HITTING THE TARGET

Housing Needs Assessment & Forecast for Broken Arrow, Oklahoma

2023-2040



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1. Executive Summary & Introduction

Introduction

Broken Arrow, Oklahoma, has been a city on a steady demographic and economic ascent for a number of decades. The population has surged 8% since 2020, surpassing 117,500 residents in 2023, a testament to the City's appeal for young families and ambitious professionals seeking opportunities. However, amidst this growth, a familiar challenge looms — the delicate balance between supplying housing needs and sustainable development.

Broken Arrow has all the hallmarks of a community that will continue to thrive and grow: high quality of life, affordable housing, decisive economic development, and a thriving downtown commercial district. Though housing costs are currently attractive, the rules of economics are incontrovertible. Rising demand will lead to increased price competition. The City's saving grace is an abundance of land with limited topographical/environmental constraints but even still, incoming residents and investors will bring levels of cash that will rebalance the market at higher price levels. Renters are often downstream of buyers with such patterns, but ultimately, they will take the hit as well.

Reflecting the City's dynamism, Broken Arrow's housing market has experienced a steady climb in median home sale prices, reaching \$217,500 in 2023, driven by a robust job market, lower relative cost of living, and suburban lifestyle. Single-family detached homes dominate the housing stock, making up more than 80% of the landscape. Yet, amid this abundance, affordability, and stable housing supply for a growing population, there are still concerns that need to be addressed. Despite Broken Arrow boasting a median household income above the national average, the steadily escalating housing costs pose a potential threat to the affordability of many working families and essential service providers. This echoes a broader national-level struggle marked by a lack of workforce housing and starter homes for lower-and-middle-income families.

This convergence of factors underscores the pressing need to understand Broken Arrow's current housing landscape and anticipate future demands. The City stands at a pivotal juncture, where its trajectory depends on reconciling its growth trajectory with the demand for sustainable housing solutions. This comprehensive report examines Broken Arrow's housing landscape, analyzes future demands, and suggests potential pathways to ensure that Broken Arrow's prosperity reaches every corner of its community.



Report Layout

Chapter I: Executive Summary & Introduction - key highlights from the assessment

Chapter II: Gaps & Barriers Analysis - affordability gaps for residents, along with an overview of the current state of regional affordable housing policies, and land use by zoning district in the City of Broken Arrow

Chapter III: Forecast and Recommendations - population and housing needs projection by type until 2040, along with policy recommendations

Chapter IV: Demographic and Socioeconomic Trends - overview of underlying socioeconomics affecting housing demand and affordability characteristics

Chapter V: Housing Trends - overview of housing for both owners and renters, including affordability dynamics

Chapter VI: Community Engagement Summary - summary of overarching themes from Points Consulting's discussions with community leaders and developers and a summary of findings from the community housing survey

Appendices - supportive quantitative and qualitative material

Executive Summary

Housing Situation

The City of Broken Arrow, Oklahoma boasts a more affordable housing landscape than many cities of comparable size in the US. Single-family homes dominate the City's landscape, with an ownership rate of 72%. While home values experienced a recent surge — settling at a median value of \$265K as of 2023, they remain significantly lower than the national average, offering a much more accessible entry point for aspiring homeowners. This level of affordability is further underscored by the fact that the cost per square foot of an average single-story home in Oklahoma is around \$100 compared to \$120 nationally.

While Broken Arrow's housing affordability outpaces national and state averages, a closer examination unveils complexities. Around 72% of low-income renters are cost burdened, while around 15% of owner-occupied households are cost burdened. Additionally, 22% of prospective homebuyers struggle to afford average-priced homes. Despite its relative affordability, population growth threatens to inflate housing costs in the future, which may increase the share of those who are unable to afford a home. However, the

City boasts a large supply of buildable land.

The rental market has seen

impact of short-term rentals.

steadily rising prices as well, particularly for larger units.

Three-bedroom rental prices have jumped over 20% in just three years, reaching an average monthly listing of \$1,350 in 2022, while all unit sizes have climbed 20%. This trend can be attributed to limited new multifamily construction, a robust job market attracting new residents, and the potential

The short-term rental market, exemplified by platforms like Airbnb, has witnessed a dramatic upsurge, tripling its active listings from 29 in 2020 to 87 in 2022. While offering potential benefits for homeowners, with top performers earning \$4K-\$6K per month, the market might be approaching saturation. A sharp increase in average daily rates (ADR) to \$200 in May 2022 was followed by a swift drop, with active listings remaining elevated after their post-2020 boost.

Demographics and Labor Market

Broken Arrow experienced a remarkable population surge of nearly 20% from 2010 to 2023, outpacing the state and national trends. This level of exponential growth is due in part to substantial in-migration flows, particularly from within Oklahoma, Texas, and California. Points Consulting projects that the City's population will continue to increase going into 2040. The team projects a total population growth of close to 40,000 new residents over the next 20 years. This implies an annual average growth rate of 1.4% over that period.

The City's households are larger and make more money on average when compared to the rest of the state and the US as a whole. Broken Arrow households boast a higher median household income of \$78K compared to the national average of \$73K, with many households (21%) falling within the \$100,000-\$150,000 income bracket. Household net worth in Broken Arrow is \$37K higher than national levels on average. These factors coupled with a lower than average cost of living, means that households in the City are in a much more comfortable financial position on average — especially when it comes to housing, transportation, and grocery costs. The only cost of living metric that is more expensive in Broken Arrow than the rest of the US, as of 2023, is health care. It is not surprising, then, that Broken Arrow also fares well in terms of poverty rates, with under 9% of the population in poverty compared to Oklahoma's 15%, and the US' 12%.

A detailed analysis of Broken Arrow's labor market reveals a diversified economic landscape with promising growth potential. The city boasts a strong presence in the healthcare and social assistance sector, employing 13.5% of the workforce, making it the largest single employer. This is followed by Manufacturing and Retail Trade, which offer additional job opportunities for residents. Interestingly, Broken Arrow exhibits a high concentration in "Mining, Quarrying, & Natural Gas Extraction" compared to the national average, as evidenced by its Location Quotient (LQ) of 3.11. The top employers in the city include Broken Arrow Public Schools, Walmart, and the City of Broken Arrow. The planned Broken Arrow Innovation District, expected to be completed in 2026, holds promise

for future economic growth by fostering collaboration between education, businesses, and residents. This collaboration could potentially unlock new job opportunities and further diversify the city's economic landscape.

Housing Needs Forecast

Points Consulting's housing forecast for Broken Arrow presents three development scenarios, each reflecting potential shifts in housing typologies and density. The **Status Quo Scenario** maintains single-family homes as the predominant housing type, comprising approximately 77% of the total housing stock by 2040. The City could add approximately 18,000 units from 2023 to 2040 under this scenario. The **Moderate Density Scenario** emphasizes a greater variety of middledensity options, with a projected increase of around 22,500 units over the next 17 years. The **Infill Scenario** focuses on ramping up multifamily development. For this scenario, the team projects an average growth rate of 2.2% for multi-family units and an addition of approximately 4,000 of these units over the forecast period. This scenario could add approximately 24,000 units over the next 17 years. Additionally, Points Consulting projects an increase of 43% in active short-term rental listings going from 2024 Q1 to 2026. Overall, these scenarios offer insights into potential housing trends shaped by market conditions and zoning alterations.

80,000 71,112 69,341 70,000 64,910 60,000 46,755 46,755 46,755 50,000 40,000 30,000

Figure 1: Housing Unit Growth Forecast, 2023-2040



Points Consulting expects there will be a growing need for attainable housing units as both the city's population and housing stock increases. The team expects a certain level of home cost escalation to take place, which will lead to the number of cost-burdened households increasing. Broken Arrow would require between 1,300 and 1,670 subsidized units, scaled from the status quo to the infill scenario. In order to adequately fulfill the need, the city would require somewhere between 2,000 and 2,580 units.

Community Engagement

The Points Consulting team carried out a series of in-depth interviews as well as a community survey that served to gauge the community's sentiments toward the current housing situation in the city. The consulting team had the opportunity to hear from both residents, developers, and regional leaders, which provided a broad array of perspectives and opinions on what the most pertinent issues are and what the most appropriate next steps may be. The main recurring themes from Points Consulting's interviews with stakeholders in the community included: the new zoning code revisions, housing affordability gaps, potential school overcrowding, and growing while maintaining the city's character.

Points Consulting also conducted an electronic survey of Broken Arrow residents and frequent commuters from September 25th to November 1st, 2023, yielding 4,178 responses. Promoted both online and offline, the survey utilized fixed response and openended questions. Quality assurance measures included removing suspicious responses and ensuring relevance to Broken Arrow. With a 4.4% response rate, the survey provides an accurate reflection of community sentiments.

Key themes from the survey revealed a diverse range of opinions on the community's future identity, transcending demographic categories. Despite this, respondents generally perceive Broken



Arrow as more affordable for homeownership compared to other areas. However, renters feel that house prices are beyond their reach, contrasting with homeowners' perceptions. Additionally, a significant portion of respondents, 42%, also view rental costs as expensive, with 73% of renters expressing this sentiment, indicating a disparity between homeowners and renters in their perceptions of housing affordability.



Points Consulting On-Site Visit and Survey Flyer.



2. Gaps & Barriers Analysis

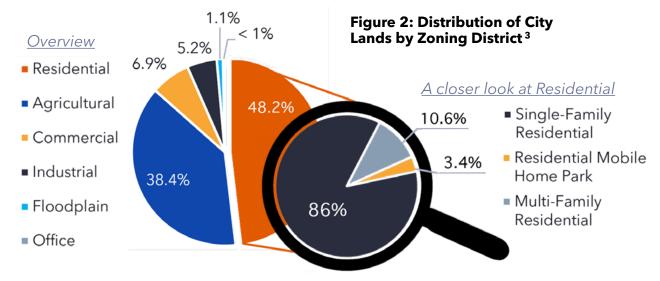
Affordability Gaps

Housing affordability is a challenge for many in Broken Arrow, as well as in Tulsa and Wagoner Counties. Though affordability challenges most frequently plague home renters, homeowners are not exempt especially given recent home cost escalation.

Land Use Context

A growing body of research indicates that exclusionary zoning is part of the reason for rising housing costs across the country. Nationally, roughly 75% of residential areas are zoned exclusively for single-family homes. This contributes to supply shortages and cost escalation for middle- and high-density units. The silver lining here is that zoning laws are largely untouched by the federal government and therefore fully under the jurisdiction of local agencies, such as City Council and Planning Commissions. For these reasons, it is worth examining the distribution of zoning in Broken Arrow to determine how much space is allocated for each particular residential usage.

Within Broken Arrow's city limits are 39,800 acres.² A large swath of space is zoned Agriculture, which is the common default prior to land being developed for other purposes. After discounting for Commercial, Industrial, the Central Business District, and undevelopable floodplains, roughly 19,200 acres remain for residential use. As shown in Figure 2, these residential purposes compose 48% of the City's land, of which the lion's share are R-1: Single Family Residential. Put another way, 86% of the City's residentially purposed land is committed exclusively to single-family homes, exceeding the national average by a significant margin.



Source: Johnson & Associates using data from the City of Broken Arrow

¹ Emily Badger and Quoctrung Bui, "Cities Start to Question an American Ideal: A House With a Yard on Every Lot", New Your Times, 06/18/19, https://www.nytimes.com/interactive/2019/06/18/upshot/cities-across-america-question-single-family-zoning.html.

² Note that these calculations are based on Broken Arrow's existing zoning definitions, as of February 2024. Since the update zoning code has yet to be adopted, no GIS data are available categorizing lands according to the new definitions.

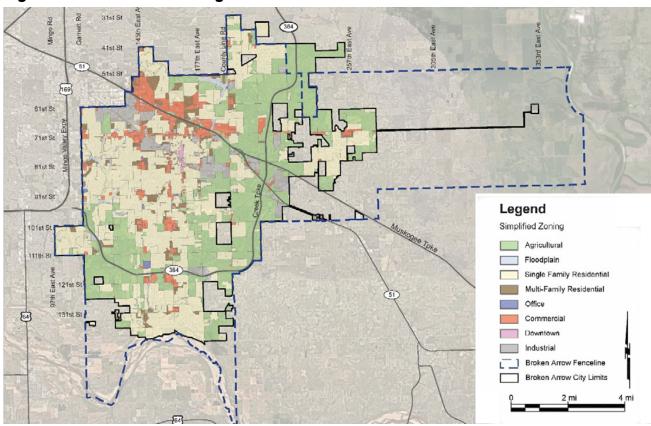
³ Note that some of the zoning categories have been merged to simplify this chart. In particular, the Commercial group includes: CG, CH, CN, DF, and DM; the Industrial group includes: IH and IL; the Single-Family Residential group includes: R-1-3 and RS-1-4; the Residential group includes: RD, RE, and RM.

Table 1: Distribution of City Lands by Zoning District

Zoning Description	Acres in Zoning District	% of All Districts	% of Just Residential Districts
Agricultural	15,279	38.4%	
Commercial	2,735	6.9%	
Industrial	2,069	5.2%	
Floodplain	426	1.1%	
Office	133	0.3%	
Subtotal for Non- Residential Districts	20,642	51.8%	
Single-Family Residential	16,482	41.4%	86.0%
Multi-Family Residential	2,037	5.1%	10.6%
Residential Mobile Home Park	652	1.6%	3.4%
Subtotal for Residential Districts	19,172	48.2%	
Grand Total	39,814		

Source: Johnson & Associates using data from the City of Broken Arrow

Figure 3: Broken Arrow Zoning



Source: Johnson & Associates

Other boundary and land use maps can be found in Appendix A: Detailed Data.

Renter Challenges

Table 2 summarizes key statistics on home cost-burden for the region compared to Oklahoma and the nation, while the series of charts (Figures 4-6) provide more detail by various income levels and housing situations.

The statistics used for the affordability analysis are derived from a mix of data sources, including American Community Survey (ACS) 5-year, which averages data from 2018 to 2022, and US Housing and Urban Development (HUD) 2016-20. Given the drastic changes in both home costs and wages between 2020-2022, it would be preferable to use more recent statistics but, unfortunately, these are the best data available for small geographic regions. To counter the delay in data, wherever feasible, Points Consulting has adjusted these statistics to represent the current number of households estimated to be in cost-burdened housing situations.

Firstly, some level of explanation is required on how government agencies classify costburden by household.

- Severely cost burdened means households that spend 50%, or higher of their household income on housing costs⁴
- Cost-burdened means households that spend between 30-50% of their household income on housing costs

The data show that the lowest-income renters of Broken Arrow are generally better off than the average Oklahoman and American, with less than 20% being severely cost-burdened (15.4%). Renters in the City and Tulsa and Wagoner counties are slightly better off than the average household, with 40.0% of households in Broken Arrow falling into the severely or cost-burdened categories. This goes along with 44.4% and 44.0% of households in Tulsa and Wagoner counties falling into those same categories, compared to 49.9% in the nation. By these measures, roughly 18,700 households struggle with housing affordability in the City.

Several other data sources measure affordability issues by various area median income (AMI) levels. Note that since these are from an older dataset, the number of renters may be slightly out of date. Figures 4-6 display the three cost-burdened categories according to five AMI levels, which include:

- Extremely low-income: less than 30% of AMI
- Very low-income: 30 to 50% of AMI
 - Low-income: 50 to 80% of AMI
- Moderate income: 80 to 100% of AMI
- Above median income: 100%+ of AMI

Table 2: Renters' Housing Cost Burden by Region

Region	Number of Households	Severely Cost- Burdened	Cost- Burdened	Severely or Cost- Burdened	Not Cost- Burdened
Broken Arrow	46,755	15.4%	24.6%	40.0%	60.0%
Tulsa County	300,084	20.8%	23.7%	44.4%	55.6%
Wagoner County	33,928	18.8%	25.2%	44.0%	56.0%
Oklahoma	1.79M	21.8%	23.1%	44.9%	55.1%
US	128.66M	25.0%	24.9%	49.9%	50.1%

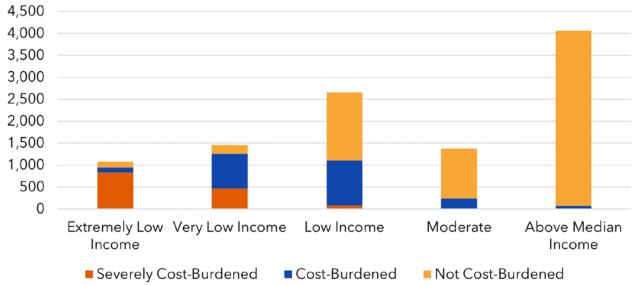
Source: Esri Business Analyst and 5-Year American Community Survey 2018-2022, Table B25070

⁴ By HUD definitions, "housing costs" include just rent or mortgage but not utilities such as water, sewer, refuse removal, and internet, which are generally excluded from rental costs in most leases. In short, if the amounts households pay to other housing-related costs were included the cost-burdened statistics would be driven even higher than what is published here.

Not surprisingly, the lowest income cohorts are the most likely to be highly cost-burdened. In Broken Arrow, 72.0% of the lowest income renting households are cost-burdened – a sign that more affordable and permanent supportive housing is needed within the region. At current Broken Arrow income rates, a household earning between \$39K and \$63K

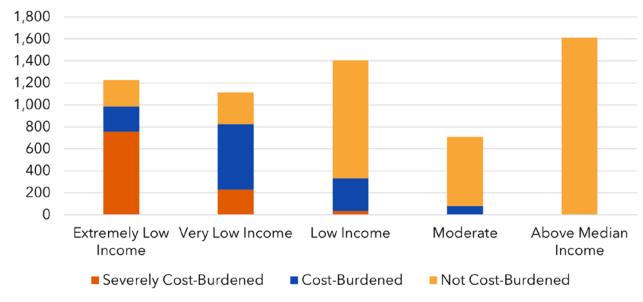
would fall into the low-income category. Of such households, 41.5% are cost-burdened. Among extremely and very low-income households, 80%+ are cost-burdened. Households in the moderate-income category could be earning up to \$78.5K. In these households, 17.3% are cost-burdened.

Figure 4: Broken Arrow Renters' Housing Cost Burden by Income Level



Source: Housing & Urban Development Comprehensive Housing Affordability Strategy Data, Table 7, 2016-2020

Figure 5: Tulsa County Renters' Housing Cost Burden by Income Level



Source: Housing & Urban Development Comprehensive Housing Affordability Strategy Data, Table 7, 2016-2020

1,800 1,600 1,400 1,200 1,000 800 600 400 200 0 Extremely Low Very Low Income Moderate Above Median Low Income Income Income Severely Cost-Burdened ■ Cost-Burdened ■ Not Cost-Burdened

Figure 6: Wagoner County Renters' Housing Cost Burden by Income Level

Source: Housing & Urban Development Comprehensive Housing Affordability Strategy Data, Table 7, 2016-2020

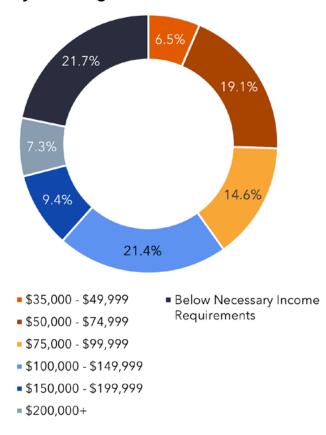
Home Ownership Challenges

There are also many home-owning households that are cost-burdened. Such households face the risk of being foreclosed upon by banks and losing what is likely their greatest financial asset. In fact, 4.7% of homeowning households in Broken Arrow are severely cost-burdened and another 10.2% are cost-burdened to a lesser degree. The statistics are similar in Tulsa County, at 5.3% and 9.2%, respectively.

The prior statistics include many homeowners who may have purchased years ago when home prices were lower. The situation is more foreboding among households who are looking to purchase a new home. Points Consulting developed estimates using current income levels, home price levels in Broken Arrow as of November 2023, and average current mortgage rates as of January 2024. Assuming a household with an average credit rating on a conventional 30-year mortgage, the majority of households are able to compete in the home purchase market.

Purchasing an average-valued home would require \$42.5K in household income to afford the mortgage. As shown in Figure 7, this excludes about a quarter (21.7%) of all households in Broken Arrow. All households in the income brackets above \$50K can afford an average-priced home in the City,

Figure 7: Households that Can Afford to Buy an Average-Priced Home in COBA



Source: Points Consulting using Esri Business Analyst, Zillow, and Realtor.com, 2023

thus the percentages in the chart for these income brackets show the entire share of these income cohorts in the City. Even newly constructed homes are relatively affordable for local households. Data from Community Permitting and Licensing show that the average new home costs only slightly more (median value of \$250K) as all single-family homes in the City (\$218K). This means that the same affordability standards are true for new homes as older ones. Despite relative affordability in the City, outcomes are worse in Tulsa County and Wagoner County, where 34.7% and 44.4% of households cannot afford to buy an average-priced home.

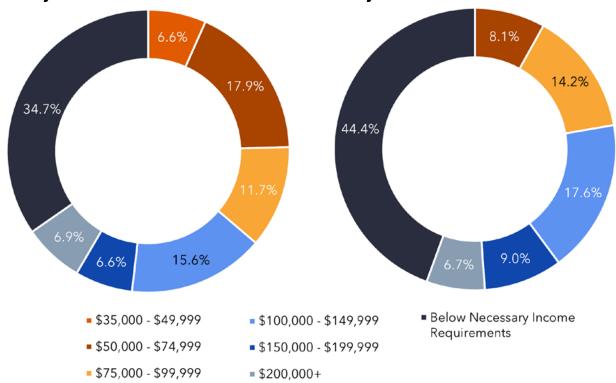
According to this measure, Broken Arrow is relatively well off when it comes to home affordability compared to the counties overall. The necessary household income of \$42.5K to purchase a home is reasonable, when you consider that the median household earns about \$78.5K per year, according to Esri Business Analyst. This relative affordability is

a signal to Americans that Broken Arrow is a place they can afford to live. Population trends in Figures 21-23 (Trends in Population Growth section) show that net migration is a leading factor of population increase in Tulsa and Wagoner Counties, reflecting that individuals are responding to this signal of housing affordability.

However, more people moving into the area will contribute to an increase in demand for housing, which will drive up the cost of housing. The increase in housing costs is reflected in data from Zillow, showing that an average home in Broken Arrow has increased by over 10% in value in the last three years. Maintaining housing production and increasing the supply of housing units would apply downward pressure to the cost of housing. However, this scenario is uncertain, as housing permits have remained stagnant since around 2012, apart from 2020 (New Housing Production section).

Figure 8: Households that Can Afford to Buy an Average-Priced Home in Tulsa County

Figure 9: Households that Can Afford to Buy an Average-Priced Home in Wagoner County



Source: Points Consulting using Esri Business Analyst, Zillow, and Realtor.com, 2023

Population Forecast

Since Points Consulting's housing needs forecast is built partly upon our population forecast, it is worth detailing the methodology the team used to arrive at the numbers for each growth scenario. At its core, this population forecast is based on how the components of population change (births, deaths, and net migration) have trended by age groups over time. It is also important to note that this projection takes into account past and projected population growth, given that it follows its own trajectory, but if the City of Broken Arrow decides to make changes to its land use policy or incorporates the land

within the fence line at different rates it will affect the final projection numbers.

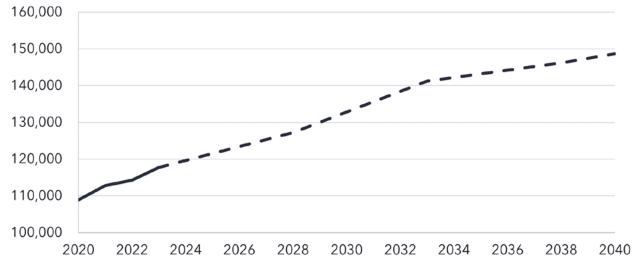
The team projects a total population growth of close to 40,000 new residents over the next 20 years. This implies an annual average growth rate of 1.4% over that period, with a shift in the balance of the population distribution of the City between Tulsa and Wagoner Counties. Points Consulting expects Wagoner County to account for around 29% of the City's population in 2040, compared to the current level of 18%.

Table 3: City of Broken Arrow Population Forecast, 2023-2040⁵

Year	Population	% Tulsa County Share	% Wagoner County Share	CAGR ⁴ (from 2023)
2023	117,762	82.0%	18.0%	
2028	127,186	77.5%	22.5%	1.6%
2033	141,257	73.7%	26.3%	1.8%
2038	146,157	71.6%	28.4%	1.5%
2040	148,693	70.6%	29.4%	1.4%

Source: Points Consulting, 2024

Figure 10: Broken Arrow Population Growth, 2020-2040



Source: Points Consulting, 2024

⁵ A compound annual growth rate (CAGR) is the average rate of growth calculated annually between a given number of years.

3. Forecast & Recommendations

Recommendations

Building upon the research and conversations conducted by the consulting team over the course of this project, we have assembled this customized list of recommendations for consideration by the City of Broken Arrow's staff and elected officials. These suggestions are designed to be achievable and, in some instances, encourage the City and its partners to explore innovative housing solutions. It is uncommon for cities to implement every aspect of recommendations that are conveyed, so these can be viewed as a menu of options, which leadership can pick and choose from. They may have some mutual benefit to pursue simultaneously but are not contingent upon each other.

As a preface, it is important to note that the City is undergoing a Zoning Ordinance update, which is expected to be implemented at some point in 2024. The new ordinances represent a substantial overhaul from the previous code. Our recommendations are built on the assumption that the new code will be adopted largely in the form that it is

currently designed.

Partnerships & Incentives

- 1.1 Support a Non-Profit Affordable Housing Organization
- **1.2** Centralize Affordable Housing Expertise
- 1.3 Waive Development Fees for Priority Development Types

Planning for Housing Needs

- 2.1 Identify Priority Development Areas
- 2.2 Addition of Middle-Density Options in Appropriate Commercial Fringe Districts



Housing Diversity and Supply

- 3.1 Increase Allowance of Multi-Unit Homes
- 3.2 Increase Density Allowances
- 3.3 Cluster Zoning
- 3.4 Uphold Allowance of Accessory Dwelling Units
- 3.5 Enact Minimum Density Standards in Multi-Family Districts

Summary of Recommendations with Difficulty Rankings

The arrow icons indicate the expected difficulty level for the City in implementing the suggested changes. Burden could be borne in terms of time or cost, or both. The scale is from one to five arrows, with one representing a relatively simple administrative action and five representing a multi-year and potentially expensive proposition.

Partnerships & Incentives		
	DIFFICULTY	
1.1 Support a Non-Profit Affordable Housing Organization Will incur startup costs. Requires experienced administration. A level of community resistance is likely	† †††	
1.2 Centralize Affordable Housing Expertise Requires approval of City Council and definition of a clear role separate from Affordable Housing Organization	<u>+</u>	
1.3 Waive Development Fees for Priority Development Types Potential for community resistance to supporting low-income housing developers with public funds	†† †	
Planning for Housing Needs		1
2.1 Identify Priority Development Areas	DIFFICULTY	
Potential resistance to allocation of future lands for non-low-density housing purposes	† †	
2.2 Addition of Middle-Density Options in Appropriate Commercial Fringe — Districts		•
Potential community resistance to expansion of middle-density housing types, but will be lower if allocated to proper locations	†	
Housing Diversity & Supply	DIFFICULTY	1
3.1 Increase Allowance of Multi-Unit Homes Potential community resistance to expansion of middle-density housing types	†	1
3.2 Increase Density Allowances Potential community resistance to higher-density multi-family housing types	† †	i
3.3 Cluster Zoning Challenges of implementing a new housing type and finding developers to utilize it	+ +	•
3.4 Uphold Allowance of Accessory Dwelling Units Adjudication of fringe cases likely to arise over the next 10-years	↑	
3.5 Enact Minimum Density Standards in Multi-Family Districts Occupies a relatively small component of the City's land, but could be some resistance to restricting single-family residential	† †	

Partnerships & Incentives

1.1 Support a Non-Profit Affordable Housing Organization

Currently, Broken Arrow is a relatively affordable location, but this analysis clearly points to growing affordability challenges in Broken Arrow over the next 20 years. As indicated in the following housing needs forecast, the consulting team anticipates between 1,300 to 2,580 households will require some form of below-market rental by 2040. The wide range is dependent on the buildout density levels and how thoroughly the need is fulfilled.

This does not mean that the City is the organization best positioned to fix the problem. Owning and operating low-income units would require additional expertise and staff that the City currently does not have, and which City leadership are likely not interested in adding. The best option for the City is to support a non-profit organization that is exclusively interested in affordable housing. This seems a natural next step for Broken Arrow, as many cities with quickly growing population have already taken this step, including the Oklahoma City Housing Authority, the Tulsa Housing Authority, and the Norman Housing Authority.⁶



Tulsa Housing Authority Properties, tulsahousing.org.

An affordable housing focused organization would be eligible for competitive grants from Oklahoma Housing Finance Association (OHFA), which include programs targeting both for-sale and for-rent housing. In such cases, the host city typically provides some level of annual funding, partners on development of housing projects, and assigns staff members to sit on the board of the Housing Authority.

This organization could handle the development, maintenance, and management of public housing but they need not be limited to this role. The organization could also take on other innovative projects that represent the values of the City of Broken Arrow, such as single-family housing and free-market oriented solutions. These could include but are not limited to:

- Development of a Community Land Trust for middle-income households, such as those operated in locations such as Springfield (MO), Lawrence (KS)⁷.
- Development of a Community or Neighborhood Investment Trust⁸
- Facilitate public-private partnership developments with for-profit developers, (such as the Oklahoma Homebuilders Program)⁹
- Assist with an Affordable Housing Revolving Trust Fund, such as program managed by the City of Norman
- Advocating for urban redevelopment and homeownership, such as Positively Paseo¹⁰ in OKC
- Identify buildings that can be acquired and rehabilitated to serve as
- 6 OKC: https://www.tulsahousing.org/about/; Norman: https://www.tulsahousing.org/about/; Norman:
- 7 Springfield Community Land Trust, https://cpozarks.org/programs/springfield-community-land-trust/, (Accessed 02/22/24); Tenants to Homeowners, https://tenants-to-homeowners.org/, (Accessed 02/22/24)
- 8 Brett Theodos and Leiha Edmonds, Urban Institute, New Models for Community Shareholding: Equity Investing in Neighborhood Real Estate Investment Trusts and Cooperatives
- 9 OHFA, "Oklahoma Housing Stability Program", https://www.ohfa.org/housingstability/
- 10 Positively Paseo, http://positivelypaseo.org/

- affordable housing
- Manage low-income owner-occupied housing rehabilitation loan program, such as those operated in the cites of Lawton¹¹ and Edmond¹²

It is always challenging to site public housing without exciting concerns from neighboring property owners. That said, there are a few vacant parcels in proximity to the Muscogee Turnpike and Broken Arrow Expressway that may be suitable. Other infill locations on the fringes of commercial and industrial districts could also be considered.

1.2 Centralize Affordable Housing Expertise

Beyond supporting an official affordable housing organization, the City may need more touchpoints with the community on this topic. Also, since the affordable housing organization would exist outside of the City, it may be necessary to have a body officially reporting to the City on these topics. By forming a Housing Committee, the City could tap into the expertise and passion of its own citizens, while also providing an additional resource for the Planning Commission as it sorts through complex land use and development topics.

Much like the existing City Boards and Commissions, 13 the Housing Committee would be officially authorized by City Council to undertake specific projects and objectives. Considering the abundance of resources and concepts introduced in this study alone there is no shortage of materials for the Committee to investigate. In addition, this body could recommend project prioritization for use of city funds allocated to housing.

1.3 Waive Development Fees for Priority Development Types

Housing developers are often interested in addressing creative housing solutions but self-interests, along a combination of cost and community pressures, tend to keep developers in their "lane" of tried and true housing typologies.

One way to incentivize the private and nonprofit entities to consider more creative options is by removing certain costs that they typically have to pay. Factors that the City may consider on this front are reducing or waiving tap fees for in-fill projects, particularly those in the DROD districts, where little additional infrastructure is required. The City could take a more proactive approach and also pay for expensive infrastructure elements such as streets, sidewalks, and curb and gutter if developers meet certain criteria of rental rates at set area median income (AMI) levels. Such projects could also involve the assistance of the aforementioned affordable housing organization to secure grant funding on particular projects.



¹¹ Lawton Homeowner Rehabilitation, housing/homeowner-rehabilitation#:~:text=The%20Homeowner%20Housing%20Rehabilitation%20 Program, home%20as%20their%20primary%20residence. (Accessed 2/22/2024).

¹² Edmond Housing & Neighborhood Program: https://www.edmondok.gov/217/Housing-Neighborhood. (Accessed 2/22/2024).

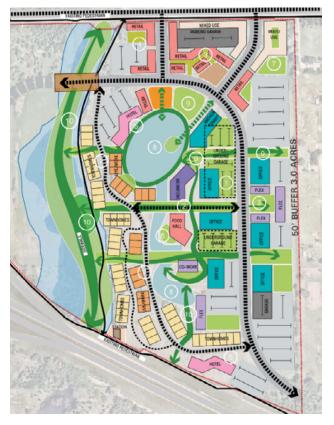
¹³ City of Broken Arrow Boards and Commissions: https://www.brokenarrowok.gov/government/boards-commissions.

Planning for Housing Needs

2.1 Identify Priority Development Areas

Within COBA's City Limits and 3-mile Fence Line are many Agricultural areas, particularly to the southwest, and east sides of town. Given that these lands have relatively few environmental constraints, land use pressures will mount over time as commercial and residential development continues to expand out from the City's core.

Figure 11: Broken Arrow's future Innovation District



Source: Broken Arrow Economic Development Corporation, https://brokenarrowedc.com/innovation-district/.

The consulting team's scan of vacant parcels (see Figure 129 in Appendix A) indicates that the majority of the known large undeveloped parcels in the existing City limits are on the east side of town. Many census tracts in central and northern Broken Arrow have between 550 and 1,500 housing units per square mile, but areas east of E. 241st Ave. and south of Tucson

Street, tend to have 500 or fewer housing units per square mile. This provides a huge opportunity for the Community Development department to plan ahead and avoid potential future conflicts between low-density residential uses and higher density uses.

The City has already utilized this strategy in at least one location, namely in drawing up the future of the 90-acre Innovation District (south of Florence Street, between Aspen Avenue and Olive Street). Even a simple aerial view of the City indicates that this location is one of the few remaining large green-field locations on the south side of Broken Arrow.

Although not required by Oklahoma law, a process of diagnosing each developable parcel via a Buildable Lands Inventory would be a helpful step in this process. Via this process, the City can develop a gross estimate of how much space will need to be allocated for each land use type (industrial, commercial, and residential). Some GIS data enhancements may be necessary to forge ahead with such planning. The consulting team sought to complete a buildable lands inventory as part of this project but came up short due to limitations in the parcel data in the Wagoner County portion of the City.

The City can take an even more proactive approach and earmark certain geographic areas for lower- middle- and higher-density development based on expected future traffic patterns and adjacent land uses. By setting aside middle and higher density locations ahead of time, single-family developers in the future will face the choice of building toward such locations with an already existing land-use defined, rather than an implied lowdensity residential use. This could be done formally through a Future Land Use map, or informally by tracking possible uses by parcel in spreadsheet form. Either way, the process will enable the Planning Commission and City staff to make informed and holistic decisions on issues such as annexation, rezoning, PUDs and other such issues.

2.2 Addition of Middle-Density Options in **Appropriate Commercial Fringe Districts**

Though not suitable within many of the lower density zoning districts, the consulting team believe that these uses could be suitable in areas that COBA is intentionally densifying or installing policies to allow for density, namely the Downtown Fringe, New Orleans Square, and the pending Innovation District.

The DROD 1 area, for example, is in form and description a collection of "eclectic" housing types, which ought to incorporate aspects of single-family, duplexes, townhomes, cluster developments, and mixed-uses. Over time, similar policies could be introduced with the pace of development into areas such as DROD 2 and DROD 3. If generally accepted by the community, the standards defined in the updated zoning code for the DROD districts could be similar deployed elsewhere in the City.14

This recommendation is in line with community sentiments observed via the survey as "Areas on or just behind commercial corridors and arterial streets" and/or "Mixed-use areas (such as The Rose District and Downtown Broken Arrow)" were selected for housing types such as condominiums by 64% of respondents, townhomes by 59%, and duplex/triplexes by 49%. Keeping higher density housing types in the "right place" by the community's standards could also help preserve residential uses in the RS districts from encroachment from higher density usages.

Given the pace of growth, (17% over the past 10-years and projected 20% over the next 10-years), commercial areas themselves are likely to continue expanding, which subsequently provide more areas that can naturally be used for middle-density housing types. Since low to medium density neighborhoods are already present in may locations, this strategy will be most effective on areas that are undeveloped or could be redeveloped.

Geographic areas where this will naturally occur include the following vicinities, which includes streets both to the north and south of the given arterial: Kenosha Street (71st Street). New Orleans St. (101 Street), and to a lesser extent Washington Street (91st. Street) and Houston Street (81st Street). Near the entrance to the Creek Turnpike and without many surrounding incompatible uses, the pending Innovation District could be a particularly strategic location for the City to plan for mixed use of housing density and commercial development.

5 Щ, 3 6 rt Worth **DROD Overall Boundary DROD Areas** Area 4: Residential 4 DROD Overall Boundary Area 1: Residential 1 Area 5: Rose District Transition Area 2: Residential 2 Area 6: Commercial/Mixed Use Core

Figure 12: DROD Area 1: Residential 1

Area 3: Residential 3 Source: City of Broken Arrow Updated Zoning Code, chapt. 3, pp 104.

Area 7: Commercial/Mixed Use Corridor

¹⁴ City of Broken Arrow Updated Zoning Code, pp 136-172.

Housing Diversity and Supply

3.1 Increase Allowance of Multi-Unit Homes

COBA's updated zoning code currently allows "two-family" units in the RMD district, which is sensible given the structure of the zoning code but will have a limited impact on density and affordability mainly because RMD is a less common form of land-use than R1 through R3. Currently, just 3% of the City's incorporated area is in these districts.

COBA should consider allowing duplexes in all single-family (RS) districts that meet certain criteria (namely lot size and off-street parking requirements). Some communities ease into such situations by only allowing duplexes on corner lots or only on lots above a certain square footage threshold, for example. The City's updated zoning code has basic components to allow for such changes but only related to the DROD districts, where it defines the minimum lot sizes for duplexes, 6,500 or 7,500 square feet (SF) depending on the area, and single family homes, 5,000 to 6,000 SF.¹⁵ Twinhomes, currently unaddressed in the zoning code, are another version of attached middle density housing that could be suitable in these same lots. The primary difference between twinhomes and duplexes is that parcels containing duplexes are split through a shared partition, whereas twinhomes contain multiple separate units upon the same parcel.

In Points Consulting's community survey, duplexes and triplexes were combined for determining the level of citizen interest. The images used by Points Consulting on the survey look more similar to single-family homes than apartments but are clearly more dense. For that reason, citizens' support levels were predictably middling. Outside of wanting to see these units "nowhere", the most common responses were in "mixed-use areas (such as The Rose District and Downtown Broken Arrow)," "areas on or just behind commercial corridors or arterial streets," and even "moderately sized single-family

neighborhoods (quarter-acre to half-acre lots)." The latter of these options indicate a reasonable level of support for allowance within RS districts.

Figure 13: Duplex Rendering Used in Survey



Source: Nationwide Homes, https://nationwide-homes.com/model/bridgewater-duplex/.

In association with this topic, COBA should consider moving away from the "two family" moniker in future iterations of the code. The term is problematic in the sense that zoning code can regulate densities and building styles but legally it cannot regulate type of persons and households who reside in the units. One potential option, used in other communities, is "multi-unit house." The City should also encourage the community to think more about middle-density, than implying a strict cut-off point of one- or two-family dwellings. Shifts in vocabulary may be a helpful way to make that transition. Lastly, as suggested above, there are several different expressions of attached units, including duplexes, twinhomes, and townhomes, none of which have representation within the current terminology.

¹⁵ City of Broken Arrow Updated Zoning Code, pp 134, 144.

3.2 Increase Density Allowances

Allowing higher-density developments, such as multi-family housing or mixed-use buildings, enables more housing units on a given piece of land. This can help meet the demand for housing in geographic areas where space is limited. The proposed Broken Arrow zoning code draft begins to address this item, suggesting that areas around the Rose District and other high-intensity corridors would be appropriate areas to consider upzoning or greater allowances for density.

The City could incentivize developers to denser and more affordable units in such areas, enacting "density bonuses" to developers who can meet certain metrics. Density bonuses can allow development of more units than what typical code permits, or reduce green space or parking requirements. Criteria can be based on community factors such as whether the project vicinity is sufficiently walkable and has adjacent open space. To add an additional carrot to this concept, city leadership could also consider offering density bonuses to developers who can meet certain area median income requirements for rental costs on a certain portion of the units being rented.

In the RMF district, city code currently requires a minimum land area of 2,300 square feet per dwelling unit (sf per d/u). This standard is average compared to other communities in Oklahoma, but also does not provide much opportunity to differentiate between lower and higher density multi-family. Mathematically, this allows for a maximum density of 19 units per acre. By comparison, the City of Tulsa allows the equivalent of 18.5 d/u/acre in the RM-1: "Residential Multi-Family 1" district and 33.5 d/u/acre in the RM2 "Residential Multi-Family 2" district. The standard of 17 district. The standard of 18.5 d/u/acre in the RM2 "Residential Multi-Family 2" district. The standard of 2,300 square feet per density and standard of 2,300 square feet per density and 2,300 square feet per density and 2,300 square feet per density and 3,300 square feet per

Recent multi-family developments in Broken Arrow, such as The Icon (Figure 14) tend to be higher end in terms of cost and finishes. Though a helpful option, the lower density of the units is part of what contributes to their

relatively high cost. Hence, over time, COBA may need to create a higher density tier for multi-family development, or at least relax density allowances in certain areas.

Figure 14: Pool at 'The Icon at Broken Arrow' apartments



Source: Rent.com, https://www.rent.com/oklahoma/broken-arrow-apartments/the-icon-at-broken-arrow-4-100059441.

3.3 Cluster Zoning

Allowing developers to cluster homes on a portion of a property while preserving open space can lead to more efficient land use and create opportunities for both higher-density and lower-density housing. This recommendation aligns with the density bonus concept, promoting varied housing typologies while preserving natural features.

Once again, the updated zoning code hints at potential increases in this housing typology in several areas. Firstly, the code allows for both "compact" and "preservation" style development within the RS district which allow for setting aside common open space to provide "rural and suburban character." The concessions for these styles when directly neighboring a conventional RS neighborhood are reasonable for ensuring compatibility of design and land use. Nevertheless, there are likely to be disputes with some adjacent neighborhoods, which is why it is important for these typologies to be codified by-right.

¹⁶ Broken Arrow Updated Zoning Code, pp 20.

¹⁷ City of Tulsa Zoning Code, https://tulsaplanning.org/plans/TulsaZoningCode.pdf, pp 5-5, (accessed 2/22/2024).

¹⁸ Broken Arrow Updated Zoning Code, p 66-70

Figure 15: RS Subdivision Development Options Illustrative



Source: City of Broken Arrow Updated Zoning Code, chapt. 3, pp 9.

The second allusion relates to Cottage Courts which are to be small, detached units, "arranged around a common courtyard." Cottage Courts are to be allowed by-right in the RMD district and DROD 1. They also require a minimum lot size of 10,000 SF (4.36 acres), which could limit adoption of the concept for in-fill purposes. As the concept is built into by developers, the City may consider adopting additional concepts from this housing type to introduce to the RS district.

3.4: Uphold Allowance of Accessory Dwelling Units (ADUs)

COBA's recently altered zoning code and comp plan enhanced how and where ADUs are allowable. When passed, the new zoning ordinance will allow ADUs as permitted use in all Agricultural, Residential, and DROD areas 1 through 5, by-right. The primary factors controlling their application will be the requirement related to entrance, location in reference to the primary unit, unit size, and utility meter requirements.

With these changes pending, it might seem that this recommendation is a moot point, but the consulting team believes that it will take some time for the market to respond to these provisions, and that when they do the public may resist the new innovations. As housing cost pressures increase, homeowners are pulled or pushed to find new ways to leverage their investments. Though BA is still relatively affordable, over the next decade, as housing pressures increase and the region's

Figure 16: Types of ADUs



Note: Structures shaded yellow indicate ADUs. Source: City of Broken Arrow Updated Zoning Code, chapt. 2, pp 32.

population ages, ADUs will become more commonplace. As this occurs, developing a roster of compliant ADU photos from across the community could be another way to educate the public and encourage adoption of this concept.

Points Consulting's community survey indicated that ADUs are one of the few forms of housing density that brings the least potential for conflict. 70% of survey responses were affirmative that ADUs are suitable either "everywhere" and/or in single-family home districts. They pass communities' informal "it looks more like a single-family home" litmus test. Perhaps one of the reasons this concept is palatable is that ADUs provide the potential

for graceful aging in place for citizens as they age. They can continue to occupy the primary unit while a caretaker or family member occupies the ADU, or vice versa.

One of the greatest factors that causes citizens to resist ADUs is simply a lack of knowledge and exposure to the topic. Utilizing pictures of attached and detached ADUs in the zoning code and at planning commission hearings where the topic is under discussion, can alleviate many of these concerns.



Multi-family housing (photo: Points Consulting Vist).

3.5 Enact Minimum Density Standards in Multi-Family Districts

Traditionally, single-family housing receives top priority in the districts, including those zoned for higher-density use. To ensure these multi-family districts (namely, the RM and RMF districts) fulfill their intended land-use purpose and prevent encroachment from lower-density development, enacting a minimum density standard for any new development within these districts is crucial. This change would protect the 2,040 acres of City lands zoned for multi-family development, ensuring they are developed according to their intended purpose.

This concept can be regulated by using a combination of thresholds for lot and building size and ensuring a minimum lot coverage or floor area ratio (FAR).

Housing Forecast

The following housing forecast presents three distinct development scenarios for the City of Broken Arrow (see Figure 17). The model assumes additional eastward development and construction into the City's fence line area in Wagoner County, as well as the projected rate of population growth shown in Points Consulting's forecast.

Depending on market conditions and future zoning alterations, developers in the City may opt to invest in a greater variety of more dense housing typologies. To account for that possibility, Points Consulting developed two scenarios in addition to the status quo development pattern.

Status Quo Scenario



The status quo would see single family homes largely remain the predominant housing type, with a share close to 77% of the total housing stock in 2040 (SFH accounted for 80.5% of homes in 2023). More dense options would possibly increase as a proportion of total housing stock, with an average growth rate of around 2.6% for middle-density housing over the next 17 years, and around 2.1% for multifamily homes. The City could add approximately 6,747 units from 2023 to 2040 under this scenario.

Moderate Density Scenario



The moderate density development pattern places a greater emphasis on both small and large middle-density options, such as duplexes, townhomes, attached and detached ADUs, condos, among others.

Under the moderate density scenario, Points Consulting projects a potential increase of around 9,128 units over the next 17 years. More dense housing options would naturally lend themselves to a higher overall unit count when compared to distributions that favor single-family homes. Single family homes would still remain around 70% of all units in 2040, but small-and-middle-density options together could surpass the 14% mark (compared to 5% in 2023), with multifamily development going from under 12% in 2023 to 14.5% in 2040.

Infill Scenario

The infill pattern further emphasizes middle density typologies, but focuses more on ramping up multifamily development. The infill scenario represents the most multi-family-centered development pattern. Points Consulting projects an average growth rate of 3.2% for multi-family units over the forecast period, adding around 3,484 of these units over the following 17 years. Single-family units would make up around 67% of the housing stock, with both middle-density options surpassing the 7% mark. This scenario could add about 10,300 units over the next 17 years.

Affordable Housing Needs

Estimating precisely how many subsidized housing units will be required in the future is challenging due to a variety of factors, but it is essential for public housing advocates to have a target number. Assuming the expected cost escalation addressed previously in this study, the number of cost-burdened households is expected to increase. Maintaining the same level of public housing support currently offered, Broken Arrow would require between 470 and 725 units by 2040, scaled from the status quo to the "infill scenario". That said, many would argue that Broken Arrow is currently under-supported in terms of subsidized housing. Addressing the need more fully would require somewhere between 725 and 1,120 units.

54,000
50,000
48,000
44,000
42,000
40,000

Note: The status Quo

Infill Moderate Density Status Quo

Figure 17: Housing Needs Forecast for COBA

Source: Points Consulting, 2024

Table 4: Housing Needs Forecast for COBA

	2023 Distributions	2023 Units	2040 Distributions	2040 Units	% Unit Change ′23-′40
Status Quo Forecast		42,298		49,045	15.6%
Single Family Homes	80.5%	34,050	76.7%	37,618	10.5%
Small Middle-Density (Attached ADUs, Duplex, Twinhomes)	2.2%	931	3.0%	1,471	58.0%
Large Middle-Density (Detached ADUs, Triplex, Quadplex, Townhomes, Condos)	2.8%	1,184	3.6%	1,777	50.1%
Multi-Family	11.8%	4,991	14.6%	7,150	43.3%
Manufactured Homes	2.7%	1,142	2.1%	1,028	(9.9%)

	2023 Distributions	2023 Units	2040 Distributions	2040 Units	% Unit Change ′23-′40
Moderate Density		42,298		51,426	21.6%
Single Family Homes	80.5%	34,050	70.0%	35,998	5.7%
Small Middle-Density (Attached ADUs, Duplex, Twinhomes)	2.2%	931	6.3%	3,240	248.0%
Large Middle-Density (Detached ADUs, Triplex, Quadplex, Townhomes, Condos)	2.8%	1,184	6.7%	3,446	190.9%
Multi-Family	11.8%	4,991	14.5%	7,457	49.4%
Manufactured Homes	2.7%	1,142	2.5%	1,286	12.6%
Moderate Density with Infill		42,298		52,639	24.5%
Single Family Homes	80.5%	34,050	67.0%	35,268	3.6%
Small Middle-Density (Attached ADUs, Duplex, Twinhomes)	2.2%	931	7.2%	3,790	307.1%
Large Middle-Density (Detached ADUs, Triplex, Quadplex, Townhomes, Condos)	2.8%	1,184	7.4%	3,895	228.9%
Multi-Family	11.8%	4,991	16.1%	8,475	69.8%
Manufactured Homes	2.7%	1,142	2.3%	1,211	6.0%

Source: Points Consulting, 2023

Forecast Methodology Details

Currently, Broken Arrow has an average housing density of 736 housing units per square mile. For context, in 2022 the City of Tulsa had 952 units per square mile, while Oklahoma City had 481 units per square mile. If the City of Broken Arrow were to maintain its current city limits and status quo pattern of housing development, housing density in 2040 may approach 772 units per square mile. However, if the City were to incorporate its fence line area by 2040, average housing density would hover around 469 units per square mile, which is comparable to Edmond, Oklahoma's 2023 level of 437 units per square mile.

4. Demographic and Socioeconomic Trends

Trends in Population Growth

Population and demographics serve as essential indicators when evaluating the economic dynamics that influence housing markets. This holds particularly true for Oklahoma, which ranked as the 10th most popular state in 2022 in terms of domestic net migration. 20 Within Oklahoma, Broken Arrow stands out with its remarkable growth rate, surpassing both Tulsa County and Wagoner County, and significantly outpacing the state as a whole. Broken Arrow's impressive growth rate of nearly 20% exceeds the national growth rate by a substantial margin of approximately 11 percentage points during the same period. This growth pattern is expected to continue in the coming years, according to projections carried out by the Oklahoma Department of Commerce. Table 5 provides details on the growth of each region between 2010 and 2023, while Table 6 shows the compound annual growth rate (CAGR) for population over time.

Figure 18 shows the cumulative rate of population change for Tulsa County and Wagoner County and compares it with the state's rate. The growth rates for both Tulsa and Wagoner Counties are expected to remain firmly above Oklahoma's rate over the next 30 years. The Department of Commerce projects a population in 2050 of 750,600 for Tulsa County, 90,000 for Wagoner County, and 4.3 million for Oklahoma.

When viewed within a broader historical perspective, the ongoing surge in population becomes even more remarkable. The City of Broken Arrow experienced a population surge commencing in the 1970s, a phenomenon largely propelled by the growth of nearby Tulsa and the completion of the Broken Arrow Expressway in the mid-1960s. These factors, combined with the City's relatively affordable housing options and a broader national trend towards suburban living, resulted in the City's resident population experiencing a three-

Table 5: Population Change, 2010-2023

Area	2010 Population	2023 Population	Numerical Change	% Change
Broken Arrow	98,317	117,762	19,445	19.8%
Tulsa County	603,403	685,694	82,291	13.6%
Wagoner County	73,085	84,565	11,480	15.7%
Oklahoma	3,751,351	4,022,510	271,159	7.2%
United States	308.7M	337.5M	28.8M	9.3%

Source: Esri Business Analyst, 2023

Table 6: Population Growth Over Time

Area	2010 Population	2023 Population	Numerical Change	% Change
Broken Arrow	98,317	117,762	19,445	19.8%
Tulsa County	603,403	685,694	82,291	13.6%
Wagoner County	73,085	84,565	11,480	15.7%
Oklahoma	3,751,351	4,022,510	271,159	7.2%
United States	308.7M	337.5M	28.8M	9.3%

Oklahoma Department of Commerce, Oklahoma Population Projection 2020-2070

²⁰ N. Evangelou, "Where People Moved in 2022", National Association of Realtors https://www.nar.realtor/blogs/economists-outlook/where-people-moved-in-2022

fold increase. Illustrating this trend, Figure 19 depicts an average annual growth rate of 4.5% from 1970 to 2020. Although the pace has slightly diminished, the City continued to demonstrate a robust growth rate of 2.7% from 2020 to 2023.

25.0% 20.0% 15.0% 10.0% 5.0% 0.0% 2020 2025 2030 2050 2015 2035 2040 2045 Tulsa -Wagoner

Figure 18: Cumulative Population Change: 2015-2050

Source: Oklahoma Department of Commerce, Oklahoma Population Projection 2020-2070

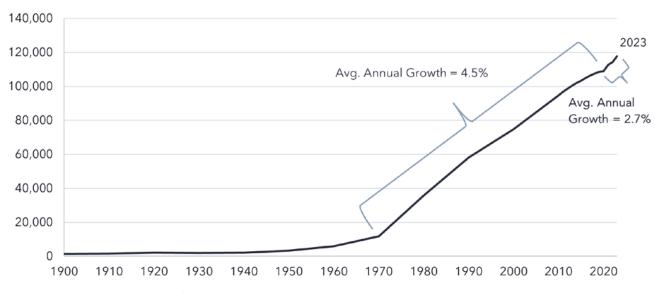
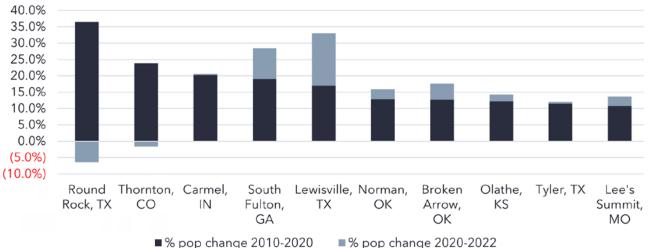


Figure 19: Broken Arrow 100-year Population Growth

Source: U.S. Census Bureau, and Esri Business Analyst 2023

Population growth is influenced by three primary factors: births, deaths, and migration. Figures 20 - 23 illustrate how these sources of population change have evolved from 2010 to 2021. From 2010 to 2021, the county experienced a significant transformation in these sources of population change. Notably, net domestic migration exhibited a steady increase up to its peak in 2015. However, from 2016 onwards, there was a noticeable fluctuation in the rate of net in-migration. The years 2017 and 2018 saw negative net changes, while from 2019 to 2021, there was a return to positive rates. Natural population increase, which reflects the difference between births and deaths, remained consistently positive throughout this period. Overall, Tulsa County's population has displayed a steady upward trend since 2010.

Figure 20: Regional Population Change Comparison



■ % pop change 2010-2020 ■ % pop change 2020-

Source: U.S. Census Bureau, and Esri Business Analyst 2022-2023

Figure 21: Sources of Population Change in Tulsa County, 2010-2021*

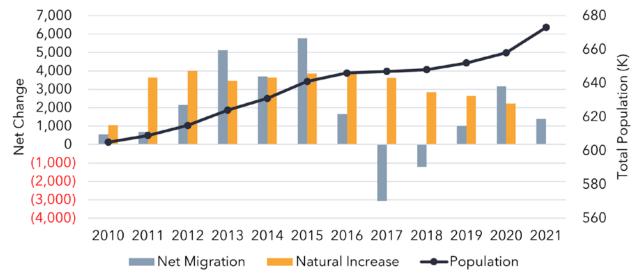
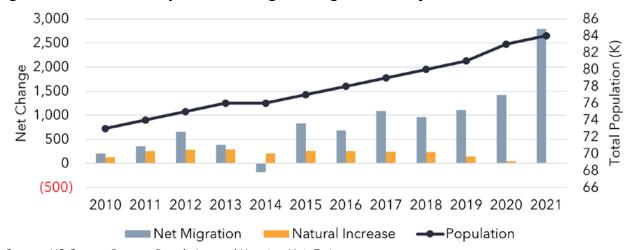


Figure 22: Sources of Population Change in Wagoner County, 2010-2021*



* Source: US Census Bureau, Population and Housing Unit Estimates

4,050 30,000 4,000 25,000 3,950 (X) 3,900 (X) 3,850 (A) 3,850 (A) 3,750 (A) 20,000 **Net Change** 15,000 10,000 5,000 3,750 0 (5,000)3,650 (10,000)3,600 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Natural Increase

Figure 23: Sources of Population Change in Oklahoma, 2010-2021

Source: US Census Bureau, Population and Housing Unit Estimates

Net Migration

In Wagoner County, population dynamics have been influenced primarily by net migration since 2010, although with minor fluctuations in some years. Over the entire period, net migration increased by nearly 13% from 2010 to 2021. This consistent growth in net migration has been the principal driver of year-to-year population expansion in the county. Simultaneously, natural population increase has remained relatively stable throughout the years, contributing to the county's overall population growth.

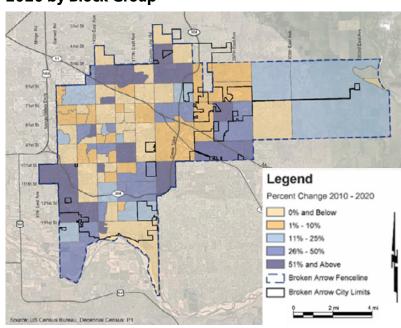
When looking at the state of Oklahoma, population changes reflect a cyclical pattern in net migration, with an upswing commencing in 2010 and extending until 2013. After this peak, migration rates experienced a temporary decline before resurging and reaching another peak in 2021. Conversely, natural population increase has gradually decreased since 2012. Despite this decline in natural incomparation has consistent to the state's overall population has consistent.

2012. Despite this decline in natural increase, the state's overall population has consistently followed an upward trajectory since 2010.

The City has grown unevenly, more in certain pockets than in others. The map in Figure 24 breaks down population growth at the block group level. From 2010 to 2020 the highest rates of increase (greater than 50%) took place in the northern and southwestern areas of the Tulsa County portion of the City, as well as the

Figure 24: Broken Arrow Population Growth 2010-2020 by Block Group

---Population



Source: US Census Bureau, 2020

northwestern and southeastern regions of the Wagoner County portion of the City.

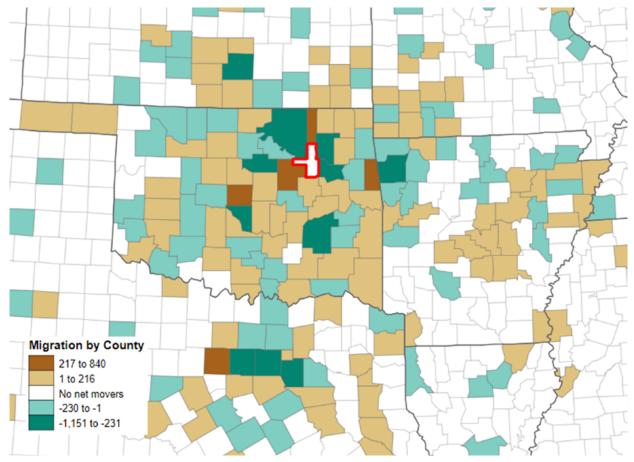
Table 7 provides a detailed insight into migration dynamics, focusing on the top 10 counties that contributed to both in-and-out-migration for Tulsa County between 2016 and 2020. During this period, the majority of in-migration flows to Tulsa County originated from Oklahoma, as well as from Texas

Table 7: Tulsa County Top In & Out Migration Counties, 2016-2020*

Positive Net Migratio	n From	Negative Net Migr	ation To
Creek County, OK	+840	Wagoner County, OK	(1,151)
Washington County, OK	+459	Payne County, OK	(690)
Bexar County, TX	+406	Cleveland County, OK	(604)
Adair County, OK	+346	Ramsey County, MN	(405)
Sacramento County, CA	+326	Clark County, NV	(387)
OK County, OK	+306	Washington County, AK	(348)
Parker County, TX	+300	Kaufman County, TX	(348)
Pottawatomie County, OK	+216	Osage County, OK	(326)
Seminole County, OK	+201	Gaston County, NC	(298)
Fresno County, CA	+195	Tarrant County, TX	(283)

and California. Specifically, Creek County, Oklahoma emerged as the primary source for incoming migration, followed by Washington County, OK, in the second position. Most outbound migration from Tulsa County was directed toward other counties within Oklahoma. Additionally, there were instances of Tulsa County residents relocating to Ramsey County in Minnesota and Clark County, Nevada. To further visualize these countyto-county movements, Figure 25 presents a map with colorcoded migration flows, where brown signifies positive net migration to Tulsa County, while blue represents negative net migration.

Figure 25: Tulsa County In- and Out-Migration Trends*

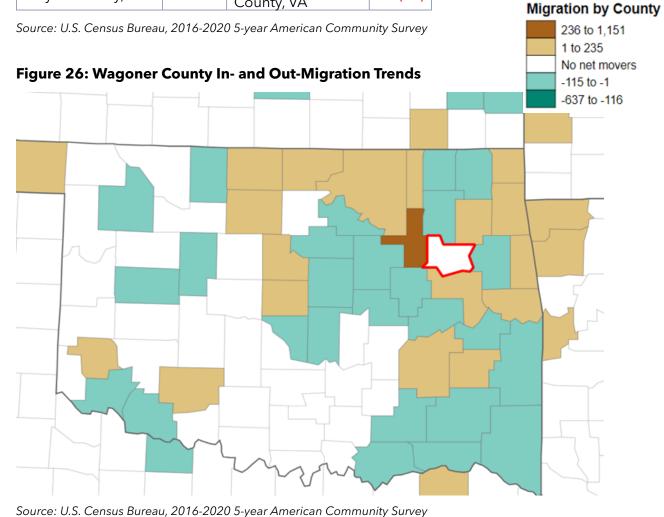


^{*}Source: U.S. Census Bureau, 2016-2020 5-year American Community Survey

Table 8: Wagoner County Top In & Out Migration Counties, 2016-2020

Positive Net Migration	on From	Negative Net Migra	ation To
Tulsa County, OK	+1,151	Harris County, TX	(637)
Muskogee County, OK	+235	Broomfield County, CO	(116)
Osage County, OK	+111	Payne County, OK	(115)
Outagamie County, WI	+107	Cherokee County, OK	(109)
Delaware County, OK	+75	Douglas County, CO	(104)
Ventura County, CA	+63	Denver County, CO	(79)
Pittsburg County, OK	+58	Cape Girardeau County, MO	(72)
OK County, OK	+57	Lincoln County, NC	(67)
Benton County, AK	+49	Ramsey County, ND	(60)
Wayne County, NY	+49	Prince William County, VA	(53)

Table 8 displays the key migration trends in Wagoner County from 2016 to 2020. Similar to the case of Tulsa County, the majority of incoming migration flows came from within Oklahoma, with Tulsa County being the primary source. Migrants leaving Wagoner County tended to seek new homes in other states, particularly Harris County, Texas, which attracted nearly 640 migrants. Figure 26 provides a map of Wagoner County with color-coded migration patterns, similar to Figure 25 for Tulsa County.



The rates of geographic mobility within Broken Arrow, referring to the movement from one home to another within the City, have exhibited relative stability when comparing data from 2017 to 2022. In 2022, a slightly higher percentage of Broken Arrow residents opted to stay in place compared to five years prior, showing a modest increase of nearly 2 percentage points. The proportion of individuals relocating from a different county remained unchanged, while there was a slight decrease in those arriving from another state. Overall, the characteristics of geographic mobility have remained largely consistent over the past five years. These patterns are broken down in Table 9.

Table 9: Geographic Mobility in Broken Arrow

	2017 Pop 5 years and older	%	2022 Pop 5 years and older	%		
Total	98,435	100.0%	106,572	100.0%		
Lived in the same house as in previous year	83,940	85.3%	92,571	86.9%		
Lived in a different house as in previous year	15,061	15.3%	14,001	13.1%		
Of Residents Living ir	n a Different House a	as the Prev	vious Year:			
Lived in the same county as in the previous year	7,493	7.6%	8,113	7.6%		
Lived in a different county than the previous year	3,298	3.4%	3,437	3.2%		
Lived in a different state than the previous year	2,842	2.9%	2,158	2.0%		
Of those not Living in the United States as the Previous Year:						
Foreign country or at sea	394	0.4%	293	0.3%		

Source: U.S. Census Bureau, American Community Survey, 2022

Regional Demographic Data

Race and ethnicity significantly influence housing needs and markets, with factors like multi-generational living, income levels, and household size closely tied to these demographics. In Broken Arrow, Wagoner County, and Oklahoma, the largest non-white group comprises individuals identifying as two or more races, making up 14.6%, 15%, and 15.3% of their populations, respectively. These figures exceed the national average of 10.6% but align closely with the state's 13.3%. Tulsa and Wagoner Counties have notably higher proportions of American Indian and Alaskan Native residents compared to the national average but lag behind in Black, African American, and Asian representation. The percentages of Native Hawaiian and Other Pacific Islander residents show minimal variation across different levels, as shown in Table 10.

Table 10: Race and Ethnicity Comparison, 2023

Region	White	Black or African American	American Indian & Alaska Native	Asian	Native Hawaiian & Other Pacific Islander	Some other race	Two or more races	Hispanic or Latino
Broken Arrow	66.2%	5.1%	5.6%	4.6%	0.1%	3.9%	14.6%	10.3%
Tulsa County	57.1%	10.1%	5.9%	4.0%	0.2%	7.6%	15.0%	15.9%
Wagoner County	66.0%	3.4%	10.4%	1.7%	0.1%	3.1%	15.3%	8.2%
Oklahoma	62.5%	7.4%	8.3%	2.5%	0.2%	5.7%	13.3%	12.7%
US	60.6%	12.5%	1.1%	6.2%	0.2%	8.7%	10.6%	19.4%

Source: Points Consulting using Esri Business Analyst, 2023

Table 11 illustrates how the rates for each race and ethnicity have changed in Broken Arrow since 2010. Most notably, the White population has decreased 16%, while those of two or more races have increased 170%. Some other race and Hispanics have also grown substantially as a share of the City's population, both with increases of over 60% in 13 years.

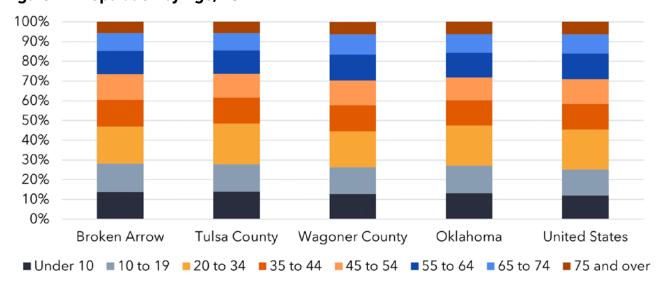
Table 11: Percentage Change in Race and Ethnicity in Broken Arrow, 2010-2023

Region	White	Black or African American	American Indian & Alaska Native	Asian	Native Hawaiian & Other Pacific Islander	Some other race	Two or more races	Hispanic or Latino
Broken Arrow	(16.4%)	18.6%	7.7%	27.8%		77.3%	170.4%	60.9%
Tulsa County	(17.5%)	(5.6%)	(1.7%)	73.9%	100.0%	31.0%	158.6%	44.5%
Wagoner County	(12.8%)	(8.1%)	4.0%	21.4%		72.2%	106.8%	70.8%
Oklahoma	(13.4%)	0.0%	(3.5%)	47.1%	100.0%	39.0%	125.4%	42.7%
US	(16.3%)	(0.8%)	22.2%	29.2%	0.0%	40.3%	265.5%	19.0%

Source: Points Consulting using Esri Business Analyst, 2023

Housing needs, influenced by population factors like parcel size, home size, and proximity to services, also hinge on age considerations, particularly in forecasting housing markets over the next 10 to 20 years. A key demographic shift will occur as many Baby Boomers vacate their homes between 2030 and 2050. Examining age distribution in Broken Arrow, Tulsa County, Wagoner County, Oklahoma, and the US (Figure 27) reveals similarities and noteworthy differences. In Broken Arrow, both the 55-64 and 20-34 age groups are smaller than the national average, while Tulsa County exhibits a higher proportion of individuals in the 20-34 age group than both Broken Arrow and the national average. Wagoner County, on the other hand, has fewer young people (20-34) and seniors (65+) compared to Broken Arrow. In the broader context, Oklahoma boasts a higher percentage of young people under 34 compared to the national average.

Figure 27: Population by Age, 2021



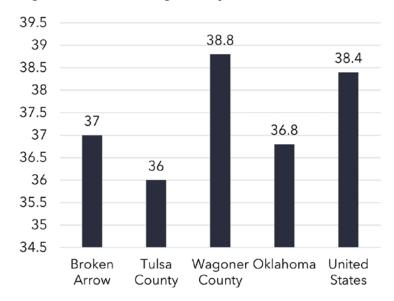
Source: U.S. Census Bureau, 2017-2021 5-year American Community Survey, Table S0101

It is necessary to be conscious of the age distribution in a region, since the housing needs of an aging population are going to be different to those of younger renters and first-time

homebuyers. Figure 28 shows a comparison of the median age in the regions of interest and compares them to the state and national level. The median age in Broken Arrow is slightly higher than the state median, mainly due to Wagoner County's higher median age of close to 39. The City has a lower median age than the US, however, given Tulsa County's lower median age.

Figure 28 shows the percentage of residents aged 55 and over in the same regions as the previous figure. The City of Broken Arrow has a slightly lower population of those 55 and over than the state or the nation, however Wagoner County has a slightly higher proportion of older residents than the US overall. This age cohort is important to keep track of, because research

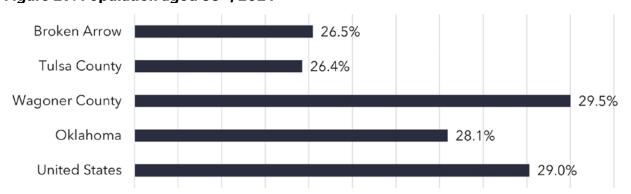
Figure 28: Median Age Comparison, 2021



Source: U.S. Census Bureau, American Community Survey, 2021

from the Joint Center for Housing Studies of Harvard University shows that most adults prefer to age in place in their communities. Additionally, the 55+ cohort increased 26% in Broken Arrow, compared to 12% in Oklahoma, and 18% at the national level.²¹ Therefore, it is vital to have a supply of age-appropriate housing available in such areas. Some mechanisms that can be used to meet the housing needs of a more senior population of a range of income levels include zoning to permit accessory dwelling units, so seniors with disabilities and other health conditions can live close to their family caregivers, multifamily housing, and mixed-use developments.²²

Figure 29: Population aged 55+, 2021



24.5% 25.0% 25.5% 26.0% 26.5% 27.0% 27.5% 28.0% 28.5% 29.0% 29.5% 30.0%

Source: U.S. Census Bureau, 2017-2021 5-year American Community Survey, Table S1501

Figure 30 provides a snapshot of the educational achievements of residents aged 25 and over in Broken Arrow, Tulsa, and Wagoner Counties, Oklahoma, alongside the broader United States. In Broken Arrow, a notable majority of the population has attained some level of college education, surpassing the educational attainment levels seen in the other regions depicted in the chart. Conversely, most residents in these regions have secured high school diplomas as their highest

²¹ U.S. Census Bureau, American Community Survey

^{22 &}quot;Housing America's Older Adults: Meeting the Needs of an Aging Population" Joint Center for Housing Studies of Harvard University, 2014

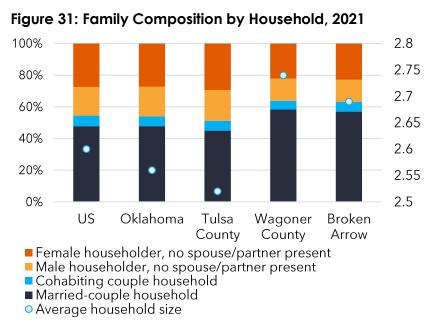
level of educational attainment. However, it's worth noting that Broken Arrow falls just short of the national average when it comes to individuals holding graduate or professional degrees. These statistics hold significant importance as educational attainment often intersects with other critical population indicators, including poverty and disability rates. Moreover, research consistently underscores the pivotal role of housing as the initial step toward economic advancement, rendering it central to overall economic development efforts, including educational outcomes.²³

35.0% 30.0% 25.0% 20.0% 15.0% 10.0% 5.0% 0.0% **United States Broken Arrow** Tulsa County Wagoner County Oklahoma ■ Less than 9th grade ■9th to 12th grade, no diploma High school graduate (includes equivalency) ■Some college, no degree Associate's degree ■ Bachelor's degree ■ Graduate or professional degree

Figure 30: Educational Attainment, Population 25+, 2021

Source: U.S. Census Bureau, 2017-2021 5-year American Community Survey, Table S1501

The City of Broken Arrow has a larger share of married-couple households and a bigger average household size than Oklahoma and the US. This is mainly driven by Wagoner County, which has a significant proportion of married-couple households (58%) and an average household size of 2.7. This difference in family composition is to be expected, given Broken Arrow's suburban character, especially when compared to Tulsa County's lower than average household



Source: 2021 Census ACS 5-year Estimate

²³ V. Gaitán, "How Housing Can Determine Educational, Health, and Economic Outcomes", Housing Matters, 2018, https://housingmatters.urban.org/articles/how-housing-can-determine-educational-health-and-economic-outcomes

Figure 32: Median Household Size, 2021

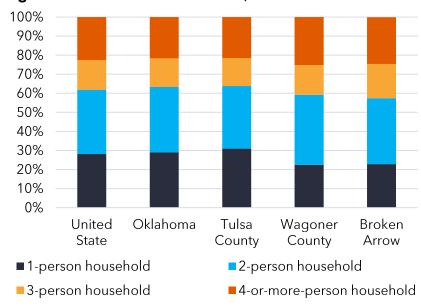
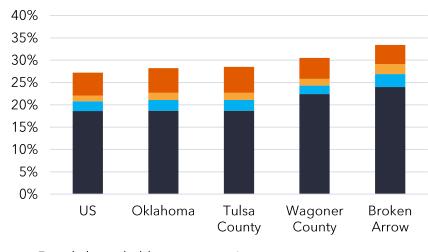


Figure 33: Percentage of Households with Children by Household Type, 2021



Female householder, no spouse/partner present

Male householder, no spouse/partner present

■ Cohabiting couple household ■ Married-couple household

Source: 2021 Census ACS 5-year Estimate

size and share of marriedcouple households, given Tulsa County is home to Tulsa, which is much more urbanized.²⁴

The household size distribution of Tulsa County is relatively similar to Oklahoma and the United States. Whereas Wagoner County and Broken Arrow show more similarities to each other in distribution. In Tulsa County, 63.8% of households contain two or fewer persons. In both Wagoner County and Broken Arrow, that percentage is lower, 59.2% and 57.4%, respectively. The higher percentage of households with three or more persons in Wagoner County and Broken Arrow is primarily driven by a larger percentage of households with four or more people. Of households in Wagoner County, 25.2% have four or more persons, and in Broken Arrow, 24.5%. Broken Arrow's 18% of households that have three persons is also noteworthy, as for other areas of consideration, that percentage ranges from 14.7%-15.6%. When looking at households with children seen in Figure 33 — a larger proportion of households in Broken Arrow have children when compared to the US and Oklahoma. The City has a

²⁴ T. Yang, G. Jung, "Household Structure and Suburbia Residence in U.S. Metropolitan Areas: Evidence from the American Housing Survey", Social Sciences, 2016. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5130094/#

greater proportion of married-couple households with children (24%), cohabiting couples with children (3%), and male householders with no spouses that have children (2%).

As of 2023, the majority of students attending Broken Arrow public schools reside within city limits (69.4%)²⁵. Out of this percentage, 26% live in Wagoner County, and the remaining 74% live in Tulsa County. ²⁶ Table 12 shows the number of schools by education level, along with the enrollment for each of these educational levels in both of the school districts in the city. In addition, table 13 shows the average number of students per household by housing type for students enrolled in the Broken Arrow School District. It is interesting to note that multi-family homes have less enrolled students on average, which implies that increasing the share of multi-family homes in the city's housing stock has a smaller impact on school enrollment than single-family units.

Table 12: Number of Schools and Enrollment in Broken Arrow

Education Level	Number of Schools	Enrollment				
Broken Arrow School District						
Early Education Center	4	1,714				
Elementary School	15	7,903				
Middle School	5	4,432				
High School	1	4,575				
Freshman Center	1	1,300				
Early College	1	260				
	Union School District					
Early Education Center	1	23				
Elementary School	13	1,392				
Middle School	2	3,188				
High School	2	4,403				
Grand Total	45	29,190				

Source: Broken Arrow Public Schools, 2023

Table 13: Students Per Household by Housing Type

Housing Type	Students per Household
Single-family Homes	1.67
Multi-family Homes	1.38

Points Consulting using data from Broken Arrow Public Schools, 2023

A crucial factor to consider when assessing affordability in any housing market is the region's median household income (MHI), as home prices are only meaningfully classified as "high" or "low" in relation to

residents' purchasing power. Notably, on a national scale, home prices have outpaced income growth significantly. ²⁷ Against this backdrop, Broken Arrow stands out with an MHI surpassing the national median by \$5,000 and the state median by a substantial \$21,000, as illustrated in Figure 34. The largest share of households in Broken Arrow reported incomes ranging between \$100,000 and \$150,000 in 2023, forming the largest income bracket in the City, which mirrors

²⁵ Points Consulting using data from Broken Arrow Public Schools

²⁰ Ibid.

²⁷ "Home prices are rising 2x faster than income" LBM Journal, 2023. https://lbmjournal.com/home-prices-are-rising-2x-faster-than-

income/#:~:text=But%20buyers%20aren't%20feeling,annual%20income%20on%20a%20home

Figure 34: Median Household Income*

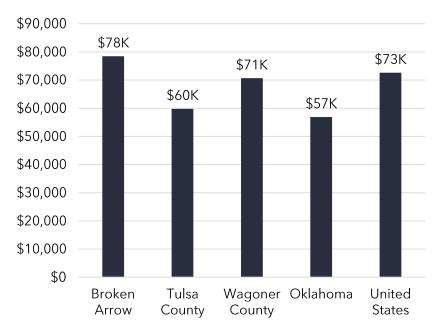
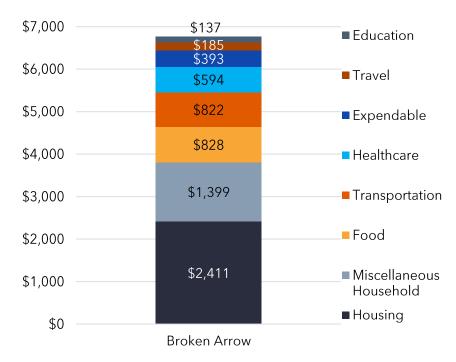


Figure 35: Broken Arrow Monthly Household Budget Expenditures*



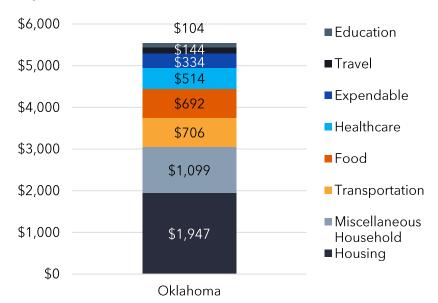
^{*} Source: Esri Business Analyst, 2023

national rates. This figure surpasses the income distribution in the other regions depicted in the figure, where the predominant range is \$50,000 to \$75,000.

As shown in Figures 35-37, households in BA use a greater share of their monthly household budget for housing when compared to all Oklahomans at the state level. In general, monthly expenditures on a percentage basis closely align for BA households compared to all Oklahoman households in all spending categories. One difference is BA households tend to spend more on food than on transportation, whereas Oklahoman households spend more on transportation than food. Additionally, the average Oklahoman household spends less on a monthly basis (around \$5,500) when compared to BA households (around \$6,800) because higher household incomes in BA facilitate higher levels of budget expenditures.

The scenario for net worth is slightly different, however with higher values in Wagoner County than the City of Broken Arrow (Figure 38). Net worth takes into account all of a household's financial assets, as well as debts and financial obligations. When looking at

Figure 36: Oklahoma Monthly Household Budget Expenditures*



wealth through this lens, Broken Arrow fairs relatively well in comparison to the nation and the state. Because net worth also factors in outstanding debt, it can help reveal which households are better positioned to become homeowners, since debts are considered when being approved for a mortgage.

Figure 37: Household Income Distribution*

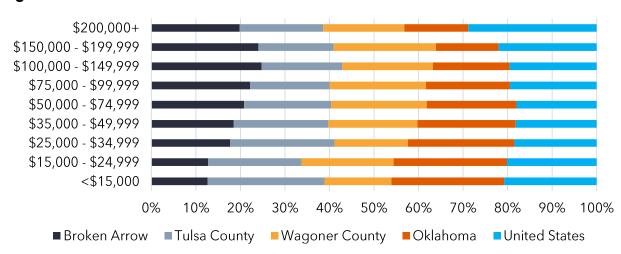
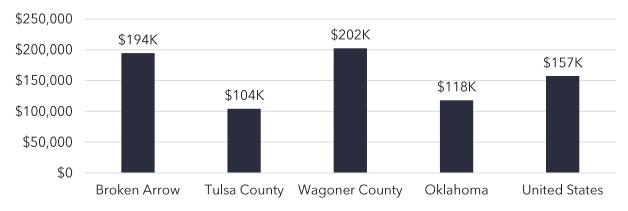


Figure 38: Household Net Worth, 2023*



^{*} Source: Esri Business Analyst, 2023

Table 14 highlights cost of living differences using the national average as a benchmark. Entries less than 100 convey goods cheaper than the national average, while entries greater than 100 indicate more expensive goods than the national average. In this context, all compared areas are on average cheaper to live in and cost of living is lower than the national average in almost all categories including transportation, utilities, groceries, and housing notably being much more affordable than the national average. However, healthcare is more expensive in Broken Arrow, as well as the counties it is located in.

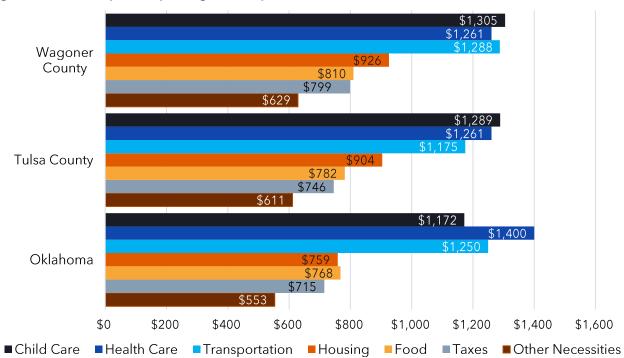
Figure 39 illustrates the difference in the monthly budget for families in Oklahoma, and Tulsa and Wagoner Counties. Notably, Wagoner County boasts a slightly higher monthly budget total of \$7,000, whereas the state average stands at \$6,600, and Tulsa County follows closely at \$6,800. The distinctions in individual budget categories among these regions, while existent, are relatively modest, considering these figures are monthly averages. None of the differences exceed \$200. However, households in Wagoner County allocate approximately \$160 more per month toward housing compared to their counterparts in Oklahoma, and they allocate an additional \$113 monthly for transportation compared to those in Tulsa County.

Table 14: Cost of Living Comparison

Region	Overall	Housing	Grocery	Health	Utilities	Transportation
Broken Arrow	89.3	70.1	97.4	103.4	98.2	91.7
Tulsa County	85.3	60.1	95	103.4	96.1	91
Wagoner County	88.4	65.9	93.9	102.4	97.9	98.1
Oklahoma	82.2	50.3	92.3	113.8	99.7	89.2
United States	100.0	100.0	100.0	100.0	100.0	100.0

Source: Sperlings Best Places, Cost of Living Comparison, 2023

Figure 39: Monthly Family Budget Comparison



Source: Economic Policy Institute, Family Budget Calculator, 2022

Transfer payments from social programs can play a factor in determining income for individuals in the community. Figures 40 and 41 look at the social programs for retired workers and disabled workers, specifically the growth in how many people are benefiting from the programs and the growth in payments from them. Between 2012 and 2022, the number of disabled workers receiving disability benefits has declined. The trend for retired workers is opposite that of disabled workers. The number of retired

workers has grown since 2012, and this is a group of individuals that rely on savings and their social security benefits for their income. The payments received from both social programs have increased in the same time period, although very slowly for disabled workers. It is also notable that the payments received have grown faster than the number of people benefiting from the programs. For retired workers, this reflects how workers have earned more over time and have contributed more to their social security as a result.

Figure 40: Growth in Social Program Beneficiaries, 2012-2022*

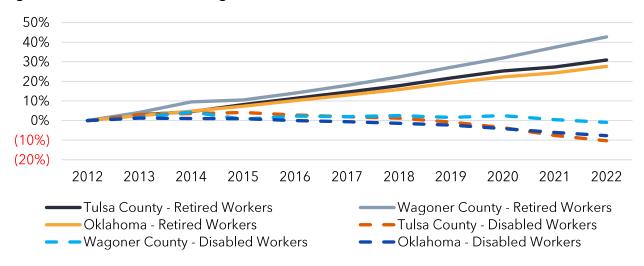
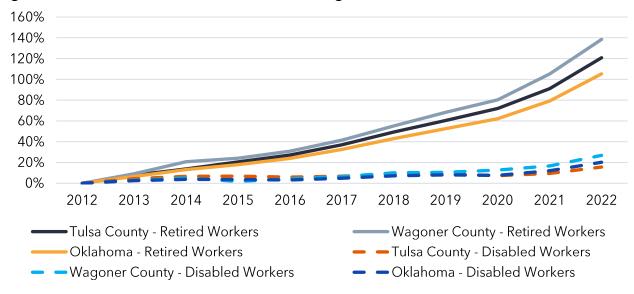


Figure 41: Growth in the Benefits from Social Programs, 2012-2022*



 $^{^{}f \star}$ Source: Social Security Administration, OASDI Beneficiaries by State and County, 2022

Figures 42 and 43 show how the number of seniors receiving OASDI benefits has grown since 2012 and how those benefits have grown at the same time. The number of seniors receiving benefits in Tulsa County, Wagoner County, and Oklahoma has grown at a steady pace since 2012, with Wagoner outpacing both Tulsa County and the state. The amount of benefits seniors received has grown faster than the number of seniors receiving them since 2012. That trend is consistent given how workers have earned more overtime and therefore paid more into social security overtime. However, growth in the payments in Oklahoma has grown significantly faster from 2020 to 2022 than in the prior 8 years.

Figure 42: Growth in Seniors Receiving Benefits from Social Programs, 2012-2022*

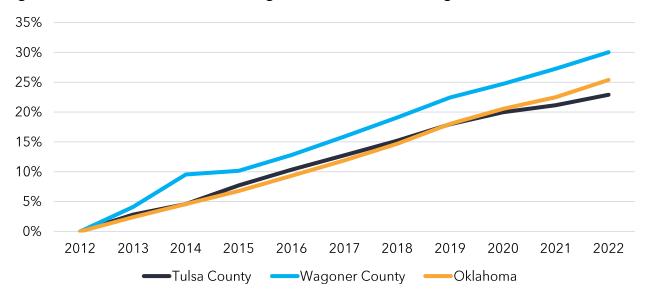
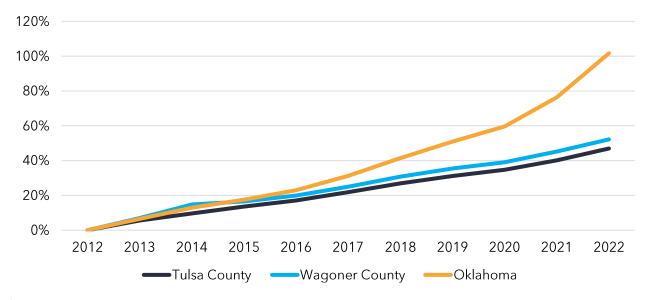


Figure 43: Growth in Benefits Received by Seniors from Social Programs, 2012-2022*



^{*}Source: Social Security Administration, OASDI Beneficiaries by State and County, 2022

Underserved Populations

Many of the population cohorts can pay for themselves when it comes to housing needs, but more vulnerable populations require particular attention as they are less likely to have the financial or social assets to afford market-rate housing. In this section, Points Consulting outlines a variety of such audiences in the region.

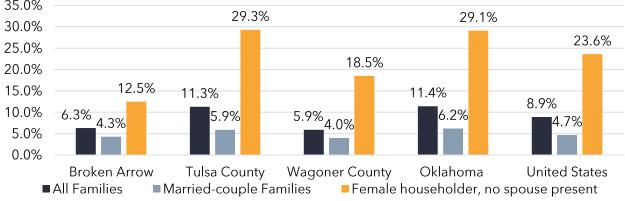
Population in Poverty

Figure 44 displays the poverty rates for Broken Arrow, Tulsa and Wagoner County contrasted to the rates of the state and nation overall. Broken Arrow uniquely has maintained poverty rates slightly above or at 8.0% across the last decade. Whereas Wagoner County, until 2021, has historically seen rates between 12.0% to 10.0%. Followed by Tulsa County averaging close to 15.0% slightly under the State overall.

Figure 44: Percentage of the Population in Poverty, 2012-2022* 18.0% 16.0% 14.0% 12.0% 10.0% 8.0% 6.0% 4.0% 2.0% 0.0% 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 Broken Arrow Tulsa County Wagoner County Oklahoma Unites States

Poverty levels can vary greatly based on demographic cohort, as Figures 45-47 demonstrate. The poverty rate for female householders who have no spouse present are the highest composition compared to others seen across each region. This being the case that femaleheaded households have the highest poverty rates in the nation. Around 80% of single-parent households are headed by single mothers, and almost a third of these live in poverty.²⁷

Figure 45: Percentage of Families in Poverty by Composition, 2022* 35.0% 29.3%



^{*} Source: U.S. Census Bureau, 2022

²⁷ "America's Families and Living Arrangements: 2022", U.S. Census Bureau, 2022, https://www.census.gov/data/tables/2022/demo/families/cps-2022.html

12.0% 10.0% 9.5% 10.0% 8.6% 8.0% 7.0% 5.7% 6.0% 4.0% 2.0% 0.0% Oklahoma Tulsa County Wagoner County **United States Broken Arrow**

Figure 46: Percentage of Seniors (65+ Years Old) in Poverty, 2022

Source: U.S. Census Bureau, 2022

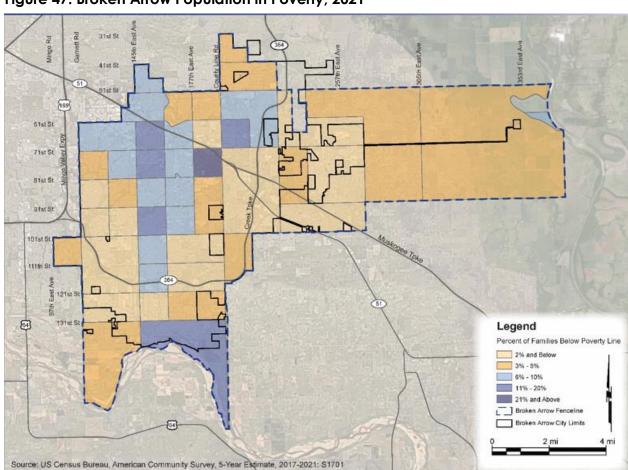


Figure 47: Broken Arrow Population in Poverty, 2021

Source: U.S. Census Bureau, American Community Survey, 2021

Low Income Population Groups

Tables 15-17 show the composition of low-income households in the Broken Arrow, Tulsa and Wagoner County.²⁸ The largest sector of extremely low-income households in the region are small families – defined as households with two to four persons under 62 years of age. This sector makes up 2.1% of the total households in Broken Arrow, 3.7% in Tulsa County and 2.9% in Wagoner County.

It is worth noting that elderly family residents (880) are identified at lower income levels within Broken Arrow, although a vast majority of seniors within the County are noted to have an increase in social benefits. Elderly families with low income at the County levels are 2.4% in Tulsa County and 3.1% in Wagoner County of current housing stock. These results correspond with data collected at the national level that show that older Americans who live alone are more likely than those who live with others to be poor.²⁹

Table 15: Composition of Low-Income Households in Broken Arrow

Family Composition	Income Level	Households	Percent of Total Housing Stock
Elderly Family	Extremely Low Income	200	0.5%
Elderly Family	Very Low Income	360	0.9%
Elderly Family	Low Income	880	2.2%
Elderly Family	Moderate	710	1.8%
Small Family	Extremely Low Income	835	2.1%
Small Family	Very Low Income	1,125	2.8%
Small Family	Low Income	2,290	5.7%
Small Family	Moderate	1,940	4.8%
Large Family	Extremely Low Income	150	0.4%
Large Family	Very Low Income	1,325	3.3%
Large Family	Low Income	665	1.7%
Large Family	Moderate	480	1.2%
Elderly Living Alone	Extremely Low Income	650	1.6%
Elderly Living Alone	Very Low Income	1,060	2.6%
Elderly Living Alone	Low Income	855	2.1%
Elderly Living Alone	Moderate	470	1.2%
Other	Extremely Low Income	450	1.1%
Other	Very Low Income	555	1.4%
Other	Low Income	1,240	3.1%
Other	Moderate	880	2.2%

Source: Housing & Urban Development, Comprehensive Housing Affordability Strategy Data, Table 7, 2016-2020

²⁸ Please keep in mind with these data that household and population values are based on the year 2018 and are therefore less accurate than previously presented data on population..

²⁹ R. Stepler, "Well-being of older adults living alone", Pew Research, 2016, https://www.pewresearch.org/social-trends/2016/02/18/3-well-being-of-older-adults-living-alone/#:~:text=These%20survey%20findings%20are%20in,with%20others%20to%20be%20poor

Table 16: Composition of Low-Income Households in Tulsa County

Family Composition	Income Level	Households	Percent of Total Housing Stock
Elderly Family	Extremely Low Income	1,630	0.6%
Elderly Family	Very Low Income	2,380	0.9%
Elderly Family	Low Income	6,025	2.4%
Elderly Family	Moderate	3,585	1.4%
Small Family	Extremely Low Income	9,335	3.7%
Small Family	Very Low Income	9,665	3.8%
Small Family	Low Income	15,625	6.2%
Small Family	Moderate	10,095	4.0%
Large Family	Extremely Low Income	2,100	0.8%
Large Family	Very Low Income	3,710	1.5%
Large Family	Low Income	4,120	1.6%
Large Family	Moderate	2,370	0.9%
Elderly Living Alone	Extremely Low Income	7,280	2.9%
Elderly Living Alone	Very Low Income	10,550	4.2%
Elderly Living Alone	Low Income	5,990	2.4%
Elderly Living Alone	Moderate	4,655	1.8%
Other	Extremely Low Income	11,720	4.6%
Other	Very Low Income	7,375	2.9%
Other	Low Income	12,090	4.8%
Other	Moderate	7,195	2.8%

Source: Housing & Urban Development, Comprehensive Housing Affordability Strategy Data, Table 7, 2016-2020

Table 17: Composition of Low-Income Households in Wagoner County

Family Composition	Income Level	Households	Percent of Total Housing Stock
Elderly Family	Extremely Low Income	215	0.7%
Elderly Family	Very Low Income	385	1.3%
Elderly Family	Low Income	910	3.1%
Elderly Family	Moderate	675	2.3%
Small Family	Extremely Low Income	860	2.9%
Small Family	Very Low Income	960	3.2%
Small Family	Low Income	1,870	6.3%
Small Family	Moderate	1,235	4.2%
Large Family	Extremely Low Income	230	0.8%
Large Family	Very Low Income	290	1.0%
Large Family	Low Income	520	1.8%
Large Family	Moderate	395	1.3%
Elderly Living Alone	Extremely Low Income	710	2.4%
Elderly Living Alone	Very Low Income	1,165	3.9%
Elderly Living Alone	Low Income	660	2.2%

Elderly Living Alone	Moderate	610	2.1%
Other	Extremely Low Income	680	2.3%
Other	Very Low Income	590	2.0%
Other	Low Income	825	2.8%
Other	Moderate	620	2.1%

Source: Housing & Urban Development, Comprehensive Housing Affordability Strategy Data, Table 7, 2016-2020

Disabled Population

Figure 47 shows the percentage of the population with some form of disability in Broken Arrow, Tulsa and Wagoner County and compares it to the state and the rest of the nation. The disabilities accounted for here include hearing, vision, cognitive, ambulatory, self-care, and independent living difficulties. Broken Arrow is noted to have the lowest percentage of individuals

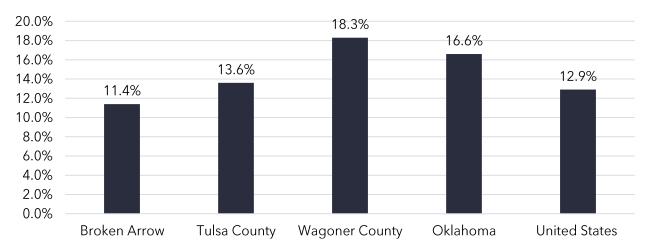
Table 18: Population with Disabilities, 2022*

Area	Population with a Disability	Percent with a Disability
Broken Arrow	12,966	11.4%
Tulsa County	90,125	13.6%
Wagoner County	14,960	18.3%
Oklahoma	644.4K	16.6%
United States	41.9M	12.9%

with disabilities than the other regions, while Tulsa County is above the national level and Wagoner County surpasses both state and national levels.

This is a noteworthy piece of information given that disabled individuals are overrepresented in America's undereducated and poor.³⁰ This is due in part to a lower labor participation rate compared to those without disabilities. In fact, disabilities in one family member may adversely affect the economic outcomes of an entire family. Housing amenable for disabled persons is also in short supply at the national level, and given the higher proportion at the county level, the situation is more challenging within the region.

Figure 47: Percentage of Population with Disabilities, 2022*



^{*} Source: U.S. Census Bureau, 2022

³⁰ "Disability and Socioeconomic Status", American Psychological Association, 2010. https://www.apa.org/pi/ses/resources/publications/disability#:~:text=Despite%20these%20and%20other%20forms.age%20and%20want%20to%20work

Veteran Population

The number of veterans of all ages has steadily increased overtime in Broken Arrow and Wagoner County, however the number of veterans has been on a decline in Tulsa County show in Table 19 and Figure 49. The largest portion of veterans in Broken Arrow are 65 years or older, which is also reflected at each County level.

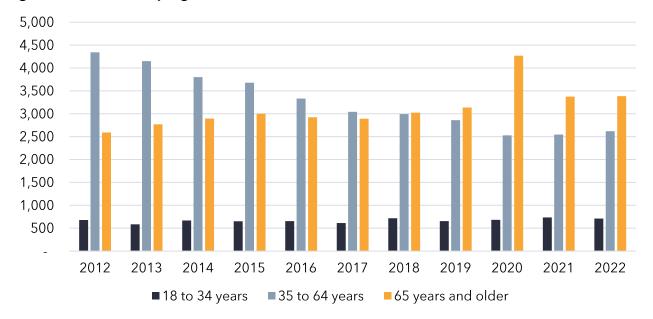
This demographic is especially vulnerable to becoming homeless, given that 30% of the entire US homeless population are veterans at any given time, despite only making up 8% of the general population.³¹ This is further complicated by the fact that veterans also have higher rates

of disabilities when compared to non-veteran individuals, and they tend to have to wait around eight months in order to receive disability compensation.³²

Table 19: Veteran Population*

Region	2017	2022	Numeric Change	Percent Change
Broken Arrow	6,550	6,718	168	2.6%
Tulsa County	38,794	35,138	(3,656)	(9.4%)
Wagoner County	6,139	6,423	284	4.6%
Oklahoma	276,948	254,405	(22,543)	(8.1%)
United States	18,939,219	17,038,807	(1,900,412)	(10.0%)

Figure 48: Veterans by Age in Broken Arrow, 2012-2022*



^{*} Source: U.S. Census Bureau, 2022

³² "Veteran Homelessness Facts", Green Doors,

https://greendoors.org/facts/veteran-

 $\frac{homelessness.php\#:\sim:text=Veterans\%20are\%2050\%25\%20more\%20likely,considered\%20at\%2Drisk\%20nore\%20homelessness}{(a)}$

³¹ BJ Iacino, "Colorado Coalition for the Homeless Expands Program to Help Homeless Veterans", Colorado Coalition for the Homeless, https://www.coloradocoalition.org/help-for-homeless-veterans

25,000 20,000 15,000 10,000 5,000 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 ■ 18 to 34 years ■ 35 to 64 years 65 years and older

Figure 49: Veterans by Age in Tulsa County, 2012-2022

Source: U.S. Census Bureau, 2022

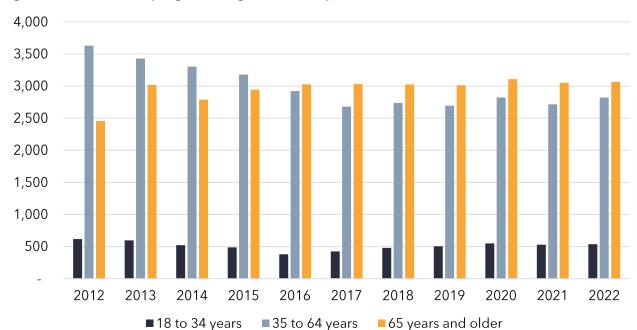


Figure 50: Veterans by Age in Wagoner County, 2012-2022

Source: U.S. Census Bureau, 2022

Broken Arrow over the years has upheld the support and honoring of veterans, and in 2021 constructed the Broken Arrow Veterans Center which includes local chapters of the American Legion, the Veterans of Foreign Wars, Vietnam Veterans of America, the Military Order of the Purple Heart and the Blue Star Mothers.³³ Additionally, Mayor Debra Wimpee of Broken Arrow established The Broken Arrow Mayor's Council of Veteran Affairs. This has provided local veterans direct contact with the mayor and leadership but as well as connections to other

³³ https://baveteranscenter.org/

veterans, services and organizations. These additional communication and resources provide one of the many vulnerable populations in Broken Arrow increase support and quality of life.

Both disabled veterans and veterans in poverty has remained low within Broken Arrow, compared to the County levels, apart from 2020 as shown in Figure 51 of a 18% increase of veterans in poverty.

Figure 51: Veterans in Poverty, 2013-2022*

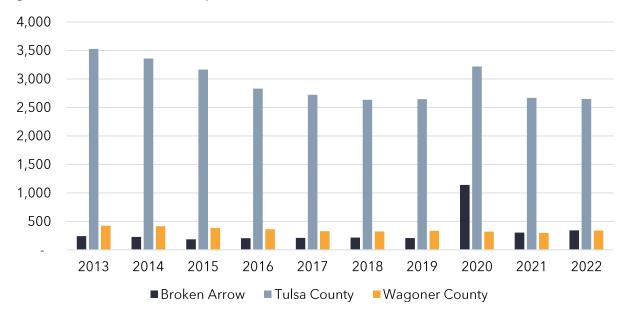
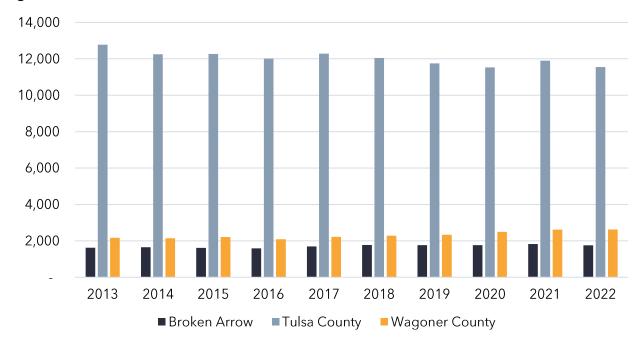


Figure 52: Disabled Veterans, 2013-2022*



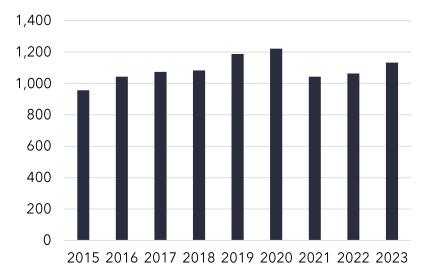
^{*} Source: U.S. Census Bureau, 2022

Homeless Population

Homelessness is notoriously difficult to quantify, especially for specific areas or cities that are not identified as metros. Most efforts to tabulate homelessness are conducted for a given snapshot in time, as shown below using the HUD Point-In-Time Count. Additionally, homelessness is generally not something that individuals are eager to disclose. Therefore, as with any community, the actual state of homelessness is likely more widespread than any statistical analysis indicates.

The rate of homelessness has fluctuated over the years for the combined area of Tulsa City and

Figure 53: Point-in-Time Homeless Count in Tulsa City/County, 2015-2023



Source: HUD Point-in-Time Count Data, 2023

County. The highest count of homelessness was seen in 2019 and 2020 of roughly over 1,200 individuals facing housing displacements. Half of these individuals identify as White and sought emergency shelters during their time of homelessness. After the COVID pandemic the number of unsheltered individuals increased within the last 3 years, as shown in Figure 53.

Table 20: Demographics of Homeless in Tulsa City/County, 2015-2023

Race	2015	2016	2017	2018	2019	2020	2021	2022	2023
White	433	415	515	479	517	581	505	572	593
Black, African American, or African	148	182	210	243	229	233	181	278	271
Asian or Asian American	1	7	2	6	6	4	11	17	13
American Indian, Alaska Native, or Indigenous	95	108	117	113	148	124	114	144	163
Native Hawaiian or Pacific Islander	-	-	8	9	3	3	6	22	29
Unknown	279	331	222	233	285	276	226	32	64

Source: HUD Point-in-Time Count Data, 2023

Figure 54: Demographics of Homeless in Tulsa City/County, 2015-2023*

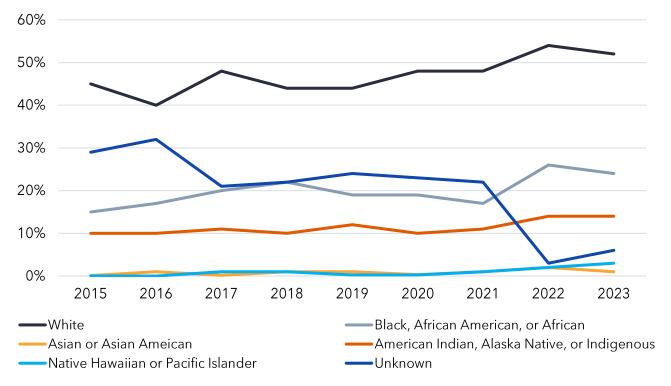
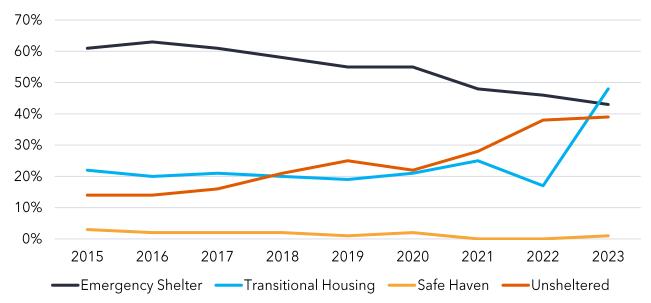


Figure 55: Shelter Type of Homeless in Tulsa City/County, 2015-2023*



^{*} Source: HUD Point-in-Time Count Data, 2023

Economic Drivers

Labor Force, Earnings, and Establishments

In recent years, labor force indicators for Tulsa and Wagoner Counties have resurged, with employment and wage growth rates rebounding after a temporary setback in 2020. It's important to note that some growth rates for Wagoner County may be inflated as the county was starting with fewer employed workers, fewer establishments, and less wages than Tulsa County, Oklahoma, and the US. Employment in Tulsa County has nearly reached prepandemic levels as of 2022, while Wagoner County employment growth has stagnated since 2019. There is room for improvement here, though, as Tulsa County employment growth has lagged behind the national benchmark since the 2010s.

An encouraging sign for the labor force, and the economy in general, in Tulsa and Wagoner Counties is the strong growth in private establishments coming out of 2020. This acceleration in business expansion points to a thriving commercial landscape within the region. The healthy landscape is conducive to sustained employment growth and rising wages, both of which have contributed significantly to the country's economic resurgence in recent years. Wages have grown faster than employment in

Figure 56: Annual Employment Growth Rate, 2010-2022*

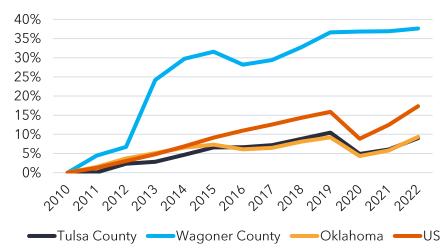


Figure 57: Annual Establishments Growth Rate, 2010-2022*

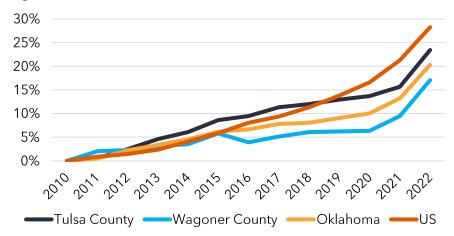
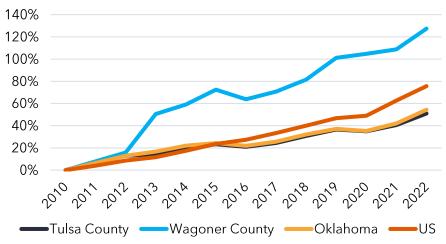


Figure 58: Annual Wage Growth Rate, 2010-2022*

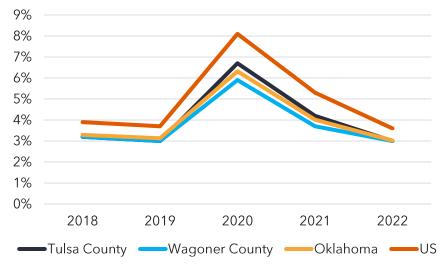


^{*} Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages

the last 12 years, pointing to the signal that wages are growing for individuals and not just because there have been more workers.

Looking to the future, a potential driver of economic growth may be the Broken Arrow Innovation District. The 90-acre development, planned to be "shovel ready" in 2026, aims to bring economic, physical, and social assets together to create opportunity for residents.³⁴ The City's goal is to bring education

Figure 59: Annual Rate of Unemployment, 2018-2022



Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

together with businesses in order to create internships, research, and collaboration for students. Tulsa Tech, the largest technology center in Oklahoma, provides affordable, industry-standard technical training for students.³⁵ Training for in-demand jobs from Tulsa Tech combined with the mixed-use Innovation District will foster employment growth and higher wage opportunities for Broken Arrow residents in the future.

Employment and Earnings by Industry

As of 2022, Health Care & Social Assistance (which includes registered nurses and personal care aides) was the industry with the largest share of employment at 13.5% of total employment. Following Health Care & Social Assistance is Manufacturing and Retail Trade. The top employers in the City — shown in Table 24 — include Broken Arrow Public Schools, with around 2,400 employees, Walmart with a little over 1,6000 employees, and the City of Broken Arrow, with almost 900 employees.

In terms of Location Quotients (LQs), "Mining, Quarrying, & Natural Gas Extraction" commands the highest value, boasting an LQ of 3.11, indicating a strong concentration relative to the national average. On the other hand, the "Public Administration" industry registers the lowest LQ at 0.69, suggesting a relatively weaker presence compared to the national average.

As far as the kinds of occupations individuals hold in these industries, about a quarter of workers (25.4%) hold Management or Office/Administrative Support jobs. The occupations with the fewest workers include those working in Life/Physical/Social Sciences and Farming/Fishing/Forestry with a combined 0.6% of employment in Broken Arrow.

³⁴ Broken Arrow Economic Development Corporation, "Innovation District," https://brokenarrowedc.com/innovation-district/.

³⁵ Broken Arrow Public Schools, "Tulsa Tech," https://www.baschools.org/vnews/display.v/SEC/Project%20Pathways%7CTulsa%20Tech.

Table 21: Tulsa MSA Employment Projections by Industry, 2020-2030

Industry	2020	2030	Numeric Change	% Change
Agriculture/Forestry/Fishing	790	820	30	3.8%
Mining/Quarrying/Oil & Gas	5,200	6,450	1,250	24.0%
Utilities	2,570	3,830	1,260	49.0%
Construction	24,530	26,220	1,690	6.9%
Manufacturing	50,600	52,410	1,810	3.6%
Wholesale Trade	16,100	16,800	700	4.3%
Retail Trade	47,680	49,870	2,190	4.6%
Transportation/Warehousing	16,930	16,350	(580)	(3.4%)
Information	6,130	7,360	1,230	20.1%
Finance and Insurance	15,530	15,920	390	2.5%
Real Estate/Rental/Leasing	6,050	6,260	210	3.5%
Professional/Scientific/Technical Services	22,030	24,700	2,670	12.1%
Management of Companies	7,300	7,760	460	6.3%
Admin/Support/Waste Management	29,730	33,590	3,860	13.0%
Educational Services	28,850	31,190	2,340	8.1%
Health Care/Social Assistance	59,590	69,990	10,400	17.5%
Arts/Entertainment/Recreation	7,480	9,670	2,190	29.3%
Accommodation/Food Services	35,870	43,650	7,780	21.7%
Other Services	10,070	11,420	1,350	13.4%
Government	23,380	22,700	(680)	(2.9%)
Self Employed/Unpaid Family Workers	23,720	23,580	(140)	(0.6%)
Total Federal Government Employment	5,040	4,580	(460)	(9.1%)
State Government (Excl. Education/Hospitals)	3,030	2,250	(780)	(25.7%)
Local Government (Excl. Education/Hospitals)	15,310	15,880	570	3.7%
Grand Total	440,130	480,640	40,510	9.2%

Source: Oklahoma Employment Security Commission, Industry and Occupational Employment Projections

Table 22: Broken Arrow Employment by Industry, 2022

Industry	% Employment	LQ
Health Care & Social Assistance	13.5%	0.97
Manufacturing	11.7%	1.17
Retail trade	11.2%	1.02
Educational Services	8.8%	0.95
Other Services, except Public Administration	6.4%	1.35
Professional, Scientific, & Technical Services	6.3%	0.80
Accommodation & Food Services	6.2%	0.90

Construction	6.1%	0.88
Finance & Insurance	5.1%	1.08
Transportation & Warehousing	5.1%	1.03
Administrative & Support and Waste Management Services	3.9%	0.93
Wholesale trade	3.4%	1.42
Public Administration	3.3%	0.69
Information	2.1%	1.11
Real Estate & Rental and Leasing	2.0%	1.04
Arts, Entertainment, & Recreation	1.8%	0.85
Utilities	1.5%	1.76
Mining, Quarrying, & Oil and Gas Extraction	1.4%	3.11
Agriculture, Forestry, Fishing & Hunting	0.3%	0.27
Management of Companies & Enterprises	0.0%	0.31

Source: US Census Bureau, 2018-2022 5-Year American Community Survey, Table S2403

Table 23: Broken Arrow Employment by Occupation, 2022

Occupation	% Employment	LQ
Management	12.7%	1.10
Office/Administrative Support	12.7%	1.14
Sales & Sales Related	10.9%	1.18
Healthcare Practitioner	7.9%	1.22
Business/Financial	6.5%	1.08
Transportation/Material Moving	6.0%	0.74
Education/Training/Library	5.9%	1.00
Production	5.5%	1.02
Food Preparation/Serving	4.5%	0.90
Installation/Maintenance/Repair	4.4%	1.47
Computer/Mathematical	3.7%	1.00
Construction/Extraction	3.6%	0.69
Architecture/Engineering	2.9%	1.53
Building Maintenance	2.3%	0.64
Healthcare Support	2.3%	0.68
Personal Care/Service	1.9%	1.00
Community/Social Service	1.8%	0.95
Protective Service	1.5%	0.75
Arts/Design/Entertainment	1.5%	0.75
Legal	0.8%	0.73
Life/Physical/Social Sciences	0.5%	0.50
Farming/Fishing/Forestry	0.1%	0.17

Source: Esri Business Analyst, 2022

Table 24: Top Employers in Broken Arrow

Employer	Employees
Broken Arrow Public Schools	2,400
Walmart	1,628
City of Broken Arrow	886
ZEECO	605
Flight Safety International	536

AG Equipment Company	430
Elliot	370
Continental Industries	362
Blue Bell	303
MicahTek	250

Source: Broken Arrow 2023 Financial Report

Community Tapestries

Esri's Tapestry Segmentation Profiles are a consumer analysis tool that identifies distinctive markets in the US based on socioeconomic and demographic characteristics to provide an accurate, comprehensive profile of US consumers. Though often used for market research for products and services, these Tapestry profiles are also helpful for diagnosing housing needs. In essence, each tapestry provides consumer market profiles that categorize households based on their preferences for goods, leisure activities, and housing.

7D 7D 7D 7C TOA 12B 74015 7D 7C 12B 7C 7D 5D 7D 7C 11C 4B 8C 7D 7C 11C 8E 74146 11C 11B 11B 6A 169 10D 8C 10A 4B 4A 4C 8C 4012 2B 12B 4A 4B 12B B₅B 2C 5D 10A 11B 74133 5D 4A 4A 4C 74C 5D 5D 4A 4B 4C **1B 1B** 4B 5E 4B 4C 4A 4B 4B B 1B 1A 364 4C 4C 4A 4A 1D 4B 4C 1D 4C 1D 5A Tapestry LifeMode 4C L1: Affluent Estates L8: Middle Ground L2: Upscale Avenues L9: Senior Styles L3: Uptown Individuals L10: Rustic Outposts 74008 L4: Family Landscapes L11: Midtown Singles 10A L5: GenXurban L12: Hometown L6: Cozy Country L13: Next Wave L7: Sprouting Explorers L14: Scholars and Patriots

Figure 60: Dominant Tapestry Map for Broken Arrow

Source: Esri Dominant Tapestry Maps

The predominant tapestry segmentations in Broken Arrow are "Family Landscapes", "Cozy Country Living" and "Middle Ground". The Family Landscapes group contains prosperous young families who are mostly homeowners. The Cozy Country group is composed primarily of empty nesters who are politically conservative and have a variety of income levels. The Middle Ground group are "millennials in the middle," thirty-somethings with a mix of classes, homeownership, and marital statuses. A full description of Esri's tapestry segments can be found in Appendix A.

The Family Landscapes group is mostly located in the center and west of the City, while the Middle Ground group is located to the north of Broken Arrow. These groups also have a large representation in Tulsa County. The Cozy Country group is located to the west.

Broken Arrow Tapestry Segmentation Details

Table 25 displays the ten most represented Tapestry Segmentations found in Broken Arrow. These tapestries make up 90% of all households in Broken Arrow and show a blend of age ranges and incomes. The top three tapestry segments, Workday Drive (17.6%), Home Improvement (14.9%) and Middleburg (14.8%). It is notable that most households in Broken Arrow are working middle-class, suburban families.

- Workday Drive are affluent working families who live in suburbs outside cities, close enough to commute in for work.
- Home Improvement populations are suburban households of married-couple families. They live in owner-occupied single-family homes that they spend weekends renovating.
- **Middleburg** are middle of the road in terms of age and income and tend to have children living at home.

Table 25: Tapestries Segmentation Distribution for Broken Arrow

Tapestry Segment	Broken Arrow	Oklahoma	United States
Workday Drive (4A)	17.6%	3.7%	3.1%
Home Improvement (4B)	14.9%	2.0%	1.7%
Middleburg (4C)	14.8%	5.1%	3.1%
Bright Young Professionals (8C)	10.2%	2.6%	2.3%
Green Acres (6A)	9.7%	4.7%	3.3%
Up and Coming Families (7A)	6.3%	1.9%	2.8%
Professional Pride (1B)	5.1%	1.2%	1.6%
Rustbelt Traditions (5D)	4.2%	3.5%	2.1%
Down the Road (10D)	3.6%	0.6%	1.2%
Midlife Constants (5E)	3.2%	3.0%	2.4%
Grand Total	89.6%	28.3%	23.6%

Source: Esri Business Analyst, Tapestry Segmentation Area Profile

Table 26: National-Level Characteristics of Broken Arrow Tapestry Segments

Rank	Tapestry Segments	Median HH Income	Median Age	Avg. HH Size	Median Home Value	% Own Home	Typical Housing Types
1	Workday Drive (4A)	\$90,500	37.0	2.97	\$257,400	84.9%	Single Family
2	Home Improvement (4B)	\$72,100	37.7	2.88	\$192,600	79.4%	Single Family
3	Middleburg (4C)	\$59,800	36.1	2.75	\$175,000	73.4%	Single Family
4	Bright Young Professionals (8C)	\$54,000	33.0	2.41	\$1,042 ³⁶	42.8%	Single Family; Multi- Units
5	Green Acres (6A)	\$76,800	43.9	2.70	\$235,500	86.1%	Single Family

Source: Esri Business Analyst, Tapestry Segmentation Area Profile

Commuter and Transportation Data

Tables 27-28 and Figures 61-64 show the flow of commuters to and from Broken Arrow in 2020. Most of the people who work in the City of Broken Arrow live in Tulsa, which is about 1,100 more people (7.0% difference) than those who live and work in Broken Arrow. The two most common places to work for those who live in Broken Arrow are Tulsa and Broken Arrow, with Oklahoma City being a distant third place. Currently, 56.4% of commuters that reside in Broken Arrow are employed in Tulsa. Some Broken Arrow residents also commute to work in locations such as Bixby and Owasso.

Table 27: Where Workers are Employed who Live in Broken Arrow

City/Place	Count	Percent
Tulsa, OK	24,932	56.4%
Broken Arrow, OK	6,607	15.0%
Oklahoma City, OK	1,771	4.0%
Bixby, OK	676	1.5%
Owasso, OK	602	1.4%
Catoosa, OK	581	1.3%
Sapulpa, OK	454	1.0%
Jenks, OK	358	0.8%
Bartlesville, OK	303	0.7%
Claremore, OK	277	0.6%
All Other Locations	7,609	17.2%

Source: U.S. Census Bureau American Community Survey, OnTheMap, 2020 In terms of population, Tulsa is about 3.5 times larger than Broken Arrow.

Naturally, there will be more available jobs in Tulsa, which combined with the 15- to 20-minute commute time drives part of the reason for so many residents commuting to work there. Additionally, the commute data indicate the interconnected nature of housing prices, income, and transportation patterns. With about a 20-minute one-way commute from Tulsa to Broken Arrow, the potential for a higher proportion of residents living in

Broken Arrow is obtainable if they could

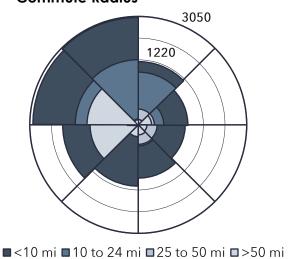
find affordable housing.

³⁶ Average rent

Table 28: Where Workers Live Who are Employed in Broken Arrow*

City/Place	Count	Percent
Tulsa, OK	8,739	28.6%
Broken Arrow, OK	6,607	21.6%
Oklahoma City, OK	808	2.6%
Bixby, OK	784	2.6%
Owasso, OK	675	2.2%
Coweta, OK	528	1.7%
Jenks, OK	433	1.4%
Sapulpa, OK	311	1.0%
Muskogee, OK	297	1.0%
Sand Springs, OK	296	1.0%
All Other Locations	11,097	36.3%

Figure 61: Broken Arrow Employee Commute Radius*



^{*} Source: U.S. Census Bureau American Community Survey, OnTheMap, 2020

Figure 62: Broken Arrow Drive Time Radius

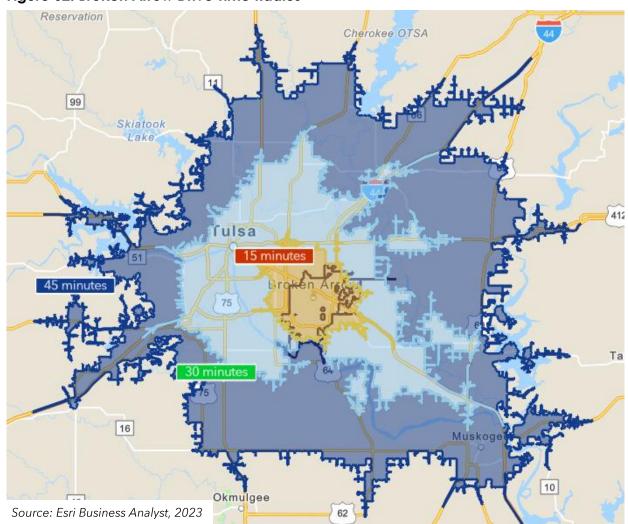
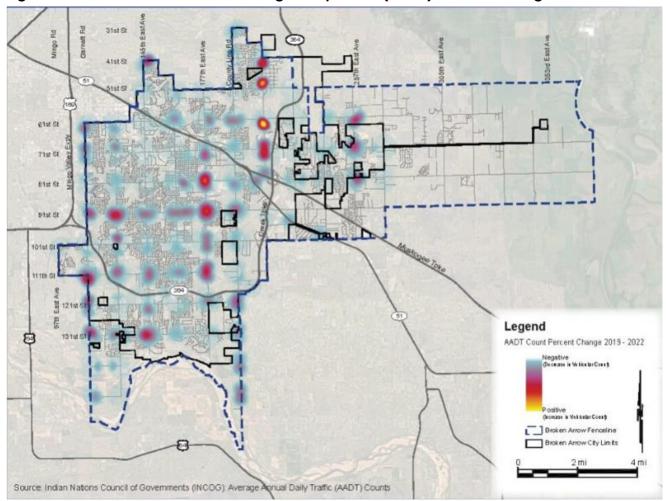


Figure 63: Commuter Inflow and Outflow from Broken Arrow



Source: U.S. Census Bureau American Community Survey, OnTheMap, 2020

Figure 64: Broken Arrow Annual Average Daily Traffic (AADT) Percent Change 2019-2022



Source: The Indian Nations Council of Governments (INCOG), GIS Resources and Maps, 2022

Worker's location is also a factor new housing consideration, as an increasing number of workers in professional industries are working from home. This trend was spurred on further during the pandemic. As shown in Table 29, over 9% of Broken Arrow's residents work from home, more than double the workers that worked from home in 2019. Challenges for workers working from home include internet speed, connection, and bandwidth through internet providers. Luckily, new fiber internet was announced to be installed in Broken Arrow from Kinetic in 2021.³⁷ The multi-year construction project was the next step to expand access to high-speed internet for residents and small businesses.

Table 29: Comparison of Percent of Workers Working from Home

Region	Workers 16 and over	Percent Working from Home					
2019							
Broken Arrow	54,641	4.3%					
Tulsa County	309,263	4.2%					
Wagoner County	36,244	3.4%					
Oklahoma	1.8M	4.2%					
US	152.4M	5.2%					
	2022						
Broken Arrow	56,854	9.2%					
Tulsa County	318,243	8.7%					
Wagoner County	38,272	7.0%					
Oklahoma	1.8M	7.4%					
US	156.7M	11.7%					

Source: US Census Bureau, American Community Survey, 2018-2022 5-Year Estimates, Table S0801

³⁷ BusinessWire, "Fiber Internet is Coming to Broken Arrow from Kinetic," https://www.businesswire.com/news/home/20210920005140/en/Fiber-Internet-is-Coming-to-Broken-Arrow-from-Kinetic.

5. Housing Trends

Building Types and Tenure introduction

This section focuses on highlighting important trends related to various housing topics. Trends in housing supply are measured with an array of metrics including building permits, home values, and home sales data. These data are collected from various platforms, each providing a different angle on the region's housing situation.

Table 30 provides a broad overview of housing in the City of Broken Arrow along with Tulsa and Wagoner Counties. Many of the housing units in the area are single-family detached homes, and large apartment buildings compared to other housing types. Broken Arrow, as indicated in Figure 65, has the second greatest share of owner-occupied units (72%) with Wagoner County having the greatest. In contrast, Broken Arrow has the second least share of renter-occupied units (28%) compared to Tulsa and Wagoner Counties, and the State and US levels.

Figure 65: Owner-Occupied and Renter-Occupied Homes, 2021* 100% 90% 20.1% 27.8% 33.9% 35.4% 80% 40.1% 70% 60% 50% 79.9% 40% 72.2% 66.1% 64.6% 59.9% 30% 20% 10% 0% Wagoner Oklahoma United Broken Tulsa Arrow County County States ■Own ■Rent

Table 30: Percent Housing by Type, 2021*

	Broken A	rrow Tu	lsa County		oner ınty	Oklahom	а	US
Housing Type	#	%	#	%	#	%	%	%
Occupied housing units	41,786	100.0%	260,639	100.0%	29,280	100.0%	100.0%	100.0%
1, detached	33,775	80.8%	185,087	71.0%	23,654	80.8%	74.7%	62.7%
1, attached	911	2.2%	6,929	2.7%	268	0.9%	2.2%	6.2%
2 apartments	481	1.2%	3,846	1.5%	169	0.6%	1.8%	3.3%
3 or 4 apartments	708	1.7%	8,909	3.4%	389	1.3%	2.6%	4.2%
5 to 9 unit apartments	984	2.4%	13,131	5.0%	355	1.2%	3.4%	4.5%
10+ unit apartments	3,697	8.8%	36,738	14.1%	843	2.9%	7.4%	13.6%
Mobile home or other	1,230	2.9%	5,999	2.3%	3,602	12.3%	8.0%	5.4%

^{*} Source: U.S. Census Bureau, American Community Survey, 2021

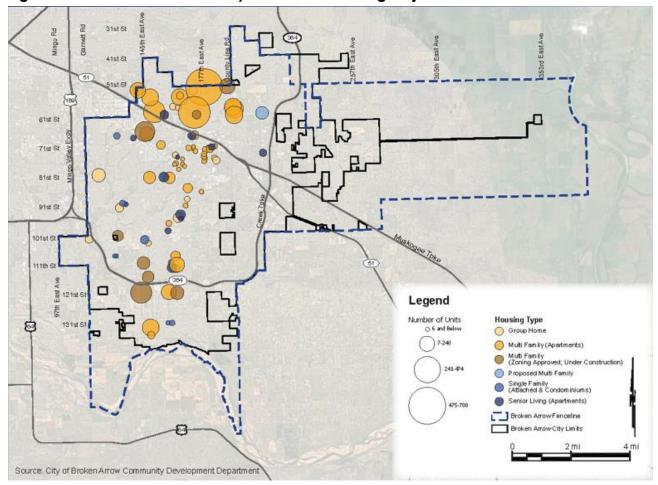
According to the City's housing unit inventory, most multi-family developments are apartments, followed by group homes, and then senior-living apartments. As shown in the map in Figure 66, the large majority of these multifamily developments are located in the Tulsa County portion of the City, with the greatest concentration of apartments primarily clustered in the northern part of the City. However, there is more multifamily construction in the south-central portion of the City.

Table 31: Supply of Multifamily Dwellings by Type, 2023

Туре	Developments	Avg. Acreage	Units
SF Attached and Condos	8	5.3	311
Group Homes	14	9.7	1,179
Apartments	44	12.3	5,977
Senior-living Apartments	12	5.5	859
Grand Total	78		8,209

Source: City of Broken Arrow Development Department, 2023

Figure 66: Locations of Multifamily and Senior Housing Projects



Source: City of Broken Arrow Development Department, 2023

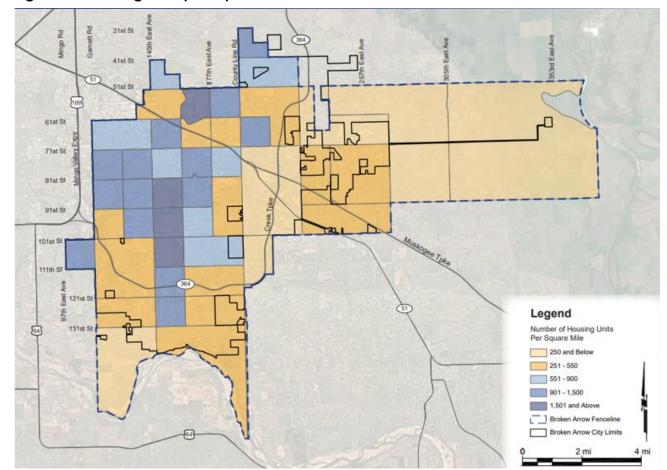


Figure 67: Housing Units per Square Mile

Source: U.S. Census Bureau, American Community Survey, 2021

Home Value Trends

Discussions about housing often revolve around central estimates like averages and medians, inadvertently overlooking the intricate distribution of housing values and losing crucial insights. Enclosed are comprehensive tables and figures delineating key real estate market metrics for Broken Arrow compared to other regions over recent years.

Most owner-occupied homes in Broken Arrow are valued between \$200K - \$249K, closely followed by the \$150K - \$199K cohort. Most Tulsa County home values hover around that range, however, there is a significant portion of homes in the \$300K - \$399K range as well. This is also the case in Wagoner County, where many homes are priced around the same range as Broken Arrow, but the largest share of homes is valued from \$300K - \$399K. The price distribution at the state level skews a little more toward more inexpensive homes, whereas at the national level, there are much larger shares of more expensive homes. These price distributions are broken down in Table 32.

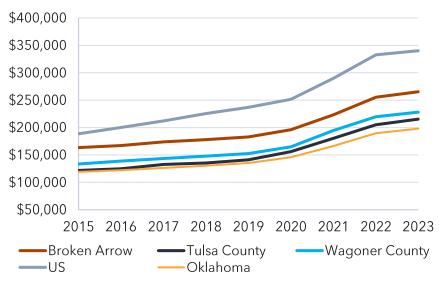
Table 32: Owner-Occupied Housing Units by Value and Median Home Value, 2023

	Broken Arrow	Tulsa County	Wagoner County	Oklahoma	USA
Home Value	%	%	%	%	%
<\$50K	1.9%	5.0%	4.2%	8.6%	5.5%
\$50K - \$99K	2.9%	9.3%	7.3%	13.7%	6.7%
\$100K - \$149K	13.5%	13.0%	10.7%	14.8%	7.4%
\$150K - \$199K	23.4%	16.8%	17.0%	17.6%	9.9%
\$200K - \$249K	23.6%	16.4%	17.7%	12.5%	9.8%
\$250K - \$299K	13.0%	11.2%	12.4%	10.1%	9.4%
\$300K - \$399K	12.7%	14.7%	17.9%	11.6%	16.0%
\$400K - \$499K	3.8%	5.6%	5.8%	5.0%	10.7%
\$500K - \$749K	3.1%	4.5%	5.9%	3.9%	13.8%
\$750K - \$999K	1.3%	1.9%	0.8%	1.1%	5.6%
\$1M - \$1.5M	0.4%	0.7%	0.2%	0.4%	2.9%
\$1.5M - \$1.9M	0.2%	0.4%	0.0%	0.2%	1.1%
\$2M +	0.1%	0.3%	0.0%	0.4%	1.3%
Median Home Value	\$217,529	\$217,723	\$230,347	\$186,435	\$308,943
Average Home Value	\$253,103	\$266,789	\$258,968	\$231,326	\$405,750

Source: Esri Business Analyst, 2023

Home values in Broken Arrow have increased, on average, more than homes in Tulsa and Wagoner Counties, as well as the state of Oklahoma. Figure 68 and Table 33 report the Zillow Home Value Index (ZHVI) and how it has changed over time. This metric is different from median and average home values reported by the U.S. Census Bureau since it represents the "typical" home value. It takes into account the weighted average of the middle third of homes in a region and therefore has a different dollar value.

Figure 68: Zillow Home Value Growth 2015-2023



Source: Points Consulting Using Zillow ZHVI

The average home value growth rate in Broken Arrow was 3.7% from 2015 to 2020. The COVID pandemic and associated policy decisions during 2020/21 hyper-charged these growth trends to create unprecedented home value appreciation across the country. This led to a much higher average annual growth rate in the City — 14% from 2020 to 2022. Growth rates have since leveled off to pre-pandemic highs in Broken Arrow (3.9%), leading to an average home value of \$265K in 2022. In terms of dollar value growth from 2021 to 2022, Broken Arrow increased less than other cities such as Norman, Tulsa, and Oklahoma City. Nonetheless, all of these Oklahoma

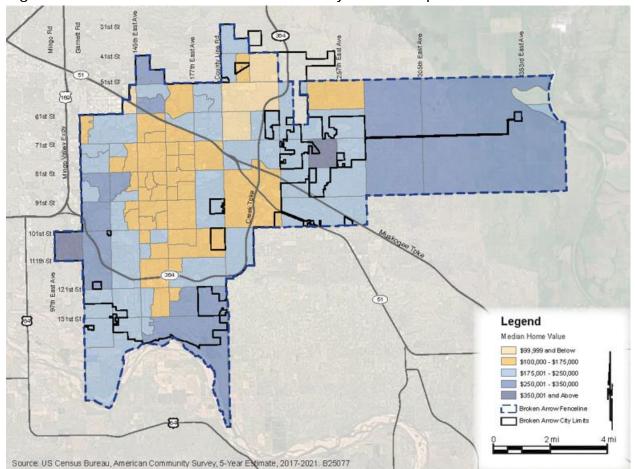
cities have grown at a much more mellow pace than homes at the national level, which have seen a staggering dollar value growth of more than \$45K.

Table 33: Zillow Compound Annual Growth Rate (CAGR)

Region	Zillow Home Value Index (2023)	Dollar Growth Past 12 Months	10 Years ('13-'23)	5 Years ('18-'23)	3 Years ('20-'23)
Broken Arrow	\$265,362	\$9,972	5.7%	8.3%	10.6%
Tulsa	\$140,434	\$14,934	3.2%	5.7%	6.3%
Oklahoma City	\$172,468	\$11,079	3.4%	4.8%	5.9%
Norman	\$192,485	\$10,133	3.0%	3.5%	3.7%
Tulsa County	\$215,404	\$10,347	6.7%	9.8%	11.4%
Wagoner County	\$228,158	\$8,582	6.3%	9.1%	11.5%
Oklahoma	\$198,056	\$8,507	6.0%	8.7%	10.7%
US	\$348,539	\$45,537	7.3%	8.5%	10.7%

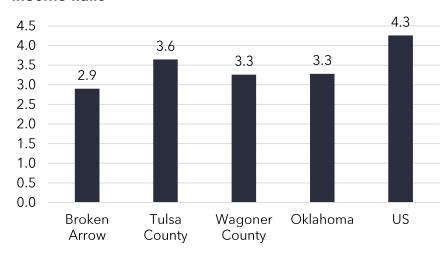
Source: Points Consulting Using Zillow ZHVI, 2023

Figure 69: Broken Arrow Median Home Value by Block Group



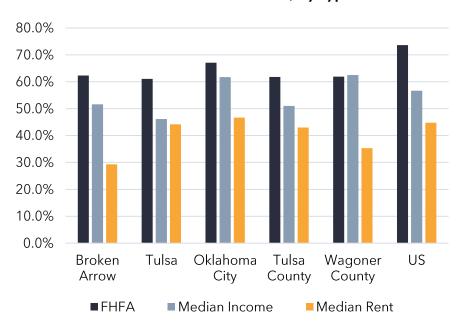
Source: U.S. Census Bureau, American Community Survey, 2021

Figure 70: Median Home Value to Median Household Income Ratio



Source: Points Consulting using Esri Business Analyst, 2023

Figure 71: Percent Change in Median Income, Median Rent, and FHFA House Price Index 2010-2022, by Type



Source: U.S. Census ACS, FHFA Home Price Index

The ratio of median home value to median household income is a useful indicator of the cost of living in different housing markets. Figure 70 shows that Broken Arrow has a relatively low value for this ratio, meaning that for those earning the median income in Broken Arrow, homes are close to 1.5 times less expensive than at the national level. Households in Broken Arrow need to invest around 3 times their median income, while the median home in the US has to invest more than 4 times their median income. The higher the value for this ratio, the more unaffordable homes are in that particular region.

Figure 71 illustrates the diverse rates of change for median incomes, house prices, and rent. The Federal Housing Finance Agency (FHFA) House Price Index (FHFA HPI) serves as a comprehensive metric for tracking house price movements. Derived from data sourced from mortgages securitized by Fannie Mae and Freddie Mac since the 1970s, the index captures average samehouse changes in sales price or refinance value. 38

³⁸ The FHFA HPI is different than the previously used Zillow Home Value Index (ZHVI) because the ZHVI takes into account the value of homes that aren't on the market, whereas the FHFA HPI tracks actual sales and refinance transactions.

This comparative analysis offers valuable insights into the impact of home price inflation across different regions. Examining the percentage point disparity between the FHFA house price index and median incomes in Broken Arrow reveals a margin of nearly 11 percentage points. Notably, this discrepancy is lower than the national average, with the U.S. exhibiting a 17-point difference, and Tulsa experiencing a 15-point gap. In contrast, Oklahoma City stands out with only a 5-point difference, primarily attributed to a higher income growth rate during this period than Broken Arrow.

To understand Broken Arrow's home value growth in context, it's helpful to contrast it to similar cities. Figure 72 shows how home values increased in the period from 2018 to 2023. When looking at home equity — which is the difference between a home's current value and how much a homeowner still owes on their mortgage — other comparable cities such as Carmel, Indiana, and Round Rock Texas have had much higher increases in the dollar value in their average home equity. However, in percentage terms, Broken Arrow has had an increase of 34%, which is higher than the aforementioned cities, and the third highest out of the comparable cities shown in the chart. For a more comprehensive comparison for this metric which includes the full list of peer cities, please refer to Appendix A.

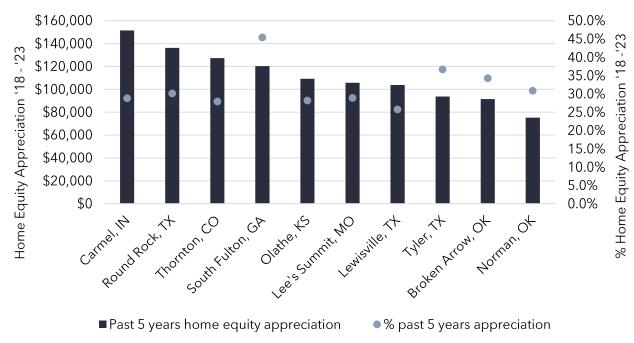


Figure 72: Regional Comparison of Home Price Appreciation, 2018-2023

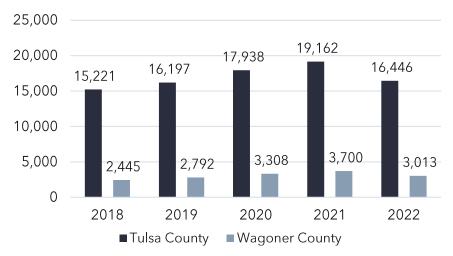
Source: U.S. Census ACS, and Esri Business Analyst 2022-2023

In 2022, the Federal Reserve implemented a series of rate hikes, culminating in a cumulative increase of 4.25% in the federal interest rate, marking the most substantial rise since the 1980s³⁹. This elevated federal funds rate led to increased borrowing costs for banks, subsequently raising interest rates for customers. The repercussions of these rate hikes are evident in Figures 73 and

³⁹ Jennifer Schonberger, "Federal Reserve raises interest rates to highest since 2007, sees higher rates in '23", Yahoo! Finance, 2022 https://finance.yahoo.com/news/federal-reserve-raises-interest-rates-to-higher-rates-in-23-190034046.html

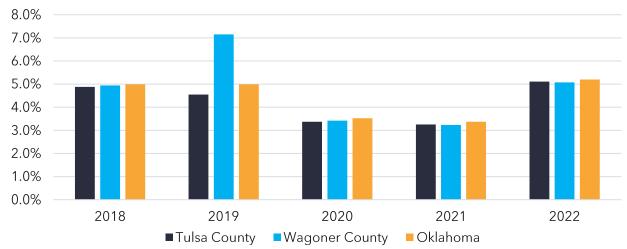
74, which meticulously capture the patterns in applications and interest rates for federal mortgage loans in Tulsa and Wagoner Counties. Both regions experienced their peaks in mortgage applications during 2021, followed by noticeable declines (especially pronounced in Tulsa County) throughout 2022. This decline aligns with the shift in interest rates from 2021 to 2022, as previously outlined.⁴⁰

Figure 73: Total Annual Federal Mortgage Applications to Purchase a Home



Source: Consumer Financial Protection Bureau, Home Mortgage Disclosure Act

Figure 74: Average Annual Federal Mortgage Interest Rate⁴¹



Source: Consumer Financial Protection Bureau, Home Mortgage Disclosure Act

Table 34: Change in Average Federal Mortgage Loan Amount

Region	2018 Avg. Loan Amount	2022 Avg. Loan Amount	% Change
Tulsa County	\$193,439	\$282,970	46.3%
Wagoner County	\$168,787	\$250,891	48.6%
Oklahoma	\$165,657	\$239,647	44.7%

Source: Consumer Financial Protection Bureau, Home Mortgage Disclosure Act

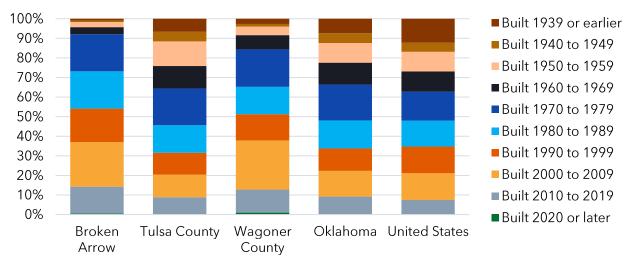
⁴⁰ Poonkulali Thangavelu, "How the Federal Reserve Affects Mortgage Rates", 2022 https://www.investopedia.com/articles/personal-finance/050715/how-federal-reserve-affects-mortgage-rates.asp

⁴¹ Wagoner County saw multiple high interest loans in 2019, which skewed average interest rates higher. The median rate was 4.25%.

Housing Stock and Occupancy Rates

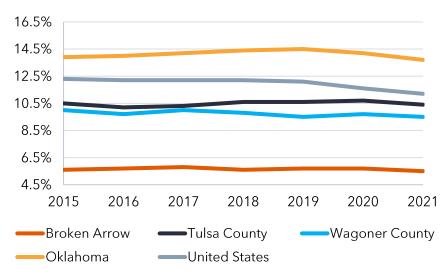
Figure 75 shows that a larger percentage of homes were built between 2000 to 2009 in Broken Arrow, compared to Tulsa County, the State, and national average. To be precise, 54% of the City's housing stock has been built since 1990, while comparable figures for Tulsa County, the State, and the country are 32%, 34%, and 35%, respectively. Wagoner County is about the same as the City in this aspect. The development in the last 30 years shows how much of Broken Arrow's housing development has occurred recently. The housing development levels do not seem to be keeping pace, however. Homes built in 2020 or later in the City, County, State, and National levels are all currently reported as less than one percent, with the exception of Wagoner County at one percent.

Figure 75: Age of Housing Stock*



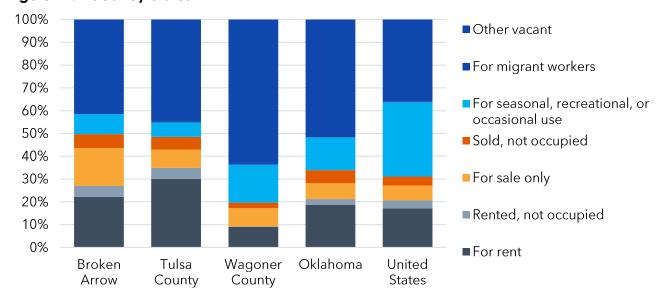
Vacancy rates are a signal of consumer demand within the real estate market. Over the past decade, vacancies in Broken Arrow have been relatively steady and have been much lower compared to the Counties, State, and National average. This is indicative of a high housing demand relative to the available supply. Moreover, as shown in Figure 76, the greatest category for vacancy at the City level is "other vacant," the second largest being "for rent," and the third largest being "for sale only."

Figure 76: Vacancy Rate*



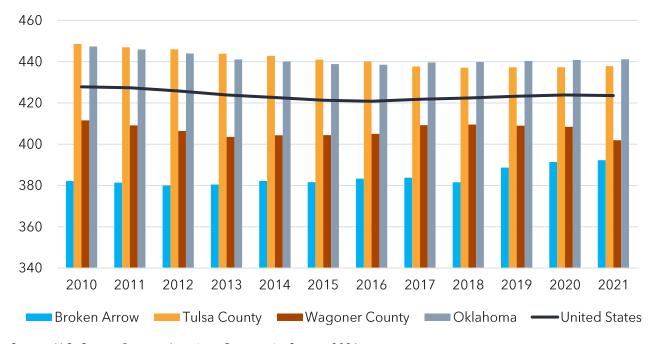
^{*}Source: U.S. Census Bureau, American Community Survey, 2021

Figure 77: Vacancy Status



Taking a look at stats such as housing units per 1,000 residents can help paint a picture of housing supply and availability, similar to the vacancy rate. In the case of Broken Arrow, housing units per 1,000 residents have increased slightly since 2010, going from 382 to 392 in 2021. However, Broken Arrow has had the lowest rates of housing per 1,000 residents all throughout the period. Interestingly, every other region shown in the chart has had slight decreases in their supply relative to their residents since 2010. This may be due to population growth outpacing new housing production.

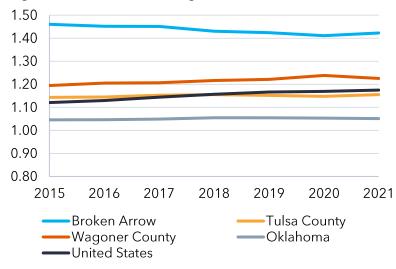
Figure 78: Housing Units per 1,000 Residents



Source: U.S. Census Bureau, American Community Survey, 2021

Figure 79 shows another important metric, the jobs-tohousing ratio. In all areas, the jobs to housing ratio is above 1, meaning that there are more jobs available than there are housing units. Broken Arrow has an exceptionally high jobs-to-housing ratio which may signify a strong job market and economic growth, but an increased demand for housing. Wagoner County also has a jobsto-housing ratio higher than the national average, but this ratio is seen to be decreasing, which may also suggest a shrinking job market. Over the time period of 2015-2021, these ratios for all

Figure 79: Jobs-to-Housing Ratio



Source: U.S. Census Bureau, American Community Survey, 2021

areas analyzed have fluctuated, but not significantly.

Tables 36-38 display data for residents by occupants per room in Tulsa County, Wagoner County, and Broken Arrow. The number of people per room can be an indicator of overcrowding, which is a potential health and safety issue. Housing units that have two rooms with only one occupant are reflected as 0.5 for this table.

In Tulsa County, from the years 2020 to 2021, the percentage of rooms with more than 2 occupants increased, as did the percentage of rooms with no occupants. For the same time-frame in Wagoner County, the amount of people in each room decreased across almost all metrics. However, owner occupied rooms saw an increase in the percentage of rooms with 1 or 2 people.

Table 36: Residence by Occupants per Room in Tulsa County, 2020-2021

Occupancy	2020	2021	Change	% Change
Total:	253,909	260,639	6,730	2.7%
Owner-occupied housing units:	151,162	156,006	4,844	3.2%
0.50 or less occupants per room	117,986	122,385	4,399	3.7%
0.51 to 1.00 occupants per room	30,598	31,052	454	1.5%
1.01 to 1.50 occupants per room	2,174	2,129	(45)	(2.1%)
1.51 to 2.00 occupants per room	325	315	(10)	(3.1%)
2.01 or more occupants per room	79	125	46	58.2%
Renter-occupied housing units:	102,747	104,633	1,886	1.8%
0.50 or less occupants per room	65,213	66,206	993	1.5%
0.51 to 1.00 occupants per room	32,738	33,541	803	2.5%
1.01 to 1.50 occupants per room	3,503	3,499	(4)	(0.1%)
1.51 to 2.00 occupants per room	1,006	1,081	75	7.5%
2.01 or more occupants per room	287	306	19	6.6%

Source: U.S. Census Bureau, American Community Survey, 2021

Table 37: Residence by Occupants per Room in Wagoner County, 2020-2021*

Occupancy	2020	2021	Change	%
				Change
Total:	29,591	29,280	(311)	(1.1%)
Owner-occupied housing units:	23,425	23,388	(37)	(0.2%)
0.50 or less occupants per room	17,410	17,316	(94)	(0.5%)
0.51 to 1.00 occupants per room	5,475	5,510	35	0.6%
1.01 to 1.50 occupants per room	448	466	18	4.0%
1.51 to 2.00 occupants per room	57	72	15	26.3%
2.01 or more occupants per room	35	24	(11)	(31.4%)
Renter-occupied housing units:	6,166	5,892	(274)	(4.4%)
0.50 or less occupants per room	3,979	3,682	(297)	(7.5%)
0.51 to 1.00 occupants per room	1,837	1,911	74	4.0%
1.01 to 1.50 occupants per room	297	269	(28)	(9.4%)
1.51 to 2.00 occupants per room	32	24	(8)	(25.0%)
2.01 or more occupants per room	21	6	(15)	(71.4%)

Table 38 presents data on residential occupancy trends in Broken Arrow for 2020 and 2021. The majority of residents, whether owners or renters, typically inhabit homes with one additional room — meaning that there is at least one more room than the total number of occupants. Notably, renter-occupied units show a significant decrease in individuals living in rooms with two or more people, indicating a shift towards more spacious living arrangements. Owner-occupied units experienced an overall increase in total occupancy, particularly in the 0.50 or less occupants per room category, showing a 3.7% rise. Renter-occupied units saw a more modest 1.8% growth in total occupancy, with specific categories, like 2.01 or more occupants per room, displaying noteworthy changes.

Table 38: Residence by Occupants per Room in Broken Arrow, 2020-2021*

Occupancy	2020	2021	Change	%
				Change
Total:	40,189	41,786	1,597	4.0%
Owner-occupied housing units:	29,356	30,178	822	2.8%
0.50 or less occupants per room	21,498	22,784	1,286	6.0%
0.51 to 1.00 occupants per room	7,457	6,902	(555)	(7.4%)
1.01 to 1.50 occupants per room	345	413	68	19.7%
1.51 to 2.00 occupants per room	56	66	10	17.9%
2.01 or more occupants per room	0	13	13	
Renter-occupied housing units:	10,833	11,608	775	7.2%
0.50 or less occupants per room	6,585	6,991	406	6.2%
0.51 to 1.00 occupants per room	3,824	4,208	384	10.0%
1.01 to 1.50 occupants per room	352	324	(28)	(8.0%)
1.51 to 2.00 occupants per room	30	48	18	60.0%
2.01 or more occupants per room	42	37	(5)	(11.9%)

^{*} Source: U.S. Census Bureau, American Community Survey, 2021

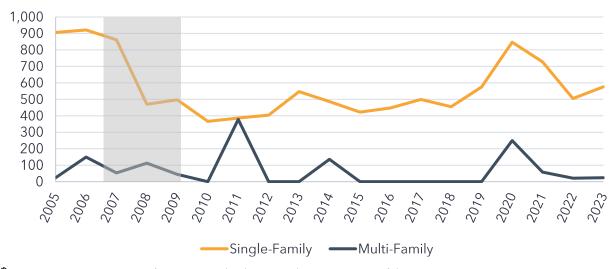
New Housing Production

Figures 80-83 depict the housing permit unit trends for the City of Broken Arrow and for Tulsa and Wagoner County between 2005 and 2023. During and immediately following the Great Recession (illustrated by the gray vertical bar), the total number of housing permits in Broken Arrow declined, and have subsequently followed a fluctuating pattern of peaks and troughs, with the highest peak in the period taking place in 2020 (with 1,096 total permit units). Permits in the City have not dropped below 2010 levels despite the cyclical nature of total annual permits in the City. Single-family permits have been the main driver for total permits in Broken Arrow, however the period with the highest number of single-family permits was 2005 to 2006 — reaching a peak that the City has not experienced since. On the multi-family permit side, permits have tended to remain below 200, with the exception of a sharp uptick in 2011 that was followed by a subsequent leveling-off to zero for about a four year span of time.

Figure 80: Total Housing Permit Units in the City of Broken Arrow, 2005-2023*



Figure 81: Single-Family and Multi-Family Permit Units in the City of Broken Arrow, 2005-2023*



^{*}Source: U.S. Department of Housing and Urban Development, State of the Cities Data Systems, 2005-2022

In Tulsa and Wagoner Counties, housing permits have followed a more mellow cyclical pattern, with Tulsa County exhibiting a larger degree of variation than Wagoner, in general. Total permits in Tulsa were around 3,900 in 2005 and they steadily declined during and after the recession. In fact, in both counties, pre-recession levels were only reached between 2021 and 2022. This recovery pattern is similar to that seen at the national level, where it took around 12 years after 2007 for building permits to reach pre-recession levels.⁴²

Tulsa County's single-family and multi-family trends closely resemble those of the City of Broken Arrow, with peaks occurring during the same time period for each respective permit category. Permits in Wagoner County remained quite stable, with single-family permits climbing higher than pre-recession levels in 2021, and multi-family permits reaching their peak in 2020.

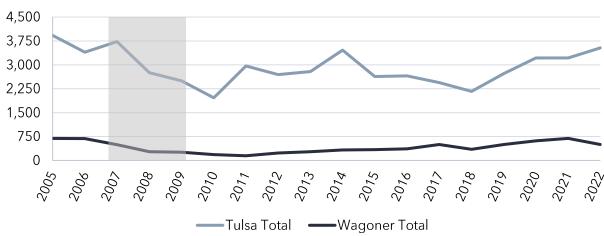
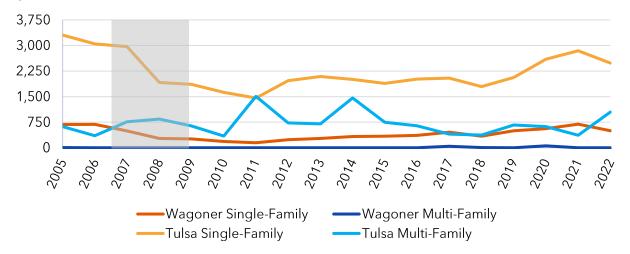


Figure 82: Total Housing Permit Units in Tulsa and Wagoner County, 2005-2022*





^{*}Source: U.S. Department of Housing and Urban Development, State of the Cities Data Systems, 2005-2022

⁴² L. Mutikani, "U.S. housing starts, building permits scale 12-year high", Reuters, 2019 https://www.reuters.com/article/us-usa-economy-housingstarts/u-s-housing-starts-building-permits-scale-12-year-high-idUSKBN1W31LF

Cost of Construction

It is important to consider constructions costs when assessing the housing landscape. Data on building costs for various building types are sparse. However, the Points Consulting team was able to assemble cost comparisons per square foot estimates for the average single story family home using RSmeans data, as shown in Table 39.

The Points Consulting team evaluated the RSmeans data for the same style and size of single family homes across the identified locations within the state, specifically 2,300 sq/ft single story homes with wood siding and frame, and built by non-union contractors. The RSMeans database is updated quarterly on both the City Cost Index (CCI) and lists of key building material costs. The Historical Cost Index (HCI) applies the CCI quarterly updates to a historical benchmark, which allows specific locations to be indexed overtime and serve as a tool to use for forecasting construction costs, comparing, and updating the construction costs across the United States.

As shown in Figure 84, Broken Arrow has a slightly higher average cost for single-family homes when compared to other cities in Oklahoma. Tulsa has a lower building cost and cost per square foot than the US average, its closest neighbor Oklahoma City, and Lawton who shares a similar sized population. The cost per square foot of an average 1 story SFH within the State is slightly equal to or greater than \$100, as displayed in Figure 85 while the costs in the U.S. is greater than \$120 per square foot.

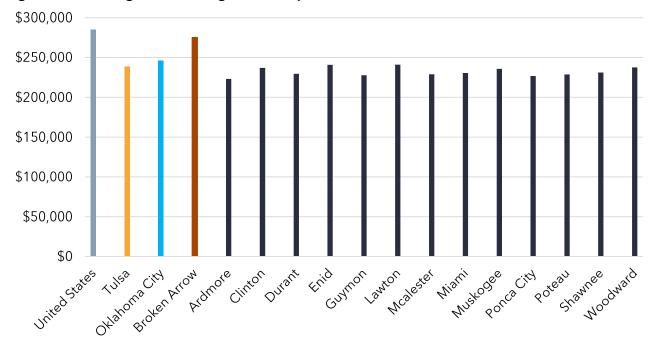


Figure 84: Building Cost Average of 1 Story SFH, 2024 Q143

Source: Points Consulting using RSMeans Square Foot Estimator, 2024 Q1

⁴³ The figure for Broken Arrow may include some two-story builds

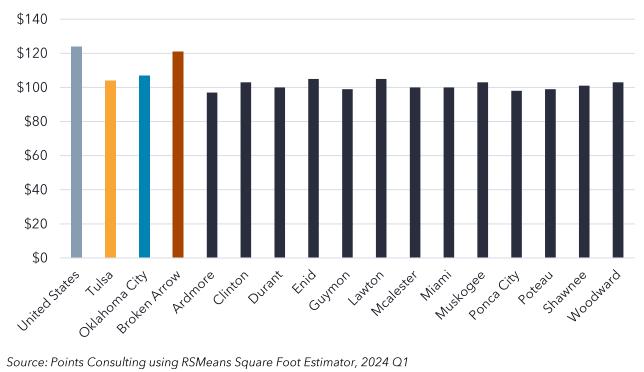


Figure 85: Cost per Square Foot Average of 1 story SFH, 2024 Q1

Source: Points Consulting using RSMeans Square Foot Estimator, 2024 Q1

Table 39: Building Costs for Average One-story Home by Region, 2024 Q1

Region	Building Cost	Cost per S.F.
United States	\$285,106	\$124
Tulsa	\$238,587	\$104
Oklahoma City	\$245,740	\$107
Broken Arrow	\$275,191	\$121
Ardmore	\$223,103	\$97
Clinton	\$237,058	\$103
Durant	\$229,567	\$100
Enid	\$240,739	\$105
Guymon	\$227,806	\$99
Lawton	\$241,101	\$105
McAlester	\$228,893	\$100
Miami	\$230,562	\$100
Muskogee	\$235,866	\$103
Ponca City	\$226,717	\$98
Poteau	\$228,660	\$99
Shawnee	\$231,226	\$101
Woodward	\$237,524	\$103

Source: Points Consulting using RSMeans Square Foot Estimator, 2024 Q1

Planned Developments

This section details some of the planned housing developments in Broken Arrow starting in 2020. Figure 86 shows that, as of 2020, there have been 31 residential plats recorded. The year 2022 saw the highest number of plats recorded in the city, with 10.

In the case of multi-family developments, Table 40 shows that , as of the end of 2023, there were a total of 858 multi-family units at different stages of development within the city. The bulk of these units under development are apartments, followed by close to 300 duplex units, and 145 townhouse/cottage-style units.

Figure 86: Residential Plats Recorded in Broken Arrow, 2020-2023*

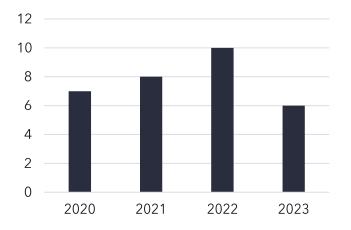


Table 40: Multi-family Data at Various Stages of Development*

Name	Туре	Location	Units	Year Zoning Approved
The Greens at Broken Arrow	Apartments	1/4 mi W of 23rd/S of Omaha	246	2021
The Trails at Aspen Creek	Apartments	1/4 mi W of Aspen/N of Tucson	367	2021
Villages at 1Eleven Flats	Apartments	N of NW corner of Florence & Aspen	185	2019
Lynn Oak Apartments	Apartments	N and W of NWC Kenosha & Lynn Lane	60	2023
Total			858	

^{*} Source: City of Broken Arrow, City Manager's Office, 2023

Rental Rates

Generally speaking, there are fewer metrics available on rental markets, as it is more difficult for federal agencies to track, and for-profit data providers do not have as much incentive to collect and report such information. However, there are several sources that use combinations of MLS data along with proprietary methods to produce reports on rental market conditions. So, although these sources differ in their methods, they tell the same story of increasing rental costs.

As Figures 87- 88 show, the data available indicate that rents for all unit sizes have been increasing since 2018. From 2010 to 2018, rental prices were relatively steady. On average, rental prices of all unit sizes increased by 19.9% in the last three years. In fact, three- and four-bedroom units each increased by over 20% in the same time span. In the last five years, three- and four-bedroom units have increased by more than 30%. One of the main drivers for the steep increase is a general lack of rental housing supply, which in turn has led to stiffer competition among renters.

⁴⁴ Based on 2023 data from the City Manager's Office of Broken Arrow.

An interesting point to note is that, despite the rise in rental prices the Tulsa metro zip code was one of the most affordable areas in terms of space per average rent cost in the US. Renters in this area could expect to get around 1,900 square feet when paying the national average rent in 2023 of \$1,700. This ranks the Tulsa metro area as the fourth best deal in terms of space per dollar of rent spent, behind San Antonio, Oklahoma City, and Memphis.⁴⁵

A point to note here is that the data for average rental prices covers calendar year periods in each year. Utilizing a box and whisker plot allows us to see the high point and low point for each year at the end of each "whisker." The boxes on the chart show where 50% of the data for each year can be found in each year, as well.

Figure 87: Rental Prices in Broken Arrow by Unit Size, 2010-2022*

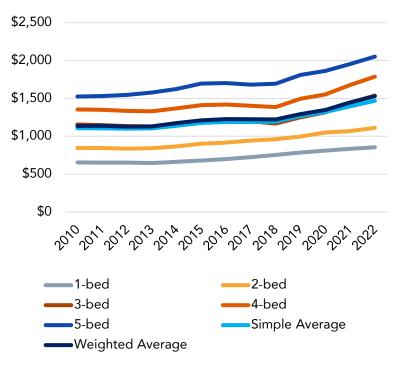
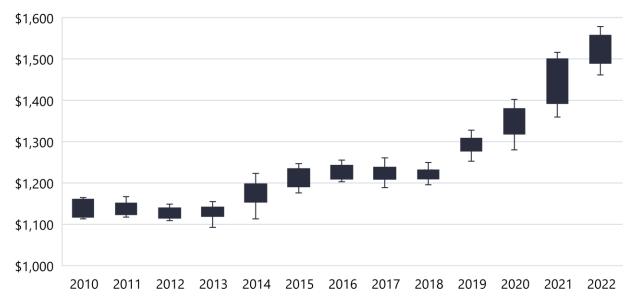


Figure 88: Rental Price Range for all Unit Sizes, 2010-2022*



^{*} Source: Rentrange, 2023

⁴⁵ A. Neculae, "Location vs. Space: How Much Does the National Average Rent of \$1,700 Stretch in Apartment Size by Zip Code?", RentCafe, 2023. https://www.rentcafe.com/blog/rental-market/market-snapshots/how-much-space-for-1700-bv-zip-code/

Table 41 shows the average monthly rental listings for 2020 and 2022 by bedroom number. From 2020 to 2022, average monthly listings have either increased marginally (less than 5%) or even decreased. A decreasing rental supply exacerbates price increases by further shrinking the availability. While there was only about a 2% decrease of listings across all unit types, rental prices will continue to rise without a general increase in supply.

Table 41: Average Annual Listings Change by Unit Size, 2020-2022

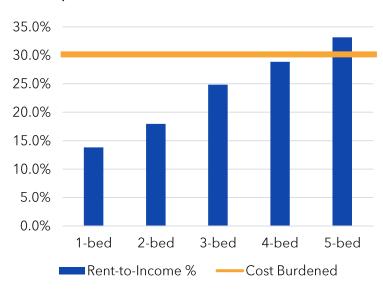
Unit Size	Average Monthly 2020 Listings	Average Monthly 2022 Listings	Numerical Change	% Change
1-bed	12.2	12.3	0.2	1.4%
2-bed	15.0	14.7	(0.3)	(2.2%)
3-bed	52.2	47.8	(4.3)	(8.3%)
4-bed	28.0	29.1	1.1	3.9%
5-bed	13.1	12.6	(0.5)	(3.8%)

Source: Rentrange, 2023

Increasing rental prices will create a greater cost burden for renters, forcing them to spend more money on rent and less on other necessities, such as food, clothing, and transportation. Figure 89 shows the rent-to-income ratio of renters in Broken Arrow. Someone who is cost burdened pays more than 30% of their income on housing. ⁴⁶ Those living in five-bedroom rentals are more

likely to be cost-burdened in Broken Arrow, and those living in four-bedroom rentals are not far behind at 28.9%. Similarly, three-bedroom renters are spending about 25% of their income on rent, and two-bedroom renters are approaching a 20% rent-to-income ratio. Consequently, those living in two- and three-bedroom units may soon become cost burdened with rental prices continuing to increase without a general increase in the availability of rental units. It is important to note that the ratio in the figure below is based on the median household income for all households in the city, and households in units with a higher number of bedrooms may have higher incomes than the median.

Figure 89: Rent-to-Income and Level of Cost Burden, 2022



Source: Rentrange, 2023

⁴⁶ HUD, "Rental Burdens: Rethinking Affordability Measures," https://www.huduser.gov/portal/pdredge/pdr_edge_featd_article_092214.html.

Short-Term Rentals

The short-term rental industry (i.e., AirBnB) is increasingly playing a significant role in local housing markets. The model is a two-edged sword, in that it provides a potential source of "side-hustle" revenue for existing residents, but also has the potential to increase home prices further because single-family homes could be valued at the expectation levels of commercial real estate.

Figure 90 depicts active listings over time for short-term rentals (STRs) in Broken Arrow. From June 2018 through 2020, the number of active STRs remained relatively steady. During this time, STRs increased slightly from 25 to 29, or 14.7%. However, from the first quarter of 2021 to the fourth quarter of 2022, the number of active STRs increased drastically by about triple from 29 to 87. Typically, there is some sort of a seasonal trend with STRs with more listings during the summer, and fewer listings during the fourth quarter of the year. However, it is difficult to see a seasonal trend in the listings data. Other highlights in the data include a peak of monthly listings in May of 2022, and a similar peak in April 2023. Also of note, three-bedroom STR units make up nearly 50% of total STR stock.

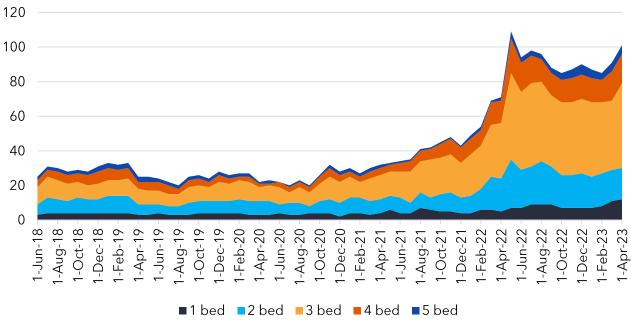


Figure 90: STR Active Listings Over Time

Source: AirDNA, 2023

Monthly revenue of STR operators is shown in Figure 91. Here, most operators are shown as the 50th percentile, above average performers are shown as the 75th percentile, and top performers are shown as the 90th percentile. Most operators are earning \$1.5K to \$3.5K per month, but top performers are earning \$4K to \$6K per month. Clear spikes in monthly revenue are seen in the summer months, except for 2021 where there was no significant increase from the rest of the year. In 2022, top performers saw a greater spike in monthly revenue in May of 2022 than in typical years, and all other groups of performers did not see a seasonal increase during the summer of 2022. Also clear from the data is that there was no sustained increase in revenue in 2020 from the COVID pandemic.

Figure 91: STR Operators' Monthly Revenue

Source: AirDNA, 2023

The average daily rate (ADR) of STRs in Broken Arrow is shown in Figure 92. The ADR saw a general decline from the end of 2018 through 2020 and remained steady below \$200 throughout 2021. A significant increase in ADR was seen in May of 2022, an 88% increase from the month prior. However, the ADR immediately came back down in the following months. The second half of 2022 and the beginning of 2023 have again seen ADRs around \$200 and below. The correction of prices in the market with no sustained increase shows that there is no incentive for more STR investment.

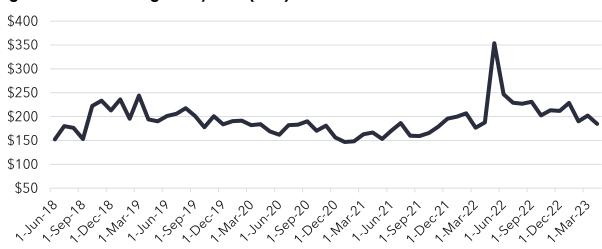


Figure 92: STR's Average Daily Rate (ADR)

Source: AirDNA, 2023

Figures 93 and 94 show STR revenue by unit type and bedroom number. It is clear that houses (rather than apartments) earn the most revenue. In fact, revenue earned by house/villa STRs has seen a somewhat steady increase since the first quarter of 2021. Noticeably, there are no significant increases in monthly revenue during particular months. In other words, no seasonal trend can be seen. Monthly revenue for house/villa STRs also saw a significant increase in May of

2022, reaching \$500,000 revenue for the month. The increase is reflective of the significant increase in ADR during the same month. Similar to ADR, the market correction can be seen in the following months. The other two-unit types included in this portion of the analysis are "Unique Stays" and traditional apartments. Examples of unique STR units include, but are not limited to camper/RV, a tiny house, or even a "farm stay."⁴⁷ As seen in Figure 93, revenue earned by these unit types pales in comparison to house/villa STRs. This is due in part to the volatility of having a small number of active STRs in general. Additionally, five-bedroom units earn the most revenue by bedroom number. However, these units have volatility in revenue because of the small number of listings (there have never been more than six five-bedroom units listed in a given month since June 2018). Also, all other unit types by bedroom number tend to make the same level of revenue, which is not typically seen in STR markets.

Figure 93: STR Revenue by Unit Type*

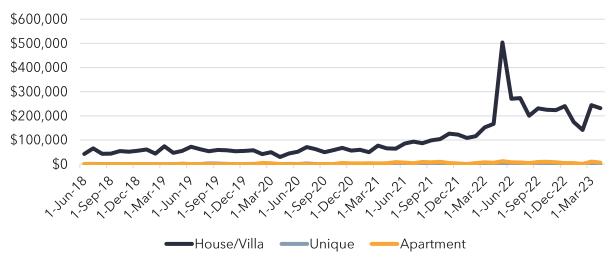
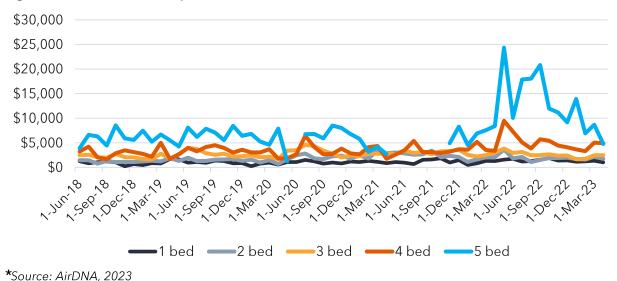


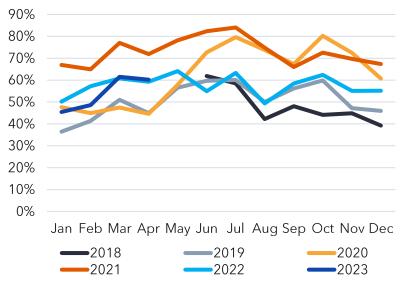
Figure 94: STR Revenue by Bedroom Number*



⁴⁷ AirDNA, "Apartment or A-Fame? Why Unique Airbnbs Outperform the Rest," https://www.airdna.co/blog/unique-airbnbs-outperform-the-rest.

The occupancy rate of an STR is how often it is booked per month. Occupancy rates can show if an STR operator can charge more or should charge less for it. For example, a property that is booked at 90% for \$100 per night could be earning more revenue if booked at a lower rate for \$300 per night.⁴⁸ Figure 95 displays Broken Arrow STRs occupancy rate across months by year from 2018 to 2023. The highest occupancy rates were seen in 2021, except October and November of 2020. To date, 2023 occupancy rates are trending with 2022. Occupancy rate data also shows a lack of seasonal trend in Broken Arrow STRs.

Figure 95: STR Occupancy Rate



Source: AirDNA, 2023

A summarization of STR patterns for Broken Arrow and peer communities is shown in Table 42. Peer communities were determined by observing the nearest "big city," along with other communities in the area, and communities of similar size to Broken Arrow. Relative to these peer communities, Broken Arrow seems to be middle of the road in regard to STR patterns. The ADR for Broken Arrow ranks fourth in this group. Additionally, Broken Arrow is below average in terms of active STRs and percentage STR stock. In terms of occupancy rate, Broken Arrow is right at the average.

Table 42: STR Patterns in Broken Arrow and Peer Communities

City	Occupied Housing Units	Active Short- Term Rentals	Percentage STR Stock	Median Occupancy Rate	Average Daily Rate
Broken Arrow, OK	44,422	117	0.2%	58%	\$167
Edmond, OK	37,868	260	0.7%	58%	\$157
Norman, OK	54,355	307	0.6%	48%	\$166
Owasso, OK	14,257	36	0.3%	61%	\$156
Tulsa, OK	191,753	1,177	0.6%	57%	\$146
Overland Park, KS	84,370	227	0.3%	62%	\$194
Bentonville, AR	21,385	797	3.7%	59%	\$184
Fayetteville, AR	41,932	749	1.8%	50%	\$198

Source: AirDNA, US Census Bureau, and Esri BA 2023

Points Consulting also carried out a two-year forecast for active short term rental listings going into 2026. The mid-range forecast shows an increase of 58 active listings in 2026 when compared to 2023, for a total number of 194. The team also included a high and low component

⁴⁸ AirDNA, "Airbnb Hosting Tips: What You Need to Know About Occupancy in 2023," https://www.airdna.co/blog/airbnb-hosting-tips-for-occupancy-in-2023.

to this projection to account for the volatility in the seasonal pattern of active rentals. On the low end, we project 181 active listings in 2026, and 209 on the high end. Overall, Points Consulting projects an increase of approximately 43% in active STR listings over the next two years.

250 200 Kin Silver 150 100 50 0 5/16/2019 1/1/2018 9/27/2020 2/9/2022 6/24/2023 11/5/2024 3/20/2026 Forecasted Listings ——Forecasted High Listings Forecasted Low

Figure 96: Active STR Listing Forecast, 2018-2026

Source: Points Consulting, 2024

Table 43: Housing Subsidies in Broken Arrow, 2023

_				
Program	Subsidized Units Available	% Occupied	Number of People per Unit	Average Family Expenditure per month
Housing Choice Vouchers	122	93%	2	\$421
Project Based Section 8	382	95%	2	\$287
202/PRAC	37	98%	1	\$341

Source: Housing & Urban Development, Picture of Subsidized Households, 2023

Table 44: Low-Income Housing Tax Credit Projects in Broken Arrow

Project Name	Project Address	Total Low-income Units
Aspen Village Apartments	1947 W. Houston St	176
Indian Spring Apartments	2101 W Jasper St	275
Vandever House	3102 S Juniper Ave	47
Kenosha Landing	2602 W Oakland Pl	39

Source: Housing & Urban Development, LIHTC Database

6. Community Engagement Summary

In-Depth Interview Key Themes

Zoning Code Revisions and Housing Demand: The ongoing zoning code revision in Broken Arrow has potential implications for housing development, particularly with the introduction of Accessory Dwelling Units (ADUs) in all residential districts. The City, spanning 63 square miles, is experiencing a demand for expensive homes, leading to higher property taxes for school funding. Due to this, there is a need to balance affordability and diversity in the housing market.

Educational Landscape and Demographic Shifts: The school districts, experiencing a surge in new students, is studying demographic trends to address potential expansions and redistricting. While those interviewed expressed concern about the teacher shortage and the impact of private schools, the challenge lies in balancing growth with pedestrian safety, workforce readiness, and funding limitations.

Infrastructure and Planning Challenges: The City's growth, transitioning from a bedroom community to a place where around 20% live and work, presents challenges in infrastructure, especially in flood-prone areas covering more than 14% of the City. Zoning considerations and the impact of schools raise questions about sustainable growth. While Wagoner County's housing regulations may impact development, state funding efforts aim to bridge the gap for affordable housing.

Housing Market Diversity and Affordability Gaps: Broken Arrow's housing market exhibits a diverse range, from affordable developments to gated communities. Challenges include gaps in affordability, quality variations among local developers, and the impact of out-of-state landlords.



Community Survey

Introduction

The project team conducted an electronic survey of community residents from September 25th through November 1st, 2023. A total of 4,178 responses were collected. The survey, which was open to all of the citizens of Broken Arrow and to those that frequently commute to the City, included a mix of both fixed response questions (e.g., multiple choice selection, and scaled responses), and open-ended questions. The team, in connection with the City, widely promoted the survey both online and offline using a variety of methods – such as flyers, email, and social media – in order to ensure the highest rate of participation possible. Points Consulting also utilized a thematic coding method to group open-ended responses into categories that are largely similar.

For quality assurance, the team identified and removed suspicious responses (too fast, strange IP address, immaterial input, etc.). Responses were removed of people who neither live nor work in Broken Arrow, and who have no interest in moving to Broken Arrow. Points Consulting also meticulously reviewed open-ended responses to ensure each response was unique and individuals were not saying the same things verbatim. Given a 4.4% response rate, we are very confident that the actual sentiments of BA residents are reflected in this survey (within 2% in either direction).

A few key themes emerged from the survey respondents. There were vast differences of opinion among community members about what they wanted the future "identity" of the community to be, with no strong correlation of responses by demographic category. In general, respondents feel BA is less expensive to own a home than in many other communities. Specifically, just 42% selected an option indicating they thought purchasing a home was

expensive (usually 60%+ of respondents in other communities feel this way). By contrast, 81% of renters feel house prices are beyond their reach. Referring to perceptions of rental costs, 42% of all respondents also feel renting is expensive. However, 73% of renters selected one of the "expensive" options here, showing a difference of opinion from homeowners.

"Rose district should remain as a thriving suburban area with housing that can be selected for either a small unique business or National registration homes. The restaurants are phenomenal!! The farmer's market is AWESOME!!"

Bad ideas - stick to single family housing - NO apts or multi family-it will overcrowd schools and bring down neighborhoods. Do not turn into the mess Tulsa is!!!!!!

Clear the Creeks of Beavers **2**!!!



Community Survey Responses

Demographics

Figure 97: What is your age group?

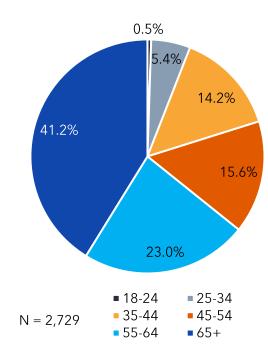
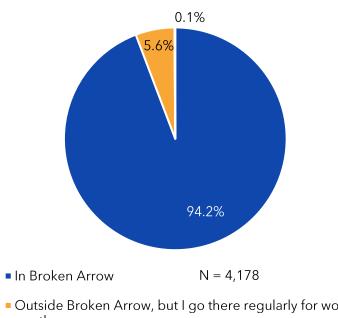


Figure 98: Where do you live?



- Outside Broken Arrow, but I go there regularly for work or other reasons
- I neither live in nor regularly visit Broken Arrow

Figure 99: How long have you Lived in **Broken Arrow?**

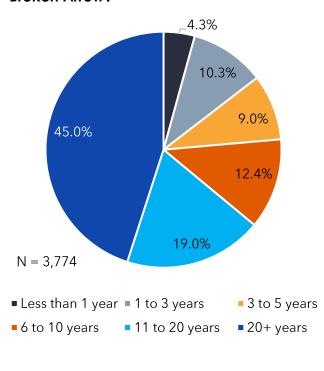


Figure 100: Do you own a second home or a rental property in Broken Arrow?

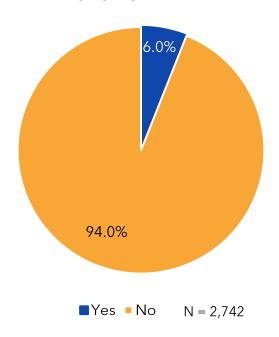


Figure 101: What is your employment situation?

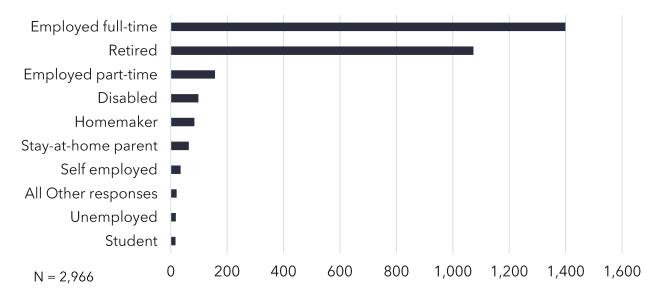


Figure 102: What is your current housing status?

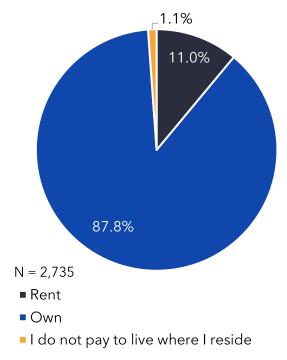


Figure 103: Who else resides in your residence?

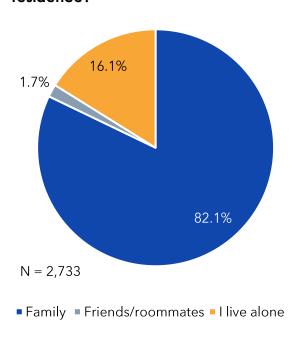
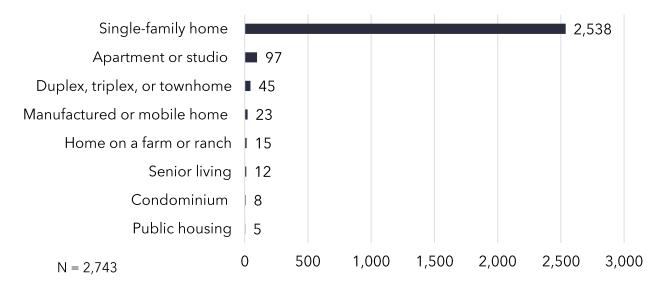


Figure 104: In what type of housing do you reside?



Cost Perceptions Questions

Figure 105: Perceptions of rental costs in Broken Arrow

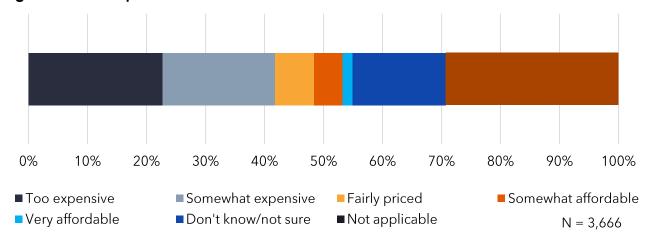


Figure 106: Perceptions of purchasing cost in Broken Arrow

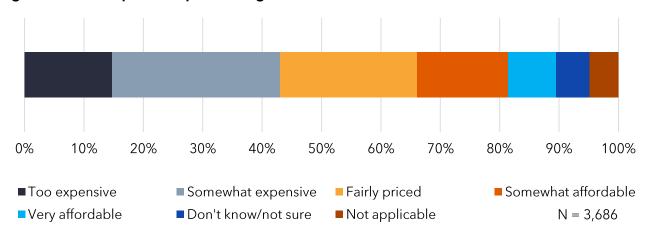


Figure 107: Which, if any, of the following housing aspects are you dissatisfied with in Broken Arrow?

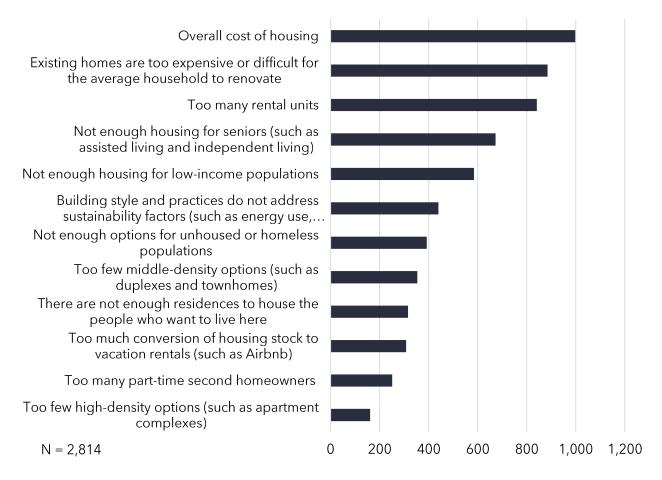


Figure 108: Are you currently looking to move to a new home in Broken Arrow or elsewhere?

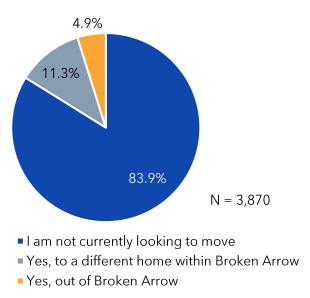
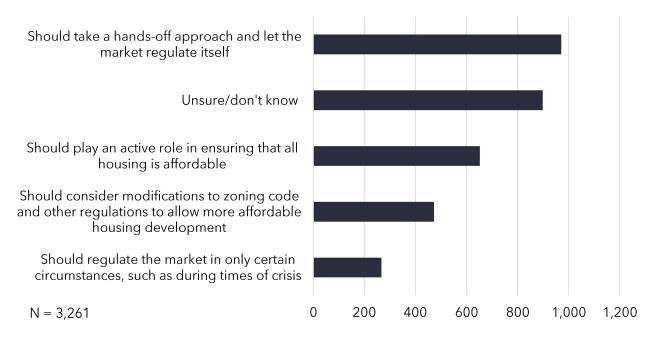


Figure 109: What should the local government's role be in regulating the housing market?



Housing Supply Questions Figure 110: Would you like to see Broken Arrow's housing stock increase?

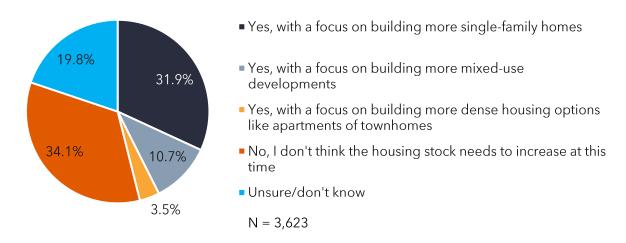


Figure 111: What options would you be in favor of the City of Broken Arrow encouraging or allowing in order to provide more housing?

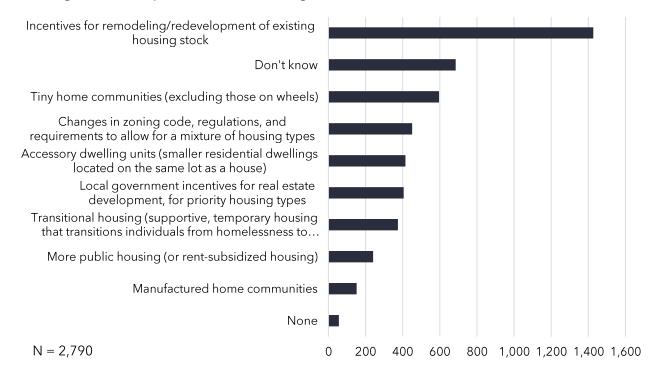


Figure 112: What types of neighborhoods in Broken Arrow would be most suitable for the townhome housing type?

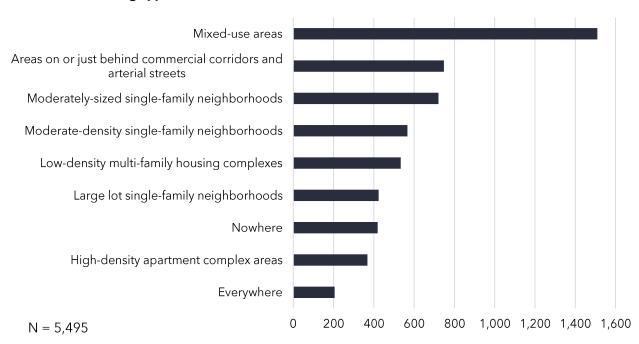


Figure 113: What types of neighborhoods in Broken Arrow would be most suitable for the duplex and triplex housing type?



Figure 114: What types of neighborhoods in Broken Arrow would be most suitable for cottage neighborhoods?

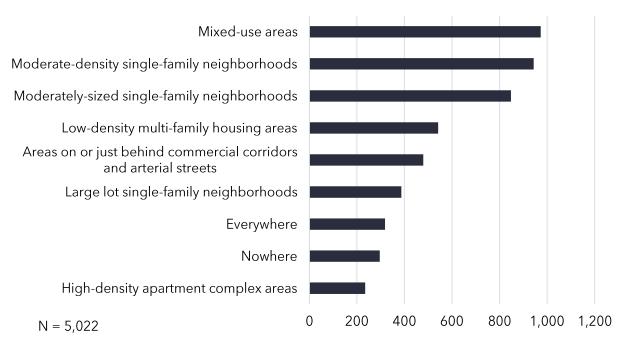


Figure 115: What types of neighborhoods in Broken Arrow would be most suitable for the multi-family/apartment housing type?

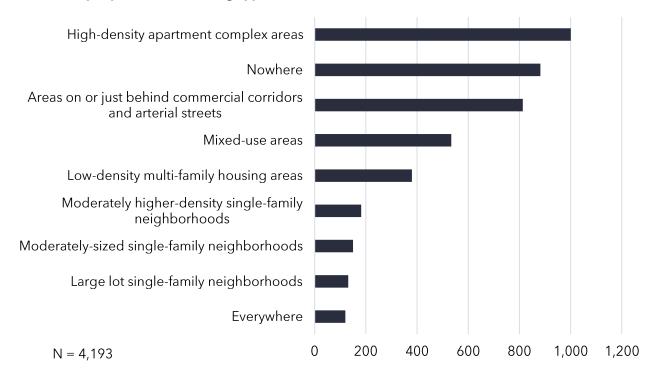


Figure 116: What types of neighborhoods in Broken Arrow would be most suitable for the condominium housing type?

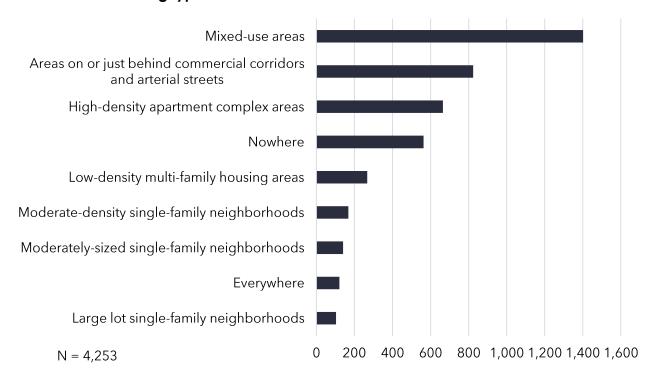


Figure 117: What types of neighborhoods in Broken Arrow would be most suitable for the accessory dwelling unit housing type?

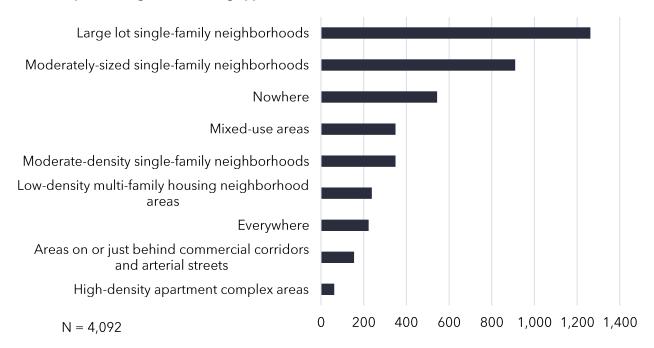
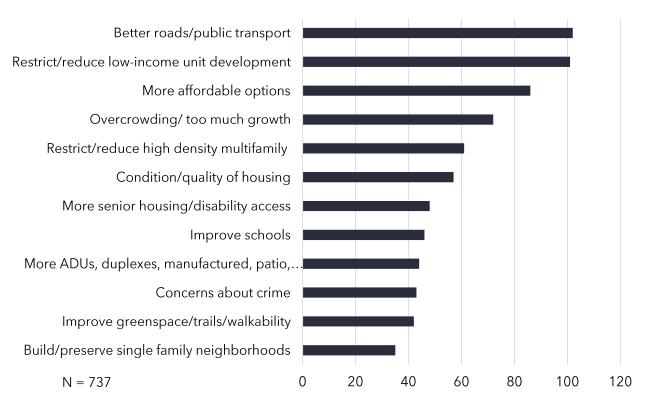


Figure 118: Coded responses for additional thoughts or comments related to housing in Broken Arrow



Resource concerns (water, land, infrsastructure,...

More lot space
Incentives or Code enforcement on housing
Avoid Becoming Tulsa
Refrain from mixing multi and single family housing
Fewer rental houses and AirBnBs
Improve business/economy/ammenities
Do nothing/ less regulation
Higher density housing in mixed commercial areas
Pro development
Lower taxes
Support home ownership
Discontent with local government
Restrict absentee ownerhip
Restrict mixing residential units with commercial

Figure 119: Coded responses for additional thoughts or comments related to housing in Broken Arrow (continued)

Additional Statistical Analysis of Survey Data

Points Consulting completed additional analysis of the survey data in the form of Comparison of Means Testing. The purpose here is to show the difference in responses to key questions by demographic groups. Housing affordability is typically a question of availability, or housing supply. So, this begs the question, should the City increase its housing stock? Different groups of people will respond to the question differently. The Comparison of Means Test compares the average responses for each demographic category and results in a statistical value that reflects if the average for one group is significantly different from the overall average of respondents. For example, our analysis indicates that renters are more in favor of increased housing development compared to all respondents. By contrast, homeowners are less in favor of increased housing development compared to all respondents. Understanding the response from different groups can assist in making policy decisions and help ensure positive outcomes for residents.

5

10

15

20

0

25

30

35

40

Who is more in favor of housing development?

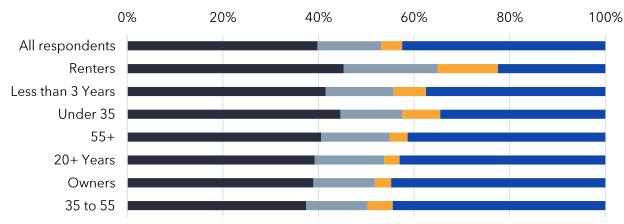
- Renters
- Those living in BA for less than three years
- People under 35 years of age
- People aged 55+

N = 214

Who is less in favor of housing development?

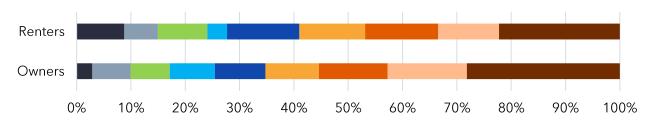
- People who have lived in BA for 20+ years
- Homeowners
- People aged 35 to 55

Figure 120: Would you like to see the City of Broken Arrow's housing stock increase? (Crosstabulated Responses)



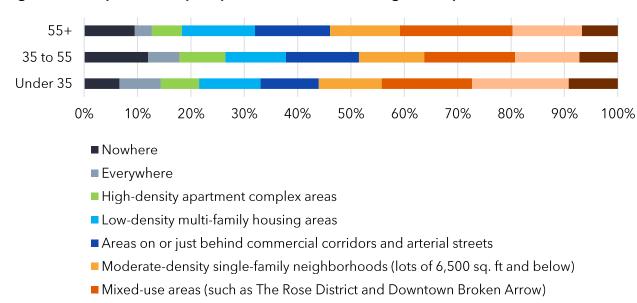
- ■Yes, with a focus on building more single-family homes
- ■Yes, with a focus on building more mixed-use developments
- Yes, with a focus on building more dense housing options like apartments of townhomes
- ■No, I don't think the housing stock needs to increase at this time

Figure 121: Townhome preferences based on tenure



- **■** Everywhere
- High-density apartment complex areas
- Large lot single-family neighborhoods (half-acre lots and above)
- Nowhere
- Low-density multi-family housing complexes
- Moderate-density single-family neighborhoods (lots of 6,500 sq. ft and below)
- Moderately-sized single-family neighborhoods (quarter-acre to half-acre lots)
- Areas on or just behind commercial corridors and arterial streets
- Mixed-use areas (such as The Rose District and Downtown Broken Arrow)

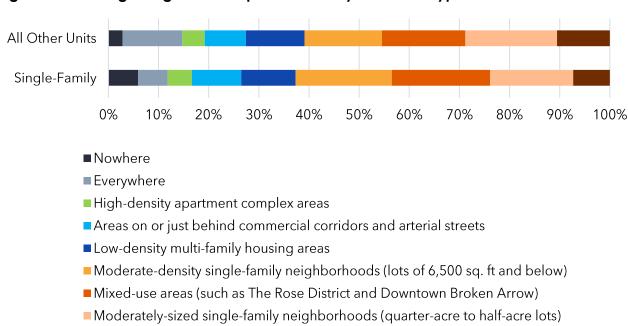
Figure 122: Duplex and triplex preferences based on age of respondent



■ Moderately-sized single-family neighborhoods (quarter-acre to half-acre lots)

■ Large lot single-family neighborhoods (half-acre lots and above)

Figure 123: Cottage neighborhood preferences by residence type



■ Large lot single-family neighborhoods (half-acre lots and above)

Figure 124: Dense multi-family or apartment preferences by tenure

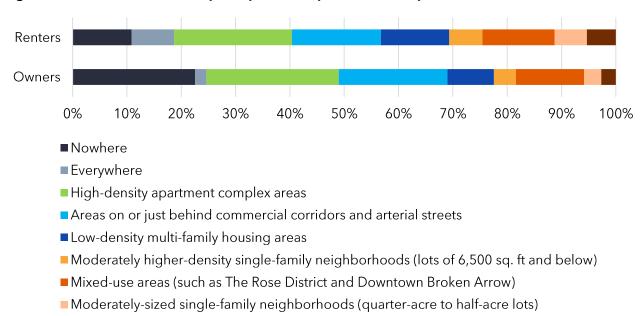


Figure 125: Owner-occupied condominium preferences by residence type

■ Large lot single-family neighborhoods (half-acre lots and above)

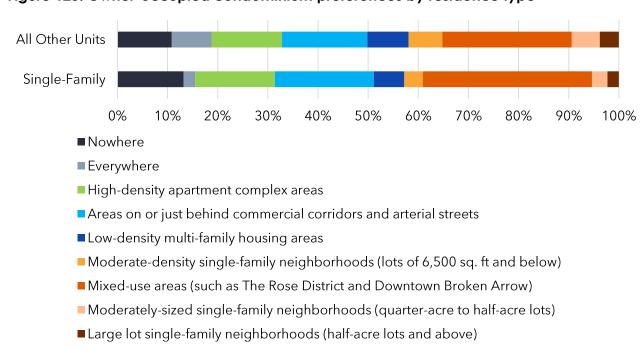
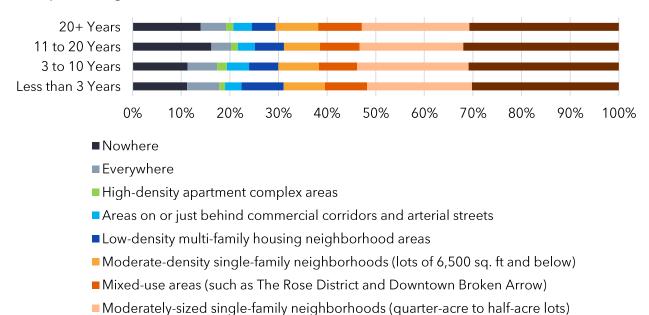


Figure 126: Accessory dwelling units (ADUs) – attached or detached preferences based on time spent living in Broken Arrow



Images used in the Broken Arrow Community Survey depicting several concepts of the housing types discussed can be found in Appendix C.

■ Large lot single-family neighborhoods (half-acre lots and above)

Appendix A – Detailed Data

Benchmarking to Peer Cities

Table 45: Housing Regional Comparison

City & Place	2022 Pop	% Owner Occupied	% Single Family Home	% Structures Built 2020 or Later
Olathe, KS	142,114	73.5%	80.7%	0.8%
Thornton, CO	141,799	72.7%	72.8%	1.1%
Norman, OK	127,701	52.4%	66.1%	0.7%
Lewisville, TX	125,028	45.2%	50.0%	1.1%
Round Rock, TX	120,465	55.6%	68.4%	1.3%
Broken Arrow, OK	114,237	72.5%	81.8%	1.0%
South Fulton, GA	107,865	69.2%	83.6%	0.9%
Tyler, TX	106,440	54.9%	66.8%	0.6%
Lee's Summit, MO	101,728	75.1%	82.4%	1.0%
Carmel, IN	99,453	74.6%	76.1%	1.1%

Source: U.S. Census Bureau, and Esri Business Analyst 2022-2023

Table 46: Regional Demographic Comparison

City & Place	2022 Pop	МННІ	Median Age	Persons per HH	% Pop change '10-'20	% Pop change '20-'22	HH Median Net Worth
Olathe, KS	142,114	\$108,077	36.3	2.8	12.2%	2.1%	\$275,264
Thornton, CO	141,799	\$95,064	33.7	2.9	23.9%	(1.7%)	\$227,490
Norman, OK	127,701	\$62,849	31.0	2.5	12.9%	2.9%	\$74,140
Lewisville, TX	125,028	\$82,006	34.2	2.6	17.0%	16.0%	\$91,077
Round Rock, TX	120,465	\$91,888	35.9	2.7	36.5%	(6.5%)	\$164,885
Broken Arrow, OK	114,237	\$82,547	36.8	2.7	12.7%	4.9%	\$194,432
South Fulton, GA	107,865	\$77,488	37.1	2.7	19.1%	9.4%	\$163,002
Tyler, TX	106,440	\$63,056	34.9	2.8	11.5%	0.5%	\$95,128
Lee's Summit, MO	101,728	\$103,447	38.6	2.6	10.9%	2.8%	\$292,915
Carmel, IN	99,453	\$132,859	40.6	2.6	20.3%	0.3%	\$425,219

Source: U.S. Census Bureau, American Community Survey, and Esri Business Analyst, 2022-2023

Table 47: Regional Housing Cost Comparison

City & Place	2022 Pop	Median Monthly Housing Cost	Past 5 years Home Equity Appreciation	% Past 5 Years Appreciation	Median Home Value	Ratio: Home Value to Income
Norman, OK	127,701	\$1,610	\$75,280	30.9%	\$243,936	3.9
Tyler, TX	106,440	\$1,620	\$93,668	36.7%	\$255,414	4.1
Lewisville, TX	125,028	\$2,226	\$103,778	25.8%	\$402,834	4.9
Thornton, CO	141,799	\$2,161	\$127,260	28.0%	\$455,222	4.8
Round Rock, TX	120,465	\$2,132	\$136,210	30.1%	\$451,979	4.9
South Fulton, GA	107,865	\$1,659	\$120,348	45.4%	\$265,007	3.4
Lee's Summit, MO	101,728	\$1,929	\$105,821	28.9%	\$366,088	3.5
Broken Arrow, OK	114,237	\$1,531	\$91,526	34.3%	\$266,888	3.2
Olathe, KS	142,114	\$2,019	\$109,273	28.2%	\$387,540	3.6
Carmel, IN	99,453	\$2,253	\$151,555	28.8%	\$525,832	4.0

Source: U.S. Census Bureau, American Community Survey, and Esri Business Analyst, 2022-2023

LifeMode Group Descriptions

Table 48: LifeMode Groups

LifeMode	Segment ID and Name
 LifeMode 1 Affluent Estates Established wealth – educated, well-traveled married couples. Less than 10% of all households, with 20% of household income. Homeowners (almost 90%), with mortgages (65.2%). Married-couple families with children ranging from grade school to college. Expect quality; invest in time-saving services. Participate actively in their communities. Active in sports and enthusiastic travelers. 	1A Top Tier 1B Professional Pride 1C Boomburbs 1D Savvy Suburbanites 1E Exurbanites
 LifeMode 2 Upscale Avenues Prosperous married couples living in older suburban enclaves. Ambitious and hardworking. Homeowners (70%); prefer denser, more urban settings with older homes and a large share of town homes. Primarily married couples, many with older children. Financially responsible. Serious shoppers, from Nordstrom to Marshalls or DSW, who appreciate quality and bargains. Active in fitness pursuits such as bicycling, jogging, yoga, and hiking. Subscribe to premium movie channels such as HBO and Starz. 	2A Urban Chic 2B Pleasantville 2C Pacific Heights 2D Enterprising Professionals
 Young, successful singles in the city. Highest-educated market, highest rate of labor force participation, and averse to traditional commitments of marriage and home ownership. 	3A Laptops and Lattes 3B Metro Renters 3C Trendsetters

Urban dwellers, partial to city life, high-rise apartments, and uptown neighborhoods. Prefer credit cards over debit cards, while paying down student loans. Green and generous to environmental, cultural, and political organizations. Internet dependent, from social connections to shopping for fashion, tracking investments, making travel arrangements, and watching television and movies. Adventurous and open to new experiences and places. LifeMode 4 Family Landscapes Successful young families in their first homes. Prosperous married-couple families, residing in suburban or semirural areas with a low vacancy rate (second lowest). Homeowners (79%) with mortgages (second-highest %), living in newer singlefamily homes, with median home value slightly higher than the U.S. median value. 4A Workday Drive Two workers in the family, contributing to the second-highest labor force 4B Home participation rate, as well as low unemployment. **Improvement** Do-it-yourself types who work on home improvement projects as well as their lawns 4C Middleburg and gardens. Sports enthusiasts, typically owning newer sedans or SUVs, dogs, and savings accounts/plans; comfortable with the latest technology. Eat out frequently at fast food or family restaurants to accommodate their busy Especially enjoy bowling, swimming, playing golf, playing video games, and taking trips to a zoo or theme park. LifeMode 5 GenXurban Gen X in middle age; families with fewer kids and a mortgage. Second-largest Tapestry group, composed of Gen X married couples, and a 5A Comfortable growing population of retirees. Empty Nesters About a fifth of residents are 65 or older; about a fourth of households have 5B In Style retirement income. 5C Parks and Rec Own older single-family homes in urban areas, with 1 or 2 vehicles. 5D Rustbelt Live and work in the same county, creating shorter commute times. Traditions Invest wisely, well insured, comfortable banking online or in person. 5E Midlife News enthusiasts (read a daily newspaper, watch news on TV, and go online for Constants news). Enjoy reading, renting movies, playing board games and cards, doing crossword puzzles, going to museums and rock concerts, dining out, and walking for exercise. LifeMode 6 Cozy Country Living Empty nesters in bucolic settings. Largest Tapestry group, almost half of households located in the Midwest. 6A Green Acres Homeowners with pets, residing in single-family dwellings in rural areas: almost 6B Salt of the Earth 30% have 3 or more vehicles and, therefore, auto loans. 6C The Great Politically conservative and believe in the importance of buying American. <u>Outdoors</u> 6D Prairie Living Own domestic trucks, motorcycles, and ATVs/UTVs. 6E Rural Resort Prefer to eat at home, shop at discount retail stores (especially Walmart), bank in **Dwellers** person, and spend little time online. 6F Heartland Own every tool and piece of equipment available to maintain their homes, vehicles, **Communities** vegetable gardens, and lawns. Listen to country music; watch auto racing on TV; and enjoy outdoor activities, such

as fishing, hunting, camping, boating, and bird watching.

LifeMode 7 Sprouting Explorers

- Young homeowners with families.
- Multilingual and multigenerational households with children who represent second, third-, or fourth-generation Hispanic families.
- Neighborhoods feature single-family, owner-occupied homes built at city's edge, primarily built after 1980.
- Hardworking and optimistic, most residents aged 25 years or older have a high school diploma or some college education.
- Shopping and leisure also focus on their children baby and children's products from shoes to toys and games and trips to theme parks, water parks, or the zoo.
- Children enjoy playing video games on personal computers or handheld or console devices.
- Many households have dogs for domestic pets.

7A Up and Coming
Families
7B Urban Villages
7C Urban Edge
Families
7D Forging
Opportunity
7E Farm to Table
7F Southwestern
Families

LifeMode 8 Middle Ground

- Lifestyles of thirtysomethings.
- Millennials in the middle: single/married, renters/homeowners, middle class/working class.
- Urban market mix of single-family, town home, and multiunit dwellings.
- Majority of residents attended college or attained a college degree.
- Householders have traded their landlines for cell phones, which they use to listen to music, read the news, and get the latest sports updates on their favorite teams.
- Online all the time: use the internet for entertainment (downloading music, watching YouTube, finding dates), social media (Facebook, Twitter, LinkedIn), searching for employment.
- Leisure includes nightlife (clubbing, movies), going to the beach, some travel and hiking.

8A City Lights
8B Emerald City
8C Bright Young
Professionals
8D Downtown
Melting Pot
8E Front Porches
8F Old and
Newcomers
8G Hometown
Heritage

LifeMode 9 Senior Styles

- Senior lifestyles reveal the effects of saving for retirement.
- Households are commonly married empty nesters or singles living alone; homes are single family (including seasonal getaways), retirement communities, or high-rise apartments.
- More affluent seniors travel and relocate to warmer climates; less affluent, settled seniors are still working toward retirement.
- Cell phones are popular, but so are landlines.
- Many prefer print to digital media: avid readers of newspapers to stay current.
- Subscribe to cable television to watch channels such as Fox News, CNN, and The Weather Channel.
- Residents prefer vitamins and a regular exercise regimen.

LifeMode 10 Rustic Outposts

- Country life with older families in older homes.
- Depend on manufacturing, retail, and healthcare, with pockets of mining and agricultural jobs.
- Low labor force participation in skilled and service occupations.
- Own affordable, older single-family or mobile homes; vehicle ownership is a must.
- Residents live within their means, shop at discount stores, and maintain their own vehicles (purchased used) and homes.
- Outdoor enthusiasts, who grow their own vegetables, love their pets, and enjoy hunting and fishing.
- Pay bills in person; use the yellow pages; read newspapers, magazines, and mailorder books.

9A Silver & Gold 9B Golden Years 9C The Elders 9D Senior Escapes 9E Retirement Communities 9F Social Security Set

10A Southern
Satellites
10B Rooted Rural
10C Economic
BedRock
10D Down the
Road
10E Rural Bypasses

LifeMode 11 Midtown Singles Millennials on the move – single, urban. Millennials seeking affordable rents in apartment buildings. Work in service and unskilled positions, usually close to home or public transportation.	11A City Strivers 11B Young and Restless 11C Metro Fusion
 Single parents with very young children. Embrace the internet, for social networking and downloading content. From music and movies to soaps and sports, radio and television fill their lives. Brand-savvy shoppers select budget-friendly stores. 	11D Set to Impress 11E City Commons
 LifeMode 12 Hometown Growing up and staying close to home; single householders. Close-knit urban communities of young singles (many with children). Owners of old, single-family houses, or renters in small multiunit buildings. Religion is the cornerstone of many of these communities. Visit discount stores and clip coupons. Purchase used vehicles to get to and from nearby jobs. 	12A Family Foundations 12B Traditional Living 12C Small Town Sincerity 12D Modest Income Homes
 Urban dwellers; young, hardworking families. A large share are foreign born and speak only their native language. Young, or multigenerational, families with children are typical. Most are renters in older multiunit structures, built in the 1960s or earlier. Hardworking with long commutes to jobs, often using public transit to commute to work. Spending reflects the youth of these consumers, focus on children (top market for children's apparel) and personal appearance. Also a top market for moviegoers (second only to college students) and fast food. Partial to soccer and basketball. 	13A Diverse Convergence 13B Family Extensions 13C NeWest Residents 13D Fresh Ambitions 13E High Rise Renters
 LifeMode 14 Scholars and Patriots College and military populations that share many traits due to the transitional nature of this LifeMode group. Highly mobile, recently moved to attend school or serve in military. The youngest market group, with a majority in the 15- to 24-year-old range. Renters with roommates in nonfamily households. For many, no vehicle is necessary as they live close to campus, military base, or jobs. Fast-growing group with most living in apartments. Part-time jobs help to supplement active lifestyles. Millennials are tethered to their phones and electronic devices, typically spending over 5 hours online every day tweeting, blogging, and consuming media. Purchases aimed at fitness, fashion, technology, and the necessities of moving. Highly social, free time is spent enjoying music, being out with friends, seeing movies. Try to eat healthy, but often settle for fast food. 	14A Military Proximity 14B College Towns 14C Dorms to Diplomas

Source: ArcGIS, https://doc.arcgis.com/en/esri-demographics/latest/regional-data/tapestry-segmentation.htm

Tulsa County Tapestry Segmentation Details

The population distribution of these tapestry segmentations is detailed in Tables 49-50, and the geographic distribution is displayed in the color-coded map in Figures 123-124. Each color represents a larger category that includes multiple Tapestry Segments. The dominant groups in Tulsa County are "Family Landscapes", "Middle Ground", and "GenXurban".

The Family Landscapes group contains prosperous young families who are mostly homeowners. The Middle Ground group are "millennials in the middle," thirty-somethings with a mix of classes, homeownership, and marital statuses. The GenXurban group is composed primarily of families on the older end of middle with fewer kids and a mortgage.

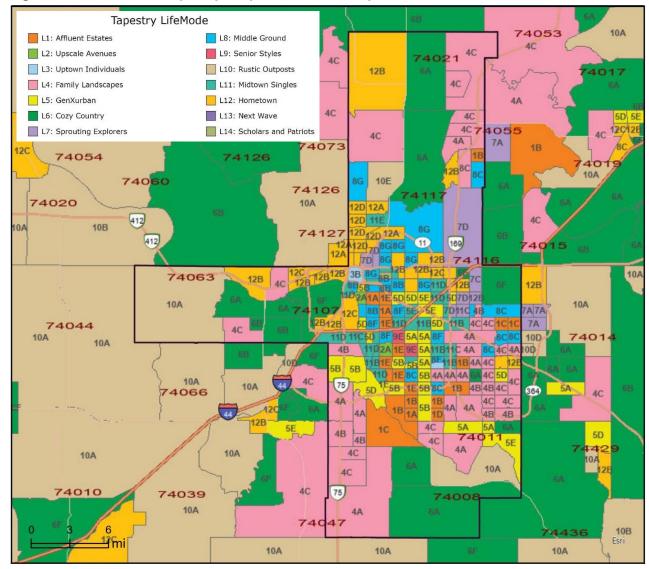


Figure 127: Dominant Tapestry Map for Tulsa County

Source: Esri Dominant Tapestry Maps

The dominant groups in Wagoner County are "Cozy Country Living", "Rustic Outposts", and "Sprouting Explorers". The Cozy Country group is composed primarily of empty nesters who are politically conservative and have a variety of income levels.

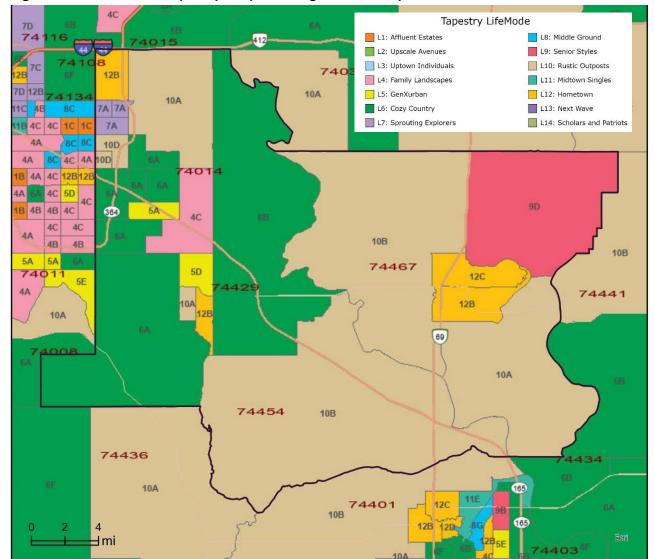


Figure 128: Dominant Tapestry Map for Wagoner County

Source: Esri Dominant Tapestry Maps

Table 49 displays the ten most represented Tapestry Segmentations found in Tulsa County. These tapestries make up 55% of all households. The top three tapestry segments, Workday Drive (8.2%), Middleburg (11.0%) and Traditional Living (10.9%) are predominantly composed of working, middle-class families.

- Workday Drive are affluent working families who live in suburbs outside cities, close enough to commute in for work.
- **Middleburg** are middle of the road in terms of age and income and tend to have children living at home.
- Traditional Living are living in low-density and settled neighborhoods. Often families in this segment have lived and worked in their communities for two or more generations.

Table 49: Tapestries Segmentation Distribution for Tulsa County

Tapestry Segment	Tulsa County	Oklahoma	United States
Workday Drive (4A)	8.2%	3.7%	3.1%
Middleburg (4C)	7.6%	5.1%	3.1%
Traditional Living (12B)	7.0%	6.5%	1.9%
Rustbelt Traditions (5D)	5.5%	3.5%	2.1%
Young and Restless (11B)	5.2%	2.5%	1.8%
In Style (5B)	5.0%	2.5%	2.2%
Home Improvement (4B)	4.3%	2.0%	1.7%
Green Acres (6A)	4.2%	4.7%	3.3%
Bright Young Professionals (8C)	4.1%	2.6%	2.3%
Hometown Heritage (8G)	3.7%	3.0%	1.2%
Grand Total	54.8%	36.1%	22.7%

Source: Esri Business Analyst, Tapestry Segmentation Area Profile

Table 50: National-Level Characteristics of Tulsa County Tapestry Segments

Rank	Tapestry Segments	Median HH Income	Median Age	Avg. HH Size	Median Home Value	% Own Home	Typical Housing Types
1	Workday Drive (4A)	\$90,500	37.0	2.97	\$257,400	84.9%	Single Family
2	Middleburg (4C)	\$59,800	36.1	2.75	\$175,000	73.4%	Single Family
3	Traditional Living (12B)	\$39,300	35.5	2.51	\$83,200	58.9%	Single Family
4	Rustbelt Traditions (5D)	\$51,800	39.0	2.47	\$123,400	71.2%	Single Family
5	Young and Restless (11B)	\$40,500	29.8	2.04	\$958 ⁴⁸	13.1%	Multiunit Rentals

Source: Esri Business Analyst, Tapestry Segmentation Area Profile

Table 51 displays the ten most represented Tapestry Segmentations found in Wagoner County. These tapestries make up 87% of all households. The top three tapestry segments, Green Acres (23.9%), Up and Coming Families (13.5%) and Southern Satellites (11.1%) show themes of self-reliance and hard work.

- Green Acres residents <u>value</u> country living and self-reliance. They tend to spend considerable time outdoors and are avid DIYers.
- **Up and Coming Families** are young and mobile families. They are ambitious hardworkers and goal-oriented.
- Southern Satellites tend to be slightly older, married homeowners, with below average median household incomes and home values. They are usually employed in manufacturing, retail, and construction.

⁴⁸ Average Rent

Table 51: Tapestries Segmentation Distribution for Wagoner County

Tapestry Segmentation	Wagoner County	Oklahoma	United States
Green Acres (6A)	23.9%	4.7%	3.3%
Up and Coming Families (7A)	13.5%	1.9%	2.8%
Southern Satellites (10A)	11.1%	5.8%	3.1%
Traditional Living (12B)	7.9%	6.5%	1.9%
Middleburg (4C)	5.8%	5.1%	3.1%
Rooted Rural (10B)	5.8%	5.1%	1.8%
Salt of the Earth (6B)	5.8%	3.3%	2.8%
Down the Road (10D)	5.1%	0.6%	1.2%
Heartland Communities (6F)	4.2%	5.7%	2.2%
Small Town Sincerity (12C)	4.2%	4.4%	1.8%
Grand Total	87.3%	43.1%	24.0%

Source: Esri Business Analyst, Tapestry Segmentation Area Profile

Table 52: National-Level Characteristics of Wagoner County Tapestry Segments

Rank	Tapestry Segments	Median HH Income	Median Age	Avg. HH Size	Median Home Value	% Own Home	Typical Housing Types
1	Green Acres (6A)	\$76,800	43.9	2.70	\$235,500	86.1%	Single Family
2	Up and Coming Families (7A)	\$72,000	31.4	3.12	\$194,400	73.9%	Single Family
3	Southern Satellites (10A)	\$47,800	40.3	2.67	\$128,500	77.7%	Single Family; Mobile Homes
4	Traditional Living (12B)	\$39,300	35.5	2.51	\$83,200	58.9%	Single Family
5	Middleburg (4C)	\$59,800	36.1	2.75	\$175,000	73.4%	Single Family

Source: Esri Business Analyst, Tapestry Segmentation Area Profile

Table 53: Number of Lots⁴⁹

Subdivision	County	Zone	Number of Lots in Broken Arrow
71ST STREET MOBILE HOME PARK	Tulsa	RMH	2
ADAMS CREEK EST 5TH (AMENDED)	Wagoner	A-R-1	17
ADAMS CREEK ESTATES	Wagoner		40
ADAMS CREEK ESTATES 2ND	Wagoner	varies	72
ADAMS CREEK ESTATES 3RD	Wagoner		38
ADAMS CREEK ESTATES 4TH	Wagoner		50
ADAMS CREEK VI	Wagoner		12
AERIE ADDITION (Eagle's Nest)	Tulsa	R-5, C-2	1
ALLISON ESTATES	Wagoner		67
ALLISON ESTATES SECOND	Wagoner		0
APPLE CREEK OF BROKEN ARROW (nka Charleston Crossing)	Tulsa	R-5	1

⁴⁹ Some Subdivisions may be unincorporated land within the City's fence line.

ARLINGTON COURT	Tulsa	R-4	54
ARLINGTON COURT II	Tulsa	RD/PUD	39
ARROW ACRES	Tulsa	A-1	16
ARROW ACRES EXTENDED	Tulsa	R-1,2,3,5/C- 3,4,5/O-2,3	25
ARROW ACRES THIRD	Tulsa		1
ARROW PARK ADDITION Amended	Tulsa	R-3	79
ARROW SPRINGS	Tulsa	R-3	192
ARROW SPRINGS 2ND	Tulsa	R-3	167
ARROW SPRINGS 3RD	Tulsa	R-3, C-3, 5	60
ARROW SPRINGS PARK	Tulsa	R-1,3	193
ARROW VILLAGE MOBILE CITY (Camino Villa)	Wagoner	A-RMH	417
ARROWHEAD ADDITION	Tulsa	R-2, C-3	56
ARROWOOD ESTATES-ONE (Amended)	Wagoner		15
ARROWOOD ESTATES-TWO (Amended)	Wagoner	3185	44
ARROWWOOD COUNTRY ESTATES (Amended)	Wagoner		30
ASHTON AT FOREST RIDGE	Wagoner	R-1	13
ASPEN CREEK 1	Tulsa	R-3, PUD 31	127
ASPEN CREEK 1-A REPLAT	Tulsa	R-3, PUD 31	38
ASPEN CREEK 1-B REPLAT	Tulsa	R-3,PUD 31B	18
ASPEN CROSSING I	Tulsa	A-1, RS-3, PUD260	49
ASPEN CROSSING II	Tulsa	(res)	42
ASPEN CROSSING PATIO HOMES	Tulsa	A-1, R-2, AR-2	82
ASPEN MEADOWS	Tulsa	PUD 118E	1
ASPEN PARK	Tulsa	R-2	133
ASPEN POND	Tulsa	R-1, R-3, R-5	180
ASPEN POND II	Tulsa	PUD 158B	4
ASPEN RIDGE	Tulsa	PUD-244/RS-3	54
BARRY DAYTON BLUE STAR ADDITION (Amended)	Tulsa	R-3	40
BARRY DAYTON MEDALLION #1 AMENDED	Tulsa	R-2	131
BEL LAGO	Wagoner	R-35	141
BEL LAGO II	Wagoner	A-1 - RS-3	17
BELLE TRACE	Tulsa	R-3, PUD 94	59
BELLE TRACE II	Tulsa	R-3, PUD 94	159
BENTLEY SQUARE	Tulsa	CG-RS-4	33
BENTLEY VILLAGE	Tulsa	974	80
BENTLEY VILLAGE II	Tulsa	R-3	98
BENTLEY VILLAGE III	Tulsa	R-3	152
BENTREE	Wagoner	R-2	199
BERKSHIRE	Tulsa	R-2	83
BERWICK FAIRWAYS I	Tulsa	R-1	85
BERWICK FAIRWAYS II	Tulsa	R-1, R-2	73

BERWICK ON CEDAR RIDGE (BLOCK 1)	Tulsa	R-1, R-2, PUD- 153	18
BERWICK ON CEDAR RIDGE (BLOCK 7)	Tulsa	R-1, R-2, PUD- 142	17
BERWICK ON CEDAR RIDGE (BLOCKS 2-6)	Tulsa	R-1, R-2, PUD- 142	50
BERWICK SOUTH	Tulsa	CG/R-2/R-3	88
BOSTON HEIGHTS	Tulsa	A-1, RS-2	7
BRANCH CREEK	Tulsa	384 R-3S	65
BRENTWOOD	Tulsa	R-2	143
BRENTWOOD AMENDED	Tulsa	R-3,4	17
BRETTON WOODS	Tulsa	R-2, PUD 77	168
BRICKTOWN	Tulsa	R-2, R-3	138
BRICKTOWN EAST	Tulsa	PUD 318	89
BRICKTOWN II	Tulsa	R-3	5
BRIGHTON VILLAGE	Tulsa		135
BRISTOL PONDS	Tulsa	R-1,3,5 C-2, FD,PUD-80	64
BROADWAY PARK	Tulsa	R-3	27
BROKEN ARROW HEIGHTS 2ND AMENDED PLAT OF BLK 4	Tulsa	R-2	7
BROKEN ARROW HEIGHTS 3RD ADDITION	Tulsa	R-2	46
BROKEN ARROW HEIGHTS 4TH ADDITION	Tulsa	R-2, C-3	120
BROKEN ARROW HEIGHTS ADDITION	Tulsa	R-2	162
BROKEN ARROW HEIGHTS SECOND ADDITION (replat of Block 4)	Tulsa	R-2	59
BROKEN ARROW RETIREMENT RESIDENCE	Tulsa	PUD 122	2
BROOK CHASE-PHASE 1	Tulsa		150
BROWN'S ADDITION	Tulsa	R-2,C-3,4/O-3	40
CAMBRIDGE ESTATES	Wagoner	R-1	174
CANTERBURY AMENDED	Tulsa	R-2, 4, 5	164
CARMEG ADDITION	Tulsa	R-4	11
CAROUSEL CONCOURSE II	Tulsa	R-3	39
CARRIAGE CROSSING	Tulsa	R-2	66
CARRIAGE CROSSING II	Tulsa	R-2	40
CARRIAGE CROSSING III	Tulsa	R-2	48
CARRIAGE CROSSING IV	Tulsa	R-2	51
CARRIAGE CROSSING V	Tulsa	R-2	26
CEDAR CRAFT (Replat)	Tulsa	R-5	1
CEDAR LAKE	Tulsa	R-2, PUD 123	8
CEDAR RIDGE EAST (TRAILS)	Tulsa	RE	50
CEDAR RIDGE ESTATES	Tulsa	RE	63
CEDAR RIDGE NORTH	Tulsa	R-1, 5	70
CEDAR SPRINGS ESTATES	Tulsa	R-2	140
CEDAR SPRINGS ESTATES 2ND	Tulsa	R-2	44

CEDAR SPRINGS ESTATES III	Tulsa	R-2	21
CENTRAL PARK ESTATES FIRST	Tulsa	R-3	117
CENTRAL PARK ESTATES SECOND	Tulsa	R-3	160
CENTRAL PARK ESTATES THIRD	Tulsa	R-3	143
CENTRAL PARK PLAZA III (Fox Run Apartments)	Tulsa	R-5, PUD 28	1
CENTRAL PARK PLAZA V	Tulsa	R-4C	27
CHARLESTON I	Tulsa	R-3	81
CHARLESTON II	Tulsa	R-2	10
CHESTNUT CREEK	Tulsa	PUD?	29
CHIMNEY RIDGE	Tulsa	R-2	133
CHIMNEY RIDGE SOUTH	Tulsa	R-2	133
COLLEGE ADDITION	Tulsa	R-3,4	255
COMMONS (THE)	Tulsa	R-4,C-5, PUD 26	96
COPPER CREEK	Tulsa	R-2	125
COPPER CREEK PARK	Tulsa	R-2	24
CORRAL ADDITION	Tulsa		1
COTTAGES @ FOREST RIDGE	Wagoner	PUD 66	46
COUCH ADDITION	Wagoner		26
COUNTRY AIRE ESTATES	Tulsa	R-3	262
COUNTRY AIRE ESTATES II	Tulsa	R-3	204
COUNTRY AIRE ESTATES III	Tulsa	R-3	162
COUNTRY AIRE ESTATES IV	Tulsa	R-3	168
COUNTRY AIRE ESTATES V	Tulsa	R-3	88
COUNTRY AIRE ESTATES VI	Tulsa	R-3	35
COUNTRY AIRE ESTATES VII	Tulsa	R-3	134
COUNTRY CLUB ESTATES	Tulsa	R-2	98
COUNTRY LANE ESTATES	Tulsa	PUD 40, R-3	138
COUNTRY LANE ESTATES II	Tulsa	PUD 40, R-3	194
COUNTRY LANE ESTATES III	Tulsa	PUD 40, R-3	94
COUNTY LINE CENTER	Wagoner		2
COURTYARDS AT FOREST RIDGE	Wagoner	R-1	20
COURTYARDS II AT FOREST RIDGE	Wagoner	R-1	39
COVINGTON ESTATES (fka Allison Estates II)	Wagoner	A-1	58
CREEKSIDE APARTMENT HOMES (Sierra)	Tulsa	PUD-177C/RM	2
CREEKSIDE I AT FOREST RIDGE	Wagoner		157
CREEKSIDE VILLAS AT FOREST RIDGE	Wagoner	PUD 327	42
CROWN IMPERIAL II ADDITION Amended (Indian Springs APARTMENTS)	Tulsa	R-5	2
CROWN VILLAGE AT ELM RIDGE	Tulsa	PUD-216A/RM	1
DEER CREEK AT FOREST RIDGE	Wagoner	R-1 PUD 66	46
DEER CREEK AT FOREST RIDGE II	Wagoner	R-1 PUD 66	26
DEER CREEK AT FOREST RIDGE III	Wagoner	R-1 PUD 66	56
DEERFIELD AT FOREST RIDGE	Wagoner	R-2	79

DEL RAY ESTATES	Wagoner		24
DODSON ADDITION	Tulsa	R-3	34
DUPLEXES AT OAK CREEK	Wagoner	residential	1
EAGLE RIDGE VILLAGE, PHASE I	Tulsa	PUD 140, A-1, C-5, R-3	1
EAGLE RIDGE VILLAGE, PHASE II	Tulsa	PUD 140, A-1, C-5, R-3	1
EAST HASKELL ADDITION	Tulsa	R-2	82
EAST HASKELL ADDITION RESUB BLOCK 6	Tulsa		2
ELMWOOD ESTATES 3rd (ANNEX 9-18-00)	Wagoner	AR-1	27
ELMWOOD ESTATES 3rd Amended Plat of Block 2	Wagoner	AR-1	17
ELMWOOD ESTATES 4th (ANNEX 9-18-00)	Wagoner	AR-1, commercial	21
ELMWOOD ESTATES I (ANNEX 1-16-01)	Wagoner	AR-1	40
ELMWOOD ESTATES II (ANNEX 1-16-01)	Wagoner	AR-1	40
ELMWOOD PLACE	Tulsa	R-4	10
ELMWOOD PLACE AMENDED	Tulsa	R-4	4
ELYSIAN FIELDS	Tulsa	PUD 306	67
ENGLEWOOD ESTATES	Wagoner	AR-1	20
ENGLEWOOD ESTATES II	Wagoner	AR-1	30
ESTATES AT PEMBROOKE PARK Blocks 1 thru 8	Tulsa	R-2	104
ESTATES AT PEMBROOKE PARK Blocks 9 thru 15	Tulsa	R-2	48
ESTATES AT SHENANDOAH	Tulsa	PUD 94, R-3	52
ESTATES OF BIRCHWOOD	Tulsa	RS-2	109
FAIRFAX	Tulsa	R-2	227
FAIRFAX SOUTH	Tulsa	R-2	78
FAIRFAX SOUTH II	Tulsa	R-2	59
FAIRFAX WEST	Tulsa	R-2	140
FAIRWAY VILLAS AT THE GREENS	Tulsa	PUD 97	53
FEARS ADDITION	Tulsa	R-3, DM, DN, PUD	133
FLO DOR GY HEIGHTS		R-3	22
FLORENCE COURT (Leisure Park)	Tulsa	R-5	32
FOREST CREEK	Tulsa	R-1/PUD146	14
FOREST CREEK PATIO HOMES	Tulsa	PUD146B	128
FOREST HILLS HEALTH CARE CENTER	Tulsa		2
FOSTER LEWIS ACREAGE	Tulsa	R-1,2	20
FOXBORO	Tulsa	R-2	18
FT WORTH GARDENS	Tulsa	R-3	4
GARDENS, THE	Tulsa	R-1 SP 74	1
GATESWAY ADDITION	Tulsa	R-2, SP	1
GATESWAY FOUNDATION CAMPUS	Tulsa	A-1, R-1, PUD176	6
GETTYSBURG AT BATTLE CREEK	Tulsa	R-1, R-3 PUD 94	91

GILGAL ADDITION	Tulsa	R-2	1
GLADE CROSSING I	Tulsa	R-2, PUD 78	56
GLADE CROSSING II	Tulsa	R-2 PUD 78	132
GLEN EAGLES I	Wagoner	(single family residential)	44
GLEN EAGLES II	Wagoner	(single family residential)	52
GLEN EAGLES III	Wagoner	A-1	76
GLEN EAGLES IV (north 1/2)	Wagoner	R3-5	167
GREEN COUNTRY VILLA	Tulsa	R-3, PUD 58	20
GREENBRIER	Tulsa	AR-3, PUD 94	93
GREENS @ BATTLE CREEK	Tulsa	PUD94P, C-G	1
GREENS AT BROKEN ARROW IV	Tulsa	PUD 110, RM	1
GREENS AT CEDAR RIDGE	Tulsa	R-1,2	88
GREENTREE AMENDED	Tulsa	R-4,5 PUD 15	48
GREYOAKS	Tulsa	RE	26
HARTFORD PARK	Wagoner	A-1, PUD148, R3-S	180
HARTFORD VILLAS	Tulsa	MG	1
HICKORY CREEK VILLAS	Tulsa	R-4	8
HICKORY PLACE	Tulsa	R-3	29
HIDDEN SPRINGS	Tulsa	R-2	298
HIGHLAND PARK	Wagoner		29
HIGHLANDS I @ FOREST RIDGE	Wagoner	R-3	104
HIGHLANDS II @ FOREST RIDGE	Wagoner	R-3	115
HIGHLANDS III @ FOREST RIDGE	Wagoner	R-3	97
HIGHLANDS IV @ FR	Wagoner	R-3	88
HIGHWAY ADDITION	Tulsa	R-2	19
HILL VIEW ACRES	Wagoner	A-R2	16
HOME GARDENS	Tulsa	R-3	31
HOME GARDENS 2ND	Tulsa	R-3	21
HOME GARDENS 3RD	Tulsa	R-3,C-4	10
HOME GARDENS 4TH	Tulsa	R-3	100
HOMESTEAD ADDITION TO BROKEN ARROW, OKLA	Tulsa	R-3, R-4	274
ICON (The) AT BROKEN ARROW	Tulsa	PUD-229/RM	1
IDYLLWILD AT INDIAN SPRINGS	Tulsa	R-5 PUD 13, 14	16
INDIAN SPRINGS ESTATES 2ND ADDITION	Tulsa	R-2	36
INDIAN SPRINGS ESTATES 3RD ADDITION	Tulsa	R-2	157
INDIAN SPRINGS ESTATES 4TH ADDITION	Tulsa	R-2	101
INDIAN SPRINGS ESTATES 4TH EXTENDED	Tulsa	R-2	17
INDIAN SPRINGS ESTATES 5TH ADDITION	Tulsa	R-2, SP 26	69
INDIAN SPRINGS ESTATES ADDITION	Tulsa	R-2	85
INDIAN SPRINGS FAIRWAY	Tulsa	R-2	29
INDIAN SPRINGS MANOR (EXTENDED)	Tulsa	R-2	163

INDIAN SPRINGS MANOR 2ND	Tulsa	R-2	18
INDIAN SPRINGS MANOR ADDITION	Tulsa	R-2, R-5	61
INDIAN SPRINGS PARK ADDITION	Tulsa	R-2	128
INDIAN SPRINGS PARK II	Tulsa	R-2	168
INDIAN SPRINGS PLAZA	Tulsa	R-3, C-2	95
INDIAN SPRINGS VILLAS	Tulsa	R-3S	9
INVERNESS ADDITION (APARTMENTS)	Tulsa	R-5	1
IRON HORSE RANCH	Tulsa	RS-3	195
JOHANNA WOODS Amended	Wagoner	RMH PUD 30	242
JOHANNA WOODS II	Wagoner	RMH PUD 30- C	25
KENOSHA LANDING	Tulsa	IL, RM, PUD 191	2
KENSINGTON RIDGE	Wagoner		45
KENTWOOD ESTATES	Tulsa	R-2	149
KENWOOD ACRES	Tulsa	R-1, C-4	16
KENWOOD ADDITION	Tulsa	R-2 C-3	52
KENWOOD HILLS	Tulsa	R-2	22
KENWOOD HILLS 2ND	Tulsa	R-2	45
KENWOOD IV	Tulsa	R-3	9
KNIGHT ACRES	Tulsa	R-1	1
KNOLL VIEW ADDITION	Tulsa		21
L.B.A. CENTER	Tulsa		1
LAKES AT INDIAN SPRINGS	Tulsa	R-2, PUD 108, 108A	74
LAKES AT INDIAN SPRINGS II	Tulsa	R-2, PUD 108, 108A	31
LAKES AT INDIAN SPRINGS III	Tulsa	R-2, PUD 108, 108A	111
LAKES AT INDIAN SPRINGS IV	Tulsa	R-2, PUD 108, 108A	16
LAKES AT RABBIT RUN-PHASE 1 (THE)	Tulsa	PUD 316A	29
LAKES AT RABBIT RUN-PHASE 2 (THE)	Tulsa	PUD 316A	71
LAKESIDE VILLAS AMENDED	Tulsa	PUD 112	2
LAKESIDE VILLAS AT THE GREENS	Tulsa	PUD 112	41
LANCASTER ESTATES	Tulsa	R-2	34
LANCASTER PARK	Tulsa	R-2 PUD 77	169
LANCASTER PARK II	Tulsa	R-2 PUD 77	181
LANCASTER PLACE	Tulsa	R-2	182
LANSCO CENTER	Tulsa		1
LEE'S FAMOUS RECIPE	Tulsa		1
LEISURE PARK	Tulsa	R-2,4	149
LEISURE PARK II	Tulsa	R-2,4	285
LELAND ACRES	Tulsa	R-3	33
LEMON ADDITION	Tulsa	R-2	27

LENIGER ADDITION	Tulsa		69
LIBERTY CHURCH SITE (Amended)	Tulsa		1
LOCHMERE AT FOREST RIDGE	Wagoner	PUD 66	34
LOCHMERE II AT FOREST RIDGE	Wagoner	PUD 66	24
LOCHMERE III AT FOREST RIDGE	Wagoner	R-1, PUD 66, 66B	61
LOCHMERE IV AT FOREST RIDGE	Wagoner	R-1, PUD 66, 66B	17
LOWERY'S ADDITION	Tulsa	R-3,5	6
LYNN LANE TERRACE AMD	Tulsa	R-5, C-2, C-5	4
LYNN LANE TERRACE SECOND	Tulsa	R-4,5	11
LYNN LANE VILLAGE	Tulsa	R-3, PUD40	93
MAE MEADOW ADDITION	Tulsa	R-2	21
MAGNOLIA GARDENS AT BATTLE CREEK	Tulsa	AR-3	100
MAPLE LEAF ADDITION	Tulsa	R-5	2
MARLBOROUGH COUNTRY EST (ANNEX 12-18-00)	Wagoner	AR-1	66
MEADOW HEIGHTS ADDITION	Tulsa	R-2, R-3	170
MEADOW HEIGHTS CENTER	Tulsa	R-4, C-3,4	8
MEADOWS AT INDIAN SPRINGS	Tulsa	R-2, SP 26	102
MELINDA PARK	Tulsa	R-3, C-3,4	325
MID-SOUTH ADDITION	Tulsa		1
MILLICENT PARK	Tulsa	R-2	41
MILLICENT POND	Tulsa	R-1	148
MILLICENT POND II	Tulsa	R-1	88
MILLICENT RIDGE	Tulsa	R-3	50
MISSION GARDENS	Tulsa	R-5,PUD121A	17
MISSION GARDENS B1 9	Tulsa	R-5,PUD121A	11
MISSIONS GARDENS, B7 & 8	Tulsa	R-5,PUD121A	11
MITFORD BRIDGE	Tulsa	R-3	60
MONTE VISTA	Tulsa		15
MORROW RIDGE	Tulsa	R-2	39
MOUND VIEW ADDITION*	Tulsa	R-3	0
MOUND VIEW ADDN.	Tulsa		2
MOUND VIEW ADDN. (Resub of Block 4)	Tulsa		1
MOUND VIEW ADDN. (Resub of part of Block 1 of Mound View Addition)	Tulsa		1
NEW BEDFORD II	Wagoner	R	151
NEW BEDFORD II EXT	Wagoner	A-1	9
NEW TULSA ESTATES AMENDED (ANX 2-23-00)	Wagoner	AR-1	73
NINETY ONE PHASE 1	Tulsa	RS-3	68
NINETY ONE PHASE 2	Tulsa	RS-3	244
NINETY ONE PHASE 3	Tulsa	A-1 (RS-3)	99
NINETY ONE PHASE 4	Tulsa	(res)	244
NORTH SIDE ADDITION	Tulsa	R-3, R-5	220

NOTTINGHAM	Tulsa	R-2	109
OAK CREEK ESTATES	Wagoner	R-2	121
OAK CREEK PARK	Wagoner	R-2	115
OAK CREEK PARK 2ND	Wagoner	R-4	2
OAK CREEK PARK EXT	Wagoner	R-2	73
OAK CREEK SOUTH	Wagoner	R-2	316
OAK CREEK SOUTH PH II AMENDED	Wagoner	RS-3	68
OAK CREEK SOUTH PH III	Wagoner	(res)	68
OAK CREST	Tulsa	R-3	26
OAK CREST 2ND	Tulsa	R-3	52
OAK CREST 3RD	Tulsa	R-3	103
OAK CREST 4TH	Tulsa	R-3	66
OAK CREST 5TH (Amended)	Tulsa	R-3	40
OAK CREST 6TH	Tulsa	R-3	10
OAK ESTATES	Tulsa	PUD-239A/RS- 2	15
OAK RIDGE ESTATES II	Wagoner	1185	68
OAK TREE ESTATES	Tulsa	R-2	69
OAKLANE AMENDED	Wagoner	R-2	187
OAKS AT INDIAN SPRINGS	Tulsa	R-2	63
OAKS OFF MAIN	Tulsa	R-3/DM/BAZ- 1959	16
ORCHARD HILL ESTATES	Tulsa	AR	19
ORIGINAL TOWN	Tulsa	RES VARIES	1132
PARK @ MISSION HILLS	Tulsa	RM.PUD189	2
PARK @ WILLOW SPRINGS	Tulsa	R-4C	37
PARK ON FLORENCE (THE)	Tulsa	R2	131
PARK ON FLORENCE, 2ND	Tulsa	R2	125
PARK PLACE	Tulsa	PUD 304	65
PARKVIEW ADDITION TO BROKEN ARROW	Tulsa	R-2, R-3	33
PATTERSON ADDITION	Tulsa		6
PECAN GROVE ESTATES	Tulsa	R-2	74
PEMBROOK PARK (Blocks 13-17)	Tulsa	R-2	93
PEMBROOK PARK (Blocks 7-12)	Tulsa	R-2	67
PEMBROOKE PARK (Blocks 1-6)	Tulsa	R-2	81
PINE ACRES ADDITION	Wagoner		16
PINES AT THE PRESERVE (The)	Wagoner	RS-3	92
PLAZA, THE	Tulsa	R-3	27
POINTE @ FOREST RIDGE, The	Wagoner	PUD 66	6
PRESELY RESERVE (Blocks 1-2)	Tulsa	res	75
PRESTON COURT	Tulsa	R-2,PUD152	22
QUAIL HOLLOW	Wagoner	R-5	3
QUAIL RUN ADD	Tulsa	R-4	39
QUAIL RUN ESTATES	Tulsa	R-3	266

RABBIT RUN	Tulsa	PUD-235/RS-3	115
REDBUD RANCH	Wagoner	PUD 273-A	1
REFLECTION RIDGE AT BATTLE CREEK	Tulsa	PUD	115
RESERVE AT ASPEN CREEK	Tulsa	PUD 220B	1
RESERVE AT ASPEN RIDGE	Tulsa	PUD-269/RS-3	19
RESERVE AT BATTLE CREEK	Tulsa	PUD 128	164
RESERVE AT BIRCHWOOD	Tulsa	PUD 121	43
RESERVE AT BRADFORD PARK	Tulsa		103
RETREAT BLOCKS 1-15 (THE)	Tulsa	PUD 301A	142
RICHLAND PARK	Tulsa	R-2, SP 26	42
RIDGEWAY HEIGHTS I (Second Replat)	Wagoner	R-2	67
RIDGEWAY HEIGHTS II (Second Replat)	Wagoner	R-2	54
RIDGEWAY HEIGHTS III (Second Replat)	Wagoner	R-2	62
RIVERBROOK ADDITION (apartments)	Tulsa	PUD 290 & PUD 290A	2
RIVERSTONE ESTATES	Tulsa	RS-3	103
ROCKWOOD 2ND ADDITION	Tulsa	R-3	65
ROCKWOOD 3RD ADDITION	Tulsa	R-3	84
ROCKWOOD ADDITION	Tulsa	R-3	134
ROCKWOOD WEST	Tulsa	R-3, RD	58
RODGERS ADDITION	Tulsa	R-2	9
ROMAN CATHOLIC DIOCESE OF TULSA	Tulsa		1
ROSE DISTRICT ROW HOMES	Tulsa	PUD241/R-3	7
ROSE QUARTER	Tulsa		6
ROSSER ESTATES ADDITION	Tulsa		66
RUSHBROOKE NORTH BLK 1-6	Tulsa	RS-3/BAZ- 1719	82
RUSHBROOKE NORTH BLK 7-8	Tulsa	RS-3/BAZ- 1719	8
RUSHBROOKE SOUTH	Tulsa		105
SADDLEBACK	Tulsa	R-2, SP 26	122
SEQUOYAH CREEK APARTMENTS	Tulsa	R-5	1
SEVEN OAKS	Tulsa	A-1, RS-3	159
SEVEN OAKS SOUTH	Tulsa	A-1, RS-3	113
SEVEN OAKS SOUTH II	Tulsa	RS-3	92
SHADOW TRAILS	Tulsa	RS-3	199
SHADOW TRAILS II	Tulsa	(res)	111
SHAMROCK COUNTRY CLUB ESTATES ADDITION	Tulsa		85
SHENANDOAH VALLEY II @ BATTLE CREEK	Tulsa	PUD 94	115
SHENANDOAY VALLEY @ BATTLE CREEK	Tulsa	PUD 94, R-3	67
SHILOH AT BATTLECREEK	Tulsa	PUD 94, R-5	106
SIERRA	Tulsa	AC-5	3
SILVERLEAF	Wagoner	PUD-225/RS-3	82
SILVERLEAF II	Wagoner	PUD 225, RS-3	121

SILVERTREE	Tulsa	R-2	459
SOUTH PARK ESTATES	Tulsa	R-2	54
SOUTH PARK ESTATES 2ND	Tulsa	R-2	36
SOUTH PARK ESTATES 3RD	Tulsa	R-2	122
SOUTH PARK PLAZA	Tulsa	R-4, R-5	34
SOUTH PARK SOUTH	Tulsa	R-2, R-4	88
SOUTH PARK SOUTH 2ND	Tulsa	R-2	89
SOUTH PARK SOUTH 3RD	Tulsa	R-2	157
SOUTH PARK SOUTH 3RD (resub)	Tulsa	R-2	157
SOUTH RIDGE PARK	Tulsa	R-2	138
SOUTHBROOK	Tulsa	R-3, C-3,4	339
SOUTHBROOK III	Tulsa	R-3, C-3,4	176
SOUTHBROOK IV	Tulsa	R-3	150
SOUTHERN TRAILS	Tulsa	R-2	38
SOUTHERN TRAILS ESTATES	Tulsa	A-1, SP-93	202
SOUTHFORK ESTATES	Tulsa	R-1	10
SOUTHTOWNE ESTATES	Tulsa	R-2	86
SOUTHWIND	Tulsa	R-2	117
SPICEWOOD @ CEDAR RIDGE	Tulsa	R-1, FD, PUD171	48
SPRING CREEK II OF BROKEN ARROW	Tulsa	RS-3, PUD181	24
SPRING CREEK III OF BROKEN ARROW	Tulsa	RS-3/PUD-181	63
SPRING CREEK OF BROKEN ARROW	Tulsa	RS-3, PUD181	102
SPRING HILL AT FOREST RIDGE	Wagoner	R-1/PUD-66G	102
STACEY LYNN 5TH	Tulsa	R-3	619
STACEY LYNN 6TH	Tulsa	R-3	155
STACEY LYNN 7TH	Tulsa	R-2	131
STANFORD'S LANDING I AT FOREST RIDGE	Wagoner	PUD 66	45
STANFORD'S LANDING II AT FOREST RIDGE	Wagoner	PUD 66	44
STANFORD'S LANDING III AT FOREST RIDGE	Wagoner	PUD 66 & 66B	45
STEEPLECHASE (ANNEXED 11-20-00)	Wagoner	AR-2	243
STERLING HEIGHTS 1ST ADDITION	Tulsa	A-1 PUD 98	1
STERLING HEIGHTS 2ND ADDITION	Tulsa	A-1 PUD 98	1
STONE HORSE II OF BROKEN ARROW	Tulsa	A-1/RS-3	61
STONE HORSE III OF BROKEN ARROW	Tulsa	A-1/RS-3	69
STONE HORSE IV OF BROKEN ARROW	Tulsa		82
STONE HORSE OF BROKEN ARROW	Tulsa	A-1/RS-3	108
STONE HORSE V OF BROKEN ARROW	Tulsa	(res)	70
STONE MILL	Tulsa	R-2 PUD 72	234
STONE MILL BRIDGE I	Tulsa	R-2 PUD 72	49
STONE MILL BRIDGE II	Tulsa	R-2 PUD 86-A	45
STONE WOOD CROSSING	Tulsa	R-1, PUD130A	146
STONE WOOD CROSSING II	Tulsa	R-1, PUD130A	140

STONE WOOD HILLS	Tulsa	PUD 127	155
STONE WOOD HILLS	Tulsa	PUD127	155
STONE WOOD HILLS II		R-3,4,5, O-2, PUD127	127
STONE WOOD HILLS II	Tulsa		127
STONEBRIDGE PARK	Tulsa	R-2	139
STONECREST	Tulsa	R-5	10
SUBURBAN ESTATES ADDITION	Tulsa	R-2	48
SUN CITY I (ANNEXED 2-23-01)	Wagoner	AR-1	40
SUN CITY II (ANNEXED 2-23-01)	Wagoner	AR-1	48
SUN CITY III (ANNEXED 2-23-01)	Wagoner	AR-1	29
SUN CITY IV (ANNEXED 2-23-01)	Wagoner	AR-1	50
SUN CITY V (ANNEXED 2-23-01)	Wagoner	AR-1	12
SUN RIDGE (Amended plat)	Tulsa	R-2	100
SUN RISE ESTATES (ANNEXED 4-16-01)	Wagoner	AR-1	254
SWAN LAKE ADDITION (ANNEXED 4-16-01)	Wagoner	AR-1	168
SWANDA ACRES	Tulsa	R-5	85
SWANDA ACRES DUPLEXES	Tulsa	R-4C	8
TARP ESTATES	Tulsa	R-5C FD SP 86	1
TARP ESTATES 2ND	Tulsa		2
TIMBER RIDGE COTTAGES	Wagoner	RM, PUD	1
TIMBERBROOK V	Wagoner	R-2A?	45
TIMBERBROOK V BLK 1.7 (Replat)	Wagoner	R-2A	2
TIMBERCREST PARK	Tulsa	PUD 29	3
TOLEDO LYNN	Tulsa	R-5	8
TRAILS AT ASPEN CREEK	Tulsa	RM, PUD	1
TREETOPS APARTMENTS	Tulsa	R-5	1
TUCSON VILLAGE	Tulsa	PUD 234	107
TUCSON VILLAGE II	Tulsa	PUD 234	93
TURNBERRY PLACE	Wagoner	A-1	103
TURTLE CREEK	Tulsa	R-3	253
UNION STATION	Tulsa	R-3, R-5	129
UNION STATION SOUTH	Tulsa	R-2,4 PUD 69	166
UNION WEST	Tulsa	R-3	73
UNION WEST II	Tulsa	R-2	78
VACATION CENTER 2ND	Tulsa	R-2	30
VACATION CENTER ADDITION	Tulsa	R-2	145
VALLEY RIDGE	Tulsa	R-2	117
VANDEVER ACRES	Tulsa	R-2	68
VANDEVER ACRES 2ND	Tulsa	R-2	42
VANDEVER ACRES 3RD	Tulsa	R-2	17
VANDEVER ACRES 4TH	Tulsa	R-2	53
VANDEVER ACRES 5TH	Tulsa	R-2, 4	50

VANDEVER ACRES 5TH RESUBDIVISION	Tulsa	R-2, 4	3
VANDEVER ACRES 6TH (Amended)	Tulsa	R-2	175
VANDEVER ACRES CENTER	Tulsa		3
VANDEVER COURT	Tulsa	R-3 PUD 33	82
VANDEVER COURT AMENDED	Tulsa	R-3 PUD 33B	5
VANDEVER EAST	Tulsa	R-3	60
VANDEVER EAST 2ND	Tulsa	R-3	35
VANDEVER EAST 3RD	Tulsa	R-3	37
VANDEVER EAST 4TH	Tulsa	R-3	45
VANDEVER EAST 6TH	Tulsa	R-3	94
VANDEVER EAST EXTENDED	Tulsa		0
VANDEVER GREEN	Tulsa	R-4, R-5, PUD 10	10
VANDEVER GREEN II	Tulsa	R-4 PUD 10	14
VANDEVER TRAILS	Tulsa	R-3	225
VANDEVER TRAILS II	Tulsa	R-3	47
VANDEVER WEST	Tulsa		347
VILLAGE @ 1ELEVEN	Tulsa	PUD 288	63
VILLAGE @ SOUTHERN TRAILS	Tulsa	R-3	134
VILLAGE AT SOUTHERN TRAILS II	Tulsa	R-3	120
VILLAGE PARK	Tulsa	R-5	50
VILLAGE SQUARE	Tulsa	R-2	55
VILLAGE SQUARE 2ND, AMENDED	Tulsa	R-2	53
VILLAGE SQUARE 3RD	Tulsa	R-2	53
VILLAGE, THE	Tulsa	R-5	1
VILLAGES AT BIRCHWOOD	Tulsa	PUD 121	87
VILLAGES AT BIRCHWOOD II	Tulsa	PUD 121	29
VILLAGES AT BIRCHWOOD III	Tulsa	PUD 121	50
VILLAGES AT WOOD CREEK I	Tulsa	PUD 117	140
VILLAGES AT WOOD CREEK II	Tulsa	PUD	101
VILLAGES AT WOOD CREEK III	Tulsa	PUD	70
VILLAS @ ASPEN PARK	Tulsa	RM, PUD	1
VILLAS AT BEL LAGO	Wagoner	RS-3	55
VILLAS AT BEL LAGO II	Wagoner	(res)	43
VILLAS AT SEVEN OAKS SOUTH (THE)	Tulsa	PUD 280A	58
VILLAS AT TURNBERRY	Wagoner		24
VILLAS I AT FOREST RIDGE	Wagoner	R-1 PUD 66	24
VILLAS OF BRICKTOWN	Tulsa	R-1-PUD- 240/RS-3	32
VILLAS ON THE GREEN AT FOREST RIDGE	Wagoner	R-1 PUD 66	31
VYNE AT CEDAR RIDGE	Tulsa	A-1 SP 102	1
VYNE AT CEDAR RIDGE II	Tulsa		1
WAKEFIELD HEIGHTS OF BATTLE CREEK	Tulsa	R-5, PUD 94	39
WALNUT GROVE	Tulsa	PUD-246/RE	5

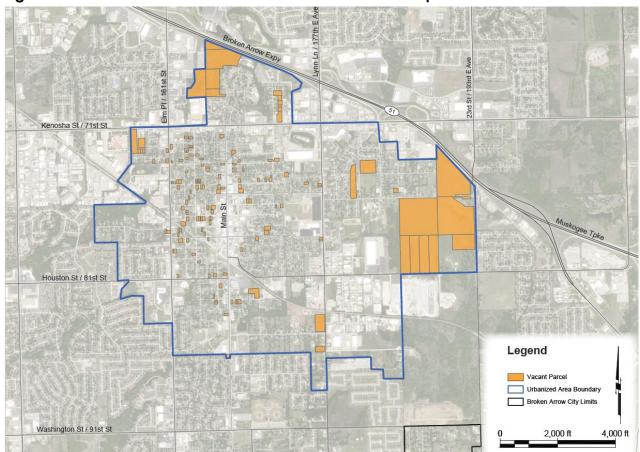
WASHINGTON LANE	Tulsa	PUD135A	71
WASHINGTON LANE II	Tulsa	PUD135A	53
WASHINGTON LANE III	Tulsa		53
WASHINGTON LANE IV	Tulsa		60
WASHINGTON LANE V	Tulsa		65
WASHINGTON LANE VI	Tulsa		83
WASHINGTON LANE VII	Tulsa	R-S/PUD- 135/A-H	54
WASHINGTON LANE VIII	Tulsa	R-S3, PUD	95
WASHINGTON PARK	Tulsa	R-2	36
WATERFORD CROSSING	Tulsa	R-2	94
WATERFORD PARK	Tulsa	R-2	91
WATERFORD PARK II	Tulsa	R-2	41
WEDGEWOOD	Tulsa	R-5	191
WEDGEWOOD II	Tulsa	R-3	143
WEDGEWOOD III	Tulsa	R-3	157
WEDGEWOOD IV	Tulsa	R-3	109
WELLSTONE I	Wagoner	R, PUD 66	45
WELLSTONE II	Wagoner	R, PUD 66	30
WELLSTONE III	Wagoner	R-1/PUD-66	50
WEST PARK ADDITION	Tulsa	R-2	33
WESTWIND	Tulsa	R-2	190
WESTWIND II	Tulsa	R-2	69
WHISKEY RIDGE	Wagoner	A-1, PUD 256	239
WILLOW SPRINGS ESTATES ADDITION	Tulsa	R-2	1
WILLOW SPRINGS II Blocks 1-6	Tulsa	R-2	61
WILLOW SPRINGS III (Amended)	Tulsa	R-3	18
WILLOW SPRINGS IV	Tulsa	R-5	27
WILLOW SPRINGS V	Tulsa		35
WINDSOR ESTATES	Tulsa	R-2	265
WINDSOR ESTATES SECOND	Tulsa	R-2	154
WINDSOR OAKS	Tulsa	R-2	137
WOLF CREEK ESTATES	Tulsa	R-3	121
WOLF CREEK ESTATES II	Tulsa	R-3	126
WOLF CREEK ESTATES III	Tulsa		28
WOLF CREEK ESTATES IV	Tulsa	R-3	175
WOLF CREEK ESTATES V	Tulsa		139
WOLF CREEK ESTATES VI	Tulsa	R-2	100
WOLF CREEK SOUTH	Tulsa	R-2, R-4	39
WOLF CREEK SOUTH (Extended)	Tulsa	R-2	126
WOLF CREEK SOUTH III	Tulsa	R-3	26
WOODCREEK	Tulsa	R-4 FD, PUD 18	1
WOODLAND PARK AT ASPEN CREEK	Tulsa	R-3 PUD 31	101

WOODLAND PARK II AT ASPEN CREEK	Tulsa	R-5	57
WOODLAND PARK III AT ASPEN CREEK	Tulsa	PUD 31C	25
WOODLAND PARK IV AT ASPEN CREEK	Tulsa	PUD 31C	15
WOODLAND PARK V AT ASPEN CREEK	Tulsa	PUD 31C-1	15
WOODLANDS @ CEDAR RIDGE	Tulsa	PUD 171B	14
WOODMEADOW SECTION 1	Tulsa	R-2	91
WOODMEADOW SECTION 2	Tulsa	R-2	168
WOODPARK	Tulsa	R-2	62
WOODS OF JASPER ESTATES	Tulsa	PUD 265	28
WOODSTOCK	Tulsa	R-2	127
WOODSTOCK II	Wagoner	R-3	141
WYCKFORD AT FOREST RDGE	Wagoner	PUD 66	30

Source: City of Broken Arrow, Community Permitting and Licensing, 2024 Q1

Housing Permit & Land Use Maps

Figure 129: Broken Arrow Urbanized Area Vacant Parcel Map



Source: Johnson & Associates using data from Tulsa County Assessor's Office

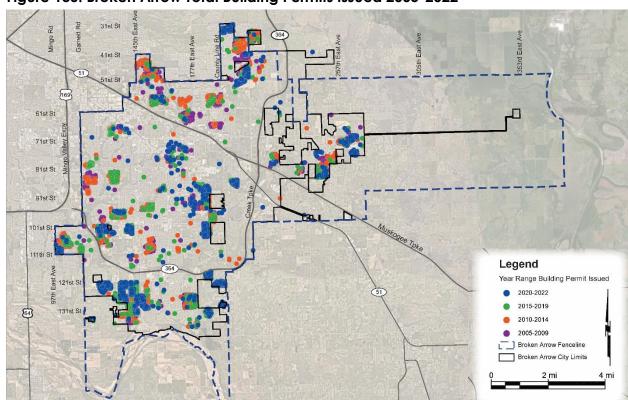
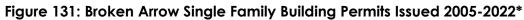
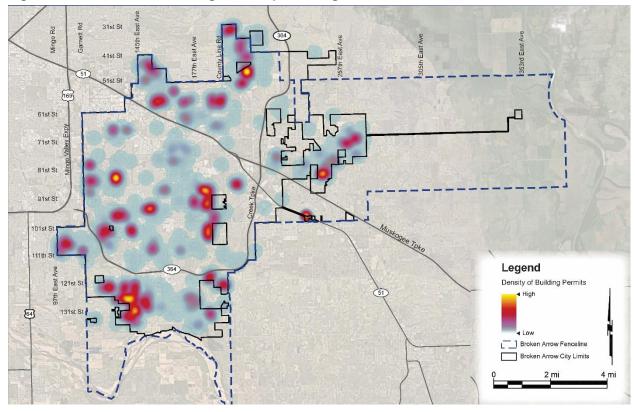


Figure 130: Broken Arrow Total Building Permits Issued 2005-2022*





^{*} Source: Johnson & Associates using data from City of Broken Arrow Community Development Department

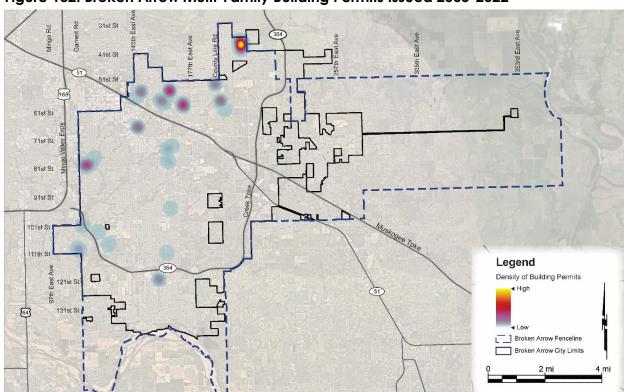
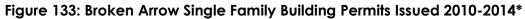
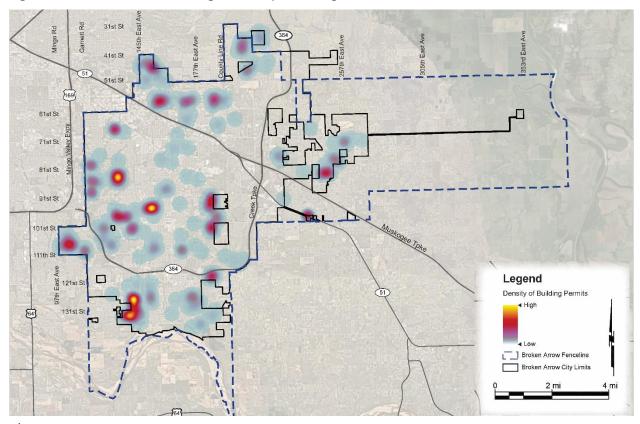


Figure 132: Broken Arrow Multi-Family Building Permits Issued 2005-2022*





^{*} Source: Johnson & Associates using data from City of Broken Arrow Community Development Department

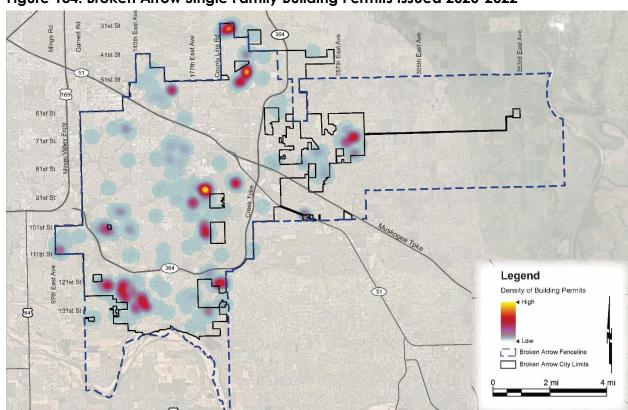
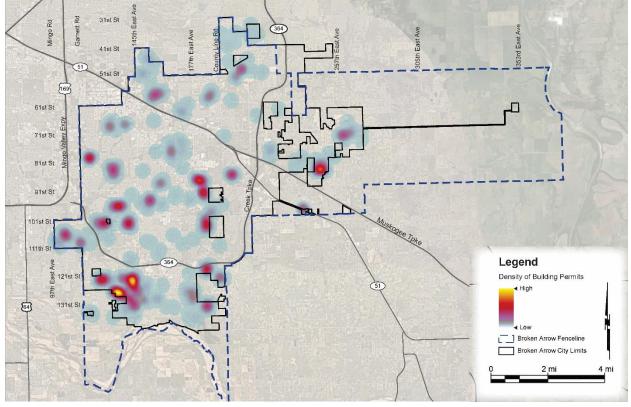


Figure 134: Broken Arrow Single Family Building Permits Issued 2020-2022*





 $^{{\}color{red} \star} \ {\color{blue} Source: Johnson} \ {\color{blue} \& } \ {\color{blue} Associates} \ {\color{blue} using} \ {\color{blue} data} \ {\color{blue} from} \ {\color{blue} City} \ {\color{blue} of} \ {\color{blue} Broken} \ {\color{blue} Arrow} \ {\color{blue} Community} \ {\color{blue} Development} \ {\color{blue} Department}$

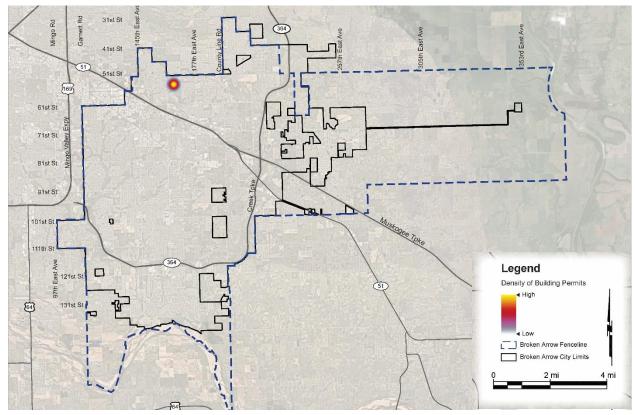
Stat St

St

Stat St

Figure 136: Broken Arrow Single Family Building Permits Issued 2005-2009*





^{*} Source: Johnson & Associates using data from City of Broken Arrow Community Development Department

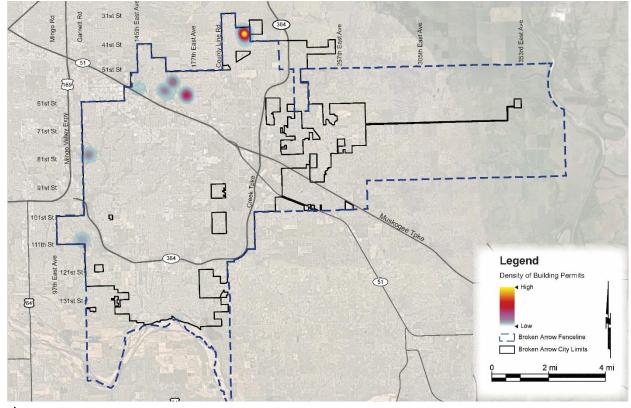
That St.

101st St.

1

Figure 138: Broken Arrow Multi-Family Building Permits Issued 2015-2019*





^{*} Source: Johnson & Associates using data from City of Broken Arrow Community Development Department

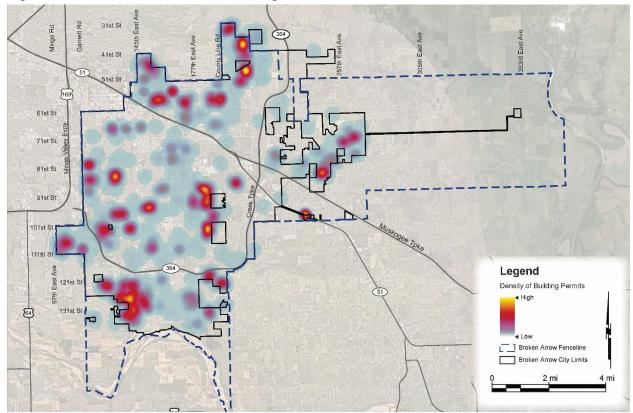
That St.

Onate St.

O

Figure 140: Broken Arrow Multi-Family Building Permits Issued 2005-2009*



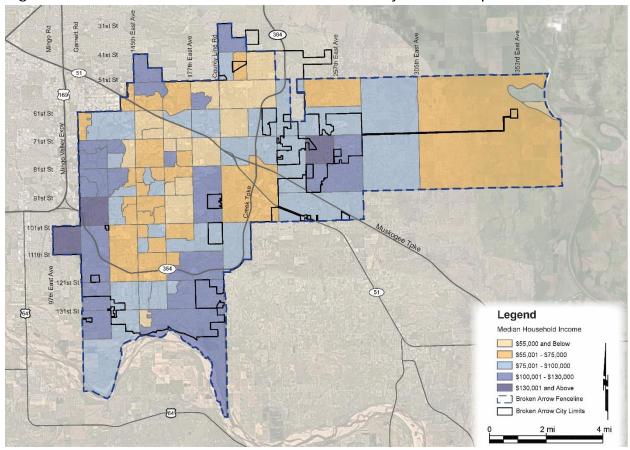


^{*} Source: Johnson & Associates using data from City of Broken Arrow Community Development Department

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Demographic Maps

Figure 142: Broken Arrow Median Household Income by Block Group



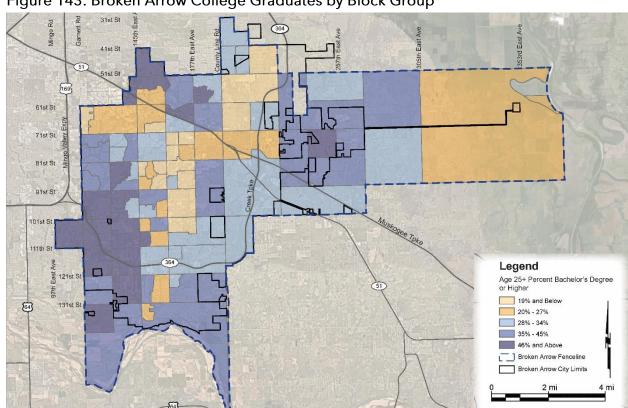
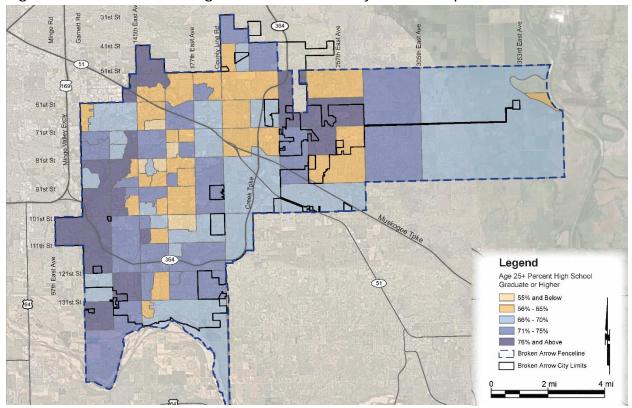


Figure 143: Broken Arrow College Graduates by Block Group*





^{*} Source: Johnson & Associates using US Census Bureau, American Community Survey, 5-Year Estimate, 2017-2021: B15003

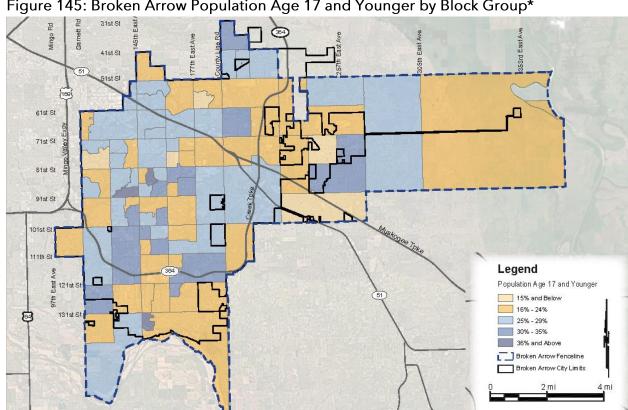
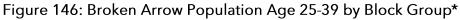
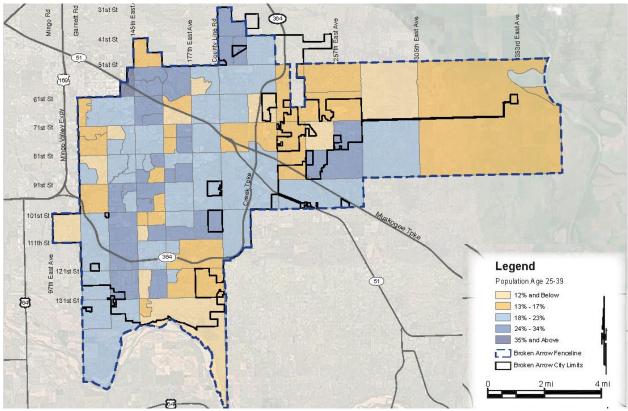


Figure 145: Broken Arrow Population Age 17 and Younger by Block Group*





^{*} Source: Johnson & Associates using US Census Bureau, American Community Survey, 5-Year Estimate, 2017-2021: B01001

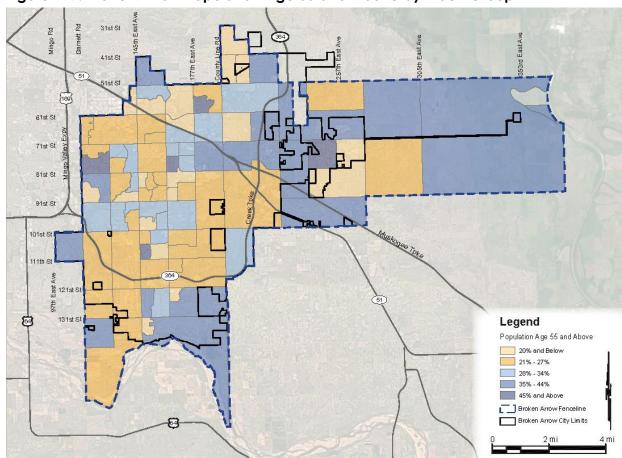


Figure 147: Broken Arrow Population Age 55 and Above by Block Group

Housing Maps

Figure 148: Broken Arrow Renter-Occupied Homes by Block Group*

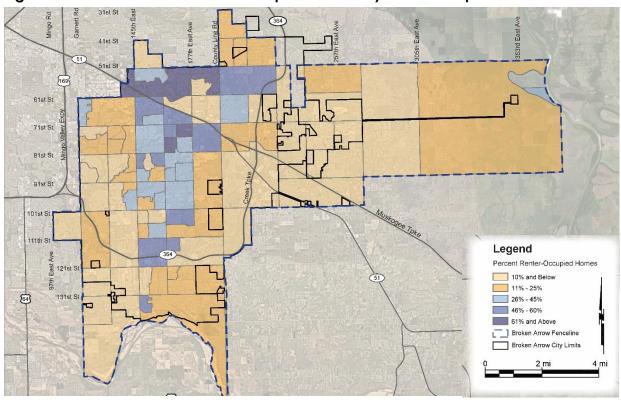
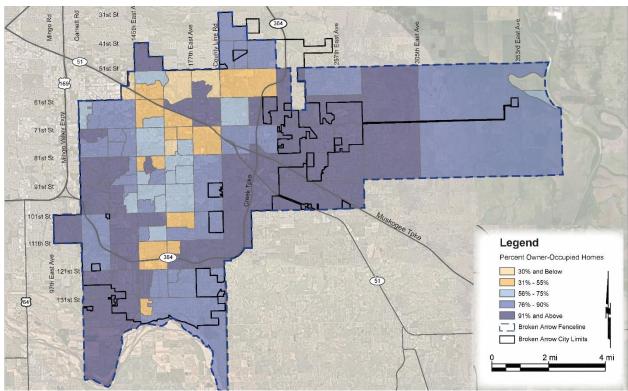


Figure 149: Broken Arrow Owner-Occupied Homes by Block Group*



^{*} Source: Johnson & Associates using US Census Bureau, American Community Survey, 5-Year Estimate, 2017-2021: B25003

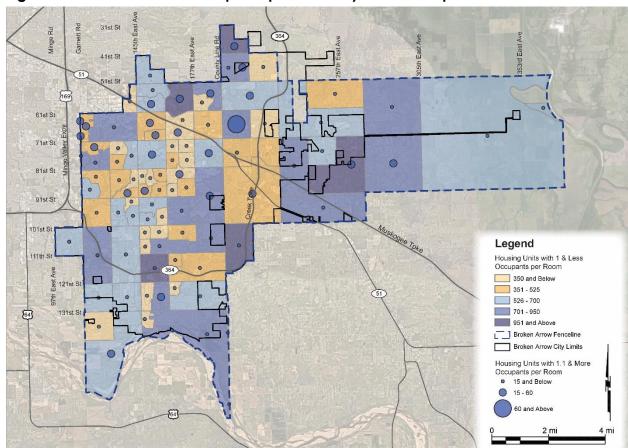


Figure 150: Broken Arrow Occupants per Room by Block Group

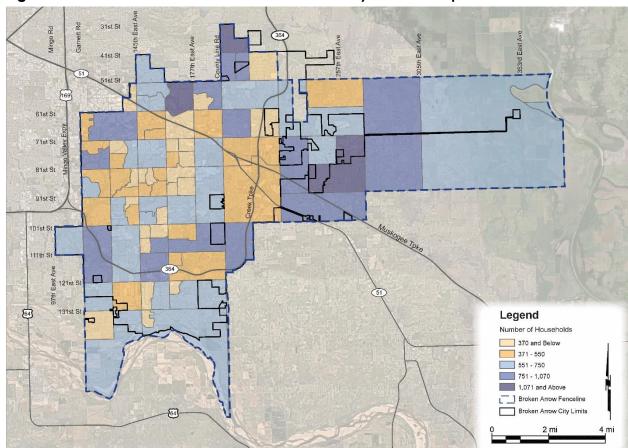


Figure 151: Broken Arrow Number of Households by Block Group

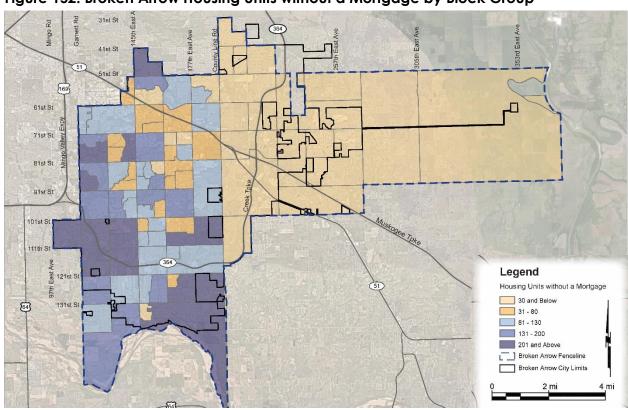
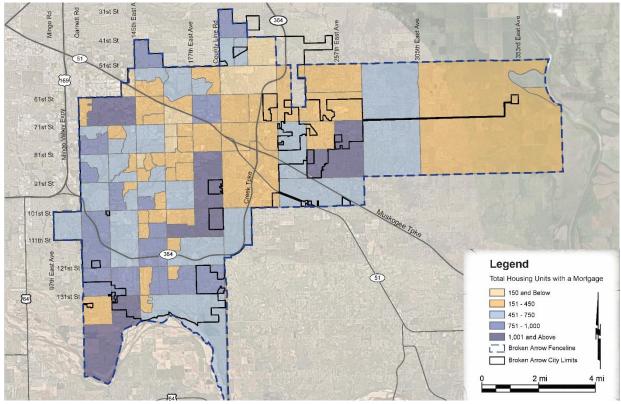


Figure 152: Broken Arrow Housing Units without a Mortgage by Block Group*





^{*} Source: Johnson & Associates using US Census Bureau, American Community Survey, 5-Year Estimate, 2017-2021: B25081

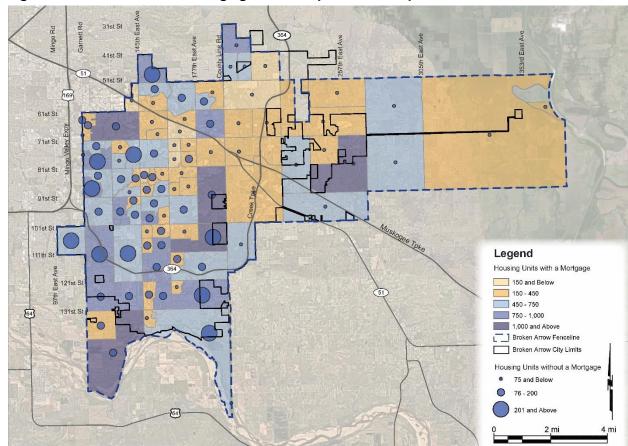


Figure 154: Broken Arrow Mortgage Status by Block Group

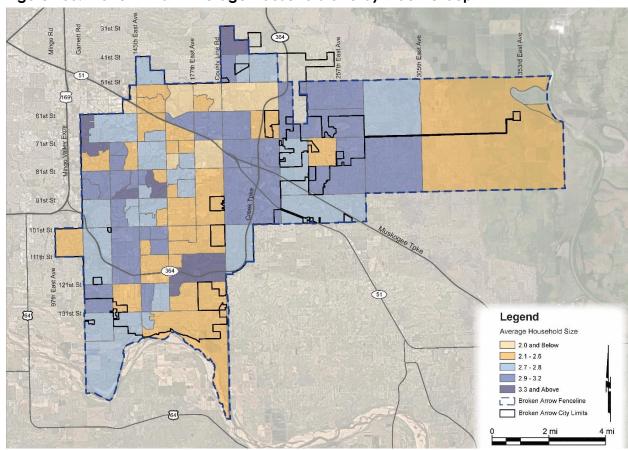


Figure 155: Broken Arrow Average Household Size by Block Group

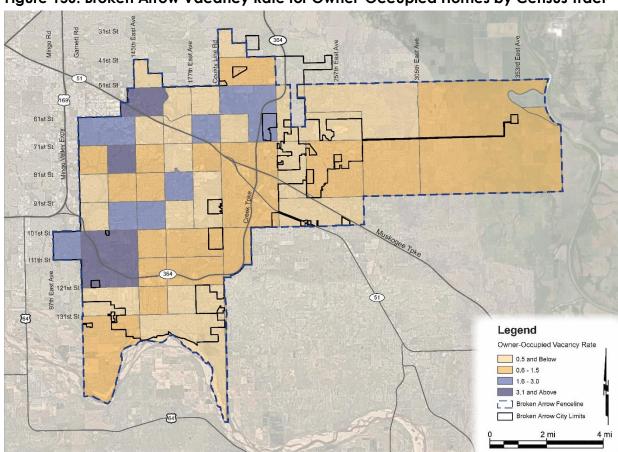


Figure 156: Broken Arrow Vacancy Rate for Owner-Occupied Homes by Census Tract

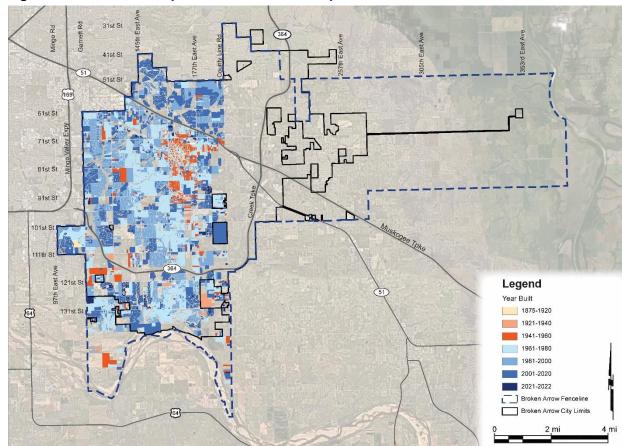
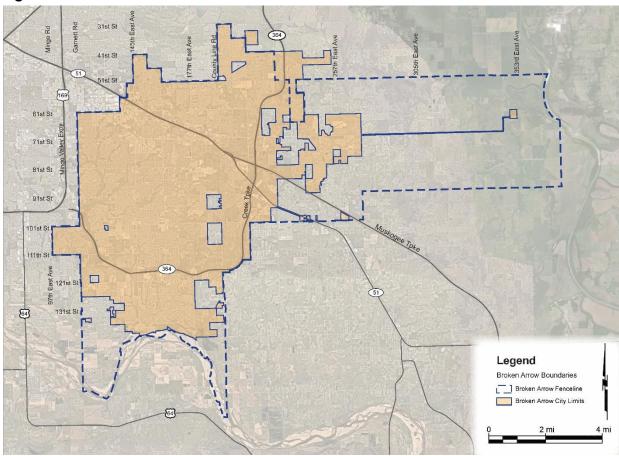


Figure 157: Tulsa County Structure Year Built by Parcels

Source: Johnson & Associates using Indian Nations Council of Governments (INCOG)

Boundaries and Land Use Maps

Figure 158: Broken Arrow Boundaries



Source: Johnson & Associates

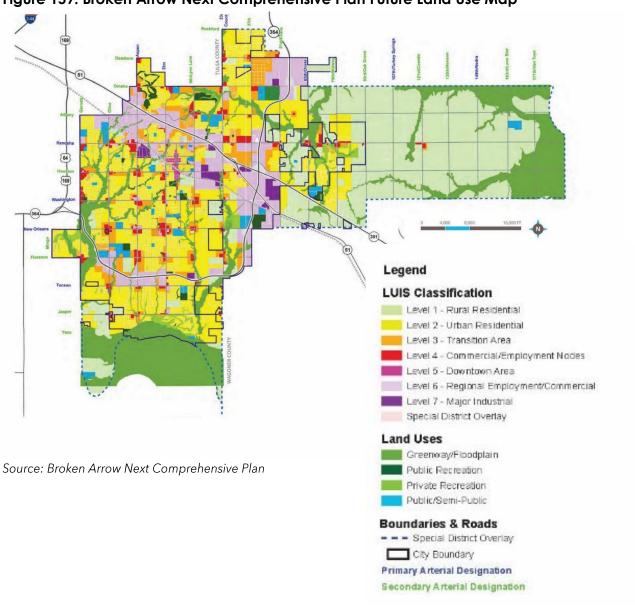


Figure 160: Broken Arrow Zoning*

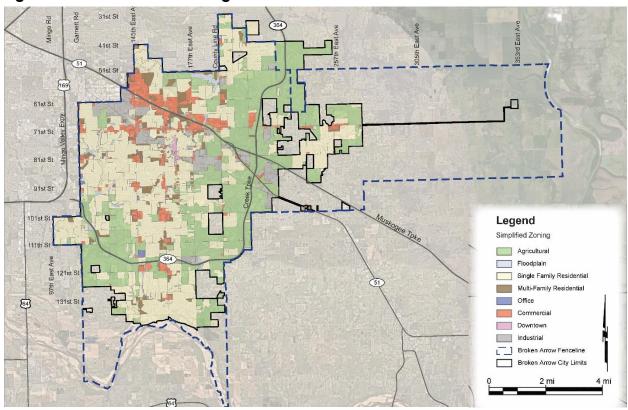
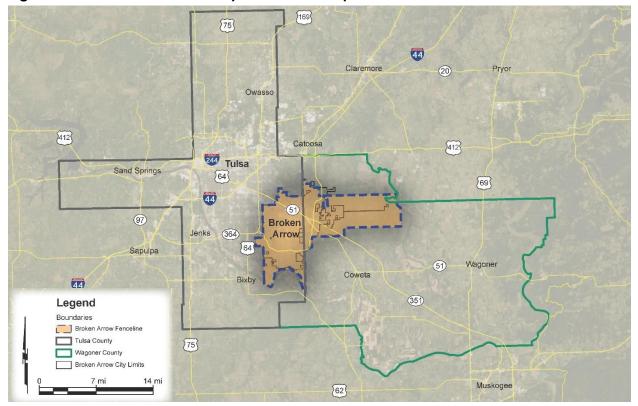


Figure 161: Broken Arrow County Reference Map*



^{*} Source: Johnson & Associates

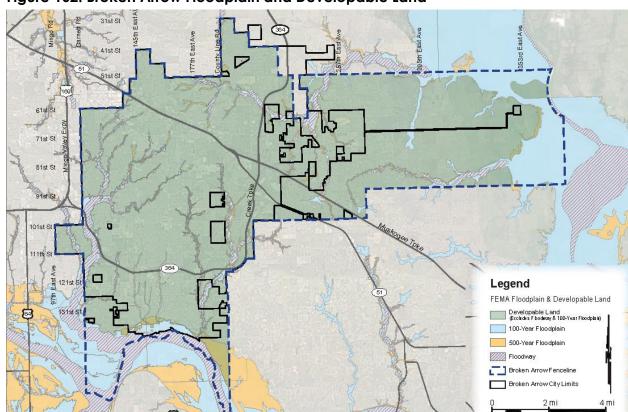
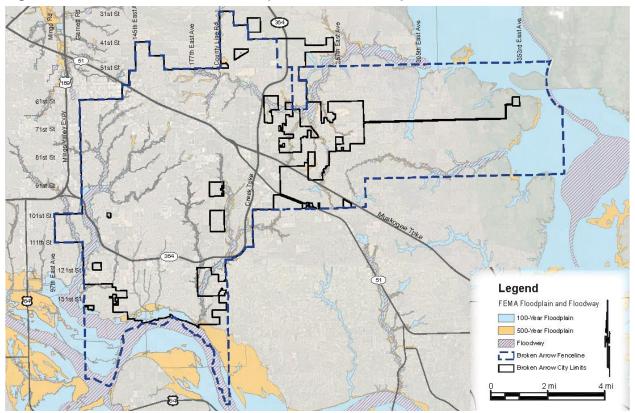


Figure 162: Broken Arrow Floodplain and Developable Land*





^{*}Source: Johnson & Associates using Federal Emergency Management Agency (FEMA), National Flood Hazard Layer

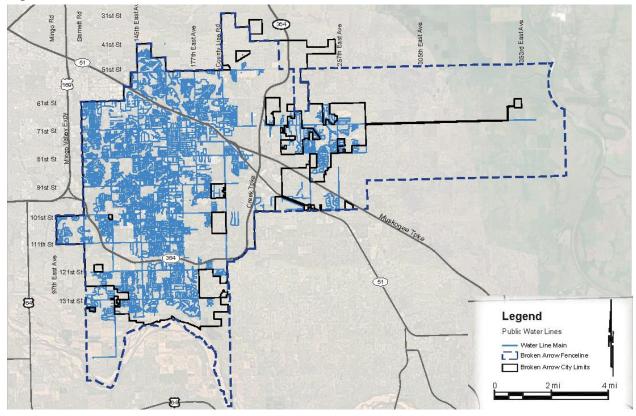
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Figure 164: Broken Arrow Public Sanitary Sewer Lines*





^{*} Source: Johnson & Associates using City of Broken Arrow Community Development Department

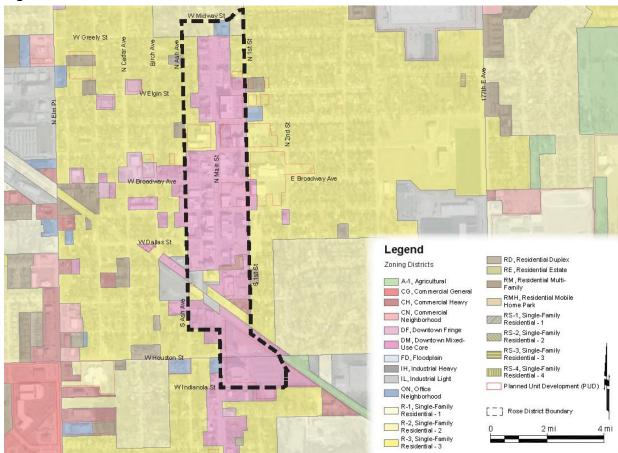


Figure 166: Broken Arrow Rose District

Source: Johnson & Associates

Appendix B: Questions used on Broken Arrow Community Survey

Introductory Questions

- 1. Where do you live?
 - o In the City of Broken Arrow
 - o Outside the City of Broken Arrow but I go there regularly for work or other reasons
 - o I neither live in nor regularly visit the City of Broken Arrow
- 2. Are you currently looking to move to a new home in the City of Broken Arrow or elsewhere?
 - o Yes, to a different home within the City
 - o Yes, out of Broken Arrow
 - o I am not currently looking to move
- 3. If a home is within your price range, would you prefer to live in the City of Broken Arrow?
 - o Yes
 - o No
- 4. If you answered "yes" to the previous question, what are the main reasons you are looking to move? (Select all that apply)
 - Cost of living/affordability
 - o Crime or safety concerns
 - o Schools/education
 - Job opportunities
 - More space
 - o Be closer to work (or reduce commute time)
 - o Be closer to family
 - Quality of life
 - o Other (please specify): _____
- 5. How long have you lived in the City of Broken Arrow?
 - Less than 1 year
 - o 1 to 3 years
 - o 3 to 5 years
 - o 6 to 10 years
 - o 11 years or more
 - Not applicable
- 6. Why did you move to Broken Arrow?

ŀ	Кesp	onse:			

Re	sponse:			
8. How de	o you want Broken Arrow to be defined over the next 10-years?			
0	Suburb			
0	Bedroom Community			
0	Economic Hub			
0	Other:			
9. What is	s your current housing goal?			
0	Rent an apartment			
0	Purchase a starter home			
0	Move up to a larger home			
0	Downsize to a smaller home			
0	Move in with family members			
0	Move into a retirement oriented facility (such as assisted or independent living)			
0	Move away from Broken Arrow			
0	Stay where I am			
0	Other:			

Housing Related Questions

- 10. Please rate your perceptions of purchasing a home in the City of Broken Arrow:
 - o Very affordable
 - o Somewhat affordable

7. What has kept you in Broken Arrow?

- o At the right price
- o Somewhat expensive
- Too expensive
- o Don't know/Not sure
- Not Applicable
- 11. Please rate your perceptions of renting a home in the City of Broken Arrow:
 - Very affordable
 - o Somewhat affordable
 - o At the right price
 - o Somewhat expensive
 - o Too expensive
 - o Don't know/Not sure
 - Not Applicable
- 12. Would you like to see the City of Broken Arrow's housing stock increase?
 - o Yes, with a focus on building more single-family homes
 - Yes, with a focus on building more dense housing options like apartments or townhomes
 - o Yes, but with a focus on a mix more mixed-use developments
 - o No, I don't think the housing stock needs to increase at this time
 - o Don't know/Not sure

- 13. Which, if any, of the following housing aspects are you dissatisfied with in the City of Broken Arrow? (Select all that apply)
 - o Too few middle-density options (such as duplexes and townhomes)
 - Existing homes are too expensive or difficult for the average household to renovate
 - o Too many rental units
 - o Too much conversion of housing stock to vacation rentals (such as Airbnb)
 - Too many part-time second homeowners
 - o Building style and practices do not address sustainability factors (such as energy use, carbon emissions, tornado protection, etc.)
 - There are not enough residences to house the people who want to live here
 - Overall cost of housing
 - Not enough housing for seniors (such as assisted living and independent living)
 - Not enough housing for low-income populations
 - Not enough options for unhoused or homeless populations
 - Too few high-density options (such as apartment complexes)
 - o Other:
- 14. What should the City of Broken Arrow's role be in regulating the housing market?
 - o Should play an active role to ensure that all housing is affordable
 - o Should take a hands-off approach and let the market regulate itself
 - Should regulate the market only in certain circumstances, such as during times of crisis
 - Unsure/Don't know
- 15. What options would you be in favor of the City of Broken Arrow encouraging or allowing in order to provide more housing? If you do not know what the option means, please leave it blank (Select all that apply)
 - More public housing (or rent-subsidized housing)
 - Manufactured home communities
 - o Tiny home communities (excluding those on wheels)
 - o Transitional housing (supportive, temporary housing that transitions individuals from homelessness to more permanent housing)
 - Accessory dwelling units (smaller residential dwellings located on the same lot as a house)
 - Local government incentives for real estate development, for priority housing types
 - o Incentives for remodeling/redevelopment of existing housing stock
 - o Changes in zoning code, regulations, and requirements to allow for a mixture of housing types
 - Unsure/Don't know

o Other:	
----------	--

Geographic Preferences for Housing

16. What types of neighborhoods in Broken Arrow would be most suitable for the townhome housing type? (Select all that apply)

- Large lot single-family neighborhoods (half-acre lots and above)
- o Moderately-sized single-family neighborhoods (quarter-acre to half-acre lots)
- o Mixed-use areas (such as The Rose District and Downtown Broken Arrow)
- o Moderate-density single-family neighborhoods (lots of 6,500 sq. ft and below)
- o Low-density multi-family housing Complexes
- o Areas on or just behind commercial corridors and arterial streets
- High-density apartment complex areas
- o Everywhere
- Nowhere

17. What types of neighborhoods in Broken Arrow would be most suitable for the duplex and triplex housing types? (Select all that apply)

- Large lot single-family neighborhoods (half-acre lots and above)
- Moderately-sized single-family neighborhoods (quarter-acre to half-acre lots)
- o Mixed-use areas (such as The Rose District and Downtown Broken Arrow)
- o Moderate-density single-family neighborhoods (lots of 6,500 sq. ft and below)
- Low-density multi-family housing Complexes
- o Areas on or just behind commercial corridors and arterial streets
- o High-density apartment complex areas
- Everywhere
- o Nowhere

18. What types of neighborhoods in Broken Arrow would be most suitable for cottage neighborhoods? (Select all that apply)

- o Large lot single-family neighborhoods (half-acre lots and above)
- o Moderately-sized single-family neighborhoods (quarter-acre to half-acre lots)
- Mixed-use areas (such as The Rose District and Downtown Broken Arrow)
- Moderate-density single-family neighborhoods (lots of 6,500 sq. ft and below)
- o Low-density multi-family housing Complexes
- o Areas on or just behind commercial corridors and arterial streets
- High-density apartment complex areas
- Everywhere
- o Nowhere

19. What types of neighborhoods in Broken Arrow would be most suitable for the multi-family/apartment housing type? (Select all that apply)

- o Large lot single-family neighborhoods (half-acre lots and above)
- o Moderately-sized single-family neighborhoods (quarter-acre to half-acre lots)
- o Mixed-use areas (such as The Rose District and Downtown Broken Arrow)
- o Moderate-density single-family neighborhoods (lots of 6,500 sq. ft and below)
- o Low-density multi-family housing Complexes
- Areas on or just behind commercial corridors and arterial streets
- o High-density apartment complex areas
- Everywhere
- Nowhere

- 20. What types of neighborhoods in Broken Arrow would be most suitable for the condominium housing type? (Select all that apply)
 - o Large lot single-family neighborhoods (half-acre lots and above)
 - o Moderately-sized single-family neighborhoods (quarter-acre to half-acre lots)
 - o Mixed-use areas (such as The Rose District and Downtown Broken Arrow)
 - o Moderate-density single-family neighborhoods (lots of 6,500 sq. ft and below)
 - o Low-density multi-family housing Complexes
 - o Areas on or just behind commercial corridors and arterial streets
 - o High-density apartment complex areas
 - Everywhere
 - Nowhere
- 21. What types of neighborhoods in Broken Arrow would be most suitable for the accessory dwelling unit housing type? (Select all that apply)
 - o Large lot single-family neighborhoods (half-acre lots and above)
 - o Moderately-sized single-family neighborhoods (quarter-acre to half-acre lots)
 - o Mixed-use areas (such as The Rose District and Downtown Broken Arrow)
 - o Moderate-density single-family neighborhoods (lots of 6,500 sq. ft and below)
 - o Low-density multi-family housing Complexes
 - o Areas on or just behind commercial corridors and arterial streets
 - o High-density apartment complex areas
 - o Everywhere
 - Nowhere

22. Please share any additional tho	oughts or comments	related to housi	ng in Broken
Arrow!			

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Response:		
RESIDENCE		

Additional Demographic Questions

- 23. What is your current housing status?
 - o Own
 - o Rent
 - o I do not pay to live where I reside
 - o Other:
- 24. Who else resides in your residence?
 - o I live alone
 - o Family
 - o Friends/roommates
- 25. What type of housing do you reside in?
 - o Single family-home
 - o Apartment or studio
 - Public housing
 - o Condominium
 - o Duplex, triplex, or townhome
 - o Manufactured or mobile home

- Home on a farm or ranch
 Senior living

 26. Do you own a second home or a rental property in the City of Broken Arrow?
 - o Yes
 - o No
- 27. What is your age group?
 - o Under 18
 - 0 18 24
 - 0 25 34
 - 0 35 44
 - 0 44 54
 - 0 55 64
 - o 65 and older
 - o No
- 28. What is your employment situation? (Select all that apply)
 - o Employed full-time
 - o Employed part-time
 - Unemployed
 - o Student
 - Retired
 - o Disabled
 - o Homemaker
 - o Stay at Home Parent
 - o Other:_____

Appendix C: Images Used in Broken Arrow Community Survey

The pictures below show several concepts of the housing types discussed from both inside and outside of the region.

Figure 167: Townhome Housing Type



Figure 168: Duplex and triplex housing types



Figure 169: Cottage neighborhood



Figure 170: Multi-family/apartment housing type



Figure 171: Condominium housing type



Figure 172: Accessory dwelling unit (ADU) housing type

