



COMMUNITY ASSESSMENT & COMPETITIVE SCORECARDS
(REVISED DRAFT)
NORMAN, OKLAHOMA

Submitted by Market Street Services, Inc.
www.marketstreetservices.com

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PROJECT OVERVIEW

The five-phase research and strategic planning process will last approximately nine months, concluding in May 2018. A diverse Steering Committee comprised of representatives from the public, private, and non-profit sectors will guide the process and ensure that it lays the foundation that will allow people and businesses to thrive and wealth to accumulate in the community.

PHASE ONE: STAKEHOLDER ENGAGEMENT

The Economic Development Strategic Plan must be adequately informed by the wants and needs of Norman's residents, workers, and employers. A series of one-on-one interviews and focus groups were conducted in October 2017. This input is complemented by feedback received from an online survey open to all residents and business in the Norman area that solicited more than 1,600 responses.

PHASE TWO: COMMUNITY ASSESSMENT

The Community Assessment will provide a detailed examination of Norman's competitiveness as a place to live, work, and do business, weaving qualitative feedback from phase one with quantitative analysis to produce a set of "stories" that examine Norman's past, present, and future with respect to economic competitiveness. This narrative Assessment will be complemented by a set of scorecards that illustrate how the area compares to nine other communities that it competes with for jobs and workers.

PHASE THREE: TARGET SECTOR ANALYSIS

The Target Sector Analysis will build upon the Community Assessment by providing a deeper examination of the community's economic composition. It will specifically identify those sectors of economic activity for which Norman is most competitive and which are most likely to support future job and wealth creation in the years ahead.

PHASE FOUR: ECONOMIC DEVELOPMENT STRATEGIC PLAN

Informed by the input and research findings gleaned from phases one through three, the Economic Development Strategic Plan will detail a series of objectives related to the community's identified challenges and opportunities, and a corresponding set of actions, investments, and initiatives. That can help achieve those objectives and advance economic development in Norman over the next five to ten years. The Plan will be holistic, actionable, measurable, and considerate of relevant best-practice programs, policies, and initiatives from communities around the country.

PHASE FIVE: IMPLEMENTATION PLAN

Timely and effective implementation is critical to the ultimate success of the Economic Development Strategic Plan. If the Strategic Plan represents *what* Norman and its community leadership need to do in order to realize the community's full economic potential, the Implementation Plan helps define *how* the community's leadership can collaboratively, effectively, and efficiently advance implementation. Specifically, the Implementation Plan will prioritize initiatives, formalize timelines for implementation, identify roles and responsibilities for lead and supporting organizations, evaluate financial and staff capacity to support implementation, and define performance metrics to track implementation progress and return on investment.

STEERING COMMITTEE

The following individuals have generously volunteered their time to serve the community and this process by providing strategic guidance, input, and oversight throughout the process, attending seven meetings from October 2017 through May 2018.

INDIVIDUAL

Andy Paden (Committee Chair)
 Councilmember Kyle Allison
 Jane Bowen
 Councilmember Breea Clark
 Shelley Coleman Cox
 Dr. Michael Detamore
 Mike Fowler
 Anil Gollahalli
 Patrick Grace, PE
 Shane Hampton
 Steve Ketchum
 Chris Kuwitzky
 Steve Lewis
 Scott Martin
 Curtis McCarty
 Nick Migliorino
 Mayor Lynne Miller
 Daniel Pullin
 Dan Quinn
 Andy Sherrer
 Jason Smith
 Richie Splitt
 Commissioner Darryl Stacy
 Chuck Thompson
 Casey Vinyard
 Daren Wilson

REPRESENTING ORGANIZATION

Moore Norman Technology Center
 City of Norman
 Moore Norman Technology Center Superintendent
 City of Norman
 Norman Chamber of Commerce
 University of Oklahoma
 NEDC Board Member
 NEDC Board Member
 NEDC Board Member
 University of Oklahoma
 Moore Norman Technology Center
 University of Oklahoma
 NEDC Board Member, City Manager
 Norman Chamber of Commerce President
 Norman Chamber of Commerce Chair
 Norman Public School System Superintendent
 City of Norman
 NEDC Board Member
 NEDC Board Chair
 Moore Norman Technology Center Board President
 NEDC President
 Norman Regional Health System CEO
 Cleveland County
 Sooner Centurion Chair
 NEDC Board Member
 United Way of Norman

COMMUNITY ASSESSMENT

This assessment examines the competitive issues facing Norman by evaluating them through the prism of what Market Street believes to be the three critical aspects of a community: its people, their prosperity, and the quality of place. Findings related to these key attributes are incorporated into six key stories that help explain its current realities, key successes, and remaining challenges. These stories emerged from public input provided by residents in Norman as well as in-depth analysis of data covering demographic, socioeconomic, economic, and quality of life trends within the community. Collectively, they help take stock of conditions in the community as they presently exist and identify initial areas that may warrant strategic attention. Before examining these stories in detail, a few important notes on the quantitative analysis and qualitative input presented herein are necessary.

INTERVIEWS AND FOCUS GROUPS: A thorough assessment of a community's strengths, weaknesses, opportunities, and challenges must be informed by input from the people that live and work in the area. Accordingly, a **series of focus groups and interviews** with individuals from the community's public, private, and non-profit sectors was conducted in October 2017.

COMMUNITY SURVEY: In addition to in-person input solicited via focus groups and interviews, an **online community survey** was open to the public for roughly two weeks in October and November 2017. A total of **1,602 residents, workers, and business owners responded to the survey**. This critical input will ensure that the Assessment and forthcoming Strategic Plan are well-informed of the needs, wants, and opinions of residents, workers, and businesses in Norman. **Public input gathered from these focus groups, interviews, and community survey is integrated throughout the report and differentiated by red text.**

DATA SOURCES: A variety of public and private data sources are used throughout this Assessment. Public sources include the Census Bureau, the Bureau of Labor Statistics (BLS), the Bureau of Economic Analysis (BEA), the National Center for Education Statistics (NCES), the Federal Bureau of Investigation (FBI), and the Internal Revenue Service (IRS). Proprietary data is sourced from Moody's Economy.com and Economic Modeling Specialists Intl. (EMSI).

ASSESSMENT GEOGRAPHIES: Throughout this assessment, the City of Norman is utilized as the primary geographic unit of analysis, and is typically referred to as "Norman," "the city," or "the community" in tables, charts, and other figures. In addition to the Oklahoma City, OK metropolitan statistical area and national averages, the community's performance is benchmarked against three cities with which it shares certain characteristics and/or competes for jobs, workers, and investment: Ann Arbor, Michigan; Boulder, Colorado; and Lawrence, Kansas.

COMPETITIVE SCORECARDS: A set of Competitive Scorecards accompany this Assessment and are presented at the conclusion of this report. These scorecards compare the Norman area (Cleveland County) to a larger set of nine peer communities: Boone County, MO (Columbia); Boulder County, CO (Boulder); Douglas County, KS (Lawrence); Hays County, TX (San Marcos); Johnson County, IA (Iowa City); Lancaster County, NE (Lincoln); Story County, IA (Ames); Washington County, AR (Fayetteville); and Washtenaw County, MI (Ann Arbor). Five scorecards measure the county's competitiveness across multiple indicators of **economic performance, workforce sustainability, innovation and entrepreneurship, business environment, and quality of life.**

INTRODUCTION: EMBRACING AND EVOLVING A “UNIVERSITY TOWN”

This Community Assessment presents a narrative discussion of Norman’s strengths and weaknesses and a candid examination of its past, present, and future with respect to its economic competitiveness. Beyond population growth, underlying demographics and socioeconomics reflect the city’s changing position within the region and among the benchmark communities. Underlying challenges with respect to workforce competitiveness are beginning to emerge. At the same time, this city’s asset base – notably, the University, its neighboring built environments, and the community’s other public institutions of learning – is filled with opportunity to help the overcome these challenges and advance the community’s vision.

So what is this vision? While this is not a visioning process, it is evident from the input that there considerable debate among residents and community leaders regarding the ideal path for Norman with regards to its growth and development. In general, residents want to see Norman reach its potential, becoming a more innovative and prosperous economy. Input from stakeholders around the community expressed a desire to have a more thriving community that offers a high quality of life for individuals of all ages and backgrounds; one that is attractive and welcoming to people of all ages, cultures, and backgrounds.

Currently though, residents feel that Norman is divided, primarily with regards to how Norman should grow, what type of growth should occur, and who should pay for it. When compared to its peer set of university-influenced communities, distinctions begin to emerge between the “traditional University town” as so many described Norman and the more innovative economies of Boulder and Ann Arbor, in particular. While residents hope to see elements of a more innovative economy in Norman, so too do they hope to preserve elements of this “traditional university town” that they have come to grow and embrace, notably the value that it places on public education, the beauty of its campus environment, the comradery of gamedays, the proliferation of festivals, and the balance of political perspectives that many feel is missing in similar communities across the state. And so, the economic vision for Norman is one that seeks to both embrace and evolve the “university town.”

If Norman is to advance this vision and become a more prosperous and vibrant place to live, work, and do business along the way, it will need to address a variety of issues in order to successfully compete for quality jobs and residents. In today’s economy, communities across the country are competing for talent and skilled workers to support the growth and workforce needs of existing and potential employers in the region. Fortunately, public, private, and non-profit leaders have come together around this process in an effort to improve Norman’s competitive position the economic well-being of its residents and businesses.

The remainder of this Assessment examines a wide variety of demographic, socioeconomic, economic, and quality of life indicators to tell a **series of stories** about the community that uncover the key strengths, weaknesses, assets, and challenges facing Norman today and in the years to come. These six stories are:

1. Changing Preferences and Regional Growth Patterns
2. Emerging Threats to Workforce Competitiveness
3. Economic Transition: Towards a More Innovative Economy
4. Public Education: Developing and Retaining Talent in Norman
5. Quality of Life in a University Town
6. Growth, Development, and Community Vision

1. CHANGING PREFERENCES AND REGIONAL GROWTH PATTERNS

Population growth is perhaps the easiest way to begin discussing Norman's competitive position. It is one of the most basic indicators that can be used to measure an area's attractiveness as a place to live. In general, when speaking strictly from the perspective of residents, communities that are growing suggest that on some level, the city is a desirable place to live for one reason or another.

FIGURE 1: POPULATION GROWTH BY CITY (2006-2016)

	2006	2016	Net Change (‘06-‘16)	% Change (‘06-‘16)
Norman, OK	105,552	122,180	16,628	15.8%
Ann Arbor, MI	117,036	120,782	3,746	3.2%
Boulder, CO	96,236	108,090	11,854	12.3%
Lawrence, KS	85,155	95,358	10,203	12.0%
Oklahoma City, OK MSA	1,182,668	1,373,211	190,543	16.1%
United States	298,379,912	323,127,513	24,747,601	8.3%

Source: United States Census Bureau, 2016 Population Estimates

Over the past several decades, the City of Norman has seen its population grow at a considerably faster pace than the average American community. Since 1970, Norman's population has more than doubled while Cleveland County's population has more than tripled, with both rates of growth far outpacing national and peer community averages. Over the past ten years, Norman has continued to grow faster than the national average. Its population grew by 15.8 percent between 2006 and 2016, outpacing growth in its benchmark cities – Ann Arbor, MI (3.2 percent); Boulder, CO (12.3 percent); and Lawrence, KS (12.0 percent).

FIGURE 2: POPULATION GROWTH BY COUNTY, OKLAHOMA CITY MSA (2006-2016)

	2006	2016	Net Change (‘06-‘16)	% Change (‘06-‘16)
Cleveland County, OK	237,257	278,655	41,398	17.4%
<i>City of Norman, OK</i>	<i>105,552</i>	<i>122,180</i>	<i>16,628</i>	<i>15.8%</i>
Canadian County, OK	102,876	136,532	33,656	32.7%
Grady County, OK	50,462	54,655	4,193	8.3%
Lincoln County, OK	33,441	35,129	1,688	5.0%
Logan County, OK	37,060	46,588	9,528	25.7%
McClain County, OK	31,419	38,682	7,263	23.1%
Oklahoma County, OK	690,153	782,970	92,817	13.4%
Oklahoma City MSA	1,182,668	1,373,211	190,543	16.1%

Source: United States Census Bureau, Population Estimates

While Norman's recent growth has outpaced its peer communities across the country, its competitive position within the Oklahoma City region is changing. Part of Norman's growth can be attributed to the simple fact that the region as a whole has been growing rapidly in recent years. Norman has grown at roughly the same pace as the greater Oklahoma City metro area over the past decade. Although Norman grew faster as compared to the benchmark cities, population growth in Cleveland County has trailed Canadian, McClain, Logan, and Oklahoma counties in the metro area in the most recent ten-year period (2006-2016). While

growth in Cleveland County and Norman outpaced neighboring counties and communities in the 1980s and 1990s, this dynamic began to change in the mid-2000s as these other suburban counties (Canadian, McClain, and Logan) and the region's core county (Oklahoma) began to experience more rapid growth.

Overall, population change is influenced by two factors: natural change (births minus deaths) and net migration (both domestic and international). Net migration reflects the portion of population growth that is most closely tied to a community's relative attractiveness and success in meeting the wants and needs of existing and prospective future residents. It speaks to an important component of a community's ability to provide a sustainable workforce: its ability to attract and retain talent.

Data from the Internal Revenue Service (IRS) offers detailed insight into the migration trends facing communities – specifically, the top sources and destinations for domestic migrants to and from a given county. This data is compiled from anonymized tax return data. If a given return moves from one county to another between tax years, that return – and all its associated exemptions – is categorized as having migrated between counties. Examining the number of exemptions that move from county to county in a given year can provide a rough estimate of the net flow of actual people from place to place. (Note that because the data program depends on changes in county of residence between tax years, the data does not capture the majority of university students as most have never filed a tax return before.)

FIGURE 3: NET MIGRATION, CLEVELAND COUNTY, TOP SOURCES & DESTINATIONS (2004-2014)

Top Sources (Immigrants > Outmigrants)		Top Destinations (Outmigrants > Immigrants)	
Oklahoma County, OK	+11,290	McClain County, OK	-1,624
Comanche County, OK	+867	Canadian County, OK	-885
Pontotoc County, OK	+451	Harris County, TX	-601
Bay County, FL	+393	Grady County, OK	-534
Payne County, OK	+362	Dallas County, TX	-290
Los Angeles County, CA	+308	Bexar County, TX	-257
Garvin County, OK	+302	King County, WA	-244
Sedgwick County, KS	+288	Travis County, TX	-232
Jackson County, OK	+286	Tarrant County, TX	-208
Stephens County, OK	+259	Montgomery County, TX	-198

Source: Internal Revenue Services (IRS)

The data illustrate that the top net destinations for residents leaving Cleveland County include many major metropolitan areas and employment centers in Texas such as Houston (Harris and Montgomery); Dallas-Ft. Worth (Dallas and Tarrant); San Antonio (Bexar); and Austin (Travis). However, the top two destinations for out-migrants are actually other suburban counties in the region – McClain and Canadian counties.

The data show that Cleveland County's domestic in-migration is largely fueled by new residents from many other surrounding and nearby counties in Oklahoma. **Oklahoma County has been the dominant source of new residents to Cleveland County for decades. On average, Cleveland County had a net gain of roughly 1,100 new residents per year from Oklahoma County during the ten-year period beginning in 2004. However, this relationship has begun to change in recent years. IRS migration data is beginning to reflect**

the anecdotal evidence collected from residents and stakeholders participating in the public input phase that the City of Norman is starting to lose residents to surrounding areas.

Input participants reported that Norman has historically been a desirable location to live in the metro area. And while this continues to be true, in recent years, stakeholders felt that Norman has begun to face stronger competition from other communities in the region, including the core (Oklahoma City) and other suburban communities. A variety of reasons for shifting preferences have been cited, including actual or perceived differences in housing cost and quality, amenities, public schools, and access to job opportunities.

FIGURE 4: ANNUAL NET MIGRATION, CLEVELAND COUNTY VS. OKLAHOMA COUNTY (2000-2014)



Source: Internal Revenue Service; Moody's Analytics

While Cleveland County’s population growth has largely been attributed to strong domestic in-migration over the past decade, this growth has been fueled by residents moving from Oklahoma County to Cleveland County. Recent data shows a reversal in this trend. **Beginning in 2013, the number of residents moving from Cleveland to Oklahoma County (out-migration) exceeded the number of residents moving from Oklahoma to Cleveland County (in-migrants) for the first time since the IRS started publishing the migration data in 1990. This trend accelerated in 2014 and it will be important for community leaders to continue to monitor migration data in the years to come. There is no greater threat to the community’s economic, workforce, and fiscal sustainability than potentially persistent net out-migration.**

However alarming, the aforementioned trends are not unique to Norman. In fact, they are consistent with national trends that show an influx of people moving from suburbs back into cities and the urban core districts of metropolitan areas. This trend has been widely documented in recent years with much of the conversation centering on the divergent preferences of Millennials and Baby Boomers.

In 2015, the Urban Land Institute surveyed 1,202 adults to determine the types of environments in which they prefer to live and the community attributes with which they wish to surround themselves. The results of reinforced what many have observed in recent years: that population trends around the country are increasingly influenced by the location preferences of Millennials as they age into the workforce and start their careers. While the majority of Baby Boomers prefer to live in rural areas and small towns (51 percent), less than one-third of Millennials (32 percent) prefer such an environment. Meanwhile, 37 percent of Millennials prefer to live in cities as compared to just 22 percent of Baby Boomers and 28 percent of Gen X.

FIGURE 5: RESIDENTIAL LOCATION PREFERENCES BY GENERATION, UNITED STATES (2015)

	Baby Boomers (ages 50-68)	Millennials (ages 18-36)
Desired Residential Location (% who would like to live in a certain community type)		
Rural areas and/or small towns	51%	32%
Suburbs	24%	29%
Cities	22%	37%
Priorities When Choosing a Place to Live (% top or high priority)		
Convenient public transit	29%	39%
Walkability	50%	54%
Space between neighbors	57%	50%
Preferences for Specific Community Attributes (% agree)		
Prefer to live in a place where they do not need to use a car often	49%	63%
Prefer to live in a diverse community w/ a mix of cultures and backgrounds	61%	76%

Source: Urban Land Institute (ULI)

As these preferences have become evident in migration and population trends around the country, many have suggested that Millennials will simply age into similar preferences as Boomers over time. The logic often follows that Millennials have been “slowed down” by the Great Recession and/or are deciding to start families later. It theorizes that Millennials will be equally attracted to lower-density, single-family development patterns that are found outside of cities, along with a desire to seek out stronger public school systems, lower crime neighborhoods, and other attributes that are – in general – more common in suburbs outside of core cities. By examining the changes in survey results between 2013 and 2015, we can help determine if Millennial location preferences are in fact evolving in this way.

Between 2013 and 2015, the percentage of Millennials that indicated they preferred to live in a suburb surged from 20 percent to 29 percent. But this growth came at the expense of rural areas and small towns rather than cities; the percentage that preferred to live in a city remained constant at 37 percent. And so, **the implications of these survey results are clear: Millennials increasingly prefer urban amenities and access, and are willing to locate in both cities and suburbs that offer these amenities and access. While there are certainly exceptions, suburbs that offer these attributes will be better positioned for Millennial talent than those that do not.** This Assessment will examine these attributes and others influencing quality of life and quality of place in a subsequent chapter. Before doing so, it is important to first examine and understand the manner in which these migration trends and other underlying socioeconomic attributes characterize and influence the community’s workforce competitiveness.

2. EMERGING THREATS TO WORKFORCE COMPETITIVENESS

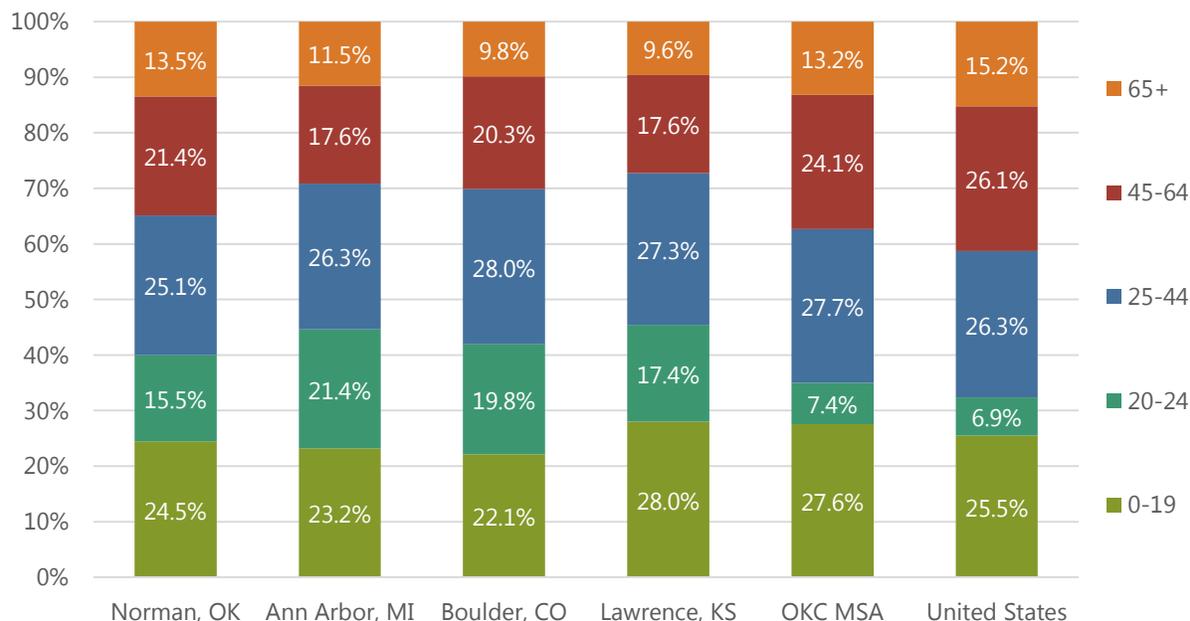
The preceding story established that the Norman area – and more specifically, Cleveland County – has been subjected to changing preferences among existing and prospective new residents that are influencing migration dynamics and population growth trends. A decomposition of population growth by various attributes – notably age and educational attainment – and an examination of the characteristics of in-migrants to Norman will offer further insight into the changes facing the community and their implications for workforce competitiveness.

The University of Oklahoma's (OU) presence is without a doubt the single largest magnet for new residents to the city, with thousands of young adults moving to Norman each year to begin their studies at OU. Although thousands of young adults move to Norman for OU, a similar number of students graduate each year, and both qualitative and quantitative data indicates that Norman loses many of those graduates to other communities. **A 2016 survey of 300 OU students found that only three percent of students surveyed indicated they would definitely stay in Norman after graduating, while 46 percent indicated that they definitely would not live in Norman after graduation.**ⁱ The remaining 48 percent of surveyed students indicated that they would consider living in Norman but would also consider living elsewhere.

These sentiments reinforce fears that emerged in the public input phase. Community leaders, business owners, and residents at-large are concerned that the community is not effectively retaining talent at all ages and skill levels, not simply college graduates. And as previously illustrated, these fears are becoming realities; **net outmigration has characterized the area in recent years, reflecting the first in a series of potentially concerning trends with respect to workforce competitiveness.**

The second emerging threat to the community's potential workforce sustainability and long-term competitiveness is its changing age distribution. As of 2016, Norman's age distribution is similar to its comparison communities with a relatively large share of college-age residents. Beyond that, roughly half of Norman residents are between the ages of 25 and 64, which represents the prime-age workforce. Many communities are faced with declining prime age workers and have significant workforce sustainability concerns. As Baby Boomers begin to retire, concerns over the quantity of workers available in a region grows. Within prime-age workers, the ratio of residents aged 25 to 44 to those aged 45 to 64 can be used as a rough estimate to gauge the sustainability of a community's workforce over time. A ratio of greater than 1.0 indicates that a community will have enough younger workers to replace more experienced workers as they approach retirement age. Nationally, the share of workers aged 25 to 44 (26.3 percent) is roughly the same size as the share of the population between the ages of 45 and 65 that are expected to retire over the coming decades (producing a "dependency ratio" of 1.01).

In Norman, the dependency ratio is 1.17, suggesting there will be enough available workers to support the region's existing economic activities (regionally, the ratio is 1.15 across the Oklahoma City metro area). However, in its benchmark communities, the ratio is much higher. Ann Arbor (1.49), Boulder (1.38), and Lawrence (1.38) all have much more favorable age dynamics whereby their population aged 25-44 is considerably larger than the population aged 45-64. In this regard, these other communities are better positioned to replace older, more experienced workers as they exit the workforce. **And so, while this litmus test suggests that Norman has a reasonably sustainable workforce, the relative size of this advantage trails its competitors and further, the data suggests that this advantage is eroding.**

FIGURE 6: AGE DISTRIBUTION (2016)

Source: United States Census Bureau, ACS 1-Year Estimates

Norman is aging faster than its peer communities, the metro, and the United States. Norman's population over the age of 65 increased by 35 percent between 2011 and 2016. While all communities experienced growth within the age group, the share of the population over the age of 65 in Norman increased by 2.7 percentage points, indicating a significant shift in the age distribution. What is most alarming, however, is that the population aged 25-44 actually declined, in absolute terms and as a percentage of the total population. Given that Norman's age distribution already skews slightly older than its benchmark communities, these trends within the younger cohort of prime-age workers could put the community at a competitive disadvantage. **Between 2011 and 2016, prime-age workers (25-64) represented just 19 percent of all population growth in Norman as compared to 42 percent regionally and 37 percent nationwide. The result: a community whose demographic sustainability is threatened and eroding quickly.**

FIGURE 7: PERCENTAGE POINT CHANGE IN AGE DISTRIBUTION (2011-2016)

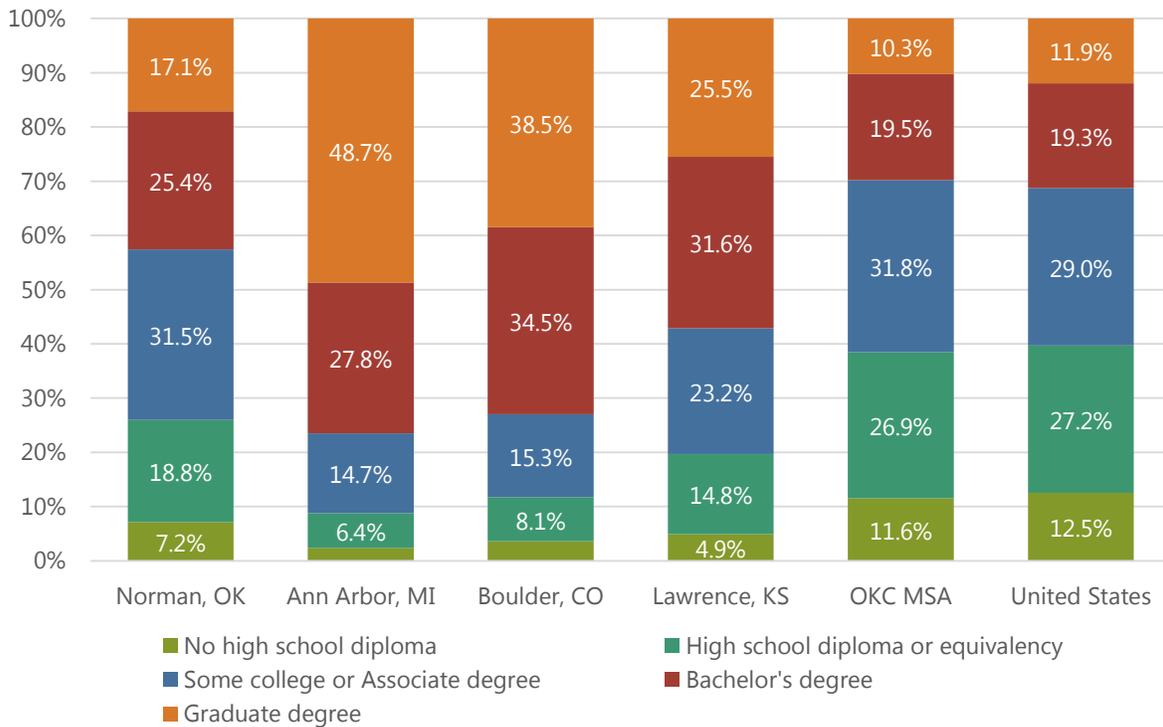
	0-19	20-24	25-34	35-44	45-64	65+
Norman, OK	-1.3%	0.7%	-1.5%	-1.9%	1.2%	2.7%
Ann Arbor, MI	1.4%	1.3%	-2.3%	1.2%	-2.5%	0.9%
Boulder, CO	0.4%	-1.3%	0.9%	-0.2%	-1.2%	1.4%
Lawrence, KS	3.9%	-5.8%	-0.6%	-0.2%	0.7%	1.9%
Oklahoma City MSA	-0.2%	-0.3%	0.0%	0.1%	-0.9%	1.3%
United States	-1.1%	-0.2%	0.4%	-0.5%	-0.5%	1.9%

Source: United States Census Bureau, ACS 1-Year Estimates

Beyond age dynamics, the characteristics of in-migrants to the community offer further insight to how Norman is changing. Educational attainment rates are often used as the most basic measure to gauge the quality of a region's workforce. In order to compete for high quality jobs communities must boast a well-

educated workforce to support such employment opportunities. This is true for both business expansion needs and for business attraction considerations. Companies and site selectors often use educational attainment rates to screen communities and evaluate talent pools at a high level.

FIGURE 8: EDUCATIONAL ATTAINMENT OF RESIDENTS AGE 25+ (2016)



Source: United States Census Bureau, ACS 1-Year Estimates

Roughly 43 percent of adult residents in Norman have a bachelor's degree or higher, considerably higher than the regional (30 percent) and national (31.3 percent) averages. But as a community that is home to a large university, Norman's educational attainment rates are surprisingly low relative to its peers. Roughly seven out of ten residents in Ann Arbor (76.5 percent) and Boulder (73 percent) had a bachelor's degree or higher. In Lawrence, 57.1 percent of residents have a four-year degree or higher. This is a tremendous gap relative to these other communities, one that reflects significant differences in current economic composition and potential future economic development.

And unfortunately, two different trends indicate that the educational attainment gap between Norman and its competitors has grown and may continue to grow in the future. Over the past five years, the percentage of adults with a bachelor's degree or higher fell by 1.7 percentage points in Norman. At the same time, Ann Arbor (+5.8 percentage points), Lawrence (+4.9), the Oklahoma City MSA (+1.6) and the U.S. (+2.8) all saw their share of the population with a bachelor's degree or higher increase. Boulder also experienced a decline in its share of highly educated residents (-3.2 percentage points). Meanwhile, the percentage of adults with no high school diploma grew by 2.0 percentage points while declining by 1.6 percentage points across the average American community.

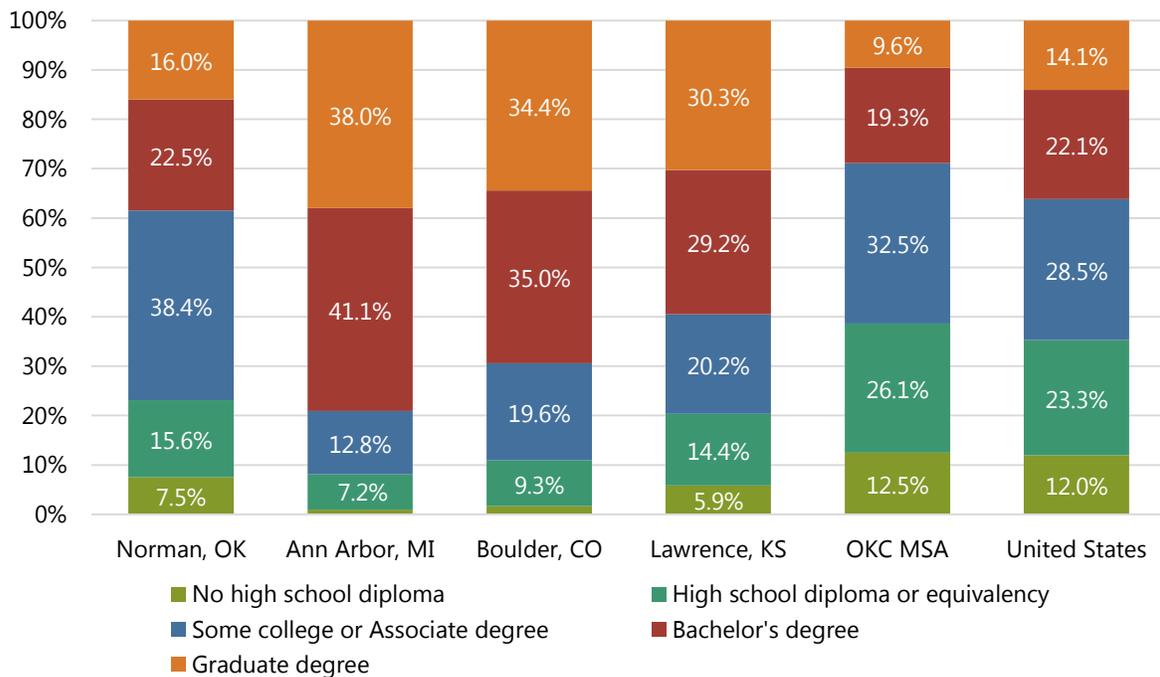
FIGURE 9: CHANGE IN EDUCATIONAL ATTAINMENT OF RESIDENTS AGE 25+ (2011-2016)

	No high school diploma			Bachelor's degree or higher		
	2011	2016	Change ('11-'16)	2011	2016	Change ('11-'16)
Norman, OK	5.2%	7.2%	2.0%	44.3%	42.6%	-1.7%
Ann Arbor, MI	4.6%	2.4%	-2.2%	70.7%	76.5%	5.8%
Boulder, CO	3.2%	3.6%	0.4%	76.2%	73.0%	-3.2%
Lawrence, KS	4.4%	4.9%	0.5%	52.2%	57.1%	4.9%
Oklahoma City MSA	12.5%	11.6%	-0.9%	28.2%	29.8%	1.6%
United States	14.1%	12.5%	-1.6%	28.5%	31.3%	2.8%

Source: United States Census Bureau, ACS 1-Year Estimates

A portion of this change in educational attainment rates can be attributed to differences in the attainment levels of in-migrants relative to existing residents. **According to Census Bureau figures, in-migrants to Norman over the last five years (38.5 percent BA+) are not only considerably less educated than their migrant counterparts to peer communities, they are actually less well educated than Norman's existing residents (42.6 percent BA+).** In-migrants to Ann Arbor and Lawrence are contributing to rising educational attainment rates for these communities, while in-migrants to Norman and Boulder are contributing to declining educational attainment rates. **Although existing residents can certainly enhance their skills by enrolling in higher education, simply put, Norman will struggle to realize its vision for a more prosperous and innovative economy if it fails to create a more compelling value proposition for highly educated prospective residents.**

FIGURE 10: EDUCATIONAL ATTAINMENT OF IN-MIGRANTS AGE 25+ (2011-2015 5-YEAR AVERAGE)



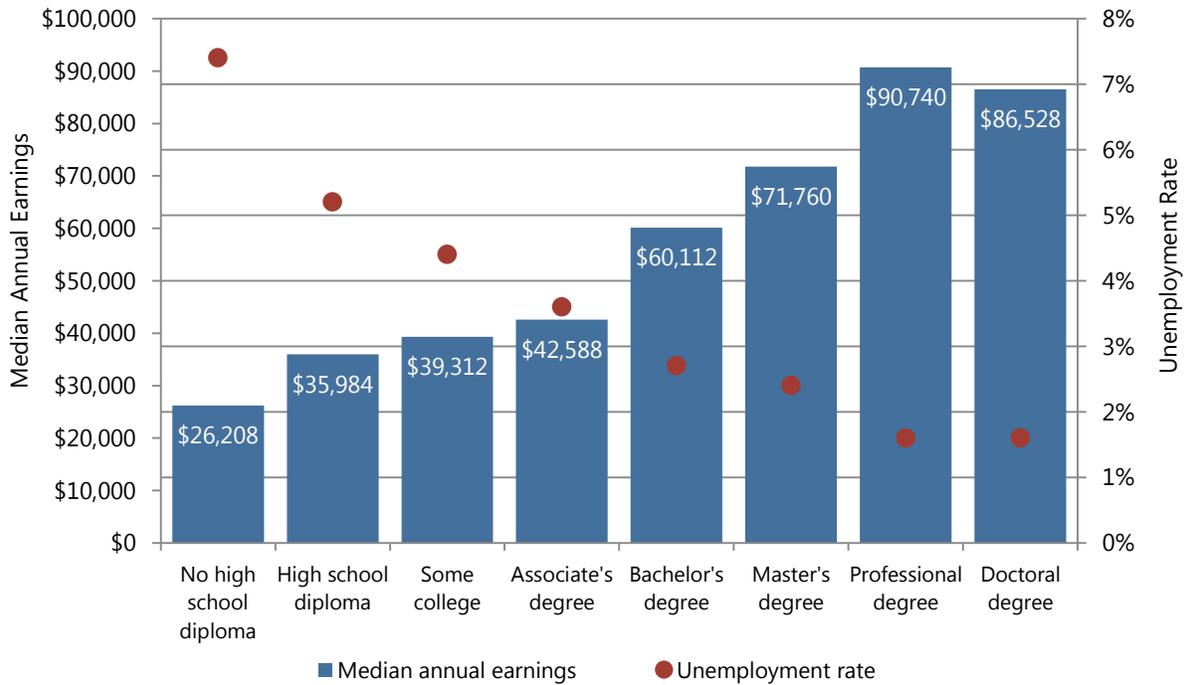
Source: United States Census Bureau, 2011-2015 ACS 5-Year Estimates

And so, four troubling trends have been observed in recent years that threaten Norman’s historical success as a growing, prosperous community of choice within the Oklahoma City metropolitan area:

1. Net out-migration
2. Declining population aged 25-44
3. Declining educational attainment levels
4. In-migrants that are less well educated than existing residents

While this section has focused on the implications of certain trends on workforce sustainability, these trends in educational attainment also have clear implications for the types of economic activity that the community can support, and the level of economic prosperity that residents will enjoy. A wealth of research has demonstrated the connection between one’s educational attainment and their lifetime earning potential. Individuals with higher levels of education are, not surprisingly, more likely to have higher incomes and less likely to be unemployed. Higher levels of education have also been tied to lower incarceration rates and higher levels of volunteering, among other positive outcomes. Communities with higher levels of education are therefore more likely to benefit from increased wealth and overall prosperity for their residents.

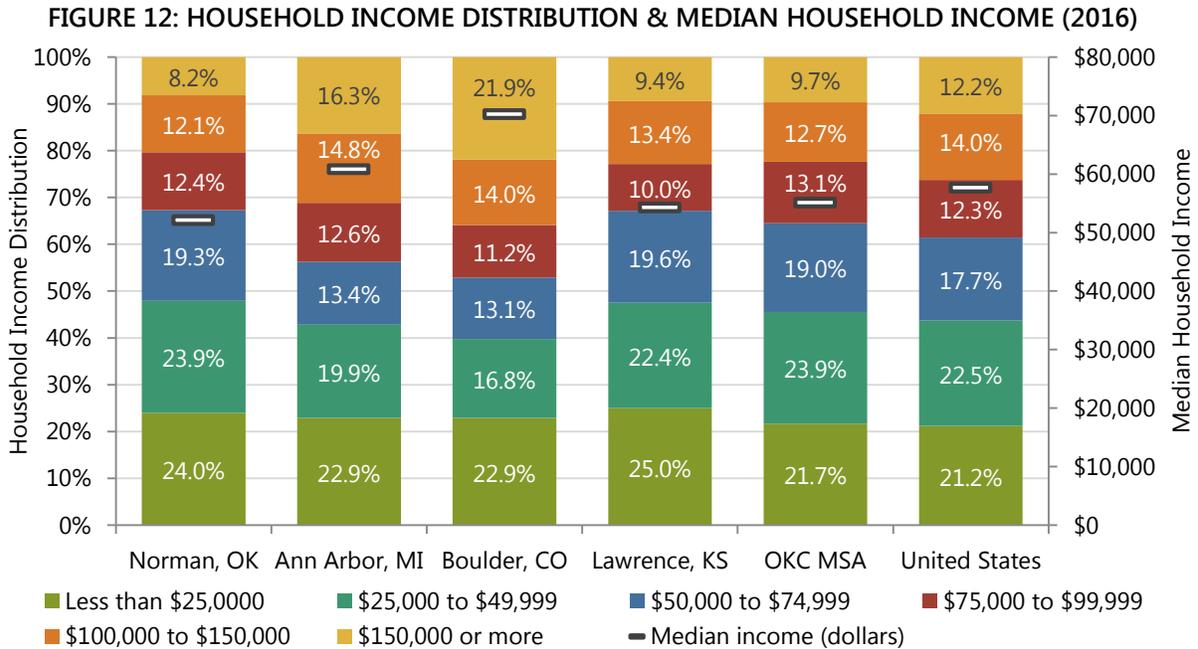
FIGURE 11: UNEMPLOYMENT & EARNINGS BY EDUCATIONAL ATTAINMENT, UNITED STATES (2016)



Source: Bureau of Labor Statistics

Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.

Indeed, this relationship can be seen in the household incomes of Norman’s population relative to its peers. In 2016, the median household income in Norman was \$52,041, the lowest among the benchmark communities. Nationally, the median household income was \$57,617.



Source: United States Census Bureau, ACS 1-Year Estimates

Additionally, growth in median household income and changes in the household income distribution reflect some of the aforementioned trends and stakeholder observations, notably those related to out-migration and educational attainment. In Norman, median household income increased by just 8.8 between 2011 and 2016 while growing by nearly twice this rate (17.1 percent) across the Oklahoma City metro area. During this time period the rate of inflation nationwide was 7.6 percent, indicating that the median household is only marginally better off when inflation is taken into account. Trends in the household income distribution show that this sluggish growth can be attributed in part to the relative lack of growth in households at the top end of income spectrum in Norman, and a relative lack of progress in elevating households from the lower end. However, data covering the adjusted gross income of migrants illustrates that there isn't a substantive difference in the AGI of in-migrants and out-migrants.

FIGURE 13: PERCENTAGE POINT CHANGE IN HOUSEHOLD INCOME DISTRIBUTION (2011-2016)

	Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$74,999	\$75,000 to \$99,999	\$100,000 to \$150,000	\$150,000 or more
Norman, OK	-1.7%	-2.9%	3.1%	0.7%	1.2%	-0.5%
Ann Arbor, MI	-5.6%	-2.5%	-1.5%	4.1%	1.4%	3.8%
Boulder, CO	-2.1%	-1.4%	-1.9%	1.8%	2.4%	1.2%
Lawrence, KS	-2.4%	-6.3%	2.3%	-0.2%	2.4%	4.0%
OKC MSA	-4.6%	-2.4%	0.3%	1.3%	1.8%	3.7%
United States	-3.8%	-2.0%	-0.3%	0.6%	1.9%	3.5%

Source: United States Census Bureau, ACS 1-Year Estimates

Combined, these data points suggest that Norman's ability to elevate individual and collective standards of living is threatened. In the end, this is the purpose of economic development: to elevate standards of living. But these trends also have important consequences for the city's workforce sustainability, as well as its economy, tax base, and future competitiveness as a place to do business.

3. ECONOMIC TRANSITION: TOWARDS A MORE INNOVATIVE ECONOMY

Overall, the age dynamics and educational attainment rates of residents have important implications on the types of jobs that a community can support and the economic opportunities available for its workforce. Certainly, when a community is located in a metro region, the lines between communities can become a bit blurry. The ability for workers and residents to choose a community to live in that is different than the city where they work can make things more challenging. Yet, prosperous and thriving communities are those that offer residents quality jobs in a desirable community, and age dynamics and educational attainment rates are major factors that will influence such economic opportunities. These influences work both ways, and if a community does not have good, quality jobs available, it will continue to lose educated workers to other communities that are able offer the types of employment opportunities that these individuals seek. Furthermore, as evidenced by the ULI survey data and other research at the national level, residential location preferences are changing along generational lines, with younger workers (in aggregate) demonstrating a preference for greater proximity between their place of work and place of residence.

FIGURE 14: RATIO OF JOBS TO EMPLOYED RESIDENTS (2006-2016)

	NUMBER OF JOBS			NUMBER OF EMPLOYED RESIDENTS			RATIO: JOBS TO EMPLOYED RESIDENTS		
	2006	2016	Change ('06-'16)	2006	2016	Change ('06-'16)	2006	2016	Change ('06-'16)
Norman, OK	59,185	62,725	3,540	52,707	58,844	6,137	1.12	1.07	(0.06)
Ann Arbor, MI	160,112	173,538	13,426	62,109	61,571	(538)	2.58	2.82	0.24
Boulder, CO	100,173	113,421	13,248	58,326	60,284	1,958	1.72	1.88	0.16
Lawrence, KS	50,271	52,521	2,250	48,411	50,568	2,157	1.04	1.04	0.00
OKC MSA	627,903	668,091	40,188	545,560	638,012	92,452	1.15	1.05	(0.10)

Source: Economic Modeling Specialists International (EMSI); Bureau of Labor Statistics

Zip code level data has been used to derive city-level estimates for Norman and all comparison areas. The following zip codes were included in the estimate for Norman: 73019, 73026, 73069, 73070, 73071, 73072, 73068.

Overall, unlike Ann Arbor and Boulder, Norman is not a major job center. The ratio of jobs (number of people working in the city) to employed residents living in Norman is 1.07, indicating that there is slightly more than one job for every one worker (or rather, 107 jobs for every 100 employed residents). In comparison, Ann Arbor's jobs to worker ratio is 2.82 while Boulder's ratio is a 1.88. These ratios in Boulder and Ann Arbor illustrate that those cities have high concentration of jobs and accordingly, a high rate of commuting inflow from non-residents to support these jobs. Over the course of the last ten years, Norman has actually become less of a job center: the number of employed residents grew more rapidly than the number of jobs. The data illustrate that this trend is waning, however, as the pace of resident employment growth has slowed in the last few years (consistent with other observed trends referenced in the preceding section). **But overall, the community is remarkably balanced in terms of its status as a residential center and an employment center. Perhaps no indicator more clearly illustrates the differences in the relative economies of these four "university towns."** Ann Arbor and Boulder are clearly regional employment centers that – as will be illustrated in this section – have effectively leveraged their university's research expenditure and talent production to support a more abundant, diverse set of job opportunities. **In this regard, they reflect the more innovative economies that so many residents and community leaders expressed as their economic**

vision for Norman: an economy that effectively leverages its university and talent pool, as opposed to an economy that primarily services and is relatively dependent upon its university and talent pool.

Although many residents and stakeholders expressed concern regarding the community's recent competitiveness and relative success with respect to job creation, the data illustrate that **private sector job growth in Norman (18.0 percent) actually far outpaced its peers, was more than double the regional rate of growth (8.3 percent), and more than three times the national rate of private sector job growth (5.6 percent).** This is a remarkably positive finding, one that should encourage community leaders and residents. It is noteworthy that this growth spanned a period of time that included our nation's most severe economic recession since the Great Depression. It also coincided with a time period of economic recovery in which private sector investment in many metropolitan areas began to flow more heavily to core cities that offered the amenities and attributes that young talent is seeking. Employment growth in the private sector is a positive finding and is supportive of input received regarding Norman's preferred economic future.

FIGURE 15: PRIVATE SECTOR AND PUBLIC SECTOR EMPLOYMENT (2006-2016)

	Private Sector Jobs				Public Sector Jobs			
	2006	2016	Net Change ('06-'16)	% Change ('06-'16)	2006	2016	Net Change ('06-'16)	% Change ('06-'16)
Norman, OK	38,700	45,682	6,982	18.0%	20,485	17,043	(3,442)	-16.8%
Ann Arbor, MI	96,236	94,371	(1,865)	-1.9%	63,876	79,167	15,291	23.9%
Boulder, CO	81,101	89,715	8,614	10.6%	19,072	23,706	4,634	24.3%
Lawrence, KS	37,595	38,240	646	1.7%	12,676	14,281	1,604	12.7%
Oklahoma City MSA	496,183	537,096	40,913	8.3%	131,720	130,995	(725)	-0.6%
United States	127m	134m	7.2m	5.6%	24.0m	24.4m	361k	1.5%

Source: Economic Modeling Specialists International (EMSI)

Zip code level data has been used to derive city-level estimates of jobs for Norman and all comparison areas. The following zip codes were included in the estimate for Norman: 73019, 73026, 73069, 73070, 73071, 73072, 73068.

While private sector job growth is encouraging, public sector employment declined drastically in the community. Combined, these trends in the public and private sector resulted in an economy that is considerably less reliant on government employment today than it was just ten years ago; in fact, the public sector's share of employment has declined from 35 percent in 2006 to just 27 percent as of 2016. Nonetheless, the community remains relatively dependent upon government as compared to the average American community (15.3 percent of employment in the public sector). Such a high dependency on the public sector leaves the city vulnerable to government budget cuts and changes in spending at the local, state, and federal level. Oklahoma, more so than other states, understands this reality, especially when it comes to education funding. Declining oil revenue along with the aftermath of the Great Recession has continued to strain the Oklahoma state budget. In response to budgetary constraints, the state made significant cuts to education funding, forcing educational institutions to cut jobs and leave vacant positions unfilled in an effort to reduce payroll expenses. As a result, government employment has suffered significant losses. In Norman, public sector employment declined by nearly 3,500 jobs between 2006 and 2016.

The forthcoming Target Sector Analysis will examine private sector economic composition in detail, analyzing job growth and other factors in hundreds of detailed subsectors. The accompanying table provides a high-level overview of economic composition by examining just a few major sectors of the economy. It is sorted by the total number of jobs in each of Norman's business sectors, from largest to smallest. The first column displays the "location quotient" or "LQ," a statistic that measures how concentrated a given sector is in a local economy relative to the national average. A location quotient of 1.0 indicates that a sector is exactly as concentrated in the local economy as it is nationally (as measured by its share of total employment). A location quotient well above 1.0 could imply that a region offers some form of competitive advantage to businesses in that sector sufficient to support agglomeration or "clustering."

FIGURE 16: ECONOMIC COMPOSITION (2006-2016)

Business Sector	LQ (2016)	Jobs (2016)	NORMAN, OKLAHOMA		UNITED STATES
			Net Change (‘06-‘16)	% Change (‘06-‘16)	% Change (‘06-‘16)
Government	1.77	17,043	(3,442)	-16.8%	1.5%
Retail Trade	1.33	8,631	2,616	43.5%	1.8%
Accommodation & Food Services	1.44	7,721	1,835	31.2%	19.1%
Health Care & Social Assistance	0.74	5,799	1,506	35.1%	25.4%
Professional, Scientific, & Tech. Services	1.01	4,063	1,068	35.7%	17.6%
Admin., Support & Waste Mgmt. Services	0.80	3,143	(1,114)	-26.2%	7.3%
Other Services (except Public Admin.)	1.04	3,124	187	6.4%	3.1%
Construction	0.83	2,796	(12)	-0.4%	-14.9%
Manufacturing	0.55	2,748	(150)	-5.2%	-12.9%
Finance & Insurance	0.67	1,640	(41)	-2.5%	-3.8%
Real Estate & Rental & Leasing	1.18	1,214	(26)	-2.1%	-5.7%
Arts, Entertainment, & Recreation	0.88	940	478	103.7%	16.5%
Wholesale Trade	0.39	933	242	35.0%	-1.3%
Information	0.61	715	43	6.4%	-7.7%
Educational Services	0.33	538	4	0.8%	25.9%
Transportation & Warehousing	0.24	527	63	13.5%	12.1%
Mining, Quarrying, Oil & Gas Extraction	1.65	411	192	87.3%	-0.6%
Mgmt. of Companies & Enterprises	0.34	298	117	64.8%	24.9%
Utilities	1.04	230	(25)	-9.8%	2.3%
Crop & Animal Production	0.27	210	25	13.7%	0.7%
Total Jobs, All Sectors		62,725	3,566	6.0%	5.0%

Source: Economic Modeling Specialists International (EMSI)

Location quotients (LQs) are a ratio of the region's share of jobs in a given sector divided by that same sector's share of total jobs nationwide.

Zip code level data has been used to derive city-level estimates of jobs for Norman and all comparison areas. The following zip codes were included in the estimate for Norman: 73019, 73026, 73069, 73070, 73071, 73072, 73068.

Not surprisingly, the community's largest sector is government. Private sector employment growth has largely been fueled by job growth in retail trade; accommodation and food services; health care and social assistance; and professional, scientific, and technical services. In total, these four sectors added more than 7,000 jobs between 2006 and 2016. Further, growth within each of the sectors far outpaced the national average. However, most of these sectors are traditionally "local-serving." In general, the retail trade, food

services, and health care sectors are largely supported by nearby residents. As such, they do not bring much new money into the region; that is to say, they are not “export-oriented.” Rather, they tend to primarily recirculate money in the local economy. These business operations primarily serve the local and region population given that most people tend to shop and dine at establishments near where they live. In addition to being primarily local-serving and having limited growth opportunities, jobs within these sectors tend to be lower skilled and provide lower wages. In 2016, the average wage for workers in retail trade was \$27,498, while workers in accommodation and food services had an average wage of \$15,690. In comparison, the average wage for all jobs in Norman was \$38,082.

Yet, when it comes to employment opportunities that will help increase wealth and prosperity, Norman has a lower concentration of jobs in sectors that are export-oriented and those that pay higher wages. Export-oriented sectors include sectors such as manufacturing and finance, which bring new wealth into the community by selling goods and services to businesses and consumers beyond the immediate area. In 2016, average earnings for manufacturing jobs in Norman was \$56,181, while finance and insurance jobs had an average earnings of \$51,202. However, data show that employment within many of these higher-paying, export-oriented sectors is less concentrated than the national average.

Norman’s economic composition is partially a reflection of its lower educational attainment rates. Norman has a lower concentration of jobs in even the traditional white collar jobs that are typically found in university towns, such as information services. Economic activity in this sector and others like it is typically much more robust around research universities. The location quotient for the information sector in Norman is just 0.61. In comparison, jobs in information are highly concentrated in Boulder; its location quotient was 2.67. In Ann Arbor, the information sector’s location quotient was 1.11, while it was just 0.84 in Lawrence.

Professional, scientific, and technical services has experienced rapid growth in Norman over the past decade. Between 2006 and 2016, the city added more than 1,000 jobs within this sector and employment grew by 35.7 percent. Its growth rate was roughly double that of the nation’s. Yet, even with such rapid growth, the concentration of jobs in professional, scientific, and technical services was roughly equivalent to the national average in 2016. As with the information sector, Norman’s location quotient was much lower than its comparison cities of Ann Arbor (LQ=1.30), Boulder (2.91), and Lawrence (1.22). **Despite having a lower concentration of jobs compared to the benchmark communities, the rapid job growth in professional services over the past decade is a positive finding and is a clear few bright spot in Norman’s economic story. The same is true for observed growth in the arts, entertainment, and recreation sector. This** can reasonably be interpreted as a sign of growing capacity in an area that is highly connected to amenities, culture, and quality of life offerings that influence residential location – and increasingly business location – decisions.

Although much of the private sector job growth was in locally-serving and lower-paying sectors, growth in professional, scientific, and technical services is also encouraging as these new opportunities can expand wealth and raise standards of living. In Norman, average earnings in professional services were roughly 40 percent higher than the city’s overall average earnings. And indeed, growth in the professional services and health care sectors is fueling average wage growth across the region, sufficient to overcome the downward pressure on average wages born from growth in lower wage sectors such as retail and food service. Wages grew by 16.1 percent between 2011 and 2016. In the Oklahoma City metro area, average wages increased by 10.0 percent, while nationally, wages increased by 11.4 percent. Although the average wage in Norman

trails its comparison communities, the Oklahoma City metro area, and the nation, recent wage and earnings growth demonstrates that it is gaining ground. However, this positive finding with respect to wage growth must be considered alongside other trends observed for the resident population. Recall that wages are earned and reported based on place of establishment; that is to say, wages and earnings data captures many non-residents that are commuting into the region for work. **Recalling that household income growth has been relatively sluggish in Norman and the educational attainment levels of residents have deteriorated, it is plausible that much of the lower-wage job growth in Norman is being captured by Norman residents, whereas much of the higher-wage job growth is being filled by non-residents that are commuting to Norman.**

FIGURE 17: AVERAGE WAGES, SALARIES, AND PROPRIETOR EARNINGS (2016)

	AVERAGE ANNUAL EARNINGS			EARNINGS AS A % OF U.S. AVERAGE		
	2011	2016	% Change ('11-'16)	2011	2016	Change ('11-'16)
Norman, OK	\$32,801	\$38,082	16.1%	71.6%	74.6%	+3.0%
Ann Arbor, MI	\$45,155	\$51,014	13.0%	98.5%	99.9%	+1.4%
Boulder, CO	\$52,804	\$59,655	13.0%	115.2%	116.8%	+1.6%
Lawrence, KS	\$33,050	\$36,296	9.8%	72.1%	71.1%	-1.0%
Oklahoma City MSA	\$40,645	\$44,699	10.0%	88.7%	87.5%	-1.1%
United States	\$45,841	\$51,064	11.4%	-	-	-

Source: Economic Modeling Specialists International (EMSI)

Wage rates are a double-edged sword in economic development. On one hand, relatively high wage rates are often a reflection of a highly educated, skilled, and/or productive workforce. On the other hand, they reflect a key business cost and exorbitant wage rates can deter some employers that have particularly labor-intensive operations. Survey respondents who self-identified as a business owner, executive, or manager were asked to answer a series of questions related to Norman's overall business climate, including questions related to labor costs. These survey respondents were asked to rate the degree to which each attribute was an advantage of disadvantage to existing and prospective new businesses in Norman.

FIGURE 18: LABOR PRODUCTIVITY AND LABOR COSTS (2016)

	Average Labor Productivity (Regional Output/Jobs)	Average Labor Cost (Total Earnings/Jobs)	Return on Labor (Productivity/Cost)
Norman, OK	\$94,457	\$45,912	2.06
Ann Arbor, MI	\$96,503	\$57,453	1.68
Boulder, CO	\$117,556	\$69,722	1.69
Lawrence, KS	\$66,327	\$34,703	1.91
Oklahoma City, OK MSA	\$119,210	\$64,028	1.86
United States	\$117,350	\$67,832	1.73

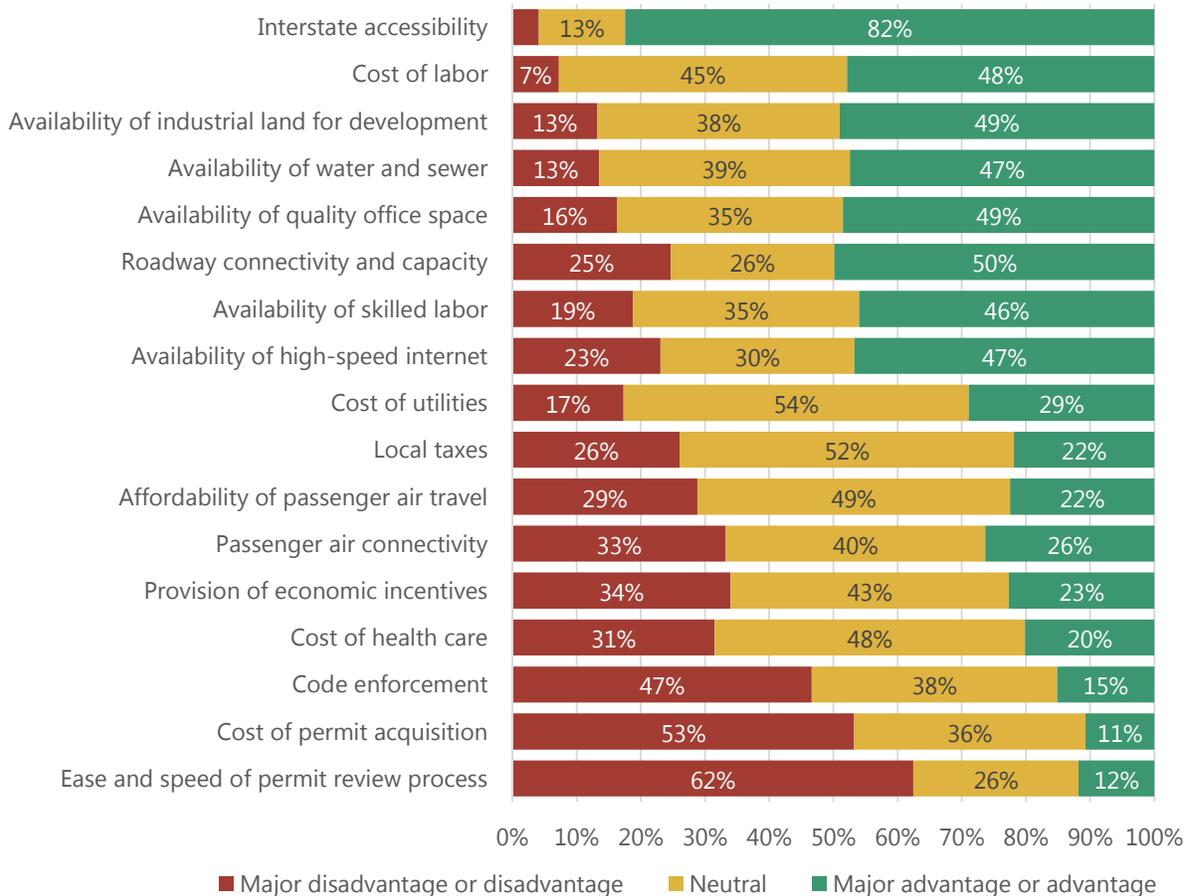
Source: Economic Modeling Specialists International (EMSI)

Roughly half of survey respondents felt that the cost of labor in Norman was an advantage or major advantage to the existing and prospective new businesses, while just seven percent felt that they were a disadvantage or major disadvantage. These positive evaluations may in part reflect another clear strength

for the Norman economy: the return on labor received by the average employer. Labor productivity is a standard measure of output per employee. Labor cost is a standard measure of wages paid per employee. By examining the ratio of the two concepts, we can determine the average return on labor investment in a given community. In Norman, the ratio of productivity to cost is 2.06, considerably higher than the average American community (1.73) and higher than all comparison areas including the metropolitan average (1.86). In other words, on average, for every dollar spent on employee earnings (wages, salaries, benefits, and other compensation), there is \$2.06 in output (as measured by gross regional product).

Certain survey findings seem to conflict with some of the input received via interviews and focus groups, as well as comments on other portions of the survey. An impressive 82.5 percent of respondents felt that the **interstate accessibility** was a major advantage or advantage to Norman’s business climate. The community has direct access to just one interstate (35) but is proximate to Interstates 40 and 44. These high evaluations likely reflect this regional proximity as direct access to a single interstate is not a marketable differentiator.

FIGURE 19: SURVEY QUESTION: “PLEASE RATE THE FOLLOWING ELEMENTS OF NORMAN’S BUSINESS CLIMATE ACCORDING TO THE DEGREE TO WHICH EACH IS AN ADVANTAGE OR DISADVANTAGE TO EXISTING AND PROSPECTIVE NEW BUSINESSES.”



Source: Market Street Services; Norman Strategic Plan for Economic Development Survey (2017)

Question was presented to 364 survey respondents that self-identified as owners, executives, or managers at their place of employment.

Perhaps even more surprising is the relatively favorable rating given to **roadway connectivity and capacity**; 50 percent indicated that it was an advantage to some degree while just 25 percent indicated that it was a **disadvantage**. This positive evaluation is a bit surprising given the frequency with which residents made comments about traffic congestion, poor roadway connectivity, and difficulty getting across town on the online survey. **In fact, roadway connectivity was one of the most common challenges cited in an open-ended questions about the community’s weaknesses.** It is possible that most of these respondents were expressing their dissatisfaction as commuters and residents whereas executives and business owners responding to the business climate questions evaluated roadway connectivity more favorably in the context of moving goods.

That said, any real or perceived competitive advantages in transportation infrastructure simply aren’t reflected in Norman’s economy. More so than other sectors, business in transportation and warehousing require a good location and connectivity in order to keep its business costs low. Interestingly, there are just over 500 jobs in this sector and its concentration is roughly a quarter that of the national average.

Survey respondents from the business community also felt that Norman has an advantage when it comes to the **availability of industrial land for development** and quality office space. This also seems to conflict with input from economic development practitioners and some members of the development community who cite a lack of industrial sites that are 50 acres or larger as a key impediment to manufacturing and distribution growth in the community. Survey respondents also evaluated **water and sewer capacity** favorably whereas many interviewees suggested that stormwater management was a clear priority for the community, needed to support continued economic development and the preservation of natural amenities (Lake Thunderbird).

The area of clear consensus between in-person input participants (interviewees and focus group participants) and survey respondents is in their evaluations of the cost of building permit acquisition and the ease and speed of permit review process. These were the two least-favorably rated aspects of the business climate out of 17 factors provided for evaluation. Although it is not uncommon for permit costs and times to be among the least favorably rated aspects of a community’s business climate on such a survey, conversations with interviewees and focus group participants dwelled on this subject. It is explored in greater detail in the final chapter to this Assessment.

FIGURE 20: SURVEY QUESTION: “PLEASE INDICATE THE DEGREE TO WHICH YOU BELIEVE THAT THE COMMUNITY HAS BEEN SUCCESSFUL IN THE FOLLOWING AREAS:”



Source: Market Street Services; Norman Strategic Plan for Economic Development Survey (2017)

Question was presented to 364 survey respondents that self-identified as owners, executives, or managers at their place of employment.

Overall, a prevailing sentiment and generalization emerged from conversations with business owners and developers in the Norman area: Norman is not perceived as a business-friendly city. As was mentioned, this issue will be examined in greater detail in the final chapter of this Assessment, but suffice to say, input participants emphasized that any Strategic Plan for Economic Development in Norman must examine improvements in the business climate – notably a reduction in costs and delays associated with permitting – as well as heightened support for existing business and entrepreneurs that would like to grow and expand in the community. Among survey respondents from the business community, 43 percent felt that the community has been unsuccessful at helping existing businesses overcome local barriers to growth and expansion while just 20 percent felt that the community has succeeded in this regard. Similarly, 33 percent felt the community had been unsuccessful at providing the necessary assistance to entrepreneurs and small businesses, as compared to 22 percent that felt the community had succeeded.

Input participants expressed concerns that real or perceived unfriendliness to businesses and developers could transcend the community's entrepreneurial aspirations if Norman is seen as unwelcoming, excessively costly, or otherwise unsupportive of startup activity. Input participants and survey respondents also emphasized that the capital environment is lacking with no "homegrown" venture capital or angel networks to support the community's startup potential. This is a challenge that many communities face as their most promising entrepreneurs are often forced to look outside their community and state for necessary funding.

Despite these reported challenges, self-employment is actually quite prevalent in Norman, an indicator of the community's entrepreneurial spirit and potential. Despite recent reductions in self-employment over the last decade, more than one in ten individuals (11.4 percent) are self-employed, a rate that exceeds the average American community (7.6 percent) and that of communities such as Boulder (9.6 percent) that are often considered to be among the most entrepreneurially-minded and startup-friendly.

FIGURE 21: SELF-EMPLOYMENT, SHARE OF ALL PRIVATE SECTOR JOBS (2006-2016)

	Number of Self-Employed			Self-Employed: % of Private Sector Jobs		
	2006	2016	% Change ('06-'16)	2006	2016	Change ('06-'16)
Norman, OK	5,761	5,222	-9.4%	14.9%	11.4%	-3.5%
Ann Arbor, MI	7,607	6,769	-11.0%	7.9%	7.2%	-0.7%
Boulder, CO	8,330	8,575	2.9%	10.3%	9.6%	-0.7%
Lawrence, KS	3,194	3,014	-5.6%	8.5%	7.9%	-0.6%
Oklahoma City MSA	46,241	42,919	-7.2%	9.3%	8.0%	-1.3%
United States	10,943,619	10,238,575	-6.4%	8.6%	7.6%	-1.0%

Source: Economic Modeling Specialists International (EMSI)

A few relatively new resources in the community can help advance the community's desired transition to a more entrepreneurially-minded and innovation-driven economy. Startup 405, the newly opened business incubator at OU's Research Campus seeks to fill some of the gaps in the ecosystem. The goal of the incubator is to help provide the necessary support for startups and entrepreneurs in the form of office space, mentoring, networking, and other business assistance services. Ultimately, the facility is meant to help foster job growth in businesses with exportable products and services, especially. Its location at OU's Research Campus is also intentional with hopes to better connect the start-up community with the university. It is proximate to the Innovation Hub, a resource for students that is home to the Fabrication Lab, the Center for

Entrepreneurship, and the Ronnie K. Irani Center for the Creation of Wealth, all of which help advance student ingenuity, entrepreneurship, and commercialization of technology.

Stakeholders frequently mentioned that Norman needs to do more to leverage the university and these resources, but more specifically, the research activities and specializations that have marketable applications and commercially-viable technologies within the private sector. More than just a training institution, major research universities are traditionally wheelhouses for innovation and are major sources of job creation in their communities. The most impactful research universities are surrounded by thriving ecosystems where institutional research is commercialized and spin-off activity is abundant. These powerhouses of economic activity stimulate local economies by creating jobs and attracting investment.

Stakeholders from a variety of sectors lamented that there doesn't seem to be a particularly strong relationship between the business community in Norman and the academic research interests of the University. Of course there are exceptions and success stories, many of which are related to the institution's established strength and reputation as the premier center for research and learning with respect to meteorology. But there is consensus among residents, business leaders, and community leaders that Norman's economic future should include many more success stories in areas outside of meteorology.

FIGURE 22: ACADEMIC RESEARCH & DEVELOPMENT EXPENDITURES (2010-2015)

	2010	2015	% Chg.	2015 Rank
University of Oklahoma	\$218,089,000	\$242,367,000	11.1%	88
University of Michigan, Ann Arbor	\$1,184,445,000	\$1,369,278,000	15.6%	2
University of Colorado, Boulder	\$349,449,000	\$420,775,000	20.4%	53
University of Kansas	\$267,961,000	\$311,383,000	16.2%	75

Source: National Science Foundation, National Center for Science and Engineering Statistics, Higher Education R&D Survey

When examining academic research and development expenditures, it is evident that Oklahoma University both trails its competition and is failing to make progress in closing the gap. In 2015, OU's research expenditures were considerably lower than that of the University of Colorado and the University of Kansas, despite all three institutions having roughly similar enrollment figures. The University of Michigan is considerably larger in both R&D output and enrollment. Other metrics of technology transfer and commercialization reflect similar gaps with peer institutions; OU trails its peers in licensing activity, licensing income, startup creation, and patent issuance.

FIGURE 23: UNIVERSITY COMMERCIALIZATION ACTIVITY (2015)

	Licenses and Options Executed	License Income Received	Startups	Patents Issued
University of Oklahoma	13	\$1,594,055	3	10
University of Michigan	164	\$78,779,947	19	159
University of Colorado	55	\$6,311,884	13	56
University of Kansas	44	\$9,832,208	1	38

Source: Association of University Technology Managers (AUTM)

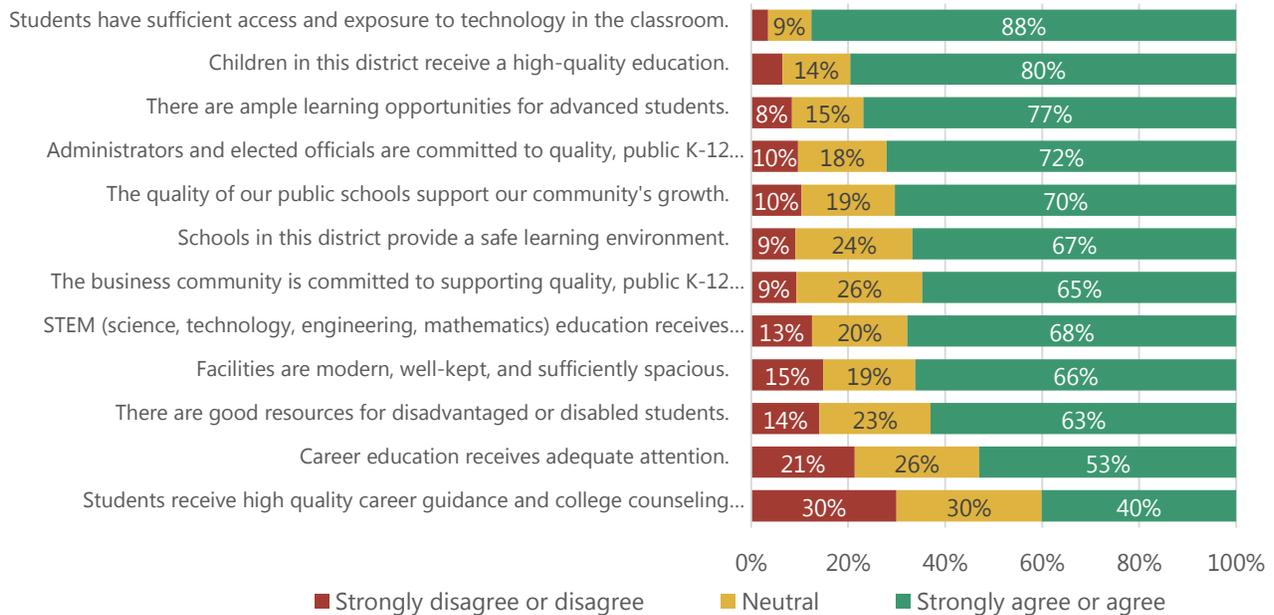
As mentioned previously, Oklahoma was hit hard by the recession and has suffered as a result of a downturn in the energy sector and decreasing sales tax. In response to these shortfalls in revenue, Oklahoma has made significant cuts to its education funding. Districts across the state have taken a variety of approaches to accommodate such deep cuts to their budgets. Some have had to increase class sizes or cut programs, while others have shifted to a four-day school week. Many districts have had to eliminate teaching positions or leave vacant position unfilled. Further compounding the issue is the fact that Oklahoma has one of the lowest average salaries for teachers and it has not raised teacher salaries in nearly a decade. This has reportedly made attracting and retaining teachers even more challenging. These issues and record cuts in education funding have brought national attention to the state of Oklahoma.

At the postsecondary level, state appropriations have also fallen. This has resulted in increases to the cost of tuition at the majority of the state's higher education institutions. According to the Center on Budget and Policy Priorities, state spending per student in Oklahoma for higher education fell by 34 percent between 2008 and 2017.ⁱⁱ Only five states experienced large declines in state spending per student. Without a doubt, educational offerings influence location decisions of both people and businesses. Companies are attuned to the fact that their employees value quality educational choices for their families. Likewise, where a job is located and what the community offers is a significant factor for an individual that is weighing an employment opportunity. As such, the community and its offerings ultimately influence the type of talent that a company can successfully hire. In addition to talent attraction, a quality talent pipeline ensures companies that the community is able to develop homegrown talent to meet the workforce needs of employers.

Effective talent pipelines for workforce development and talent production begin far earlier than college and career development, with some beginning as early as prenatal education. There are many studies that detail the numerous benefits that early childhood education has on an individual, and evidence shows that access to quality pre-K is an important determinant of a child's lifelong economic prosperity and personal well-being. Within early childhood education, Oklahoma has been a pioneer among states in providing free, quality pre-K for all children in its school districts. Despite significant cuts in education funding in recent years, Oklahoma has continued to be a top state for preschool participation. According to the National Institute for Early Education Research (NIEER), 74 percent of 4-year olds in Oklahoma were enrolled in pre-K in 2016, and the state ranked third in access. Norman Public Schools (NPS) offers its pre-K program at all elementary sites within the district for children 4-years old. Though more could be done to provide access to pre-K for 3-year olds, Oklahoma remains a leader in early education for providing state-funded pre-K programs for its 4-year olds.

At the K-12 level, survey participants were asked a series of questions about the school districts with which they were most familiar. Roughly 92 percent of these responses were from students and parents of current or previous students at NPS, and the results that follow are restricted to those evaluating NPS. **Overall, NPS received favorable ratings across a broad range of aspects related to its K-12 offerings. In fact, the majority of survey participants agreed or strongly agreed with all but one of the statements related to the quality of offerings and/or student outcomes within NPS. An impressive 79.6 percent of these respondents felt that children in the district receive a high-quality education. Survey respondents also overwhelmingly agreed that students have sufficient access and exposure to technology in the classrooms and that there are ample learning opportunities for advanced students.**

FIGURE 25: SURVEY QUESTION: "PLEASE RESPOND TO THE FOLLOWING STATEMENTS ABOUT THE SCHOOL DISTRICT* WITH WHICH YOU ARE MOST FAMILIAR." *REPORTED RESPONSES LIMITED TO 705 STUDENTS AND PARENTS OF STUDENTS ATTENDING NORMAN PUBLIC SCHOOLS IN THE LAST FIVE YEARS



Source: Market Street Services; Norman Strategic Plan for Economic Development Survey (2017)

Questions was presented to 705 survey respondents that self-identified themselves as having attended or having a child that attended NPS at any point in the past five years.

Stakeholders from around the community reported that the K-12 school district used to be one of the main reasons that families moved to Norman and is still an attractive quality of young families. Of the survey respondents, 70.4 percent agreed with the statement that the quality of our public schools support our community's growth. However, stakeholders also expressed concern that Norman is not attracting as many families seeking its school district as it has in recent decades. Input participants reported that Norman is increasingly facing competition from other metro cities whose facilities and student outcomes have improved.

FIGURE 26: K-12 PERFORMANCE INDICATORS, STUDENT OUTCOMES, TEN LARGEST METRO DISTRICTS

District	Graduation Rate (2015 cohort)	Dropout Rate ('14-'15)	Average ACT Score ('15-'16)
Deer Creek	>= 95%	0.2%	23.6
Edmond	93%	0.9%	23.6
Midwest City-Del City	92%	0.5%	19.3
Choctaw-Nicoma Park	91%	0.8%	20.9
Yukon	91%	1.1%	21.9
Mustang	89%	1.9%	21.4
Moore	82%	1.6%	21.6
Putnam City	82%	2.0%	18.1
Norman	78%	1.3%	23.0
Oklahoma City	74%	2.8%	17.4

Source: Oklahoma Department of Education

In general, these sentiments are supported by the district's performance metrics. Across a variety of indicators, NPS outperformed the state average. At the two high schools in the district, Norman North High School and Norman High School, 82 percent and 77 percent, respectively, of students passed the state's assessment exams, aggregated across subjects. In comparison, 67 percent of students statewide passed. **However, when compared to other large school districts in the metro area, NPS trails in some key metrics. Out of the ten largest district in the region, the graduation rate trailed all but the Oklahoma City School District. In 2015, 78 percent of NPS students graduated in four years. In comparison, 93 percent of students at Edmond Public Schools and 82 percent of students at Moore Public Schools graduated in four years.** It has been suggested that some reporting errors in Norman public Schools resulted in abnormally low graduation rates in 2015. It is anticipated that reported graduation rates for more recent years will reflect better student outcomes.

Edmond and Moore were often cited by stakeholders at cities that Norman competes with in the metro area for both residents and jobs. Stakeholders reported that school facilities in these communities have better "curb appeal" which influences residential location decisions. Data show that school districts throughout the metro have indeed grown and improved their performance outcomes. Many of these districts are in nearby communities that Norman may be competing with for jobs and residents, especially families with young children enrolled in public school. Norman is now the fifth largest school district in the metro area. Over the past five years, enrollment increased by 6.1 percent at NPS, while the districts in Edmond and Moore grew by 11.0 and 7.4 percent, respectively. It is evident from the data covering students eligible for free and reduced price lunches that the relative composition of student bodies is changing: Norman Public Schools are increasingly accommodating children with financial needs whereas Moore and Edmond are increasingly attracting students from higher income households. While some may lament these changing socioeconomic composition of the student body, a community whose schools are able to produce comparable (or in some cases, better) average student outcomes for a student body with lower average socioeconomic status – and accordingly, a variety of measured disadvantages – should be proud of this fact.

FIGURE 27: CHANGE IN K-12 ENROLLMENT, TEN LARGEST METRO DISTRICTS

District	TOTAL ENROLLMENT		FREE/REDUCED LUNCH	
	Enrollment (2017)	Percent Change (2012-2017)	% Free/Reduced Lunch (2017)	Percentage Point Change (2012-2017)
Oklahoma City	38,989	0.8%	84.4%	-4.0%
Edmond	24,403	11.0%	26.7%	-1.7%
Moore	24,355	7.4%	45.3%	-1.7%
Putnam City	19,476	1.8%	78.6%	6.2%
Norman	15,942	6.1%	48.8%	1.6%
Midwest City-Del City	14,303	-1.5%	69.8%	6.9%
Mustang	11,031	20.2%	37.6%	3.2%
Yukon	8,479	10.1%	44.0%	6.9%
Deer Creek	5,903	39.3%	10.2%	3.6%
Choctaw-Nicoma Park	5,772	10.1%	44.3%	6.1%

Source: Oklahoma Department of Education

Although NPS received high ratings in nearly every category, input participants rated its college and career preparation less favorably. Among the K-12 statements that survey participants were asked to rate, roughly 30 percent of respondents strongly disagreed or disagreed with the statement, “students receive high quality career education and college counseling services.” This statement received the least favorable rating among the 12 statements that survey participants were asked to rate. Following this, “career education receives adequate attention” received the second lowest rating. Many survey participants reported that there was an insufficient supply of career counselors, and that the few that are in the schools are overloaded and cannot possibly serve all the students with career guidance. Additionally, stakeholders expressed concern over “students falling through the cracks” and outreach to students that are not college bound.

FIGURE 28: HIGHER EDUCATION ENROLLMENT & COMPLETIONS PER 1,000 RESIDENTS (2015-2016)

	Total Enrollment	Total Certificates	Total Degrees	Associate's degrees	Bachelor's degrees	Master's degrees	Doctorate degrees
Norman, OK	74.3	2.0	11.2	3.2	5.0	2.2	0.8
Ann Arbor, MI	76.7	1.6	12.8	2.2	6.5	3.3	0.8
Boulder, CO	95.3	2.7	12.7	1.9	7.1	2.8	0.8
Lawrence, KS	53.3	0.3	11.4	0.2	6.9	2.9	1.4

Source: National Center for Education Statistics, IPEDS; Economic Modeling Specialists (EMSI)

Note: The figures were derived by using population estimates and education institutions within a 25 miles radius from each of the cities. Enrollment figures are for the 12-month unduplicated headcount total.

To measure the higher education capacity in Norman against its benchmark cities, enrollment figures and certificate and degree output of the higher education institutions within 25 miles of each of the cities was aggregated and is displayed per 1,000 residents in the accompanying. The data shows that degree output in Norman was roughly equivalent to that of Ann Arbor, Boulder, and Lawrence. An analysis of the degree output by award level indicates that the capacity in Norman at the four-year and higher level is slightly less than that of its peers. However, Norman has a high capacity of associate degree output compared to the other cities. Certificate competitions per capita trailed Boulder but exceeded both Ann Arbor and Lawrence.

Moore Norman Technology Center (MNTC) was spoken highly of by stakeholders from around the community. Catering to both adults and high school students, the education center is a valuable asset to the community that can be leveraged to improve the skills of residents and the city's overall workforce. MNTC has program advisory committees in place with business and industry leaders. The programming is therefore designed to meet industry standards in order to train or retrain individuals into relevant, up to date, and in-demand careers. According to the 2015 Progress Report to Taxpayers, 90.9 percent of MNTC graduates were employed or continued their education upon graduation. In addition to training the area's residents, MNTC is a valuable asset that can be marketed to existing and potential companies. With that said, those familiar with MNTC reported that there are capacity limitations and that there are waiting lists for many programs. Demand in health care fields and cybersecurity is reported to be strong, while there is interest in potentially developing curriculum in the fields of aviation and robotics.

Without question, Norman is fortunate to be home to the University of Oklahoma, a major asset with tremendous training capacity. The university offers many opportunities to the city, including the means to improve the community's educational attainment rates. In addition to the fact that major research universities typically attract highly educated administrative and faculty to work at the institutions, OU produces a fresh supply of thousands of new graduates every year. These new graduates have the potential to support the

5. QUALITY OF LIFE IN A UNIVERSITY TOWN

In recent years, the relationship between quality of life offerings and economic development competitiveness has strengthened. Companies rate access to a skilled and talented workforce as a top site selection component that is driving location decisions. At the same time, young workers are increasingly prioritizing where they want to live before an employment opportunity. Consequently, quality of life and place offerings play a significant role in a community's economic opportunities. A community's built environment and amenities are therefore about more than just creating a nice place to live for residents; they are intrinsically linked to the community's economic development and prosperity.

The role that quality of place and quality of life play in community and economic development is possibly best supported by the insightful research conducted by the John S. and James L. Knight Foundation and Gallup. The report, "Knight Soul of the Community 2010," was a three-year study that sought to determine what factors attach residents to their communities and to what degree community attachment impacts economic growth and well-being. The report defines community attachment as, "an emotional connection to a place that transcends satisfaction, loyalty, and even passion. A community's most attached residents have strong pride in it, a positive outlook on the community's future, and a sense that it is the perfect place for them. They are less likely to want to leave than residents without this emotional connection. They feel a bond to their community that is stronger than just being happy about where they live."

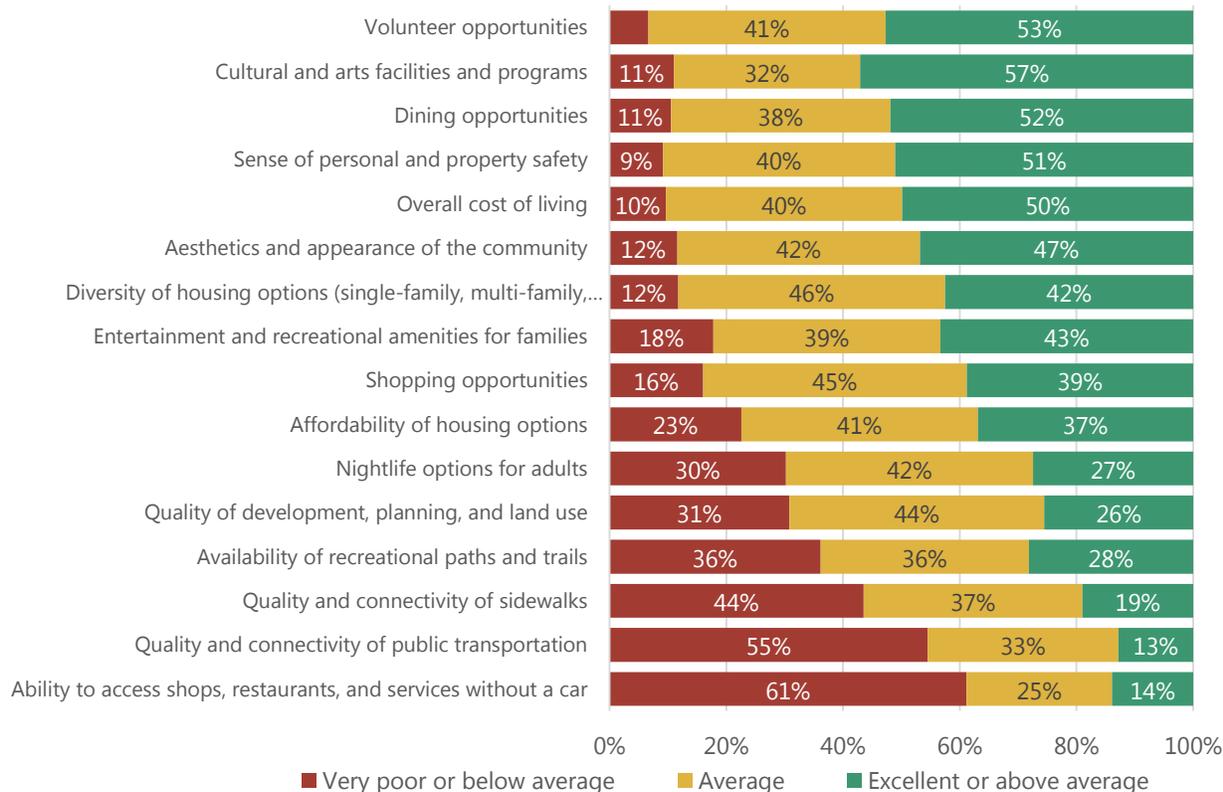
According to the report, there are three factors that primarily drive community attachment:

- ✓ **Social offerings** (such as entertainment infrastructure, community events, places to meet people)
- ✓ **Aesthetics** (physical beauty, green spaces, etc.)
- ✓ **Openness** (how welcoming a place is to different types of people)

The report found that if people are attached to their community then they are more likely to engage in it and help make it a better place. Beyond that, residents that are more attached to their community are also more likely to shop and dine locally, ultimately benefiting the local economy. Further, employees that are activity engaged and attached to their community often lead to increased productivity, profitability, and higher rates of employee retention. In other words, the report found a positive relationship between communities with higher levels of community attachment and those that were economically successful, underscoring the importance that emotional attachment plays in the well-being of a community.

There are many factors that influence the attractiveness of a community's quality of life and place offerings. These factors can be extremely subjective and their desirability can vary depending on the constituency. College students, young professionals, families with young children, and retirees all place varying degrees of importance on certain factors. For example, families with young children are likely to place a greater degree of importance on a community's public schools when choosing where to live, while young professionals are increasingly choosing more urban lifestyles that afford them the life-work-place lifestyle. At the same time, retirees are seeking cities where they can age in-place and remain active in a community. While the degree to which these quality of life offerings may vary among these groups, there are many commonalities that exist among them. Survey participants were asked to rate a variety of quality of life and place aspects related to Norman's quality of life, the results of which can be seen in the accompanying figure.

FIGURE 30: SURVEY QUESTION: "PLEASE RATE THE FOLLOWING ASPECTS OF NORMAN'S QUALITY OF LIFE, BASED ON YOUR EXPERIENCES WHERE YOU LIVE."



Source: Market Street Services; Norman Strategic Plan for Economic Development Survey (2017)

The remainder of this section details some of the specific factors affecting the quality of life and place and summarizes certain key themes that were heard throughout the input sessions and through the online survey, beginning with factors that drive community attachment.

SOCIAL OFFERINGS: Overall opinions varied regarding the quality of the entertainment options, community events, and places to meet people that currently exist in Norman. Many input participants commented that Norman was a good place to raise a family and that OU’s Campus Corner was a fun gathering place for college students. Over half of survey respondents felt that the city’s dining opportunities were excellent or above average, and 43.3 percent felt that Norman had excellent or above average entertainment and recreational amenities for families.

Stakeholders also spoke highly of the city’s cultural and arts facilities and programs and reported that Norman is home to a robust and thriving arts community. It received the highest rating among the various quality of life factors with 57.1 percent of respondents rating it as above average or excellent. Input participants reported that the arts and cultural community was also one of the few areas where the city and university really worked together. The museums and cultural offerings both on and off campus are assets to the community. Overall, Norman’s arts and non-profits support over 1,500 full-time jobs and bring in over \$4.8 million in local and state tax revenue. In total, the economic impact of the city’s arts non-profits topped \$56 million in 2015.

Additionally, input participants spoke favorably of the many community events and festivals. Yet, despite Norman unofficially being dubbed the “city of festivals,” individuals commented that the city was missing the necessary infrastructure to support festivals. It was also reported that Norman lacked decently-sized concert venues and that the university’s facilities aren’t available to the public, making it difficult for the community to bring in larger attractions.

At the same time, input participants reported that although Norman has numerous amenities and community offerings related to quality of life, more was still needed to make the city an attractive place to live for all residents. As one survey participant put it, *“While I think Norman has improved its entertainment opportunities in recent years, I feel like most still center around the university. Don’t get me wrong — I love Jazz in June, the Music Fest, and the Art Walks, I don’t think that there is much of a culture for an ‘everyday’ nightlife once you leave the University or Main Street.”*

Many stakeholders commented that beyond families and college students, the social offerings in Norman were below average and that many of neighboring cities, including Oklahoma City, offered far better entertainment options for young professionals, especially. One survey participant commented, *“I find myself constantly going to Oklahoma City to have a night out - to go to a fancier restaurant, to find a bar that isn’t inundated with college students, or to find a place to dance where I, at 28, don’t feel completely out of place because everyone else is 20-22.”* Feedback from the survey of OU students in the Brand Dig study reported that, *“The city is viewed as a homey, quaint and exciting college town with a fun atmosphere and good people. However, while these brand attributes are important to students, they do not necessarily translate well to the next stage of their life: their metamorphosis into Young Professionals.”*

Likewise, stakeholders suggested that the community must continue to prepare for a population that is rapidly aging. This includes an emphasis on walkability and amenities for seniors. Some expressed that the community lacked a modern senior center, while others expressed skepticism about the likelihood that a planned new senior center approved by voters in a recent referendum would receive the necessary funding.

AESTHETICS: Roughly 47 percent of survey participants felt that Norman’s aesthetics and appearance was excellent or above average. Open-ended responses revealed that many felt that Norman has many beautiful areas, particularly the University’s campus, but that there was a wide disparity throughout the community and the beauty on campus doesn’t extend throughout the city. Many spoke of this issue in the context of “first impressions” and resident pride.

OPENNESS: In general, Norman’s openness and acceptance of individuals from all backgrounds was mentioned as positive community attributes. As the United States continues to diversify, openness and acceptance are important characteristics of a community if it wants remain competitive for talent and jobs. **Norman’s comprehensive plan update, PlanNorman, also asked survey participants about a variety of community factors. When asked to evaluate certain community values, a safe and inviting community was rated as the most important value among individuals that participated in public workshops.**

Norman’s race and ethnic distribution shows that the city has a high share of its population that is white, not-Hispanic. However, similar to communities across the county, its diversity is growing. Between 2011 and 2016, the share of the population that is Hispanic increased by 1.4 percentage points, while the share that is white, non-Hispanic fell by 4.4 percentage points. In the Oklahoma City metro area, the share of the

population that is Hispanic increased by 1.3 percentage points, while white, non-Hispanics fell by 2.3 percentage points.

Survey respondents were asked to rate the degree to which they agreed or disagreed with the statement, "Norman is a welcoming and inclusive community to people of all backgrounds." Approximately 63 percent of survey participants strongly agreed or agreed with the statement, while 22.3 percent were neutral. Only 14.3 percent strongly disagreed or disagreed with the statement. Input participant frequently stated that Norman's diversity was a competitive advantage relative to other communities in Oklahoma. This distinction included the fact the university attracts individuals from all over the world to Norman. Additionally, the university's more liberal base was viewed as balancing the more conservative base in Oklahoma. But many new residents reported that the community was not as diverse or inclusive as they would like. And others have emphasized that Norman competes with communities across the country and the world, and not simply those in Oklahoma with which Norman may view itself favorably with respect to openness, inclusion, and tolerance. According to representatives from the University, students from large, more diverse regions of the country can find Norman to be less diverse and potentially less tolerant of diverse backgrounds and viewpoints than their hometown. It was also reported that some non-white students find Norman to be "isolating."

An incident in 2015 at the University in which two students were seen on video singing a racist song brought the issue of diversity and tolerance to the forefront of community conversation in Norman just three years ago. The University responded quickly with condemnation, hiring of a Chief Diversity Officer, and the development of a five-hour diversity training course for incoming freshman and transfers, among other actions. These are important steps for any community, particularly one that seeks to enhance retention of college graduates and support more diverse, innovative economic development. Immigrant entrepreneurs start more than a quarter of all new businesses in the United States despite representing just 13 percent of the population; they are nearly twice as likely to start a business as their native-born counterparts. Communities that welcoming and inclusive of diverse populations, including but certainly not limited to immigrants, will be better positioned to support economic growth through entrepreneurship.

HEALTH CARE: Few public input participants referenced the community's health care system or public health outcomes when discussing community strengths and weaknesses but of those who did, most suggested that the community's health system – Norman Regional Health System – afforded residents with high quality options for care. Health care services are a key but often overlooked component of a community's quality of life offerings, a component that will become increasingly important to communities that wish to be attractive destinations for retirement and/or aging in place. But according to data covering the number of physicians employed per capita, Cleveland County ranks 9th out of ten communities examined in the Competitive Scorecards that accompany this Assessment. With respect to health outcomes, the data suggest that Cleveland County is in a similarly poor position: it ranks 9th in the percentage of adults with a BMI greater than or equal to 30, and 8th in the percentage of adults reporting poor or fair health.

RECREATION: Many lamented the lack of a coastline or mountains, and cited the region's terrain and lack of such features as challenges in talent recruitment. A cleaner Lake Thunderbird was cited as having tremendous potential to improve Norman's quality of place by providing a compelling natural amenity. However, input participants stated that Lake Thunderbird's trails are currently overgrown and that the area is dirty, and therefore, underutilized. Overall, 36.1 percent of survey respondents felt that the availability of

recreational paths and trails were very poor or below average. During this input process and during the city's Comprehensive Plan Update, residents have repeatedly expressed a desire for more quality parks and trails.

CONNECTIVITY, WALKABILITY, AND TRANSPORTATION: Among the various quality of life factors that survey respondents were asked to rate, connectivity and walkability received the least favorable ratings. Roughly 61 percent of survey participants felt that the ability to access shops, restaurants, and services without using a car was below average or very poor. Likewise, 55 percent of respondents felt similarly about the quality and connectivity of public transportation, while 43.6 percent reported that the quality and connectivity of sidewalks were below average or poor. Combined, these three aspects of Norman's quality of life have important implications on its competitive future.

Both nationally and in Norman, there is a strong desire for walkable areas that offer the "live, work, play" lifestyle. Campus Corner was mentioned as perhaps the one area of town that residents could potentially walk to restaurants and shops. However, even it lacks the ability to walk to places such as a grocery store. But as one survey participant noted, *"there's nowhere that you can really just park your car and walk around for shopping, dining or entertainment. You can't even do this on Campus Corner because the parking meters are for a limited amount of time and you can't feed the meter again. You must move your car. If I'm going to move my car, I'm probably going to just leave."*

One available indicator, Walk Score, measures walkability on a scale from 0 - 100 based on walking routes to destinations such as grocery stores, schools, parks, restaurants, and retail, with 100 indicating that a city is very walkable. Norman has a Walk Score of 30, trailing the walkability ratings of its peers (Ann Arbor, 51; Boulder, 58; Lawrence, 40).

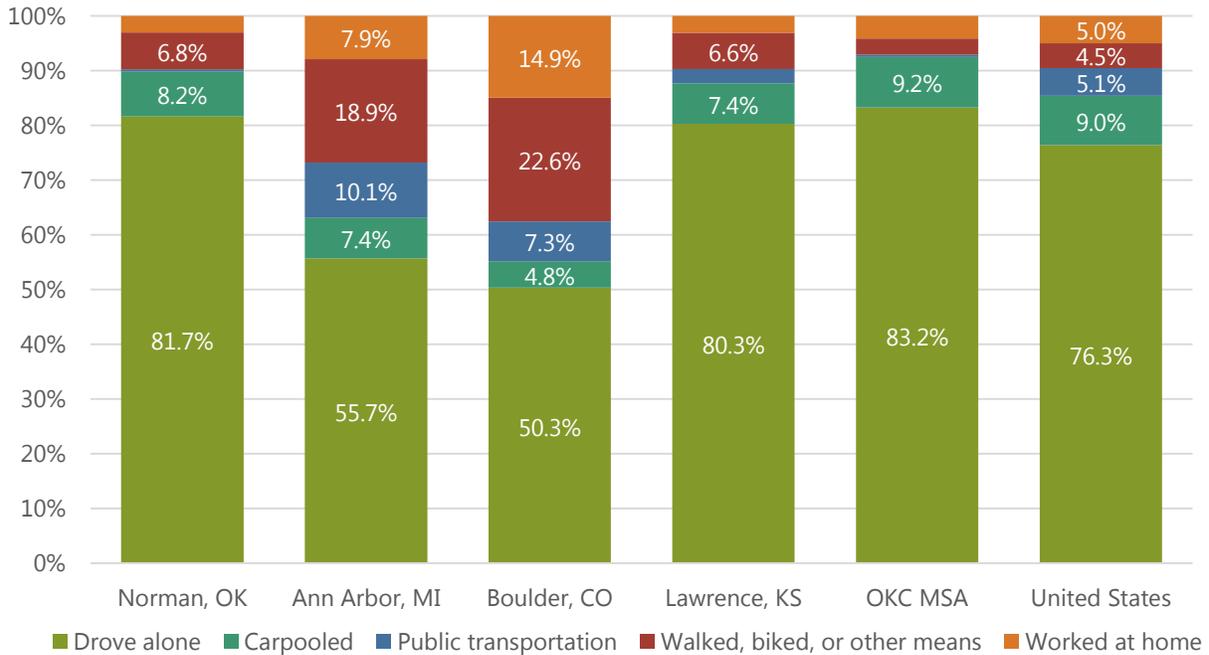
Likewise, 36.1 percent of survey respondents felt that the availability of recreational paths and trails was very poor or below average in Norman. Many stakeholders reported that while there were some bike paths available, biking around Norman was dangerous. Markings and signage to share the road are reportedly inconsistent and ineffective and many streets do not have designated bike lanes. Roads that do have bicycle lanes are reportedly narrow and not safe for bicyclists. Stakeholders, especially young professionals, frequently expressed the desire for better, safer walking and biking trails and more outdoor recreational opportunities. Overall, improving bike lanes and adding more routes, especially on the east side of town, was frequently cited as desired quality of life improvements for Norman.

Input participants also frequently cited the community's lack of public transportation as a key challenge for residents and a potential inhibitor to future talent attraction and economic development. It was one of the most frequently mentioned challenges facing the community. Over half of survey respondents (54.5 percent) felt that the quality and connectivity of the city's public transportation was below average or poor. Norman is served by the Cleveland Area Rapid Transit (CART). The buses run several route around the City and OU campus during the weekdays and most Saturdays. Although CART provides good routes for college students, the remaining residents in Norman are not as well served. Both service and connectivity is reportedly lacking and stakeholders noted it simply is not an option for many to traverse Norman.

This all adds up to the fact that Norman is a very car-dependent city. In total, 81.7 percent of workers that live in Norman commute to work by driving alone. This rate was similar to that of workers in Lawrence and the Oklahoma City metro. However, it stands in stark contrast to the commuting characteristics of workers in Ann Arbor and Boulder. In Boulder, nearly a quarter of workers walked, biked, or used another mean of

transportation to work. Traffic in Norman was frequently cited as a growing challenge. The roadways to transverse east to west through Norman are reportedly inadequate and commuting to Oklahoma City from Norman is becoming increasingly difficult. On average, it takes Norman workers 21.1 minutes to commute, slightly higher than all comparisons but more than five minutes below the national average (26.6 minutes).

FIGURE 31: MEANS OF TRANSPORTATION TO WORK (2016)



Source: United States Census Bureau, ACS 1-year estimates

It must be emphasized that a number of projects and investments are planned or underway with respects to quality of life offerings. In 2015, the City passed a one half of one percent sales tax increase to provide funding for quality of life projects. The NORMAN FORWARD project was initiated by citizens in an effort to improve the City’s quality of life offerings such as recreational facilities, libraries, parks, athletic, venues, trail, and other quality of life projects. The measure based with 72 percent of Norman votes, illustrating the strong support that residents have for improving the City’s social offerings. Since that time, progress has been made on several projects including the Central and East Branch Libraries, the Westwood Family Aquatic Center and Tennis Center, and park renovation projects. The community’s support for Norman Forward is a positive sign that residents want to invest in their city and see it grow into a more thriving and successful community.

The Center City visioning process has also helped establish a vision for development in an area connecting Campus Corner and downtown. The emergence of a more walkable, mixed-use district connecting these two activity centers could greatly enhance the community’s quality of place. Similarly, efforts are underway to evaluate the viability and financing of a new entertainment district at University North Park (UNP) that is adjacent to the Interstate and potentially home to a new arena for University of Oklahoma basketball and other functions. Such a development, inclusive of greater residential density, would improve the long-term viability and competitiveness of adjacent retail at UNP while improving the marketability of certain sites available for office development in and around the area. **This potential development at UNP has reignited what many described as a persistent “growth – no growth” debate in Norman.**

6. GROWTH, DEVELOPMENT, AND COMMUNITY VISION

Throughout input, the topic of growth and development was discussed more frequently than any other. Input participants reported that the issue is a divisive topic with passionate residents on both sides of an ongoing “growth – no growth” debate.

On the one hand, through an aversion to certain development, some residents wish to preserve the community’s character, green space, and overall size. They hope that the community will be able to mitigate traffic congestion, overcrowding of schools, and other outcomes that they worry could emerge as byproducts of continued growth. And through interviews and focus groups, it was evident that such opinions are sufficiently present and visible in the community for some input participants to categorize a segment of the community’s residents as “no growers.”

Some suggested that this was simply a “vocal minority” and the true majority opinion is not adequately represented at public meetings. But in reviewing the comments of more than 1,600 residents responding to the online survey, it is evident that resident opinions with respect to growth and development are far more nuanced than simply “growth – no growth.” Individual residents rarely speak in absolutes; rather, they describe the types of developments and built environment that they would embrace. Nearly all wish to see a community that is more accessible and walkable for young professionals and seniors alike. They acknowledge that redevelopment is necessary to help achieve these objectives. While some may express a desire to see fewer apartments built, they understand the value of providing housing is that affordable to young graduates that the community wishes to retain.

There are countless other examples of this nuance but the conclusion is the same: by and large, resident opinions reveal that the debate should not focus on the question: “Should we grow or not?” but rather, “How should we grow, where should we grow, and who should pay for it?” However, it should be noted that no community is ever unanimous in terms of how residents would like to see their city grow, who should pay for it, and where and what type of growth should occur. These debates are pervasive across the United States, but clearly more prominent in the minds of stakeholders in Norman. **Make no mistake, reasoned debate among residents and stakeholders surrounding these issues are an unquestionable positive for Norman. It is a sign that residents are attached to their community, passionate about its direction, and defensive of their vision for it. This level of engagement is an asset; communities with disengaged and apathetic populations are rarely attractive to others.**

That being said, the challenge for Norman is to ensure that the lack of *unanimity* in resident opinion does not impede the process of deriving *consensus* and advancing reasonable policy. Many stakeholders and residents observed that the aforementioned mentality inhibits progress and has resulted in a perception that Norman is not a development-friendly community. This perception hinges on both **mentality and policy**.

With regards to policy, developers and business owners cited the community’s reputation as “not business friendly” and noted that this reputation, and the policy that supports it, is the single greatest inhibitor to Norman’s growth and development. This feedback is primarily focused on challenges with permitting and it transcends multiple factors from costs, to time, to relationships. The cost of permit acquisition and the ease and speed of the permit review process were the lowest rates features of the community’s business climate by survey respondents. Stakeholders in the business community seem to be keenly aware of the relative costs of development between Norman and surrounding communities.

FIGURE 32: COMBINED WATER & SEWER CONNECTION CHARGES (APRIL 2016)

	Single-Family	Multi-Family	Commercial
Norman, OK	\$2,975	\$16,345	\$13,712
Broken Arrow, OK	\$745	\$860	\$860
Denton, TX	\$11,595	\$18,025	\$47,400
Edmond, OK	\$2,700	\$14,052	\$28,445
Lawrence, KS	\$4,235	\$20,010	\$50,325
Lawton, OK	\$2,000	\$8,000	\$8,000
Midwest City, OK	\$992	\$4,344	\$2,367
Moore, OK	\$1,300	\$3,632	\$1,300
Oklahoma City, OK	\$1,625	\$2,935	\$6,020
Stillwater, OK	\$977	\$8,080	\$10,688

Source: City of Norman Planning & Development, Water and Wastewater Connection Charge Study Report; Raftelis Financial Consultants, Inc.

The data collected makes the following assumptions for comparison purposes: single-family home assumed to be 1,500 square feet with two toilets and 0.75 tap size; multi-family development assumed to have 4 units, 2 toilets per unit, 6,000 total square feet, tap size of 1, and sewer diameter of 4; commercial development assumed to have 30 employees over 10,000 square feet with 5 bathrooms, tap size of 2, and sewer diameter of 6. The Survey was conducted in April 2016.

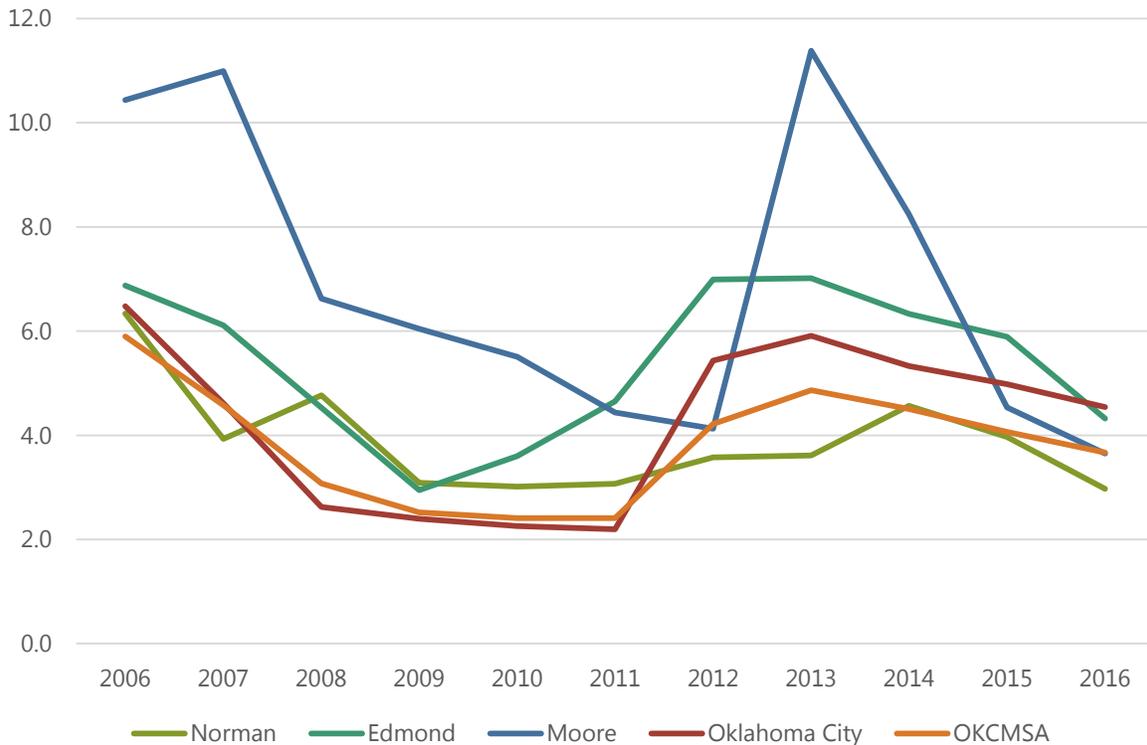
A connection charge survey conducted by Raftelis Financial Consultants, Inc. (RFC) on behalf of the City of Norman for its 2016 Water and Wastewater Connection Charge Study reveals that, beyond permitting time and costs, the anecdotal evidence is supported by data. The survey results show that costs associated with building in Norman are, in fact, higher than many of the surrounding areas and other benchmark cities, in some cases significantly so. Based on the city's existing water and sewer costs, Norman's costs are more than double that of Moore and are 10 percent higher than those in Edmond. Even the city's core, Oklahoma City, has fees that are on average \$1,350 less than what they are in Norman. **Furthermore, stakeholders have suggested that differentials in impact fees across jurisdictions may actually be larger when examined for larger homes that more closely approximate the average square footage of new housing stock in the community (as opposed to the 1,500 square foot assumption applied in the aforementioned analysis).**

It must be noted that choices about the community's development patterns, supported by policy in the form of zoning code and other factors, greatly influence the costs associated with infrastructure provision to new development. Generally speaking, communities that are characterized by sprawling, low-density, large lot developments will have higher infrastructure extension and maintenance costs than those with higher-density centers of activity. In addition, cost structures also reflect choices regarding the manner in which infrastructure costs are recovered via user charges and connection fees. All else constant, a community that elects to recover the majority of its costs through user charges should have lower connection fees, and vice versa.

In recent years, the City of Norman has taken a number of steps to help improve relationships with the business and development community. This includes but is not limited to revisions to the City Subdivision Development Regulations to streamline zoning and platting processes; hiring an additional examiner to support commercial permit review; monthly surveying on non-residential permit applicants regarding satisfaction with inspection and permitting services, and; the implementation of "brown bag" meetings between City staff, developers, and members of the Builders Association of South Central Oklahoma (BASCO) to discuss process and any concerns. **Despite these efforts, a number of business leaders and developers**

cited recent declines in the number of single-family building permits issued in Norman as a sign of the community’s true or perceived unfriendliness to developers. The implication was clear: developers are choosing to build housing in other parts of the region that are easier and/or less costly in which to build. An analysis of single-family permit issuance over time reveals that on a per capita basis, Norman has historically developed single-family housing at a rate that is comparable to other parts of Cleveland County and the metro area. In fact, Norman has, on average, consistently been permitting single-family development at a higher rate per capita than the rest of the Oklahoma City metro area from 2000 until 2012. The entire region experienced a decline the rate of development during a period that coincided with the bursting of the national housing bubble and the subsequent Great Recession. Communities and the region as a whole recovered from 2010 – 2012, but in 2012, the permitting trends began to change once again. Permit issuance rose in 2013 and 2014 in the City of Norman as the community’s housing market continued to recover, however, the rate of single-family development in the rest of the metro accelerated much faster. From 2000-2012, the City of Norman permitted 9.8 percent of the metro area’s single-family housing stock, ranging from eight to eleven percent on an annual basis. In 2012 this share dropped to 7.6 percent and further, to 6.7 percent in 2013, despite growth in total permit issuance in the City. Total single-family permit issuance began to decline in 2014, and this is the trend that is most frequently cited by the development community: from 2014-2016, the number of single-family building permits issued in Norman fell from 539 to 363 (-33 percent). On the surface, this trend may seem alarming. But it lacks some necessary context.

FIGURE 33: SINGLE-FAMILY BUILDING PERMITS ISSUED PER 1,000 RESIDENTS (2006-2016)



Source: U.S. Census Bureau; Building Permits Survey

Over the same two-year period (2014-2016), single-family permit issuance declined by 54 percent in Moore and 30 percent in Edmond. It has been suggested that much of the decline in permitting in Moore can be attributed to a spike in permitting in 2013 that followed the tornado that struck Moore that same year. It is evident that there was indeed a spike in permitting in Moore, but more recent trends mimic those observed in Norman and elsewhere: single-family permitting declined by 18.2 percent from 2015-2016 in Moore as compared to 23.9 percent in Norman and 25.7 percent in Edmond.

Meanwhile, single-family permit issuance declined by just 12.3 percent in Oklahoma City. The trends illustrate that Norman is not alone among its suburban peers in the metro area. While the anecdotal evidence that negative perceptions have hurt the city cannot be wholly discounted, it is difficult to reach the conclusion that relative differences in permitting costs or time can explain recent declines in single-family permitting. What is far more likely is that the trends observed in Norman, Moore, and Edmond relative to Oklahoma City reflect the changing residential location preferences referenced throughout this report. Developers take notice of such trends and respond accordingly. Recall that Norman and other suburban areas across the country experienced a net outmigration from their communities to the urban cores of their metropolitan regions, in many cases for the first time in decades, beginning in 2013. This trend was evident in IRS migration data from 2013 to 2014, and it is certainly reasonable to assume that residential developers took note of these trends, reflected in the form of lower demand for single-family housing and longer time on the market for existing home sales, and adjusted their building activity accordingly. Such a response to market conditions is typical.

And so, while concerns about the development environment are unquestionably justified – costs are objectively higher – it is difficult to connect recent declines in permitting activity to this development environment. Rather, the changes in permitting activity are more likely a reflection of changing residential location preferences. The concern for developers is that heightened development costs have and will continue to elevate housing prices in Norman to a level that pushes families to nearby communities, families who might otherwise choose to live in Norman. And if these concerns about cost coincide with heightened interest in places and built environments that Norman is unable to provide, the consequences could be significant for Norman with respect to its workforce and economic development objectives.

Throughout input, stakeholders frequently commented that they can “get more house for less” in neighboring communities, and that “people aren’t willing to pay more to live here anymore.” Additionally, community and business leaders reported that “executive housing” is more expensive in Norman than nearby communities, which has resulted in many prospective residents choosing to live outside of Norman.

Higher housing costs – both perceived and actual – extend to the rental market as well. Input participants reported that the lack of quality, affordable rental options make it more difficult to retain recent college graduates. Although there are affordable apartment options, many are aimed at college students, leaving young professionals and families without too many options, especially for those looking to rent a single-family house. Additionally, in 2016, roughly half of renters paid at least 30 percent of their household income towards rent – a proxy for gauging how affordable the rental market is in a community. In comparison, 45.3 percent of renters in the Oklahoma City metro area pay at least 30 percent of their household income towards rent. Stakeholders report that living options just over the Norman city-limit border are much more affordable and are a desirable alternative to the higher housing options in Norman. The provision of affordable multi-family options that are attractive to recent graduates and young professionals as opposed to those enrolled

in college will be critical to the community's ability to effectively retain graduates and create compelling centers of activity that allow residents to live, work, and play in close proximity within the City of Norman.

Norman – and Oklahoma cities in general – has a tax environment where it depends on sales tax. This creates a more competitive environment as cities work to prevent retail leakage and attempt to attract outside expenditures within their city-limits. This strategy often focuses on attracting retail establishments. While this helps to bring in additional revenue and improve the amenities available to residents in the form of shopping, **the more sustainable option is to create an attractive community where people want to live. Retailers will follow rooftops and traffic flows. And if talented people are living in a community, the evidence suggests that companies will increasingly follow that talent. Higher quality jobs bring higher disposable incomes, which then ultimately is spent in the communities where those individuals live and work. When people choose to live somewhere that affords a better quality of life or because the available housing options don't meet their needs or standards, a city losses out on that individual as a taxpayer. But it also losses out on this individual's potential as an entrepreneur, creator of the next great festival, or future elected leader. They forego the opportunity that this individual may contribute to the community's ability to realize its vision for a better future. And this is where the conversation so often breaks down in Norman: "Do we have a consensus vision for this community with respect to how we develop?"**

To reiterate, Norman must ensure that the lack of *unanimity* in resident opinion does not impede the process of deriving *consensus* and advancing reasonable policy. Stakeholders from around the community repeatedly said that Norman needs to "figure out what it wants to be" and felt that the city lacked a cohesive vision. However, a variety of recent efforts have sought to distill public input into a guiding vision for the community. This includes the City's Comprehensive Plan update, a recent branding study conducted by NEDC inclusive of the aforementioned OU student survey, and the various forms of stakeholder input from this economic development strategic planning process. **Through the various forms of public input, the general consensus in terms of future growth and development is that residents want to see Norman evolve into a thriving community that is more than a "traditional university town; one that is welcoming and inclusive to all backgrounds, capable of offering a compelling quality of place that supports graduate retention and aging in place, and capable of generating more innovative economic activities.** Leveraging the results of its OU student survey, VI Marketing and Branding identified four distinct attributes of the Norman brand: diverse, vibrant, inviting, and cultured, with a brand vision of "providing the greatest opportunity for an enriched life." The accompanying brand position statement was identified as: "To people in pursuit of a high quality of life, Norman is the Southwestern college town that offers more advantages in creating a meaningful existence." Simply put, the evidence covering migration trends and demographic change, and the input covering talent attraction and retention implies that the community still has work to do in achieving this vision and credibly advancing its brand position. This will require development of new amenities, employment centers, and other community assets like public schools. It will require the redevelopment of many existing areas of the community. And if successful in achieving this vision and brand position, it will attract growth. Communities that provide "opportunity for enriched life" and "advantages in creating a meaningful existence" are ones that people and employers will seek.

COMPETITIVE SCORECARDS

The Community Assessment is accompanied by a set of Competitive Scorecards that demonstrate how the Norman area (as measured by data covering Cleveland County) compares to nine other communities (counties) with which it competes for jobs and workers. Each scorecard evaluates competitiveness across multiple indicators that help measure how the community has performed in key areas that reflect its relative success and ability to attract, retain, and support new jobs and investment. These scorecards, the concepts they measure, and examples of the indicators they include are as follows.

1. **Economic Performance:** employment, output, wages, income, poverty
2. **Workforce Sustainability:** age composition, educational attainment, migration
3. **Innovation & Entrepreneurship:** R&D expenditures, self-employment, small business lending
4. **Business Environment:** infrastructure, business costs (utility rates, lease rates), labor productivity
5. **Quality of Life:** crime, commuting, cost of living, health outcomes, recreational amenities

Each of the five scorecards presents a series of rankings (1-10) illustrating the performance of the Norman area (as reflected by Cleveland County) against the following nine counties and communities:

1. Boone County, MO (Columbia, MO)
2. Boulder County, CO (Boulder, CO)
3. Douglas County, KS (Lawrence, KS)
4. Hays County, TX (San Marcos, TX)
5. Johnson County, IA (Iowa City, IA)
6. Lancaster County, NE (Lincoln, NE)
7. Story County, IA (Ames, IA)
8. Washington County, AR (Fayetteville, AR)
9. Washtenaw County, MI (Ann Arbor, MI)

All data for the aforementioned comparisons is collected at the county level unless otherwise indicated. County-level analysis was conducted based on data availability and coverage, and the frequency that site selectors evaluate individual communities at the county (or metropolitan area) level to capture a more regional labor shed and asset base. Scorecards include column headings with the county names and their corresponding principal city in parentheses. Rankings are color-coded with top performers appearing in shades of green, middle-of-the-pack in shades of yellow and orange, and bottom performers in shades of red. A ranking of "1" signals that the community is the top performer but does not necessarily have the highest value (for example, the community with the lowest crime rate would receive a ranking of "1"). Each scorecard is accompanied by a table displaying the data from which the rankings were derived.

ECONOMIC PERFORMANCE: RANKINGS

		Cleveland County, OK (Norman)	Boone County, MO (Columbia)	Boulder County, CO (Boulder)	Douglas County, KS (Lawrence)	Hays County, TX (San Marcos)	Johnson County, IA (Iowa City)	Lancaster County, NE (Lincoln)	Story County, IA (Ames)	Washington County, AR (Fayetteville)	Washtenaw County, MI (Ann Arbor)
Employment and Unemployment											
Employment growth rate (one-year)	2015-16	10	7	3	8	1	5	6	9	2	4
Employment growth rate (five-year)	2011-16	8	4	3	9	1	5	6	10	2	7
Unemployment rate	09/17	9	3	1	7	8	6	3	2	3	10
Establishments											
Establishment growth	2011-16	3	6	5	10	2	4	1	8	7	9
Business bankruptcy rate (per 1,000 est.)	2016	9	1	4	6	8	7	3	2	10	5
Change in business bankruptcy rate	2011-16	8	2	4	9	7	10	6	3	1	5
Exports, Output, and Productivity											
Exports per worker	2016	8	7	4	9	10	3	2	1	6	5
Gross regional product per worker	2016	5	9	1	10	7	3	4	6	8	2
Wages, Income, and Poverty											
Wages, salaries, & proprietor earnings	2016	8	7	1	9	10	3	6	4	5	2
Growth in wages, salaries, and earnings	2011-16	3	5	7	10	2	4	9	1	8	6
Per capita income (PCI)	2016	6	5	1	7	8	3	4	9	10	2
Growth in per capita income	2011-16	10	6	2	4	7	8	5	9	1	3
Total poverty rate	2015	1	7	2	10	4	8	3	9	6	5
Child poverty rate	2015	4	9	2	5	7	3	7	1	10	6
Change in total poverty rate	2010-15	2	5	4	10	6	9	3	7	1	8
Change in child poverty rate	2010-15	3	6	4	7	8	10	1	5	2	9
Average Ranking, All Indicators		6.1	5.6	3.0	8.1	6.0	5.7	4.3	5.4	5.1	5.5
Composite Ranking, All Indicators		9	6	1	10	8	7	2	4	3	5

ECONOMIC PERFORMANCE: DATA VALUES

		Cleveland County, OK (Norman)	Boone County, MO (Columbia)	Boulder County, CO (Boulder)	Douglas County, KS (Lawrence)	Hays County, TX (San Marcos)	Johnson County, IA (Iowa City)	Lancaster County, NE (Lincoln)	Story County, IA (Ames)	Washington County, AR (Fayetteville)	Washtenaw County, MI (Ann Arbor)
Employment and Unemployment											
Employment growth rate (one-year)	2015-16	-1.3%	1.1%	2.6%	0.7%	6.1%	1.8%	1.4%	0.3%	3.3%	1.9%
Employment growth rate (five-year)	2011-16	7.6%	9.8%	12.3%	6.8%	26.5%	9.1%	9.0%	6.3%	13.7%	8.3%
Unemployment rate	09/17	3.6%	2.3%	1.9%	2.9%	3.0%	2.5%	2.3%	2.0%	2.3%	3.9%
Establishments											
Establishment growth	2011-16	17.3%	8.7%	13.8%	1.6%	24.1%	16.0%	26.1%	6.2%	6.6%	2.4%
Business bankruptcy rate (per 1,000 est.)	2016	3.0	0.6	1.8	2.7	2.7	2.7	1.7	1.6	3.4	1.9
Change in business bankruptcy rate	2011-16	-1.6	-5.4	-3.9	-0.7	-2.8	0.1	-2.9	-4.7	-8.7	-3.6
Exports, Output, and Productivity											
Exports per worker	2016	\$103,408	\$121,810	\$141,177	\$97,127	\$96,414	\$145,225	\$151,185	\$161,792	\$126,860	\$138,448
Gross regional product per worker	2016	\$93,671	\$79,148	\$118,723	\$76,045	\$90,649	\$95,918	\$95,739	\$92,317	\$89,513	\$98,814
Wages, Income, and Poverty											
Wages, salaries, & proprietor earnings	2016	\$36,688	\$39,949	\$57,483	\$36,138	\$35,713	\$45,423	\$41,447	\$44,490	\$42,305	\$51,044
Growth in wages, salaries, and earnings	2011-16	14.0%	12.9%	12.6%	9.9%	14.4%	14.0%	11.4%	15.1%	12.0%	12.8%
Per capita income (PCI)	2016	\$42,201	\$43,292	\$63,707	\$39,440	\$38,912	\$47,456	\$45,484	\$38,469	\$36,776	\$52,814
Growth in per capita income	2011-16	10.9%	13.0%	23.0%	14.2%	13.0%	12.3%	13.7%	11.2%	23.5%	18.6%
Total poverty rate	2015	11.5%	17.7%	12.3%	19.4%	13.6%	18.3%	13.5%	18.6%	16.9%	14.2%
Child poverty rate	2015	12.8%	14.6%	10.9%	13.2%	14.1%	12.7%	14.1%	9.5%	21.3%	13.4%
Change in total poverty rate	2010-15	-2.0%	-1.1%	-1.3%	3.8%	-0.8%	1.3%	-1.3%	0.1%	-2.7%	1.2%
Change in child poverty rate	2010-15	-3.3%	-2.0%	-2.9%	-0.6%	-0.3%	0.2%	-3.5%	-2.2%	-3.4%	0.0%

WORKFORCE SUSTAINABILITY: RANKINGS

		Cleveland County, OK (Norman)	Boone County, MO (Columbia)	Boulder County, CO (Boulder)	Douglas County, KS (Lawrence)	Hays County, TX (San Marcos)	Johnson County, IA (Iowa City)	Lancaster County, NE (Lincoln)	Story County, IA (Ames)	Washington County, AR (Fayetteville)	Washtenaw County, MI (Ann Arbor)
Population Growth and Change											
Population growth rate	2011-16	7	8	4	9	1	3	6	5	2	10
Net migration as % of pop growth	2010-16	3	9	2	5	1	7	10	4	6	8
Labor force growth rate	2011-16	8	6	7	10	1	5	9	3	2	4
% of in-migrants w/ BA degree +	2011-15	10	5	3	2	8	6	9	4	7	1
% of in-migrants w/ no HS diploma	2011-15	7	5	1	3	6	9	8	4	10	2
Labor force participation rate	2015	7	8	6	2	4	3	1	4	10	9
Change in labor force participation	2010-15	3	9	8	5	1	5	4	1	10	7
Employment:population ratio	2016	8	7	6	2	5	3	1	4	9	9
Change in employment:population ratio	2011-16	7	10	9	5	1	6	4	2	7	3
Age Composition											
Dependency ratio (25-44/45-64)	2016	7	6	9	3	4	1	7	5	2	8
Workers aged 55+ as a share of total	2016	6	4	7	5	1	8	9	10	2	3
Educational Attainment											
% 3- and 4-year olds enrolled in pre-K	2011-15	9	5	1	4	7	2	10	6	8	3
% of 18-24 year olds enrolled in college	2011-15	10	3	7	4	6	2	9	1	8	5
% age 18-24 w/ some college or assoc.	2016	8	3	4	7	10	6	5	1	9	2
% age 25+ w/ associate's degree +	2016	8	6	1	5	9	4	7	2	10	3
% age 25+ w/ bachelor's degree +	2016	9	6	1	5	8	4	7	2	10	3
Change, % 18-24, some college/assoc.	2011-16	1	6	3	10	9	7	4	8	2	5
Change, % 25+, associate's degree +	2011-16	3	10	7	2	9	8	6	1	5	4
Change, % 25+, bachelor's degree +	2011-16	7	10	8	4	9	6	5	1	2	3
Average Ranking, All Indicators		6.7	6.6	4.9	4.8	5.3	5.0	6.4	3.6	6.4	4.8
Composite Ranking, All Indicators		10	9	4	2	6	5	7	1	7	2

WORKFORCE SUSTAINABILITY: DATA VALUES

		Cleveland County, OK (Norman)	Boone County, MO (Columbia)	Boulder County, CO (Boulder)	Douglas County, KS (Lawrence)	Hays County, TX (San Marcos)	Johnson County, IA (Iowa City)	Lancaster County, NE (Lincoln)	Story County, IA (Ames)	Washington County, AR (Fayetteville)	Washtenaw County, MI (Ann Arbor)
Population Growth and Change											
Population growth rate	2011-16	6.4%	6.4%	7.2%	6.2%	25.3%	9.6%	6.8%	6.9%	9.7%	4.5%
Net migration as % of pop growth	2010-16	64.9%	49.8%	70.6%	57.2%	80.2%	54.1%	44.9%	64.4%	54.3%	50.4%
Labor force growth rate	2011-16	4.1%	5.6%	5.2%	2.8%	22.3%	6.1%	3.0%	7.4%	14.0%	6.1%
% of in-migrants w/ BA degree +	2011-15	29.5%	48.9%	58.0%	58.4%	33.6%	48.5%	33.4%	56.6%	39.4%	58.9%
% of in-migrants w/ no HS diploma	2011-15	10.7%	9.3%	4.1%	6.3%	9.9%	11.6%	11.5%	7.8%	12.3%	4.7%
Labor force participation rate	2016	66.1%	65.8%	67.5%	71.2%	69.2%	70.7%	72.2%	69.2%	63.2%	63.9%
Change in labor force participation	2011-16	-0.1%	-3.4%	-2.7%	-1.3%	1.8%	-1.3%	-0.8%	1.8%	-3.7%	-1.5%
Employment:population ratio	2016	62.4%	63.4%	64.3%	68.6%	65.8%	68.2%	69.5%	65.9%	61.3%	61.3%
Change in employment:population ratio	2011-16	-0.4%	-1.6%	-0.6%	1.5%	3.4%	-0.3%	1.7%	2.9%	-0.4%	2.7%
Age Composition											
Dependency ratio (25-44/45-64)	2016	1.22	1.24	1.01	1.31	1.26	1.35	1.16	1.24	1.32	1.08
Workers aged 55+ as a share of total	2016	21.6%	21.3%	21.9%	21.4%	19.4%	22.5%	22.5%	22.7%	20.4%	20.9%
Educational Attainment											
% 3- and 4-year olds enrolled in pre-K	2011-15	42.6%	49.5%	62.4%	53.2%	49.1%	58.3%	39.4%	49.3%	44.4%	56.0%
% of 18-24 year olds enrolled in college	2011-15	60.2%	74.5%	65.0%	72.8%	67.7%	75.9%	61.1%	84.2%	61.5%	72.0%
% age 18-24 w/ some college or assoc.	2016	70.5%	75.7%	75.7%	73.4%	60.4%	74.4%	74.6%	79.2%	69.9%	76.3%
% age 25+ w/ associate's degree +	2016	42.9%	52.4%	66.6%	58.2%	42.1%	61.8%	51.3%	63.3%	37.6%	62.0%
% age 25+ w/ bachelor's degree +	2016	33.2%	43.9%	60.6%	52.0%	36.1%	54.0%	40.2%	54.8%	32.7%	54.8%
Change, % 18-24, some college/assoc.	2011-16	9.8%	-6.5%	-0.1%	-16.3%	-11.8%	-7.4%	-0.7%	-7.6%	8.1%	-2.3%
Change, % 25+, associate's degree +	2011-16	4.8%	-1.0%	2.6%	6.4%	0.9%	1.7%	3.2%	7.3%	3.4%	4.6%
Change, % 25+, bachelor's degree +	2011-16	2.2%	-3.8%	1.6%	3.8%	0.8%	3.3%	3.3%	8.6%	4.1%	3.9%

INNOVATION AND ENTREPRENEURSHIP: RANKINGS

		Cleveland County, OK (Norman)	Boone County, MO (Columbia)	Boulder County, CO (Boulder)	Douglas County, KS (Lawrence)	Hays County, TX (San Marcos)	Johnson County, IA (Iowa City)	Lancaster County, NE (Lincoln)	Story County, IA (Ames)	Washington County, AR (Fayetteville)	Washtenaw County, MI (Ann Arbor)
Research and Development Activity											
Patents per 100,000 residents	2015	9	10	2	6	1	5	7	4	8	3
Licensing income received (\$, million)	2015	7	3	5	2	N/A	8	4	6	9	1
Licenses & options executed	2015	9	3	4	5	N/A	6	7	2	8	1
Academic R&D expenditures (\$, million)	2015	8	7	3	4	10	2	6	5	9	1
Change, academic R&D expenditures	2010-15	8	9	4	6	1	10	2	3	5	7
Startups, Small Businesses, and Self-Employed											
Self-employment as a % of all jobs	2016	2	7	3	4	1	8	9	5	6	10
Change, self-employment % of all jobs	2011-16	10	4	9	8	3	2	5	6	1	7
Average annual earnings, self-employed	2016	1	7	3	5	4	6	10	2	9	8
Change, self-employed earnings	2011-16	3	8	4	6	2	10	7	1	5	9
% of jobs in firms w/ < 50 employees	Q3'16	3	7	1	2	4	8	10	5	9	6
Change, % of jobs, firms w/ < 50 empl.	Q3'11-16	5	10	6	8	7	1	4	3	2	9
% of jobs in firms < 5 years old	Q3'16	3	5	2	4	1	7	9	6	8	10
Change, % of jobs in firms < 5 years old	Q3'11-16	7	9	1	5	6	3	2	4	10	8
Capital Environment											
Small business loans per 1,000 pop.	2015	9	5	1	8	6	2	7	10	4	3
Change, small business loans per capita	2010-15	4	2	5	9	10	6	7	8	3	1
Average Ranking, All Indicators		5.9	6.4	3.5	5.5	4.3	5.6	6.4	4.7	6.4	5.6
Composite Ranking, All Indicators		7	8T	1	4	2	5	8T	3	8T	5

INNOVATION AND ENTREPRENEURSHIP: DATA VALUES

		Cleveland County, OK (Norman)	Boone County, MO (Columbia)	Boulder County, CO (Boulder)	Douglas County, KS (Lawrence)	Hays County, TX (San Marcos)	Johnson County, IA (Iowa City)	Lancaster County, NE (Lincoln)	Story County, IA (Ames)	Washington County, AR (Fayetteville)	Washtenaw County, MI (Ann Arbor)
Research and Development Activity											
Patents per 100,000 residents	2015	19.0	18.9	260.7	44.1	370.0	49.1	22.6	87.2	22.3	217.5
Licensing income received (\$, million)	2015	\$1.59	\$7.95	\$6.31	\$9.83	N/A	\$1.50	\$6.51	\$3.22	\$1.15	\$78.78
Licenses & options executed	2015	13	74	55	44	N/A	40	38	108	27	164
Academic R&D expenditures (\$, million)	2015	\$242.4	\$246.7	\$420.8	\$311.4	\$47.7	\$443.2	\$284.4	\$306.1	\$133.7	\$1,369.3
Change, academic R&D expenditures	2010-15	11.1%	3.4%	20.4%	16.2%	56.1%	-0.2%	48.7%	22.4%	17.3%	15.6%
Startups, Small Businesses, and Self-Employed											
Self-employment as a % of all jobs	2016	8.7%	4.7%	7.5%	6.0%	9.0%	4.5%	4.4%	6.0%	5.9%	4.3%
Change, self-employment % of all jobs	2011-16	-0.9%	-0.2%	-0.5%	-0.5%	-0.2%	-0.2%	-0.4%	-0.4%	-0.1%	-0.5%
Average annual earnings, self-employed	2016	\$28,904	\$26,043	\$27,510	\$26,819	\$27,393	\$26,366	\$24,824	\$28,365	\$24,873	\$25,645
Change, self-employed earnings	2011-16	3.6%	-1.8%	3.1%	1.3%	4.0%	-8.75%	0.9%	8.5%	2.4%	-1.9%
% of jobs in firms w/ < 50 employees	Q3'16	37.0%	31.6%	37.7%	37.1%	35.4%	31.3%	28.4%	32.7%	28.7%	32.5%
Change, % of jobs, firms w/ < 50 empl.	Q3'11-16	-0.2%	-1.4%	-0.4%	-1.1%	-0.6%	2.0%	0.0%	0.1%	0.5%	-1.3%
% of jobs in firms < 5 years old	Q3'16	14.4%	11.1%	14.6%	12.0%	16.2%	10.5%	10.3%	10.6%	10.3%	9.7%
Change, % of jobs in firms < 5 years old	Q3'11-16	-1.2%	-2.0%	0.9%	0.1%	-0.8%	0.8%	0.8%	0.4%	-2.8%	-1.4%
Capital Environment											
Small business loans per 1,000 pop.	2015	12.5	15.6	33.4	13.2	15.6	19.7	15.2	12.1	16.6	19.2
Change, small business loans per capita	2010-15	31.9%	36.6%	11.4%	2.6%	-1.4%	6.3%	6.0%	5.9%	35.3%	43.6%

BUSINESS ENVIRONMENT: RANKINGS

		Cleveland County, OK (Norman)	Boone County, MO (Columbia)	Boulder County, CO (Boulder)	Douglas County, KS (Lawrence)	Hays County, TX (San Marcos)	Johnson County, IA (Iowa City)	Lancaster County, NE (Lincoln)	Story County, IA (Ames)	Washington County, AR (Fayetteville)	Washtenaw County, MI (Ann Arbor)
Infrastructure											
Passenger departures	2017	7	3	1	5	4	10	6	8	9	2
Change, passenger departures	2012-17	10	6	5	7	1	4	8	3	2	9
Air Freight/Mail (LB. in Millions)	2017	9	5	1	3	4	8	6	7	10	2
Change, Air Freight/Mail (LB. in Millions)	2012-17	9	8	6	3	4	7	2	10	5	1
Distance to Airport	2017	2	10	7	8	5	3	9	6	1	4
Number of Class 1 Railroads	2017	4	8	4	1	4	8	1	1	8	4
Business Costs											
Commercial electricity costs (cents/kwh)	06/17	2	6	5	7	1	9	4	9	3	8
Industrial electricity costs (cents/ kwh)	06/17	1	8	5	6	2	9	7	9	3	4
Office property asking rent, metro	06/16	7	6	9	4	8	1	3	10	5	10
Industrial property asking rent, metro	06/16	8	6	3	8	7	3	2	4	1	9
Retail property asking rent, metro	06/16	8	2	10	5	7	1	5	10	9	4
Ratio of labor productivity to labor cost	2016	1	9	7	5	10	2	3	4	6	8
Business Climate Perceptions											
KPMG/Tax Fndn. Bus. Tax Climate Index	2017	7	3	4	5	2	9	6	9	8	1
CNBC America's Top States for Business	2017	10	7	2	8	1	5	4	5	9	3
Forbes Best States for Business	2017	7	6	3	8	1	4	2	4	10	9
Average Ranking, All Indicators		6.1	6.2	4.8	5.5	4.1	5.5	4.5	6.6	5.9	5.2
Composite Ranking, All Indicators		8	9	3	5	1	5	2	10	7	4

BUSINESS ENVIRONMENT: DATA VALUES

		Cleveland County, OK (Norman)	Boone County, MO (Columbia)	Boulder County, CO (Boulder)	Douglas County, KS (Lawrence)	Hays County, TX (San Marcos)	Johnson County, IA (Iowa City)	Lancaster County, NE (Lincoln)	Story County, IA (Ames)	Washington County, AR (Fayetteville)	Washtenaw County, MI (Ann Arbor)
Infrastructure											
Passenger departures	2017	1,816,000	6,918,000	28,186,000	5,504,000	6,371,000	566,000	2,177,000	1,236,000	688,000	15,159,000
Change, passenger departures	2012-17	2.3%	13.6%	13.9%	11.0%	40.7%	22.5%	8.3%	27.0%	29.6%	7.0%
Air Freight/Mail (LB. in Millions)	2017	72	160	561	221	181	83	146	137	0	348
Change, Air Freight/Mail (LB. in Millions)	2012-17	0	0	0	0	0	0	0	(0)	0	0
Distance to Airport	2017	21	114	42	51	34	23	58	42	0	25
Number of Class 1 Railroads	2017	1	0	1	2	1	0	2	2	0	1
Business Costs											
Commercial electricity costs (cents/kwh)	06/17	\$8.29	\$11.01	\$10.41	\$11.04	\$8.22	\$11.61	\$9.44	\$11.61	\$8.65	\$11.07
Industrial electricity costs (cents/kwh)	06/17	\$5.43	\$8.15	\$7.55	\$7.60	\$5.52	\$8.23	\$7.99	\$8.23	\$6.39	\$7.22
Office property asking rent, metro	06/16	\$16.87	\$16.79	\$17.74	\$14.45	\$17.66	\$12.08	\$12.98	\$12.08	\$16.05	\$17.80
Industrial property asking rent, metro	06/16	\$7.72	\$5.62	\$10.53	\$5.22	\$7.53	\$5.51	\$4.96	\$5.51	\$4.53	\$9.47
Retail property asking rent, metro	06/16	\$16.99	\$12.09	\$18.99	\$16.40	\$16.43	\$12.06	\$14.36	\$12.85	\$17.18	\$13.89
Ratio of labor productivity to labor cost	2016	\$1.98	\$1.58	\$1.62	\$1.73	\$1.49	\$1.87	\$1.85	\$1.79	\$1.63	\$1.60
Business Climate Perceptions											
KPMG/Tax Fndn. Bus. Tax Climate Index	2017	31	15	16	22	14	40	25	40	38	12
CNBC America's Top States for Business	2017	43	22	6	34	4	15	13	15	41	11
Forbes Best States for Business	2017	22	21	8	25	3	12	4	12	36	28

QUALITY OF LIFE: RANKINGS

		Cleveland County, OK (Norman)	Boone County, MO (Columbia)	Boulder County, CO (Boulder)	Douglas County, KS (Lawrence)	Hays County, TX (San Marcos)	Johnson County, IA (Iowa City)	Lancaster County, NE (Lincoln)	Story County, IA (Ames)	Washington County, AR (Fayetteville)	Washtenaw County, MI (Ann Arbor)
Crime											
Violent crime rate per 100K residents	2014	7	8	2	N/A	3	4	6	1	9	5
Property crime rate per 100K residents	2014	7	6	5	N/A	3	4	8	1	9	2
Change, violent crime rate	2009-14	5	3	7	N/A	9	4	2	1	8	6
Change, property crime rate	2009-14	3	7	1	N/A	5	2	8	3	6	4
Commuting and Congestion											
% of commuters who drive alone to work	2016	10	7	1	9	5	2	8	3	6	4
% w/ commute times > 30 minutes	2016	8	1	7	6	10	3	3	2	5	9
Mean travel time to work (minutes)	2016	7	1	7	5	10	3	4	2	6	9
Affordability and Cost of Living											
Home affordability index	2017Q2	3	1	10	6	7	4	5	2	9	8
% renters spending 30%+ of income	2015	1	3	9	7	6	10	4	8	2	5
Cost of living index	2016	1	4	10	6	7	8	3	5	2	9
Health											
Physicians per 100K residents	2016	9	3	4	8	10	2	6	7	5	1
% of adults reporting poor or fair health	2015	8	9	2	4	7	3	1	5	10	6
% of adults reporting BMI >= 30	2013	9	8	1	4	3	2	6	7	10	5
% under age 65 w/out health insurance	2014	8	7	4	6	10	1	5	2	9	3
Recreation											
Walk Score (Principal City)	2016	9	9	1	5	7	3	3	5	8	2
Recreation/fitness facilities per 1,000 pop.	2014	5	4	1	9	7	7	3	10	6	2
Average Ranking, All Indicators		6.3	5.1	4.5	6.3	6.8	3.9	4.7	4.0	6.9	5.0
Composite Ranking, All Indicators		7	6	3	7	9	1	4	2	10	5

QUALITY OF LIFE: DATA VALUES

		Cleveland County, OK (Norman)	Boone County, MO (Columbia)	Boulder County, CO (Boulder)	Douglas County, KS (Lawrence)	Hays County, TX (San Marcos)	Johnson County, IA (Iowa City)	Lancaster County, NE (Lincoln)	Story County, IA (Ames)	Washington County, AR (Fayetteville)	Washtenaw County, MI (Ann Arbor)
Crime											
Violent crime rate per 100K residents	2014	318.2	342.3	245.8	N/A	252.6	253.7	315.0	127.1	425.8	287.8
Property crime rate per 100K residents	2014	3,146.5	2,974.0	2,371.5	N/A	1,883.0	1,998.0	3,166.4	1,776.1	3,191.4	1851.0
Change, violent crime rate	2009-14	-10.5%	-18.5%	1.8%	N/A	15.0%	-15.3%	-25.4%	-49.5%	11.3%	-0.1
Change, property crime rate	2009-14	-26.6%	-9.3%	-1.7%	N/A	-20.0%	-5.1%	-14.9%	-30.6%	3.4%	-0.3
Commuting and Congestion											
% of commuters who drive alone to work	2016	84.2%	79.8%	65.2%	82.1%	78.2%	66.7%	80.4%	71.7%	79.4%	72.4%
% w/ commute times > 30 minutes	2016	30.4%	15.2%	28.3%	27.4%	48.3%	17.7%	17.7%	15.6%	25.8%	31.7%
Mean travel time to work (minutes)	2016	22.1	17.3	22.1	20.6	31.8	18.5	19.3	17.6	21.1	24.2
Affordability and Cost of Living											
Home affordability index	2017Q2	235.77	242.86	99.70	210.28	193.99	230.94	217.99	240.94	168.34	187.92
% renters spending 30%+ of income	2015	45.0%	47.2%	60.3%	54.1%	51.6%	61.1%	47.6%	58.8%	46.0%	51.3%
Cost of living index	2016	86.0	93.0	146.8	96.0	98.0	102.1	91.7	95.6	88.4	107.4
Health											
Physicians per 100K residents	2016	139	430	322	169	85	605	200	178	205	607
% of adults reporting poor or fair health	2015	17.5%	17.5%	10.8%	11.8%	17.0%	11.0%	9.8%	11.8%	21.3%	12.4%
% of adults reporting BMI >= 30	2013	30.1%	28.4%	13.4%	24.2%	23.8%	23.0%	26.0%	27.1%	30.6%	24.4%
% under age 65 w/out health insurance	2014	13.9%	12.1%	9.9%	11.3%	19.6%	6.7%	10.0%	7.2%	16.9%	7.7%
Recreation											
Walk Score (Principal City)	2016	30	30	58	40	38	43	43	40	32	51
Recreation/fitness facilities per 1,000 pop.	2014	29.0	30.0	63.0	16.0	17.0	17.0	41.0	15.0	25.0	49.0

COMPETITIVE SCORECARDS: DATA SOURCES

ECONOMIC PERFORMANCE

- ✓ 1-year and 5-year Employment Change: Economic Modeling Specialists Intl. (EMSI)
- ✓ Unemployment Rate: U.S. Bureau of Labor Statistics (BLS)
- ✓ 5-year Establishments Change: EMSI
- ✓ Business Bankruptcy Rate per 1,000 Establishments and 5-year Change: U.S. District Courts via Moody's; EMSI
- ✓ Exports per Worker: EMSI
- ✓ Gross Metropolitan Product per Worker: U.S. Bureau of Economic Analysis (BEA); EMSI
- ✓ Gross Domestic Product 5-year Change: BEA
- ✓ Wages, Salaries, & Proprietor Earnings and 5-year Change: EMSI
- ✓ Per Capita Income and 5-year Change: BEA
- ✓ Total and Child Poverty Rate and 5-year Changes: U.S. Census Bureau, Small Area Income and Poverty Estimates

WORKFORCE COMPETITIVENESS

- ✓ 5-year Population Growth Rate: U.S. Census Bureau, Population Estimates
- ✓ Net Migration as a % of Population Change: U.S. Census Bureau, Population Estimates
- ✓ 5-year Labor Force Growth Rate: BLS
- ✓ In-Migrants with Bachelor's Degree+: U.S. Census Bureau, American Community Survey (ACS) 5-year Estimates
- ✓ In-Migrants with less than a High School Diploma+: U.S. Census Bureau, ACS 5-year Estimates
- ✓ Labor Force Participation Rate: U.S. Census Bureau, ACS 1-year Estimates
- ✓ Employment to Population Ratio: U.S. Census Bureau, ACS 1-year Estimates
- ✓ Dependency Ratio (Age 25-44/Age 45-64): U.S. Census Bureau, Population Estimates
 - *A dependency ratio is a general measure of the sustainability of a workforce. The dependency ratio divides the number of workers aged 25 to 44 by those age 45 to 64, the resulting ratio identifies potential workforce shortages caused by retirements over the next twenty years. A ratio below 1.0 indicates that those aged 45 to 64—those workers who will retire or will be near retirement over the next twenty years—outnumber those aged 25 to 44—those workers who will likely replace vacating retiree positions. A ratio below 1.0 is considered to be unsustainable over the long term, particularly if the occupation or business sector is growing. A ratio above 1.0 indicates that those aged 25 to 44 outnumber those aged 45 to 64. While a ratio above 1.0 is said to be sustainable, workforce availability challenges may still be encountered over the long term, especially in rapidly growing occupations and business sectors.*
- ✓ Workers Age 55+: EMSI
- ✓ Percent of 3- and 4-year olds Enrolled in Pre-K: U.S. Census Bureau, ACS 1-year Estimates
- ✓ Share of Population Aged 18 to 24 Enrolled in College: U.S. Census Bureau, ACS 1-year Estimates
- ✓ Share of Adults Age 25+ with Associate's Degree+: U.S. Census Bureau, ACS 1-year Estimates
- ✓ Share of Adults Age 25+ with Bachelor's Degree+: U.S. Census Bureau, ACS 1-year Estimates

INNOVATION AND ENTREPRENEURSHIP

- ✓ Patents: United States Patent and Trademark Office (USPTO)
- ✓ Licensing Income Received: Association of University Technology Managers (AUTM) 2015 Survey
- ✓ Licensing and Options Executed: Association of University Technology Managers (AUTM) 2015 Survey
- ✓ Total R&D Expenditures: National Science Foundation, National Center for Science and Engineering Statistics, Higher Education R&D Survey

- ✓ Self-Employed Workers: EMSI
- ✓ Average Annual Wage of Self-Employed Workers: EMSI
- ✓ Percentage of Employment in Firms with Fewer Than 50 Employees: U.S. Census Bureau, Quarterly Workforce Indicators (QWI)
- ✓ Percentage of Employment in Firms with Fewer Than 5 Years Old: QWI
- ✓ Small Business Loans (originations) per 1,000 residents and 5-year Change: U.S. Federal Financial Institutions Examination Council (FFIEC): Community Reinvestment Act (CRA), Moody's Analytics Calculated; U.S. Census Bureau, Population Estimates

BUSINESS ENVIRONMENT

- ✓ Air Passenger Departures: Federal Aviation Administration (FAA), Research and Innovative Technology Administration Bureau of Transportation Statistics (RITA-BTS)
- ✓ Freight/Mail (LB. in Millions): Federal Aviation Administration (FAA), Research and Innovative Technology Administration Bureau of Transportation Statistics (RITA-BTS)
- ✓ Distance to Airport: Google
- ✓ Number of Class I Railroads: State DOT websites
- ✓ Commercial Electricity Costs: Energy Information Administration (EIA)
- ✓ Industrial Electricity Costs: EIA
- ✓ Class A Office Cost (Per Square Foot in Core City): Loopnet
- ✓ Industrial Cost (Per Square Foot in Core City): Loopnet
- ✓ Retail Cost (Per Square Foot in Core City): Loopnet
- ✓ Ratio of Private Sector Labor Productivity to Labor Costs: EMSI
 - *Indicator is measured by dividing private sector gross regional product (a proxy for labor productivity) in each region by total private sector earnings. This produces a ratio that indicates the amount of output generated for every dollar spent on wages, salaries, supplements, and proprietor income.*
- ✓ Business Climate Perceptions: Tax Foundation, CNBC, and Forbes

QUALITY OF LIFE

- ✓ Violent and Property Crime Rate per 100,000 Residents and 5-year Changes: Federal Bureau of Investigation, Uniform Crime Reporting; Moody's Analytics
- ✓ Percentage of Commuters who Drive Alone to Work: U.S. Census Bureau, ACS 1-year Estimates
- ✓ Percentage of Commuters with Commute Times Greater than 30 Minutes: U.S. Census Bureau, ACS 1-year Estimates
- ✓ Mean Travel Time to Work: U.S. Census Bureau, ACS 1-year Estimates
- ✓ Home Affordability Index: National Association of Realtors (NAR): Real Estate Outlook; U.S. Census Bureau (BOC); U.S. Bureau of Economic Analysis (BEA); Moody's Analytics Estimated
- ✓ Renters Spending 30% or More of Income on Rent: U.S. Census, ACS 1-year Estimates
- ✓ Cost of Living Index: Sperling's
- ✓ Physicians per 100,000 Residents: Sperling's
- ✓ Adults Reporting Fair or Poor Health: County Health Rankings and Roadmaps
- ✓ Adults Reporting a BMI of Greater than or Equal to 30: County Health Rankings and Roadmaps
- ✓ Population under Age 65 without Health Insurance: County Health Rankings and Roadmaps
- ✓ Walk Score (Principal City): Walkscore.com
- ✓ Recreation and Fitness Facilities per 100,000 Residents: U.S. Department of Agriculture Health Atlas

ENDNOTES

ⁱ "OU Student Benchmark" Survey, NEDC 2016 "Brand Dig." Conducted by Evolve Research and VI Marketing and Branding. September 2016.

ⁱⁱ "A Long Decade in Higher Education Funding." *Center on Budget and Policy Priorities*. August 23, 2017. <https://www.cbpp.org/research/state-budget-and-tax/a-lost-decade-in-higher-education-funding>