordable to households with low and moderate incomes have incomes higher than needed to afford their unit comfortably. Figure 20 shows that a clear preference exists among households to spend less than 30 percent of their income on housing: Owners with higher incomes than needed to afford their home occupy almost 80 percent of owner-occupied or for-sale units. The owned stock that is affordable to households with low incomes (more than 120,000 units) far outnumbers units that are affordable to moderate-income households, that is, those with incomes greater than 80 percent of AMI (20,000 units). Despite preferences to consume housing that costs less than 30 percent of household income, some households currently occupying lower-priced units may want to "upgrade" if there were moderately priced appropriate units available. There is an unusually small number of units affordable to households with moderate incomes, most of which are occupied by households with higher incomes.

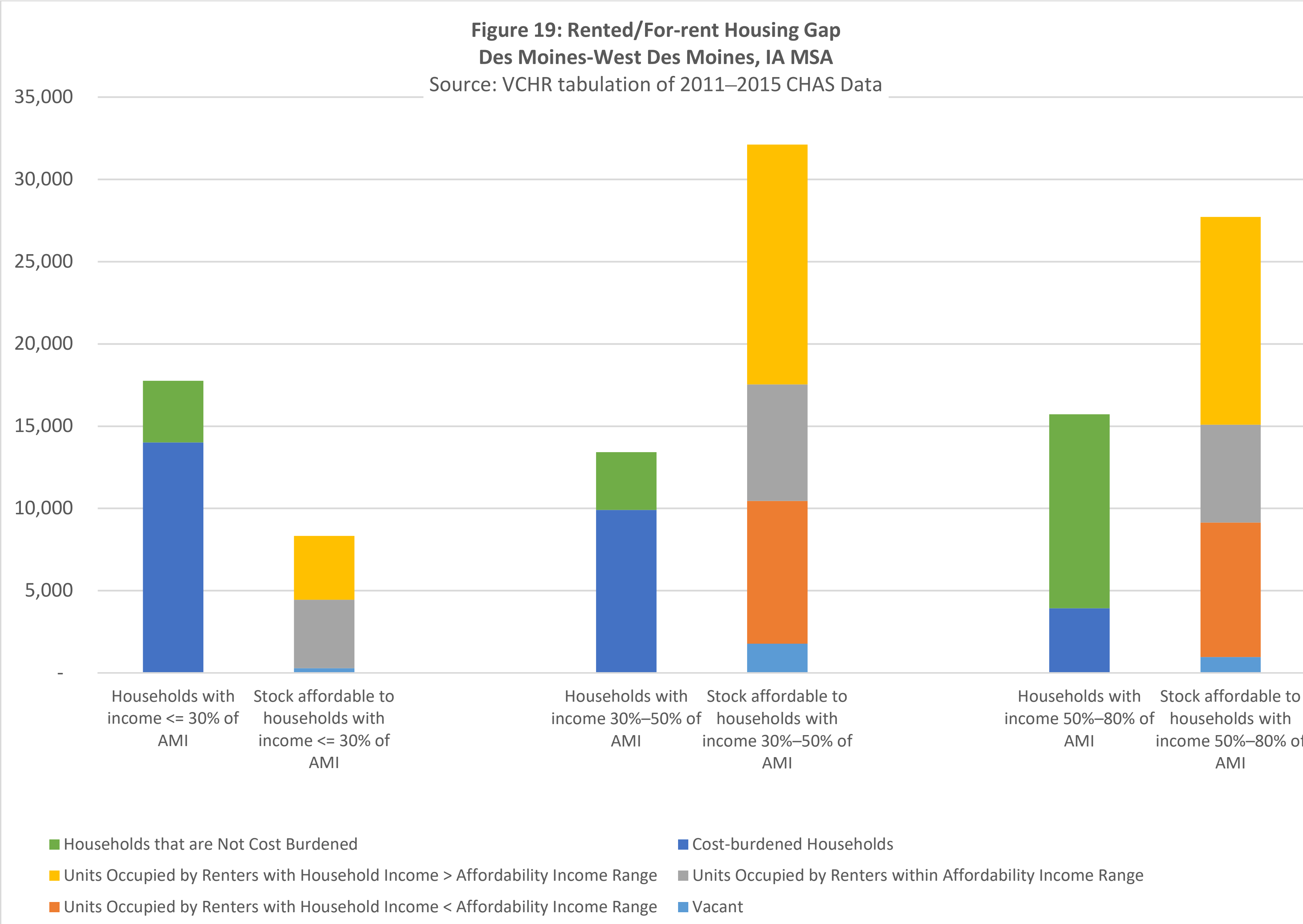


Figure 19: Rented/For-rent Housing Gap
Des Moines-West Des Moines, IA MSA
Source: VCHR tabulation of 2011–2015 CHAS Data
35,000
30,000
25,000
20,000
15,000
10,000
5,000
-
Households with income <= 30% of AMI
Stock affordable to households with income <= 30% of AMI
Households with income 30%–50% of AMI
Stock affordable to households with income 30%–50% of AMI
Households with income 50%–80% of AMI
Stock affordable to households with income 50%–80% of AMI
Households that are Not Cost Burdened
Cost-burdened Households
Units Occupied by Renters with Household Income > Affordability Income Range
Units Occupied by Renters within Affordability Income Range
Units Occupied by Renters with Household Income < Affordability Income Range
Vacant

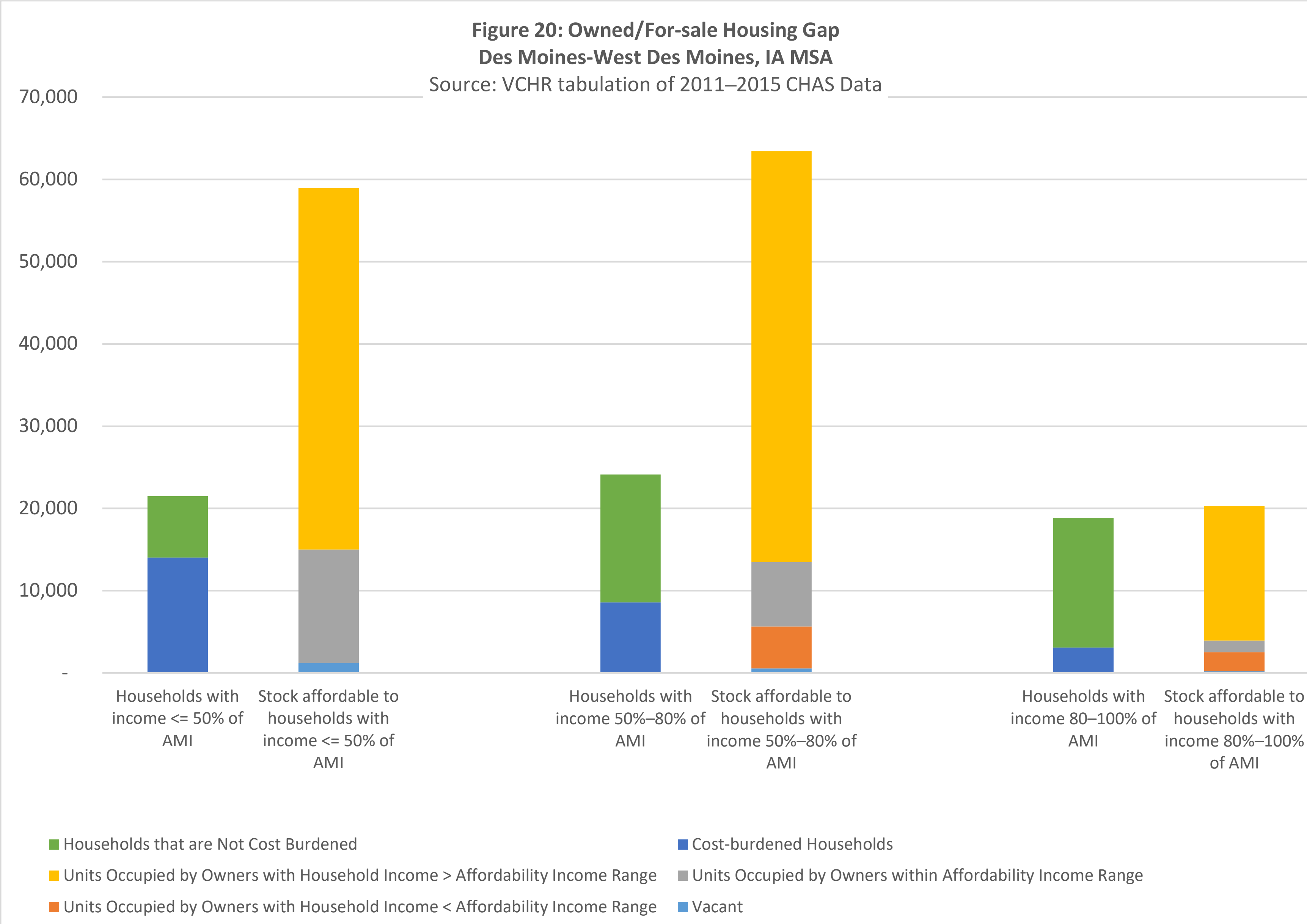
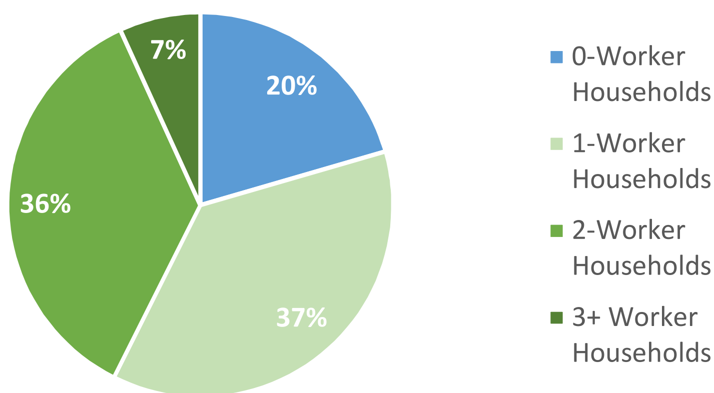


Figure 20: Owned/For-sale Housing Gap
Des Moines-West Des Moines, IA MSA
Source: VCHR tabulation of 2011–2015 CHAS Data
70,000
60,000
50,000
40,000
30,000
20,000
10,000
-
Households with income <= 50% of AMI
Stock affordable to households with income <= 50% of AMI
Households with income 50%–80% of AMI
Stock affordable to households with income 50%–80% of AMI
Households with income 80–100% of AMI
Stock affordable to households with income 80%–100% of AMI
Households that are Not Cost Burdened
Cost-burdened Households
Units Occupied by Owners with Household Income > Affordability Income Range
Units Occupied by Owners within Affordability Income Range
Units Occupied by Owners with Household Income < Affordability Income Range
Vacant

Workforce Housing Needs

Most households in the MSA (80 percent) include at least one worker. Because workers' earnings are the primary determinant of their incomes and ability to afford housing, VCHR compared the maximum affordable housing costs for workers to the median rent and owner costs in the MSA and city to identify workers that may face housing affordability challenges. VCHR used median worker earnings for one- and two-worker households and assumed that in both workers earn the same wage in two-worker households. Finally, VCHR examined housing affordability for workers earning in the 90th percentile to represent the experience of highly skilled workers or workers who are advanced in their careers.

Figure 21: Households by Number of Workers
Des Moines–West Des Moines MSA
Source: 2016 ACS 5-year Estimates



The vertical bars in Figure 22 display affordable monthly housing costs for workers in the top 10 occupations of the MSA by employment, representing 80,260 employees in the MSA (i.e., 22 percent of the workforce). VCHR calculated affordable monthly housing costs, that is, 30 percent of monthly income, based on wages at the median and 90th percentile. Households spending more than 30% of household income are cost-burdened and may have to sacrifice other necessities to obtain housing.

Solid horizontal lines show median owner costs, and dotted lines show median rents. Line colors represent housing costs for the MSA, Polk County, Des Moines, and Downtown. Affordable monthly housing costs below the dotted or straight line indicate that median housing costs are unaffordable in a given jurisdiction. Workers in 4 of the top 10 occupations cannot afford the median rent in any part of the MSA without sharing the costs with another worker. In addition, workers in 33 occupations (i.e., 41,630 total) cannot afford to rent a unit alone, even when they are earning at the 90th percentile for their occupation. Of these 33 occupations, 5 are among the top 10 by employment. Workers earning at the median in every occupation can afford the median rent in the MSA if they share the cost with a worker earning an equal annual wage or salary. However, workers earning at the median in 66 occupations (i.e., 89,010 total) cannot afford median owner costs even when sharing the cost with another worker earning an equal annual wage.

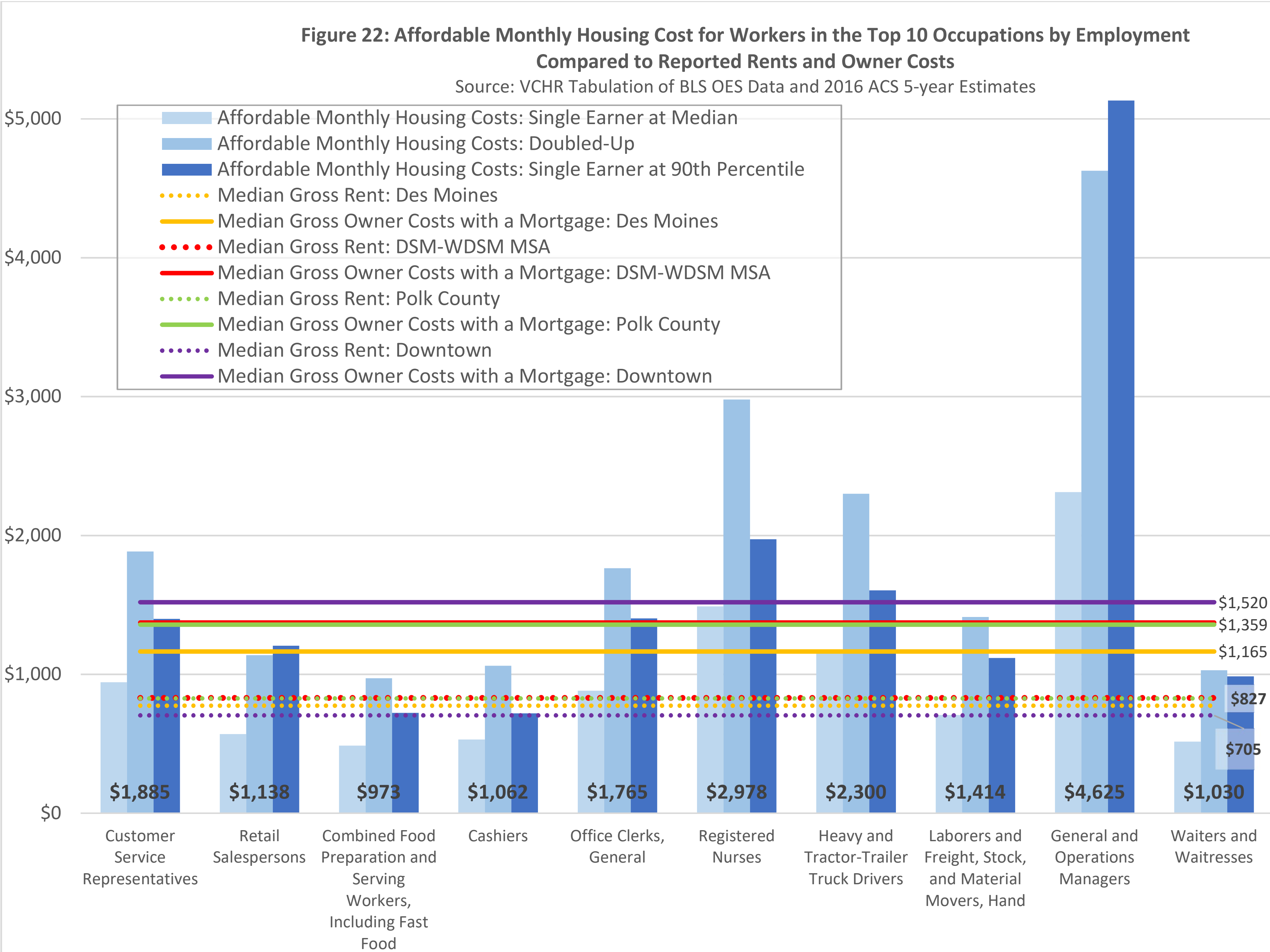
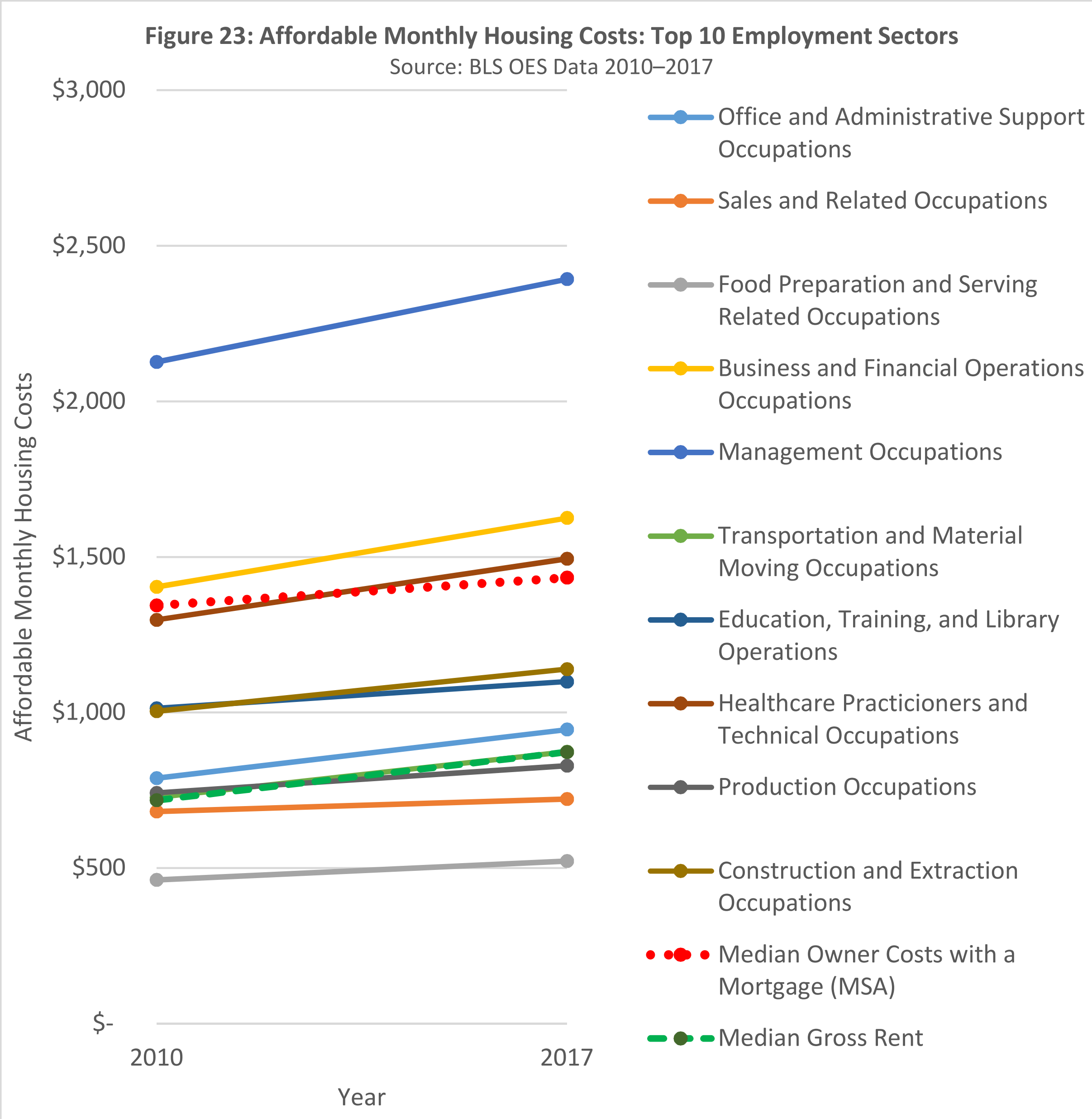


Figure 22: Affordable Monthly Housing Cost for Workers in the Top 10 Occupations by Employment
Compared to Reported Rents and Owner Costs
Source: VCHR Tabulation of BLS OES Data and 2016 ACS 5-year Estimates
Affordable Monthly Housing Costs: Single Earner at Median
Affordable Monthly Housing Costs: Doubled-Up
Affordable Monthly Housing Costs: Single Earner at 90th Percentile
Median Gross Rent: Des Moines
Median Gross Owner Costs with a Mortgage: Des Moines
Median Gross Rent: DSM-WDSM MSA
Median Gross Owner Costs with a Mortgage: DSM-WDSM MSA
Median Gross Rent: Polk County
Median Gross Owner Costs with a Mortgage: Polk County
Median Gross Rent: Downtown
Median Gross Owner Costs with a Mortgage: Downtown
$5,000
$4,000
$3,000
$2,000
$1,000
$0
$1,520
$1,359
$1,165
$827
$705
$1,885
$1,138
$973
$1,062
$1,765
$2,978
$2,300
$1,414
$4,625
$1,030
Customer Service Representatives
Retail Salespersons
Combined Food Preparation and Serving Workers, Including Fast Food
Cashiers
Office Clerks, General
Registered Nurses
Heavy and Tractor-Trailer Truck Drivers
Laborers and Freight, Stock, and Material Movers, Hand
General and Operations Managers
Waiters and Waitresses



VCHR also compared annual wage increases to housing cost increases from 2010 to 2017. BLS data from 2010–2017 suggest that wages in most occupational sectors have steadily increased over the period. The fastest-growing wages appear among the highest-paid occupations (e.g., Management Occupations), whereas the lowest wage growth appears in the lowest-earning ones (e.g. Food Preparation and Serving Related Occupations). Affordable monthly housing costs for healthcare practitioners and technical occupations has grown fast enough to surpass the median owner cost with a mortgage in the MSA (shown as a red dotted line), suggesting that home ownership is more accessible to workers in this occupation than it was 7 years ago. The opposite is true for those working in production occupations, among which affordable monthly housing costs have increased slower than the median gross rent, shown in the dotted green line.

Future Workforce Housing Demand Forecasts

This analysis presents a forecast of the amount of housing required in Polk County to house both a portion of workers with jobs in Polk County and a portion with jobs in the rest of the Des Moines MSA that choose to live in Polk County. Like other communities and neighborhoods in Polk County, Downtown must "compete" for these households. New households seek the most advantageous mix of housing characteristics and location for them. Downtown must be ready to house those who value location efficiency and urban lifestyle as well as Downtown amenities like the symphony, museums, and specialized schools. Downtown and other nearby neighborhoods can attract even more residents as the city's core becomes more amenity rich, filling gaps indicated by current residents such as outdoor amenities, more retail, and better pedestrian connections.

Workforce housing demand forecasting starts with job growth as the driver of demand for housing and uses assumptions about workers' wages, age structure, and household composition to forecast the amount, type, tenure (owner versus renter), and prices or rents of housing that Polk County needs over the 2018–2038 period. Lisa Sturtevant & Associates (LSA) developed forecasts of net new jobs by industry sector for the Des Moines MSA and Polk County using analysis from Woods & Poole, an economic consulting firm. LSA estimated the age of new workers and characteristics of the composition of households that new workers will live in to derive housing demand estimates. Workers are grouped into four age categories: under 30, 30 to 44, 45 to 64, and 65 and older. These age groups will have different housing needs. Workers are further grouped into 10 different household types, defined by the number of adults and children. Like age, household composition is a key determinant of housing needs.

Household income determines the prices and rents that are affordable to future working households. LSA estimated household income of future workers by estimating the number of workers in each household based on household composition and data on median wages by industry sector. LSA then grouped working households into those who will live in Polk County versus elsewhere in the Des Moines MSA. This distribution is based on currently observed commuting patterns.

Finally, LSA applied the current distribution of housing types and tenures for different household types with different household incomes to the forecasted household types and tenures to estimate housing demand for four housing types: single-family owner, single-family rental, multifamily owner, and multifamily rental.

These employment-driven housing demand forecasts include only housing needed in Polk County for net new workers in the Des Moines MSA and do not include the demand for housing from individuals not in the labor force (e.g., retirees, persons with disabilities, and students who do not work). These forecasts also do not include housing needed for replacement workers—workers who move to Des Moines to take an existing job being vacated by someone who is retiring or otherwise leaving a job in the region but not leaving his or her home. In addition, these forecasts do not attempt to quantify the housing needed to close current housing gaps in Polk County; therefore, this employment-driven future housing demand reflects only a portion of the new housing that will be needed in Des Moines.

Employment Forecasts

These housing demand forecasts for Polk County are driven by expected job growth both in Polk County and the broader Des Moines MSA (which, for this analysis, includes Polk, Dallas, Warren Madison, and Guthrie counties). Polk County is expected to add 102,325 net new jobs between 2018 and 2038, an increase of 26.7 percent.[xxxi] The rest of the Des Moines region is expected to add 48,629 net new jobs over the same period, an increase of 51.2 percent (Table 1). Thus, these forecasts suggest significantly faster employment growth outside of the central core of the region.

Table 4: Employment Growth by Sector, 2018 to 2038
Polk County and the Rest of the Des Moines Metropolitan Statistical Area

	Polk County	Rest of the MSA
TOTAL EMPLOYMENT GROWTH	102,325	48,629
AGRICULTURE	85	109
MINING	58	28
UTILITIES	-184	9
CONSTRUCTION	6,024	1,681
MANUFACTURING	-923	268
WHOLESALE TRADE	1,751	737
RETAIL TRADE	4,537	6,779
TRANSPORTATION and WAREHOUSING	1,290	297
INFORMATION	1,663	141
FINANCE and INSURANCE	12,970	13,901
REAL ESTATE and RENTAL and LEASE	4,038	2,568
PROFESSIONAL and TECHNICAL SERVICES	5,178	2,676
MANAGEMENT of COMPANIES and ENTERPRISES	7,804	646
ADMINISTRATIVE and WASTE SERVICES	4,626	2,760
EDUCATIONAL SERVICES	2,767	1,075
HEALTH CARE and SOCIAL ASSISTANCE	28,906	6,325
ARTS, ENTERTAINMENT, and RECREATION	2,173	1,237
ACCOMMODATION and FOOD SERVICES	4,569	2,375
OTHER SERVICES, EXCEPT PUBLIC ADMINISTRATION	8,743	2,214
GOVERNMENT	6,250	2,803

Sources: LSA, Woods & Poole

The biggest jobs gains in Polk County and the region are expected in the Health Care and Social Assistance sector and the Finance and Insurance sector. The fastest-growing occupations in the Health Care and Social Services sector are expected to be home health aides, personal care aides, physician assistants, nurse practitioners, physical therapist assistants, and genetic counselors. These healthcare jobs are among the fastest-growing ones in any sector regionally and across the country and tend to pay lower wages than average. The Finance and Insurance sector, by contrast, tends to include jobs with higher-than-average wages, such as insurance sales agents, accountants and auditors, and financial services agents.

Housing Forecasts

According to these employment-driven housing demand forecasts, Polk County will need to add 57,170 net new housing units between 2018 and 2038 simply to accommodate net new workers in the region (Table 2). This level of required housing excludes any housing production needed to close current housing gaps or to house non-working households, and it does not include any unoccupied units required to achieve a specified vacancy rate.

These housing demand forecasts are based on assumptions related to the age distribution and household composition of the future workforce as well as those on interjurisdiction commuting patterns. The assumption about commuting patterns is key to forecasting where future workers will live within the region. These forecasts assume that Polk County will house 63.2 percent of future Polk County workers and an average of 36.5 percent of workers who hold jobs in other counties in the MSA. These shares are based on current interjurisdiction commuting patterns.[xxxii]

Table 5: Employment-Driven Housing Demand Forecasts for Polk County, 2018–2038
Net New Housing Units by Type, Tenure, and Household Income

	Single-Family		Multi-Family		
	Owner	Renter	Owner	Renter	Total
<$25,000	2,867	1,117	522	4,009	8,514
$25,000–49,999	12,623	3,631	1,343	9,508	27,105
$50,000–74,999	7,895	1,060	562	2,815	12,332
$75,000–99,999	3,663	342	-1	351	4,354
$100,000+	3,854	158	265	588	4,864
Total	30,902	6,308	2,690	17,270	57,170

Sources: LSA, U.S. Census Bureau, Woods & Poole

Housing Type/Tenure

These employment-driven housing demand forecasts include estimates of future housing needed by housing type and tenure—single-family owner, single-family renter, multifamily owner and multifamily renter. The multifamily category includes townhomes and duplexes as well as units in apartment and condominium buildings. The type and tenure of housing that is needed in Polk County over the next 20 years reflects the wages of future jobs, characteristics of the future workforce, and preferences of future households.

According to these employment-driven housing demand forecasts for Polk County, about 59 percent of the net new housing needed to accommodate working households must be owner-occupied housing. This marks a significant shift in homeownership rates for the County; in 2017, about 68.0 percent of occupied housing in Polk County was owner-occupied.[xxxiii]

These forecasts suggest that demand for multifamily versus single-family housing will largely remain the same over time, which means that there is an increase in the demand for single-family rental housing in the future. Between 2018 and 2038, about 35 percent of the new housing needed in Polk County is forecasted to be attached units or multifamily (i.e. townhomes, apartments and condominiums). In 2017, an estimated 34.7 percent of the existing stock was multifamily housing.[xxxiv]

Housing Prices/Rents

Using data on wages by industry and assumptions about household composition and workers per household, we estimate the household incomes of future working households forecasted by this model. The largest share of net new working households—47.4 percent or more than 27,100 households—will have incomes between $25,000 and $49,999. The next-largest share are households with incomes between $50,000 and $74,999, which account for 21.6 percent of net new working households or 12,332 households.

Affordable rents and prices are based on the household's income. Renters are assumed to spend no more than 30 percent of their income on monthly rent, and future homeowners are assumed to be able to afford to buy homes priced at no more than 3.5 times their annual household income.

Table 6: Household Income and Maximum Home Prices and Rents

Household Income	Home Price	Rent
Less than $25,000	Less than $87,500	Less than 625
$25,000–49,999	$87,500–$174,999	$625–$1,249
$50,000–74,999	$175,000–$262,499	$1,250–$1,874
$75,000–99,999	$262,500–$349,999	$1,875–$2,499
$100,000 or more	$350,000 or More	$2,500 or More

According to these employment-driven housing demand forecasts, Polk County will need to add a total of 33,592 new owner-occupied units, including both single-family detached, single-family attached, and multifamily homes. There exists a substantial need for moderately priced homeownership opportunities, as more than half of the demand for owner-occupied homes is for homes priced below $175,000. Only 12 percent of the owner-occupied housing demand is for homes priced at $350,000 or more.

On the rental side, these employment-driven housing demand forecasts suggest a need for 23,577 new rental units over the 2018 to 2038 period to accommodate net new working households. More than three quarters (77.5 percent of all rental units, or 18,264 units) will need to have rents below $1,250. There is relatively little demand forecasted for high-end rental housing, at just three percent of the forecasted rental demand for units with rents of $2,500 or more.

Downtown's Role in Future Growth of the Market

Housing in the city's core will be an important component of managing growth and continuing to support a high quality of life in Des Moines. Downtown offers a unique opportunity for households to live in walking distance to their jobs and many of Downtown's amenities; however, the size, tenure opportunities, and types of housing in Downtown are extremely limited and attract only a few specific types of homebuyers and renters in the Des Moines market.

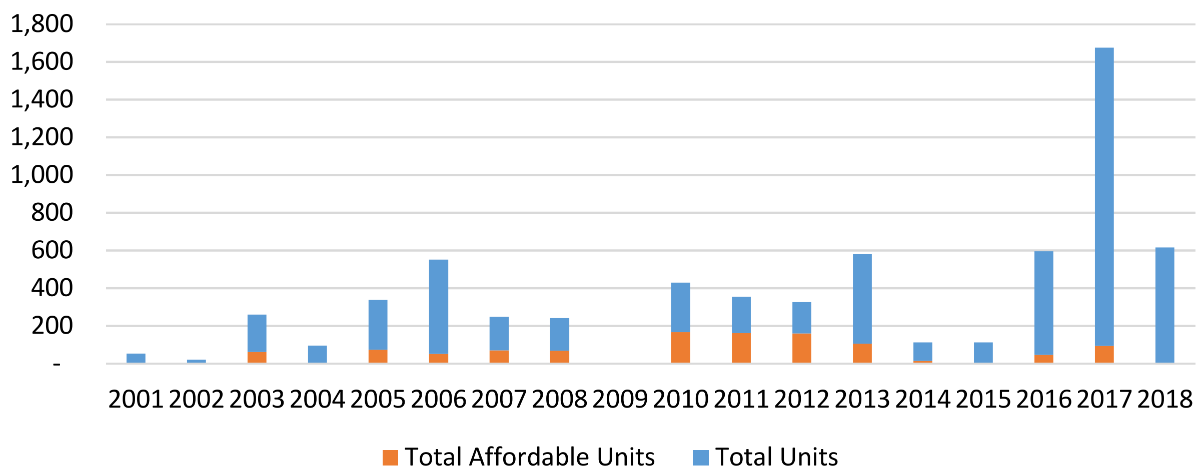
Location efficiencies may be most impactful for households with low incomes that can access affordable, appropriate housing Downtown. Providing an opportunity for all households that want to live in Downtown to do so will help Des Moines manage its growth and prevent sprawl. Furthermore, creating opportunities for more diverse household types will support a larger variety of amenities, resources, and services in Downtown.

Current Development and Building Trends

As of 2016, Downtown provided a little more than 0.5 percent of housing in Polk County. If Downtown continues to provide this proportion of the county's housing, it will provide only about 370 of the units that the growing workforce will demand. Based on current building trends, Downtown would produce the additional units over the next 20 years. However, if Downtown continues to develop at the rate it has over the 2013–2017 period and adds about 600 units per year, it will compete for 20 percent of the demand from new working households. Successfully competing for the households will require Downtown to produce a more-diverse housing stock as well as community development efforts.

Figure 24: Residential Units Delivered: 2001–2018, Des Moines

Source: City of Des Moines Office of Economic Development



In addition to attracting new workers, Downtown can attract existing residents in search of shorter commutes and better proximity to Downtown amenities. However, this opportunity may require significant outreach to brand Downtown and illustrate the benefits of living there in addition to a higher-diversity mix of housing types. Until more diverse housing opportunities arise, it will be hard to gauge whether amenities and resources exist outside of the city that outweigh location efficiencies to be gained by living in Downtown.

Conclusion

Downtown has added units rapidly since 2016, but the unit mix has remained concentrated with efficiency and one-bedroom rental units. While these types of units may be needed in the market, the neighborhood risks becoming homogenous. Without a mix of incomes and household types, Downtown may find it difficult to support a variety of retail and other required amenities to make Downtown a vibrant, attractive neighborhood. Furthermore, Downtown will struggle to keep residents in the long term because residents move as their families and incomes grow and larger units become attainable where they can build equity.

Downtown is an important neighborhood because it is at the heart of the Des Moines economy with more than 50,000 workers commuting in for their primary job. As Des Moines grows, location efficiencies achieved by living close to work become more valuable for residents in terms of lower transportation costs and higher quality of life as well as for the community in terms of managing traffic congestion and achieving community development goals. Downtown should work to ensure that workers at all income levels can find appropriate, affordable, and desirable housing in the neighborhood.

Downtown can address regional affordable housing gaps by ensuring that the more than 4,000 employees that work in Downtown and earn $15,000 or less annually can live there if they so choose and that new affordable units keep up with employment growth over the next 20 years. Regional housing shortages force extremely low-income households to accept substandard housing or housing cost burdens if they cannot access the limited supply of income-restricted units. Providing housing that can accommodate these workers and their families affordably will also curb transportation costs, freeing up family income for other necessities like food, healthcare, and educational enrichment.

Planning and goal setting will be an important first step in creating a strategy for future development in Downtown. Downtown should strive to add units that better reflect the Des Moines market, which in comparison has more two- and three-bedroom units, more single-family units (dense townhomes coupled with multi-family units), and more ownership opportunities. In the near term and before more community amenities are developed, suburbs beyond the city will remain extremely attractive because of their proximity to retail amenities, the availability of open space, and opportunities for affordable homeownership. However, Downtown has an immediate opportunity to attract households that already want to live there but have not been able to find an appropriate unit.

The city, residential developers, and Downtown advocates like Capital Crossroads must work together to fulfill demand for Downtown living, adjusting the mix of units at an appropriate pace to ensure absorption. The city will be responsible for preserving opportunities for future residents in anticipation of market growth and increase desirability of Downtown. Employers, current residents, and other Downtown stakeholders will all benefit from expanded and more diverse residential life in the neighborhood and should be involved in community development efforts there.

The next phase of this study will address these efforts in more detail. The study team will work with Downtown stakeholders to produce actionable, realistic strategies to achieve housing and other neighborhood planning goals.

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Appendix

2015 HUD Income Limits by Percent of AMI and Household Size

	1-person	2-person	3-person	4-person
30	$15,750	$18,000	$20,250	$24,250
50	$26,250	$30,000	$33,750	$37,500
80	$42,000	$48,000	$54,000	$60,000
100	$52,500	$60,000	$67,500	$75,000

2016 HUD Income Limits by Percent of AMI and Household Size

	1-person	2-person	3-person	4-person
30	$16,150	$18,450	$20,750	$24,300
50	$26,950	$30,800	$34,650	$38,450
80	$43,050	$49,200	$55,350	$61,500
100	$53,850	$61,550	$69,250	$76,900

[i] US Census Bureau Current Population Survey Subject Definitions 2015. https://www.census.gov/programs-surveys/cps/technical-documentation/subject-definitions.html#householder
[ii] Wardrip, Williams, and Hague, 2011
[iii] Ratcliffe, 2015
[iv] Chakrabarti and Zhang, 2015
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[vi] Bratt, 2002
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[x] Maqbool, Viveiros, and Ault, 2015
[xi] Hester, 2013
[xii] Jordan, 2016
[xiii] Anderson et al., 2003
[xiv] Krueger and Lindahl, 2001; Sainesi and Reenen, 2003
[xv] Heckman et al., 2006; Psacharopoulos, 2004
[xvi] Lochner and Moretti, 2004; Currie and Moretti, 2003
[xvii] Mincer, 2001; Barro, 2001
[xviii] Mankiw et al., 1992; Benhabib and Spiegal, 1994; Hall and Jones, 1999; Hanushek and Woessmann, 2008
[xix] Tegeler and PRRAC, 2011
[xx] Lynch, 2015
[xxi] Hanushek and Woessmann, 2010
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