Integra Realty Resources
Tulsa/OKC

Housing Needs Assessment
Cleveland County

Prepared For:
Oklahoma Housing Finance Agency
Oklahoma Department of Commerce
100 NW 63rd Street, Ste. 200
Oklahoma City, OK 73116

Effective Date of the Analysis:
July 22, 2015

This "Statewide Affordable Housing Market Study" was financed in whole or in part by funds from the U.S. Department of Housing and Urban Development as administered by the Oklahoma Department of Commerce and Oklahoma Housing Finance Agency.

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December 31, 2015

Mr. Dennis Shockley, Executive Director
Oklahoma Housing Finance Agency
100 NW 63rd Street, Ste. 200
Oklahoma City, OK 73116

SUBJECT: Housing Needs Assessment
Cleveland County
IRR - Tulsa/OKC File No. 140-2015-0027

Dear Mr. Shockley:

As per our Agreement with Oklahoma Housing Finance Agency (OHFA), we have completed a residential housing market analysis (the "Analysis") for use by OHFA and the Oklahoma Department of Commerce (ODOC). Per our Agreement, OHFA and ODOC shall have unrestricted authority to publish, disclose, distribute and otherwise use, in whole or in part, the study and reports, data or other materials included in the Analysis or otherwise prepared pursuant to the Agreement and no materials produced in whole, or in part, under the Agreement shall be subject to copyright in the United States or any other country. Integra Realty Resources – Tulsa/OKC will cause the Analysis (or any part thereof) and any other publications or materials produced as a result of the Agreement to include substantially the following statement on the first page of said document:

> This "Statewide Affordable Housing Market Study" was financed in whole or in part by funds from the U.S. Department of Housing and Urban Development as administered by the Oklahoma Department of Commerce and Oklahoma Housing Finance Agency.

Attached hereto, please find the Cleveland County Residential Housing Market Analysis. Analyst Amy Wilson personally inspected the Cleveland County area during the month of July 2015 to collect the data used in the preparation of the Cleveland County Market Analysis. The University of Oklahoma College of Architecture Division of Regional and City Planning provided consultation, assemblage and analysis of the data for IRR-Tulsa/OKC.

This market study is true and correct to the best of the professional's knowledge and belief, and there is no identity of interest between Owen S. Ard, MAI, David A. Puckett, or Integra Realty Resources – Tulsa/OKC and any applicant, developer, owner or developer.

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

Integra Realty Resources - Tulsa/OKC

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Amy Wilson
Market Analyst

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Introduction and Executive Summary

This report is part of a Statewide Affordable Housing Market Study commissioned by the Oklahoma Department of Commerce (ODOC) in partnership with the Oklahoma Housing Finance Agency (OHFA), as an outgrowth of the 2013 tornado outbreak in Oklahoma. It was funded by the U.S. Department of Housing and Urban Development (USHUD) through the Community Development Block Grant – Disaster Recovery program (CDBG-DR). This study was conducted by a public/private partnership between Integra Realty Resources – Tulsa/OKC, the University of Oklahoma College of Architecture, Division of Regional and City Planning, and DeBruler Inc. IRR-Tulsa/OKC, The University of Oklahoma, and DeBruler Inc. also prepared a prior statewide study in 2001, also commissioned by ODOC in partnership with OHFA.

This study is a value-added product derived from the original 2001 statewide housing study that incorporates additional topics and datasets not included in the 2001 study, which impact affordable housing throughout the state. These topic areas include:

- Disaster Resiliency
- Homelessness
- Assessment of Fair Housing
- Evaluation of Residential Lead-Based Paint Hazards

These topics are interrelated in terms of affordable housing policy, housing development, and disaster resiliency and recovery. Homeless populations are more vulnerable in the event of a disaster, as are many of the protected classes under the Fair Housing Act. Lead-based paint is typically more likely to be present in housing units occupied by low-to-moderate income persons, and can also present an environmental hazard in the wake of a disaster. Effective affordable housing policy can mitigate the impact of natural and manmade disasters by encouraging the development and preservation of safe, secure, and disaster-resilient housing for Oklahoma's most vulnerable populations.

Housing Market Analysis Specific Findings:

1. The population of Cleveland County is projected to grow by 1.24% per year over the next five years, outperforming the State of Oklahoma.
2. Cleveland County is projected to need a total of 4,777 housing units for ownership and 2,312 housing units for rent over the next five years.
3. Median Household Income in Cleveland County is estimated to be $58,161 in 2015, compared with $47,049 estimated for the State of Oklahoma. The poverty rate in Cleveland County is estimated to be 12.87%, compared with 16.85% for Oklahoma.
4. Homeowner and rental vacancy rates in Cleveland County are lower than the state averages.
5. Home values and rental rates in Cleveland County are markedly higher than the state averages.
6. Median sale price for homes in Norman was $165,000 in 2015, with a median price per square foot of $100.40/SF. The median sale price to list price ratio was 98.6%, with median days on market of 25 days.

7. Median sale price for homes in Moore was $140,000 in 2015, with a median price per square foot of $93.43/SF. The median sale price to list price ratio was 99.5%, with median days on market of 28 days.
8. Median sale price for homes in Noble was $129,000 in 2015, with a median price per square foot of $81.50/SF. The median sale price to list price ratio was 97.7%, with median days on market of 43 days.
9. Approximately 45.45% of renters and 18.71% of owners are housing cost overburdened.

Disaster Resiliency Specific Findings:

1. Tornadoes (1959-2014): Number: 69 Injuries: 1127 Fatalities: 73 Damages (1996-2014): $3,372,840,000.00
2. Social Vulnerability: Below state score at the county level; census tracts in the central area have elevated scores.
3. Floodplain: Norman has developed a 50 year Greenbelt and Stormwater Management plan to address past flooding and improve planning practices near flood zones and flood prone areas. Additional drainage and stream restoration projects are also included in the HMP.

Homelessness Specific Findings

1. Cleveland County is served by the Norman / Cleveland County Continuum of Care.
2. There are an estimated 140 homeless individuals in this area, 118 of which are identified as sheltered.
3. Notable homeless subpopulations include the chronically homeless (48), mentally ill (43) and victims of domestic violence (24).
4. Women, with or without children, receive ample housing services from the Women's Resource Center.

Fair Housing Specific Findings

1. Units at risk for poverty: 1,080
2. Units in mostly non-white enclaves: 194
3. Units in a community of immigrants: 758
4. Units in limited English neighborhoods: 648
5. Units nearer elevated number of persons with disabilities: 601
6. Units located in a food desert: 214
7. Units that lack readily available transit: 718

Lead-Based Paint Specific Findings

1. We estimate there are 8,922 occupied housing units in Cleveland County with lead-based paint hazards.
2. 3,899 of those housing units are estimated to be occupied by low-to-moderate income households.
3. We estimate that 1,632 of those low-to-moderate income households have children under the age of 6 present.

Report Format and Organization

The first section of this report comprises the housing market analysis for Cleveland County. This section is divided into general area information, followed by population, household and income trends and analysis, then followed by area economic conditions. The next area of analysis concerns the housing stock of Cleveland County, including vacancy rates, construction activity and trends, and analyses of the homeowner and rental markets. This section is followed by five-year forecasts of housing need for owners and renters, as well as specific populations such as low-to-moderate income households, the elderly, and working families.

The next section of this report addresses special topics of concern:

- Disaster Resiliency
- Homelessness
- Fair Housing
- Lead-Based Paint Hazards

This last section is followed by a summary of the conclusions of this report for Cleveland County.

General Information

Purpose and Function of the Market Study

The purpose of this market study is to evaluate the need for affordable housing units in Cleveland County, Oklahoma. The analysis will consider existing supply and projected demand and overall market trends in the Cleveland County area.

Effective Date of Consultation

The Cleveland County area was inspected and research was performed during July, 2015. The effective date of this analysis is July 22, 2015. The date of this report is December 31, 2015. The market study is valid only as of the stated effective date or dates.

Scope of the Assignment

1. The Cleveland County area was inspected during July, 2015. The inspection included visits to all significant population centers in the county and portions of the rural county areas.
2. Regional, city and neighborhood data is based on information retained from national, state, and local government entities; various Chambers of Commerce, news publications, and other sources of economic indicators.
3. Specific economic data was collected from all available public agencies. Population and household information was collected from national demographic data services as well as available local governments. Much data was gathered regarding market specific items from personal interviews.
4. Development of the applicable analysis involved the collection and interpretation of verified data from local property owners/managers, realtors, and other individuals active within the area real estate market.
5. The analyst's assemblage and analysis of the defined data provided a basis from which conclusions as to the supply of and demand for residential housing were made.

Data Sources

Specific data sources used in this analysis include but are not limited to:

1. The 2000 and 2010 Decennial Censuses of Population and Housing
2. The 2009-2013 American Community Survey (ACS)
3. U.S. Census Bureau Residential Construction Branch, Manufacturing and Construction Division
4. The United States Department of Labor, Bureau of Labor Statistics, including the Local Area Unemployment Statistics and the Quarterly Census of Employment and Wages programs
5. The U.S. Department of Housing and Urban Development, including the Comprehensive Housing Affordability Strategy (CHAS), and the 2013 Picture of Subsidized Households
6. Continuum of Care Assistance Programs

7. The National Oceanic and Atmospheric Administration
8. Nielsen SiteReports (formerly known as Claritas)
9. The Oklahoma State Department of Health
10. The Oklahoma Department of Human Services
11. The Federal Reserve Bank of Kansas City, Oklahoma City Branch
12. The Federal Reserve Bank of New York

Cleveland County Analysis

Area Information

The purpose of this section of the report is to provide a basis for analyzing and estimating trends relating to Cleveland County. The primary emphasis is concentrated on those factors that are of significance to residential development users. Residential and commercial development in the community is influenced by the following factors:

1. Population and economic growth trends.

2. Existing commercial supply and activity.

3. Natural physical elements.

4. Political policy and attitudes toward community development.

Location

Cleveland County is located in central Oklahoma. The county is bordered on the north by Oklahoma County, on the west by Canadian and McClain counties, on the south by McClain County, and on the east by Pottawatomie County. The Cleveland County Seat is Norman, which is located in the east central part of the county. This location is approximately 126 miles southwest of Tulsa and 23.7 miles south of Oklahoma City.

Cleveland County has a total area of 558 square miles (539 square miles of land, and 19 square miles of water), ranking 70th out of Oklahoma's 77 counties in terms of total area. The total population of Cleveland County as of the 2010 Census was 255,755 persons, for a population density of 475 persons per square mile of land.

Access and Linkages

The county has above average accessibility to state and national highway systems. Multiple major highways intersect within Cleveland. These are I-44, I-35, US-77, OK-9, OK-37, OK77H, and OK-39. The nearest interstate highway is I-44 and I-35, both of which cross through the county north/south. The county also has an intricate network of county roadways.

Public transportation is provided by the Norman Cleveland Area Rapid Transit (CART), which operates a fixed route and demand-response service throughout the county. Additionally, the Metro Transit offers fixed routes throughout the area, including the cities of Norman, Moore, and Noble. The local market perceives public transportation as average compared to other communities in the region of similar size. However, the primary mode of transportation in this area is private automobiles by far.

University of Oklahoma Westheimer Airport is located just northwest of Norman. The two primary asphalt runways measure 5,199 and 4,748 feet in length and average 135 aircraft operations per day.

The nearest full-service commercial airport is the Will Rogers World Airport, located just northwest of Cleveland County.

The Norman Amtrak Station is located in downtown Norman and offers area residents alternative transportation options to the surrounding area. The Amtrak station offers transportation to northern Oklahoma and cities throughout Texas.

Educational Facilities

All of the county communities have public school facilities. Norman is served by Norman Public Schools which operates three high schools, four middle schools, and seventeen elementary schools.

Moore is served by the Moore Public Schools which operates three high schools, four middle schools, and twenty-five elementary schools.

Noble is served by the Noble Public Schools which operates one high school, one middle school, one intermediate school, and two elementary schools.

Norman is home to the University of Oklahoma, the largest employer in the area. OU has over 30,000 students with most enrolled at its main Norman campus. Other higher education offerings in and around Cleveland County includes Hillsdale Freewill Baptist College, Moore-Norman Technology Center, Platt College-Moore Campus, and Mid-America Christian University.

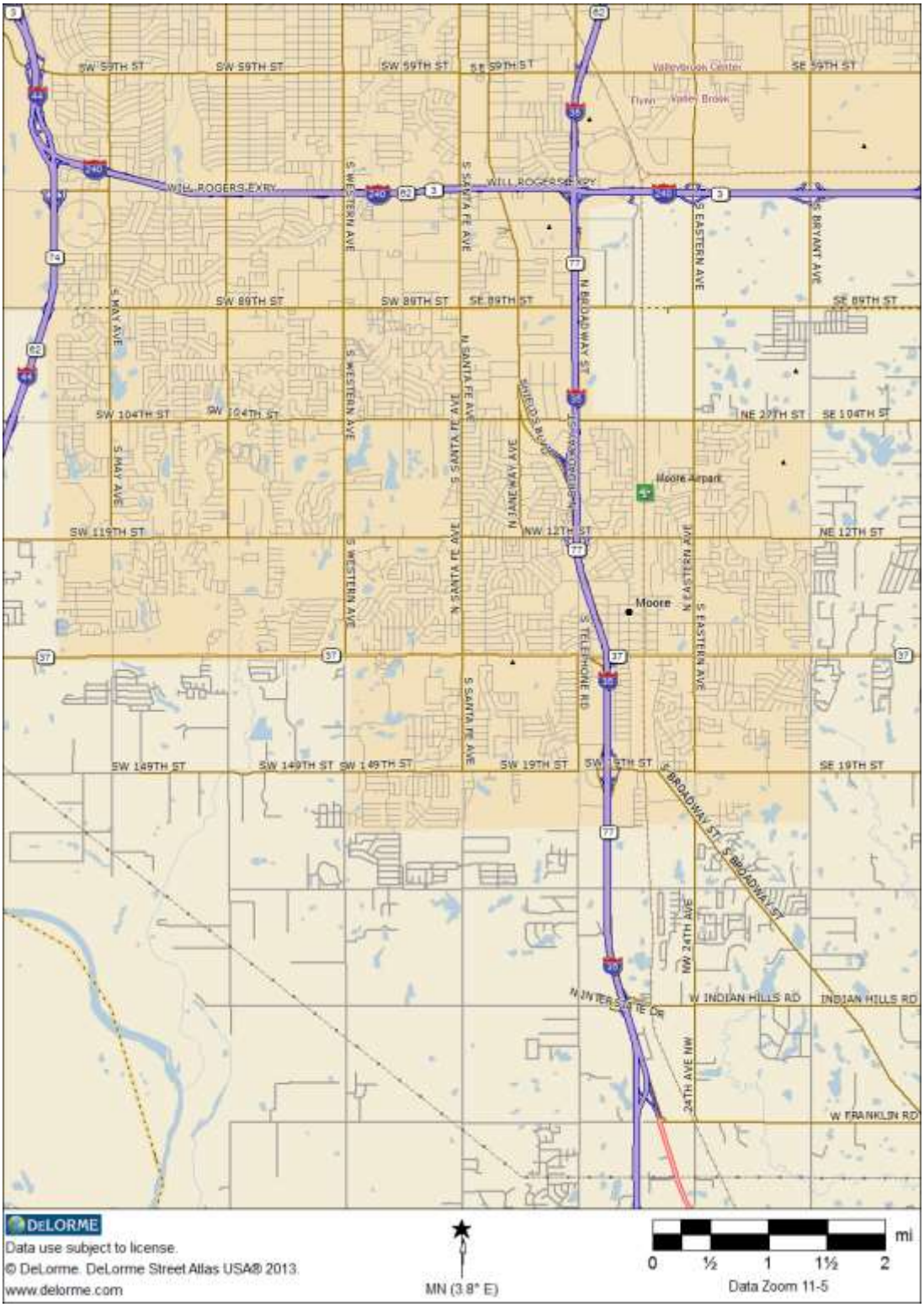
Medical Facilities

County medical services are provided by Norman Regional Health System, Normal Regional health Plex, Moore Medical Center, and Community Hospital. Additionally, there are numerous Urgent Cares spread out throughout the county. Medical services are available in Oklahoma City, but the county is adequately served within the larger communities of the county. The smaller county communities typically have either small outpatient medical services or doctor's officing in the community.

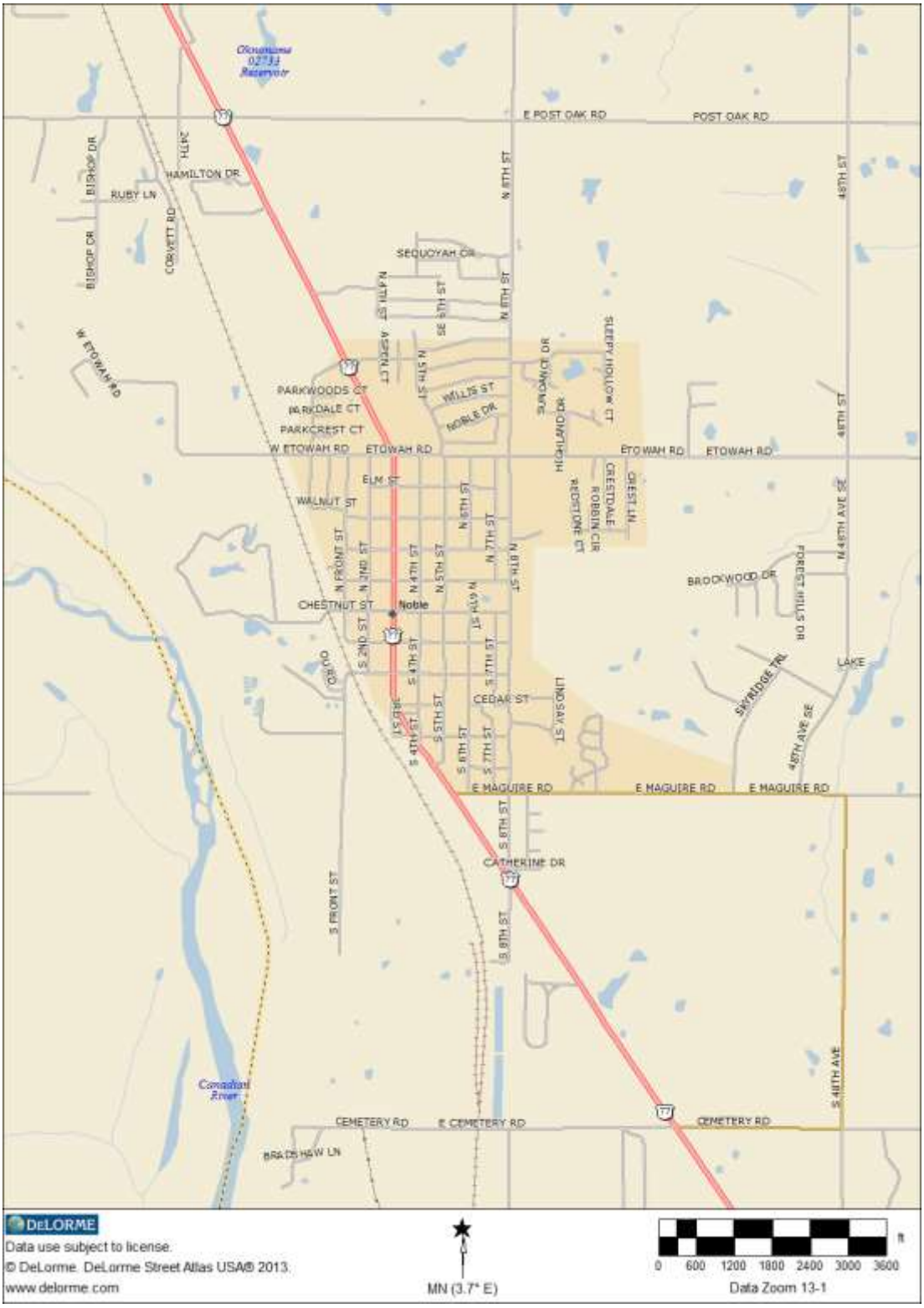
Cleveland County Area Map

Norman Area Map

Moore Area Map



Noble Area Map



Demographic Analysis

Population and Households

The following table presents population levels and annualized changes in Cleveland County and Oklahoma. This data is presented as of the 2000 Census, the 2010 Census, with 2015 and 2020 estimates and forecasts provided by Nielsen SiteReports.

Population Levels and Annual Changes

	2000 Census	2010 Census	Annual Change	2015 Estimate	Annual Change	2020 Forecast	Annual Change
Norman	95,694	110,925	1.49%	118,498	1.33%	124,991	1.07%
Moore	41,138	55,081	2.96%	59,906	1.69%	64,646	1.53%
Noble	5,260	6,481	2.11%	6,816	1.01%	7,234	1.20%
Cleveland County	208,016	255,755	2.09%	275,156	1.47%	292,665	1.24%
State of Oklahoma	3,450,654	3,751,351	0.84%	3,898,675	0.77%	4,059,399	0.81%

Sources: 2000 and 2010 Decennial Censuses, Nielsen SiteReports

The population of Cleveland County was 255,755 persons as of the 2010 Census, a 2.09% annualized rate of change from the 2000 Census. As of 2015, Nielsen SiteReports estimates the population of Cleveland County to be 275,156 persons, and projects that the population will show 1.24% annualized growth over the next five years.

The population of Norman was 110,925 persons as of the 2010 Census, a 1.49% annualized rate of change from the 2000 Census. As of 2015, Nielsen SiteReports estimates the population of Norman to be 118,498 persons, and projects that the population will show 1.07% annualized growth over the next five years.

The population of Moore was 55,081 persons as of the 2010 Census, a 2.96% annualized rate of change from the 2000 Census. As of 2015, Nielsen SiteReports estimates the population of Moore to be 59,906 persons, and projects that the population will show 1.53% annualized growth over the next five years.

The population of Noble was 6,481 persons as of the 2010 Census, a 2.11% annualized rate of change from the 2000 Census. As of 2015, Nielsen SiteReports estimates the population of Noble to be 6,816 persons, and projects that the population will show 1.20% annualized growth over the next five years.

The next table presents data regarding household levels in Cleveland County over the same periods of time. This data is presented both for all households (family and non-family) as well as family households alone.

Households Levels and Annual Changes							
Total Households	2000 Census	2010 Census	Annual Change	2015 Estimate	Annual Change	2020 Forecast	Annual Change
Norman	38,834	44,661	1.41%	48,352	1.60%	51,308	1.19%
Moore	14,848	20,446	3.25%	22,335	1.78%	24,100	1.53%
Noble	1,956	2,429	2.19%	2,574	1.17%	2,741	1.27%
Cleveland County	79,186	98,306	2.19%	106,300	1.58%	113,389	1.30%
State of Oklahoma	1,342,293	1,460,450	0.85%	1,520,327	0.81%	1,585,130	0.84%
Family Households	2000 Census	2010 Census	Annual Change	2015 Estimate	Annual Change	2020 Forecast	Annual Change
Norman	22,560	24,913	1.00%	27,076	1.68%	28,809	1.25%
Moore	11,565	14,984	2.62%	16,297	1.69%	17,593	1.54%
Noble	1,486	1,757	1.69%	1,848	1.02%	1,968	1.27%
Cleveland County	53,833	64,182	1.77%	69,570	1.63%	74,395	1.35%
State of Oklahoma	921,750	975,267	0.57%	1,016,508	0.83%	1,060,736	0.86%

Sources: 2000 and 2010 Decennial Censuses, Nielsen SiteReports

As of 2010, Cleveland County had a total of 98,306 households, representing a 2.19% annualized rate of change since the 2000 Census. As of 2015, Nielsen SiteReports estimates Cleveland County to have 106,300 households. This number is expected to experience a 1.30% annualized rate of growth over the next five years.

As of 2010, Norman had a total of 44,661 households, representing a 1.41% annualized rate of change since the 2000 Census. As of 2015, Nielsen SiteReports estimates Norman to have 48,352 households. This number is expected to experience a 1.19% annualized rate of growth over the next five years.

As of 2010, Moore had a total of 20,446 households, representing a 3.25% annualized rate of change since the 2000 Census. As of 2015, Nielsen SiteReports estimates Moore to have 22,335 households. This number is expected to experience a 1.53% annualized rate of growth over the next five years.

As of 2010, Noble had a total of 2,429 households, representing a 2.19% annualized rate of change since the 2000 Census. As of 2015, Nielsen SiteReports estimates Noble to have 2,574 households. This number is expected to experience a 1.27% annualized rate of growth over the next five years.

Population by Race and Ethnicity

The next table presents data regarding the racial and ethnic composition of Cleveland County based on the U.S. Census Bureau's American Community Survey.

2013 Population by Race and Ethnicity								
Single-Classification Race	**Norman**		**Moore**		**Noble**		**Cleveland County**	
	No.	**Percent**	**No.**	**Percent**	**No.**	**Percent**	**No.**	**Percent**
Total Population	113,743		56,460		6,545		261,047	
White Alone	92,108	80.98%	44,311	78.48%	5,722	87.43%	207,954	79.66%
Black or African American Alone	4,511	3.97%	2,024	3.58%	0	0.00%	11,301	4.33%
Amer. Indian or Alaska Native Alone	4,485	3.94%	2,418	4.28%	370	5.65%	10,690	4.10%
Asian Alone	4,443	3.91%	1,327	2.35%	109	1.67%	10,128	3.88%
Native Hawaiian and Other Pac. Isl. Alone	191	0.17%	26	0.05%	0	0.00%	217	0.08%
Some Other Race Alone	1,278	1.12%	1,282	2.27%	10	0.15%	3,699	1.42%
Two or More Races	6,727	5.91%	5,072	8.98%	334	5.10%	17,058	6.53%
Population by Hispanic or Latino Origin	**Norman**		**Moore**		**Noble**		**Cleveland County**	
	No.	**Percent**	**No.**	**Percent**	**No.**	**Percent**	**No.**	**Percent**
Total Population	113,743		56,460		6,545		261,047	
Hispanic or Latino	6,602	5.80%	6,722	11.91%	156	2.38%	19,096	7.32%
Hispanic or Latino, White Alone	*4,506*	*68.25%*	*4,026*	*59.89%*	*112*	*71.79%*	*12,211*	*63.95%*
Hispanic or Latino, All Other Races	*2,096*	*31.75%*	*2,696*	*40.11%*	*44*	*28.21%*	*6,885*	*36.05%*
Not Hispanic or Latino	107,141	94.20%	49,738	88.09%	6,389	97.62%	241,951	92.68%
Not Hispanic or Latino, White Alone	*87,602*	*81.76%*	*40,285*	*80.99%*	*5,610*	*87.81%*	*195,743*	*80.90%*
Not Hispanic or Latino, All Other Races	*19,539*	*18.24%*	*9,453*	*19.01%*	*779*	*12.19%*	*46,208*	*19.10%*

Source: U.S. Census Bureau, 2009-2013 American Community Survey, Tables B02001 & B03002

In Cleveland County, racial and ethnic minorities comprise 25.02% of the total population. Within Norman, racial and ethnic minorities represent 22.98% of the population. Within Moore, the percentage is 28.65%, while in Noble the percentage is 14.29%.

Population by Age

The next tables present data regarding the age distribution of the population of Cleveland County. This data is provided as of the 2010 Census, with estimates and forecasts provided by Nielsen SiteReports.

Cleveland County Population By Age								
	2010 Census	Percent of Total	2015 Estimate	Percent of Total	2020 Forecast	Percent of Total	2000 - 2015 Ann. Chng.	2015 - 2020 Ann. Chng.
Population by Age	255,755		275,156		292,665			
Age 0 - 4	16,812	6.57%	16,536	6.01%	17,212	5.88%	-0.33%	0.80%
Age 5 - 9	16,919	6.62%	17,127	6.22%	17,178	5.87%	0.24%	0.06%
Age 10 - 14	16,101	6.30%	17,501	6.36%	17,854	6.10%	1.68%	0.40%
Age 15 - 17	9,344	3.65%	10,530	3.83%	11,536	3.94%	2.42%	1.84%
Age 18 - 20	16,066	6.28%	15,619	5.68%	15,464	5.28%	-0.56%	-0.20%
Age 21 - 24	20,711	8.10%	22,215	8.07%	19,378	6.62%	1.41%	-2.70%
Age 25 - 34	39,695	15.52%	42,138	15.31%	44,533	15.22%	1.20%	1.11%
Age 35 - 44	32,123	12.56%	35,398	12.86%	40,337	13.78%	1.96%	2.65%
Age 45 - 54	34,199	13.37%	33,538	12.19%	34,136	11.66%	-0.39%	0.35%
Age 55 - 64	27,608	10.79%	31,495	11.45%	33,821	11.56%	2.67%	1.44%
Age 65 - 74	15,384	6.02%	20,050	7.29%	25,258	8.63%	5.44%	4.73%
Age 75 - 84	7,944	3.11%	9,468	3.44%	11,970	4.09%	3.57%	4.80%
Age 85 and over	2,849	1.11%	3,541	1.29%	3,988	1.36%	4.44%	2.41%
Age 55 and over	*53,785*	21.03%	*64,554*	23.46%	*75,037*	25.64%	3.72%	3.06%
Age 62 and over	*31,610*	12.36%	*38,967*	14.16%	*47,374*	16.19%	4.27%	3.98%
Median Age	33.0		34.0		35.8		0.60%	1.04%

Source: Nielsen SiteReports

As of 2015, Nielsen estimates that the median age of Cleveland County is 34.0 years. This compares with the statewide figure of 36.6 years. Approximately 6.01% of the population is below the age of 5, while 14.16% is over the age of 62. Over the next five years, the population age 62 and above is forecasted to grow by 3.98% per year.

Norman Population By Age	2010 Census	Percent of Total	2015 Estimate	Percent of Total	2020 Forecast	Percent of Total	2000 - 2015 Ann. Chng.	2015 - 2020 Ann. Chng.
Population by Age	110,925		118,498		124,991			
Age 0 - 4	6,444	5.81%	6,360	5.37%	6,600	5.28%	-0.26%	0.74%
Age 5 - 9	6,367	5.74%	6,652	5.61%	6,593	5.27%	0.88%	-0.18%
Age 10 - 14	5,781	5.21%	6,533	5.51%	6,919	5.54%	2.48%	1.15%
Age 15 - 17	3,435	3.10%	4,401	3.71%	4,799	3.84%	5.08%	1.75%
Age 18 - 20	10,748	9.69%	9,488	8.01%	9,175	7.34%	-2.46%	-0.67%
Age 21 - 24	13,474	12.15%	13,015	10.98%	10,928	8.74%	-0.69%	-3.44%
Age 25 - 34	17,298	15.59%	19,533	16.48%	20,651	16.52%	2.46%	1.12%
Age 35 - 44	12,111	10.92%	13,800	11.65%	16,827	13.46%	2.65%	4.05%
Age 45 - 54	13,109	11.82%	12,703	10.72%	12,784	10.23%	-0.63%	0.13%
Age 55 - 64	11,098	10.00%	12,357	10.43%	13,026	10.42%	2.17%	1.06%
Age 65 - 74	6,062	5.46%	8,012	6.76%	10,060	8.05%	5.74%	4.66%
Age 75 - 84	3,529	3.18%	3,928	3.31%	4,786	3.83%	2.17%	4.03%
Age 85 and over	1,469	1.32%	1,716	1.45%	1,843	1.47%	3.16%	1.44%
Age 55 and over	*22,158*	19.98%	*26,013*	21.95%	*29,715*	23.77%	3.26%	2.70%
Age 62 and over	*12,920*	11.65%	*15,647*	13.20%	*18,754*	15.00%	3.90%	3.69%
Median Age	30.3		31.6		33.5		0.84%	1.17%

Source: Nielsen SiteReports

As of 2015, Nielsen estimates that the median age of Norman is 31.6 years. This compares with the statewide figure of 36.6 years. Approximately 5.37% of the population is below the age of 5, while 13.20% is over the age of 62. Over the next five years, the population age 62 and above is forecasted to grow by 3.69% per year.

Moore Population By Age	2010 Census	Percent of Total	2015 Estimate	Percent of Total	2020 Forecast	Percent of Total	2000 - 2015 Ann. Chng.	2015 - 2020 Ann. Chng.
Population by Age	55,081		59,906		64,646			
Age 0 - 4	4,678	8.49%	4,468	7.46%	4,659	7.21%	-0.91%	0.84%
Age 5 - 9	4,368	7.93%	4,542	7.58%	4,610	7.13%	0.78%	0.30%
Age 10 - 14	4,030	7.32%	4,487	7.49%	4,713	7.29%	2.17%	0.99%
Age 15 - 17	2,188	3.97%	2,362	3.94%	2,710	4.19%	1.54%	2.79%
Age 18 - 20	2,077	3.77%	2,311	3.86%	2,458	3.80%	2.16%	1.24%
Age 21 - 24	3,047	5.53%	3,383	5.65%	3,135	4.85%	2.11%	-1.51%
Age 25 - 34	10,086	18.31%	10,170	16.98%	9,781	15.13%	0.17%	-0.78%
Age 35 - 44	7,405	13.44%	8,671	14.47%	10,215	15.80%	3.21%	3.33%
Age 45 - 54	7,011	12.73%	7,209	12.03%	7,810	12.08%	0.56%	1.61%
Age 55 - 64	5,334	9.68%	6,196	10.34%	6,800	10.52%	3.04%	1.88%
Age 65 - 74	3,033	5.51%	3,778	6.31%	4,802	7.43%	4.49%	4.91%
Age 75 - 84	1,433	2.60%	1,781	2.97%	2,322	3.59%	4.44%	5.45%
Age 85 and over	391	0.71%	548	0.91%	631	0.98%	6.98%	2.86%
Age 55 and over	*10,191*	18.50%	*12,303*	20.54%	*14,555*	22.51%	3.84%	3.42%
Age 62 and over	*6,066*	11.01%	*7,418*	12.38%	*9,164*	14.18%	4.11%	4.32%
Median Age	32.1		33.3		35.3		0.74%	1.17%

Source: Nielsen SiteReports

As of 2015, Nielsen estimates that the median age of Moore is 33.3 years. This compares with the statewide figure of 36.6 years. Approximately 7.46% of the population is below the age of 5, while 12.38% is over the age of 62. Over the next five years, the population age 62 and above is forecasted to grow by 4.32% per year.

Noble Population By Age	2010 Census	Percent of Total	2015 Estimate	Percent of Total	2020 Forecast	Percent of Total	2000 - 2015 Ann. Chng.	2015 - 2020 Ann. Chng.
Population by Age	6,481		6,816		7,234			
Age 0 - 4	493	7.61%	486	7.13%	507	7.01%	-0.29%	0.85%
Age 5 - 9	520	8.02%	495	7.26%	498	6.88%	-0.98%	0.12%
Age 10 - 14	535	8.25%	537	7.88%	511	7.06%	0.07%	-0.99%
Age 15 - 17	261	4.03%	296	4.34%	323	4.47%	2.55%	1.76%
Age 18 - 20	196	3.02%	272	3.99%	288	3.98%	6.77%	1.15%
Age 21 - 24	295	4.55%	349	5.12%	390	5.39%	3.42%	2.25%
Age 25 - 34	884	13.64%	859	12.60%	857	11.85%	-0.57%	-0.05%
Age 35 - 44	887	13.69%	886	13.00%	976	13.49%	-0.02%	1.95%
Age 45 - 54	905	13.96%	909	13.34%	917	12.68%	0.09%	0.18%
Age 55 - 64	681	10.51%	759	11.14%	857	11.85%	2.19%	2.46%
Age 65 - 74	463	7.14%	543	7.97%	610	8.43%	3.24%	2.35%
Age 75 - 84	262	4.04%	303	4.45%	364	5.03%	2.95%	3.74%
Age 85 and over	99	1.53%	122	1.79%	136	1.88%	4.27%	2.20%
Age 55 and over	*1,505*	23.22%	*1,727*	25.34%	*1,967*	27.19%	2.79%	2.64%
Age 62 and over	*929*	14.34%	*1,074*	15.75%	*1,231*	17.02%	2.93%	2.77%
Median Age	35.6		36.3		37.5		0.39%	0.65%

Source: Nielsen SiteReports

As of 2015, Nielsen estimates that the median age of Noble is 36.3 years. This compares with the statewide figure of 36.6 years. Approximately 7.13% of the population is below the age of 5, while 15.75% is over the age of 62. Over the next five years, the population age 62 and above is forecasted to grow by 2.77% per year.

Families by Presence of Children

The next table presents data for Cleveland County regarding families by the presence of children.

2013 Family Type by Presence of Children Under 18 Years	Norman		Moore		Noble		Cleveland County	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total Families:	25,028		14,982		1,739		64,188	
Married-Couple Family:	18,639	74.47%	11,207	74.80%	1,093	62.85%	49,207	76.66%
With Children Under 18 Years	7,646	30.55%	5,200	34.71%	320	18.40%	20,676	32.21%
No Children Under 18 Years	10,993	43.92%	6,007	40.09%	773	44.45%	28,531	44.45%
Other Family:	6,389	25.53%	3,775	25.20%	646	37.15%	14,981	23.34%
Male Householder, No Wife Present	2,037	8.14%	1,096	7.32%	136	7.82%	4,589	7.15%
With Children Under 18 Years	912	3.64%	694	4.63%	34	1.96%	2,394	3.73%
No Children Under 18 Years	1,125	4.49%	402	2.68%	102	5.87%	2,195	3.42%
Female Householder, No Husband Present	4,352	17.39%	2,679	17.88%	510	29.33%	10,392	16.19%
With Children Under 18 Years	2,737	10.94%	1,560	10.41%	393	22.60%	6,177	9.62%
No Children Under 18 Years	1,615	6.45%	1,119	7.47%	117	6.73%	4,215	6.57%
Total Single Parent Families	3,649		2,254		427		8,571	
Male Householder	912	24.99%	694	30.79%	34	7.96%	2,394	27.93%
Female Householder	2,737	75.01%	1,560	69.21%	393	92.04%	6,177	72.07%

Source: U.S. Census Bureau, 2009-2013 American Community Survey, Table B11003

As shown, within Cleveland County, among all families 13.35% are single-parent families, while in Norman, the percentage is 14.58%. In Moore the percentage of single-parent families is 15.04%, while in Noble the percentage is 24.55%.

Population by Presence of Disabilities

The following table compiles data regarding the non-institutionalized population of Cleveland County by presence of one or more disabilities.

2013 Age by Number of Disabilities

	Norman		Moore		Noble		Cleveland County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Civilian Non-Institutionalized Population:	112,561		55,708		6,470		255,432		3,702,515	
Under 18 Years:	22,719		15,124		2,067		59,502		933,738	
With One Type of Disability	547	2.41%	376	2.49%	93	4.50%	1,645	2.76%	33,744	3.61%
With Two or More Disabilities	288	1.27%	152	1.01%	0	0.00%	610	1.03%	11,082	1.19%
No Disabilities	21,884	96.32%	14,596	96.51%	1,974	95.50%	57,247	96.21%	888,912	95.20%
18 to 64 Years:	77,994		35,662		3,648		169,001		2,265,702	
With One Type of Disability	4,558	5.84%	2,221	6.23%	455	12.47%	10,244	6.06%	169,697	7.49%
With Two or More Disabilities	3,389	4.35%	1,852	5.19%	295	8.09%	7,927	4.69%	149,960	6.62%
No Disabilities	70,047	89.81%	31,589	88.58%	2,898	79.44%	150,830	89.25%	1,946,045	85.89%
65 Years and Over:	11,848		4,922		755		26,929		503,075	
With One Type of Disability	2,234	18.86%	748	15.20%	183	24.24%	5,306	19.70%	95,633	19.01%
With Two or More Disabilities	2,327	19.64%	1,312	26.66%	196	25.96%	5,718	21.23%	117,044	23.27%
No Disabilities	7,287	61.50%	2,862	58.15%	376	49.80%	15,905	59.06%	290,398	57.72%
Total Number of Persons with Disabilities:	13,343	11.85%	6,661	11.96%	1,222	18.89%	31,450	12.31%	577,160	15.59%

Source: U.S. Census Bureau, 2009-2013 American Community Survey, Table C18108

Within Cleveland County, 12.31% of the civilian non-institutionalized population has one or more disabilities, compared with 15.59% of Oklahomans as a whole. In Norman the percentage is 11.85%. In Moore the percentage is 11.96%, while in Noble the percentage is 18.89%.

We have also compiled data for the veteran population of Cleveland County by presence of disabilities, shown in the following table:

2013 Population by Veteran and Disability Status

	Norman		Moore		Noble		Cleveland County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Civilian Population Age 18+ For Whom Poverty Status is Determined	83,617		40,447		4,403		189,382		2,738,788	
Veteran:	8,150	9.75%	4,716	11.66%	443	10.06%	21,243	11.22%	305,899	11.17%
With a Disability	*2,445*	*30.00%*	*1,116*	*23.66%*	*307*	*69.30%*	*5,951*	*28.01%*	*100,518*	*32.86%*
No Disability	*5,705*	*70.00%*	*3,600*	*76.34%*	*136*	*30.70%*	*15,292*	*71.99%*	*205,381*	*67.14%*
Non-veteran:	75,467	90.25%	35,731	88.34%	3,960	89.94%	168,139	88.78%	2,432,889	88.83%
With a Disability	*9,890*	*13.11%*	*5,012*	*14.03%*	*822*	*20.76%*	*23,054*	*13.71%*	*430,610*	*17.70%*
No Disability	*65,577*	*86.89%*	*30,719*	*85.97%*	*3,138*	*79.24%*	*145,085*	*86.29%*	*2,002,279*	*82.30%*

Source: 2009-2013 American Community Survey, Table C21007

Within Cleveland County, the Census Bureau estimates there are 21,243 veterans, 28.01% of which have one or more disabilities (compared with 32.86% at a statewide level). In Norman, there are an estimated 8,150 veterans, 30.00% of which are estimated to have a disability. Within Moore the number of veterans is estimated to be 4,716 (23.66% with a disability), and within Noble there are an estimated 443 veterans, 69.30% with one or more disabilities.

Group Quarters Population

The next table presents data regarding the population of Cleveland County living in group quarters, such as correctional facilities, skilled-nursing facilities, student housing and military quarters.

2010 Group Quarters Population

	Norman		Moore		Noble		Cleveland County	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total Population	110,925		55,081		6,481		255,755	
Group Quarters Population	6,757	6.09%	309	0.56%	96	1.48%	10,561	4.13%
Institutionalized Population	1,124	1.01%	179	0.32%	96	1.48%	4,587	1.79%
Correctional facilities for adults	280	0.25%	0	0.00%	0	0.00%	3,164	1.24%
Juvenile facilities	108	0.10%	0	0.00%	0	0.00%	161	0.06%
Nursing facilities/Skilled-nursing facilities	566	0.51%	179	0.32%	96	1.48%	1,092	0.43%
Other institutional facilities	170	0.15%	0	0.00%	0	0.00%	170	0.07%
Noninstitutionalized population	5,633	5.08%	130	0.24%	0	0.00%	5,974	2.34%
College/University student housing	5469	4.93%	94	0.17%	0	0.00%	5737	2.24%
Military quarters	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Other noninstitutional facilities	164	0.15%	36	0.07%	0	0.00%	237	0.09%

Source: 2010 Decennial Census, Table P42

The percentage of the Cleveland County population in group quarters is somewhat higher than the statewide figure, which was 2.99% in 2010. This is due to the student population of the University of Oklahoma, as well as inmates at the Lexington Assessment and Reception Center and Joseph Harp Correctional Center in Lexington.

Household Income Levels

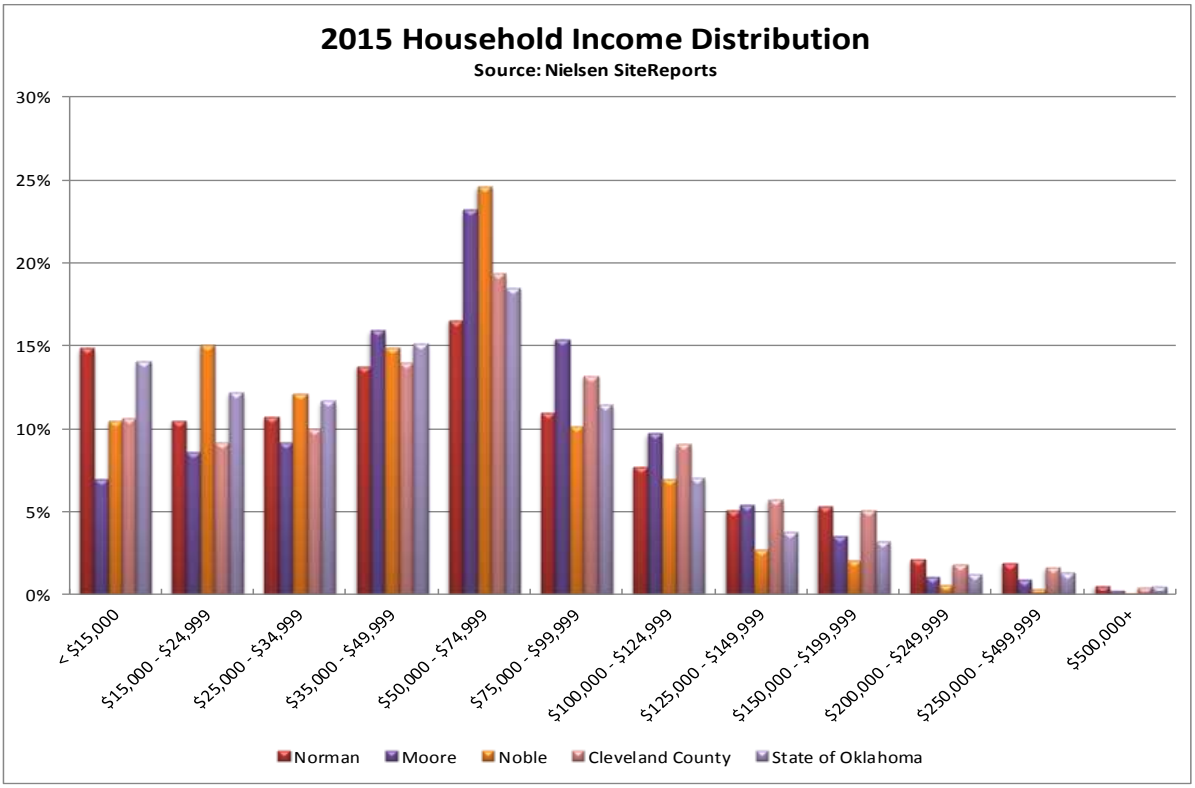
Data in the following chart shows the distribution of household income in Cleveland County, as well as median and average household income. Data for Oklahoma is included as a basis of comparison. This data is provided by Nielsen SiteReports for 2015.

2015 Household Income Distribution

	Norman		Moore		Noble		Cleveland County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Households by HH Income	48,352		22,335		2,574		106,300		1,520,327	
< $15,000	7,190	14.87%	1,560	6.98%	269	10.45%	11,262	10.59%	213,623	14.05%
$15,000 - $24,999	5,073	10.49%	1,915	8.57%	387	15.03%	9,781	9.20%	184,613	12.14%
$25,000 - $34,999	5,163	10.68%	2,048	9.17%	312	12.12%	10,564	9.94%	177,481	11.67%
$35,000 - $49,999	6,655	13.76%	3,557	15.93%	382	14.84%	14,831	13.95%	229,628	15.10%
$50,000 - $74,999	7,991	16.53%	5,172	23.16%	633	24.59%	20,562	19.34%	280,845	18.47%
$75,000 - $99,999	5,292	10.94%	3,431	15.36%	261	10.14%	14,027	13.20%	173,963	11.44%
$100,000 - $124,999	3,734	7.72%	2,171	9.72%	180	6.99%	9,630	9.06%	106,912	7.03%
$125,000 - $149,999	2,470	5.11%	1,211	5.42%	69	2.68%	6,067	5.71%	57,804	3.80%
$150,000 - $199,999	2,568	5.31%	784	3.51%	54	2.10%	5,395	5.08%	48,856	3.21%
$200,000 - $249,999	1,023	2.12%	235	1.05%	16	0.62%	1,978	1.86%	18,661	1.23%
$250,000 - $499,999	926	1.92%	199	0.89%	9	0.35%	1,736	1.63%	20,487	1.35%
$500,000+	267	0.55%	52	0.23%	2	0.08%	467	0.44%	7,454	0.49%
Median Household Income	$50,297		$60,090		$47,526		$58,161		$47,049	
Average Household Income	$70,935		$70,594		$56,181		$73,837		$63,390	

Source: Nielsen SiteReports

As shown, median household income for Cleveland County is estimated to be $58,161 in 2015. By way of comparison, the median household income of Oklahoma is estimated to be $47,049. For Norman, median household income is estimated to be $50,297. In Moore the estimate is $60,090, while in Noble the estimate is $47,526. The income distribution can be better visualized by the following chart.



Household Income Trend

Next we examine the long-term growth of incomes in Cleveland County, from the results of the 2000 Census (representing calendar year 1999), through the current 2015 estimates provided by Nielsen SiteReports. This data is then annualized into a compounded annual growth rate to estimate nominal annual household income growth over this period of time. We then compare the rate of annual growth with the rate of inflation over the same period of time (measured using the Consumer Price Index for all urban consumers, South Region, Size Class D, from May 1999 through May 2015). Subtracting the annual rate of inflation from the nominal rate of annual income growth yields a "real" rate of income growth which takes into account the effect of increasing prices of goods and services.

Household Income Trend

	1999 Median HH Income	2015 Median HH Income	Nominal Growth	Inflation Rate	Real Growth
Norman	$36,713	$50,297	1.99%	2.40%	-0.41%
Moore	$43,409	$60,090	2.05%	2.40%	-0.35%
Noble	$35,250	$47,526	1.89%	2.40%	-0.51%
Cleveland County	$41,846	$58,161	2.08%	2.40%	-0.32%
State of Oklahoma	$33,400	$47,049	2.16%	2.40%	-0.23%

Sources: 2000 Decennial Census, Summary File 3, Table P53; Nielsen SiteReports; CPI All Urban Consumers, South Region, Size Class D

As shown, both Cleveland County and the State of Oklahoma as a whole saw negative growth in "real" median household income, once inflation is taken into account. It should be noted that this trend is

not unique to Oklahoma or Cleveland County, but rather a national trend. Over the same period, the national median household income increased from $41,994 to $53,706 (for a nominal annualized growth rate of 1.55%) while the Consumer Price Index increased at an annualized rate of 2.26%, for a "real" growth rate of -0.72%.

Poverty Rates

Overall rates of poverty in Cleveland County and Oklahoma are shown in the following table. This data is included from the 2013 American Community Survey, as well as the 2000 Census to show how these rates have changed over the last decade. We also include poverty rates for single-parent families by gender of householder.

Poverty Rates

	2000 Census	2013 ACS	Change (Basis Points)	2013 Poverty Rates for Single-Parent Families	
				Male Householder	Female Householder
Norman	15.05%	17.76%	271	22.37%	40.30%
Moore	7.60%	11.22%	362	6.77%	29.81%
Noble	6.53%	11.19%	466	0.00%	38.68%
Cleveland County	10.58%	12.87%	229	13.45%	34.40%
State of Oklahoma	14.72%	16.85%	213	22.26%	47.60%

Sources: 2000 Decennial Census Table P87, 2009-2013 American Community Survey Tables B17001 & B17023

The poverty rate in Cleveland County is estimated to be 12.87% by the American Community Survey. This is an increase of 229 basis points since the 2000 Census. Within Norman, the poverty rate is estimated to be 17.76%. Within Moore, the rate is estimated to be 11.22%, while the poverty rate in Noble is estimated to be 11.19%. It should be noted that increasing poverty rates over this period of time is a national trend: between the 2000 Census and the 2013 American Community Survey, the poverty rate of the United States increased from 12.38% to 15.37%, an increase of 299 basis points.

Economic Conditions

Employment and Unemployment

The following table presents total employment figures and unemployment rates for Cleveland County, with figures for Oklahoma and the United States for comparison. This data is as of May 2015.

Employment and Unemployment

	May-2010 Employment	May-2015 Employment	Annual Growth	May-2010 Unemp. Rate	May-2015 Unemp. Rate	Change (bp)
Cleveland County	123,808	135,742	1.86%	5.4%	3.6%	-180
State of Oklahoma	1,650,748	1,776,187	1.48%	6.8%	4.4%	-240
United States (thsds)	139,497	149,349	1.37%	9.3%	5.3%	-400

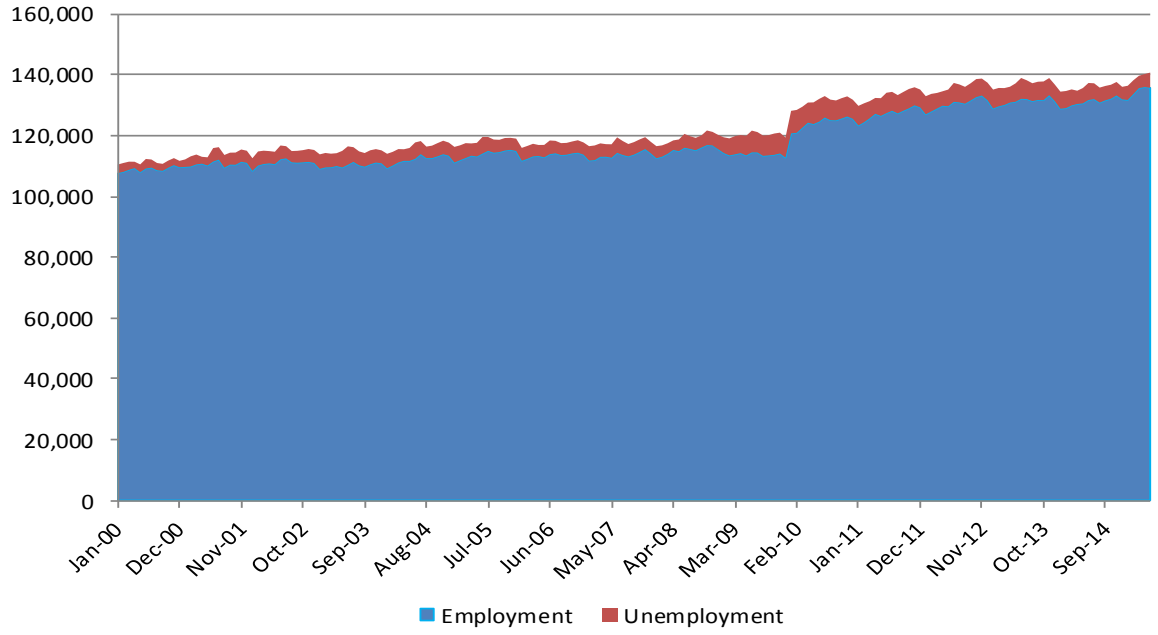
Sources: Bureau of Labor Statistics, Local Area Unemployment Statistics and Current Population Survey

As of May 2015, total employment in Cleveland County was 135,742 persons. Compared with figures from May 2010, this represents annualized employment growth of 1.86% per year. The unemployment rate in May was 3.6%, a decrease of -180 basis points from May 2010, which was 5.4%. Over the last five years, both the statewide and national trends have been improving employment levels and declining unemployment rates, and Cleveland County has outperformed both the state and nation in these statistics.

Employment Level Trends

The following chart shows total employment and unemployment levels in Cleveland County from January 2000 through May 2015, as reported by the Bureau of Labor Statistics, Local Area Unemployment Statistics program.

Employment and Unemployment in Cleveland County
January 2000 through May 2015



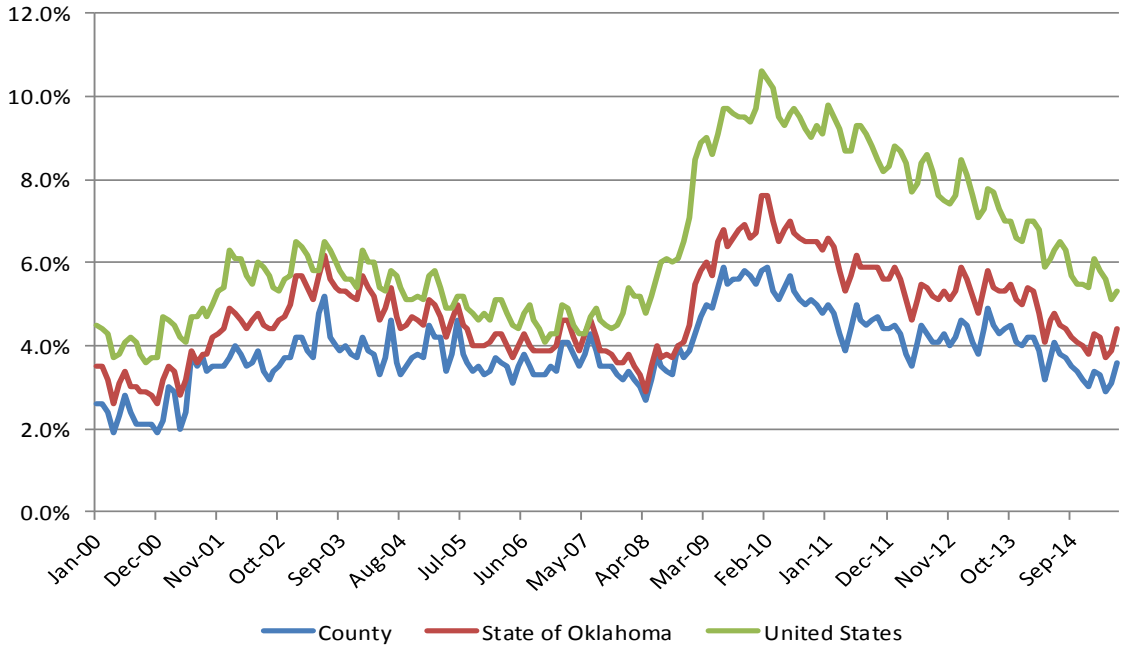
Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

As shown, total employment levels have generally trended upward from 2000 through the 3rd quarter of 2008, when employment levels began to decline due to the national economic recession. Employment growth resumed in early 2010, and has continued to grow to its current level of 135,742 persons. The number of unemployed persons in May 2015 was 5,004, out of a total labor force of 140,746 persons.

Unemployment Rate Trends

The next chart shows historic unemployment rates for Cleveland County, as well as Oklahoma and the United States for comparison. This data covers the time period of January 2000 through May 2015, and has not been seasonally adjusted.

Unemployment Rates in Cleveland County, Oklahoma and the United States
January 2000 through May 2015



Sources: Bureau of Labor Statistics, Local Area Unemployment Statistics and Current Population Survey

As shown, unemployment rates in Cleveland County increased moderately from 2000 through 2003, and then generally declined until the 4th quarter of 2008 as the effects of the national economic recession were felt. Unemployment rates began to decline again in 2010, to their current level of 3.6%. On the whole, unemployment rates in Cleveland County track very well with statewide figures but are typically below the state. Compared with the United States, unemployment rates in Cleveland County and Oklahoma are and have historically been well below the national average.

Employment and Wages by Industrial Supersector

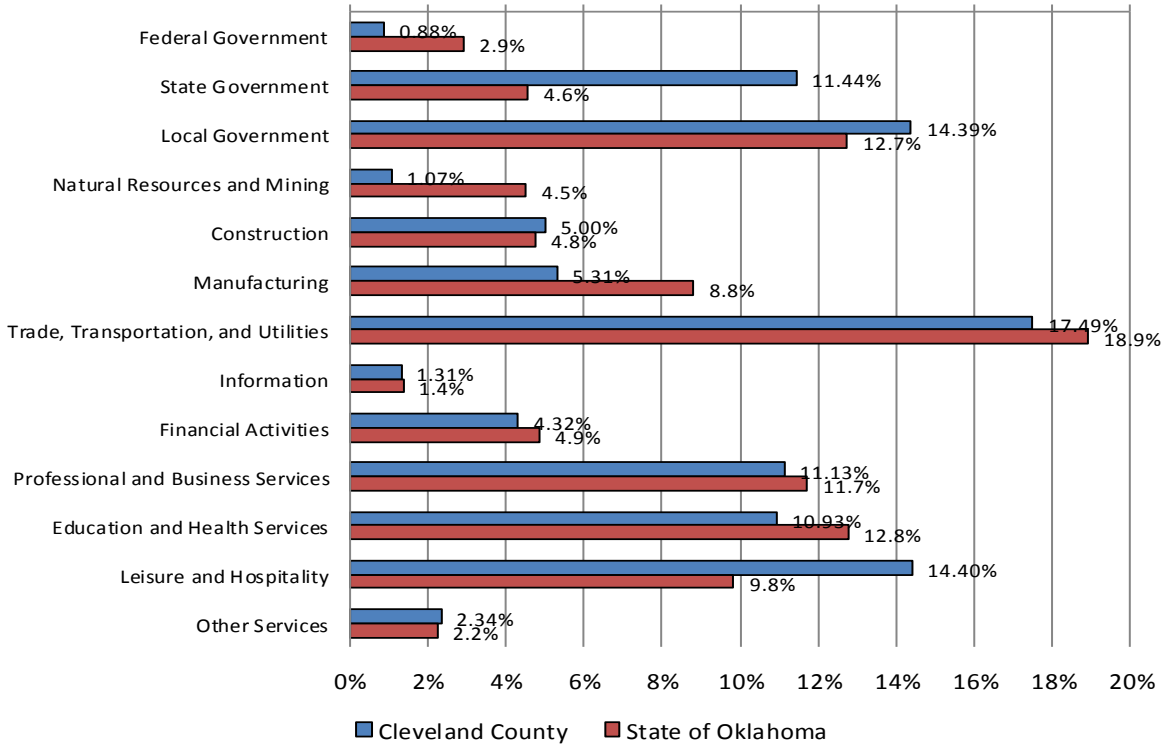
The next table presents data regarding employment in Cleveland County by industry, including total number of establishments, average number of employees in 2014, average annual pay, and location quotients for each industry compared with the United States. This data is furnished by the Bureau of Labor Statistics, Quarterly Census of Employment and Wages program.

Employees and Wages by Supersector - 2014

Supersector	Establishments	Avg. No. of Employees	Percent of Total	Avg. Annual Pay	Location Quotient
Federal Government	20	697	0.88%	$75,964	0.44
State Government	22	9,073	11.44%	$50,862	3.44
Local Government	64	11,411	14.39%	$41,897	1.43
Natural Resources and Mining	124	850	1.07%	$68,586	0.71
Construction	577	3,969	5.00%	$42,289	1.12
Manufacturing	148	4,212	5.31%	$48,955	0.60
Trade, Transportation, and Utilities	997	13,869	17.49%	$31,110	0.92
Information	67	1,041	1.31%	$46,973	0.66
Financial Activities	616	3,424	4.32%	$43,259	0.77
Professional and Business Services	1,039	8,826	11.13%	$43,761	0.80
Education and Health Services	748	8,669	10.93%	$35,127	0.73
Leisure and Hospitality	526	11,419	14.40%	$14,818	1.34
Other Services	314	1,853	2.34%	$29,547	0.75
Total	**5,259**	**79,312**		**$37,422**	**1.00**

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Employment Sectors - 2014



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Among private employers, the largest percentage of persons (17.49%) are employed in Trade, Transportation, and Utilities. The average annual pay in this sector is $31,110 per year. The industry

with the highest annual pay is Natural Resources and Mining, with average annual pay of $68,586 per year.

The rightmost column of the previous table provides location quotients for each industry for Cleveland County, as compared with the United States. Location quotients (LQs) are ratios used to compare the concentration of employment in a given industry to a larger reference, in this case the United States. They are calculated by dividing the percentage of employment in a given industry in a given geography (Cleveland County in this instance), by the percentage of employment in the same industry in the United States. For example, if manufacturing in a certain county comprised 10% of total employment, while in the United States manufacturing comprised 5% of total employment, the location quotient would be 2.0:

10% (county manufacturing %) / 5% (U.S. manufacturing %) = 2.0

Location quotients greater than 1.0 indicate a higher concentration of employment compared with the nation, and suggest that the industry in question is an important contributor to the local economic base. Quotients less than 1.0 indicate that the industry makes up a smaller share of the local economy than the rest of the nation.

Within Cleveland County, among all industries the largest location quotient is in State Government, with a quotient of 3.44 (this sector includes employment at the University of Oklahoma). Among private employers, the largest is Leisure and Hospitality, with a quotient of 1.34.

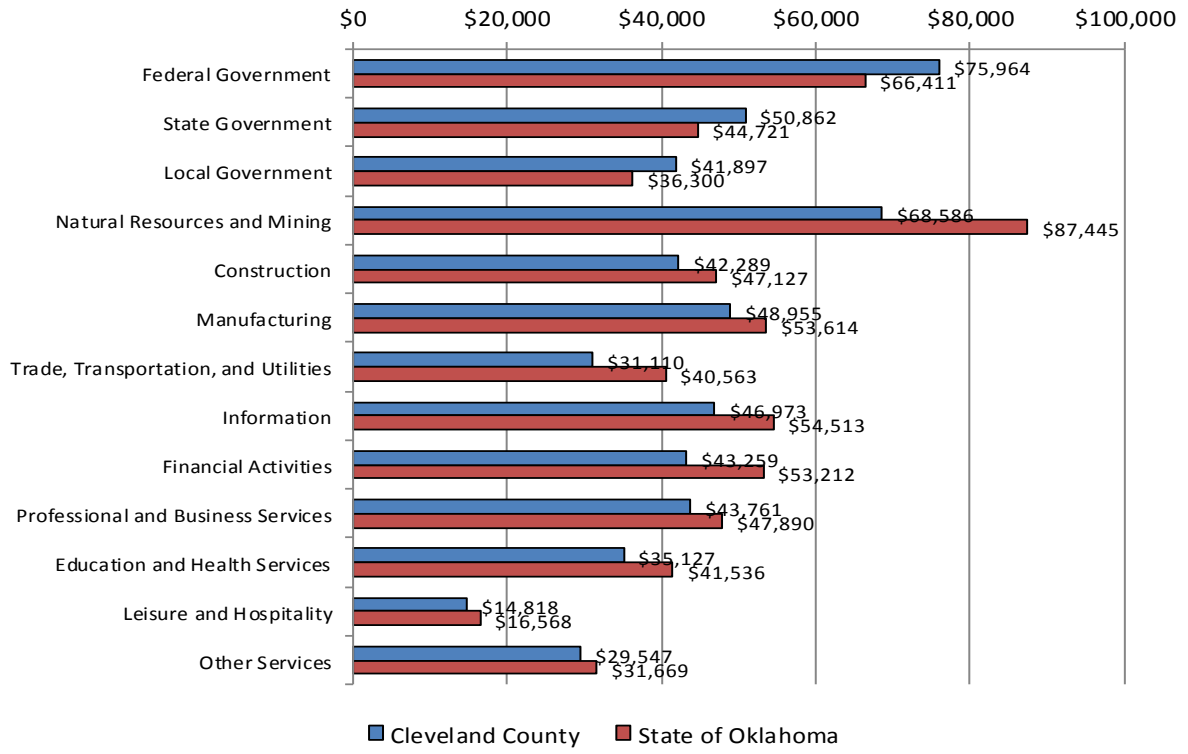
The next table presents average annual pay in Cleveland County by industry, in comparison with Oklahoma as a whole and the United States.

Comparison of 2014 Average Annual Pay by Supersector

Supersector	Cleveland County	State of Oklahoma	United States	Percent of State	Percent of Nation
Federal Government	$75,964	$66,411	$75,784	114.4%	100.2%
State Government	$50,862	$44,721	$54,184	113.7%	93.9%
Local Government	$41,897	$36,300	$46,146	115.4%	90.8%
Natural Resources and Mining	$68,586	$87,445	$59,666	78.4%	114.9%
Construction	$42,289	$47,127	$55,041	89.7%	76.8%
Manufacturing	$48,955	$53,614	$62,977	91.3%	77.7%
Trade, Transportation, and Utilities	$31,110	$40,563	$42,988	76.7%	72.4%
Information	$46,973	$54,513	$90,804	86.2%	51.7%
Financial Activities	$43,259	$53,212	$85,261	81.3%	50.7%
Professional and Business Services	$43,761	$47,890	$66,657	91.4%	65.7%
Education and Health Services	$35,127	$41,536	$45,951	84.6%	76.4%
Leisure and Hospitality	$14,818	$16,568	$20,993	89.4%	70.6%
Other Services	$29,547	$31,669	$33,935	93.3%	87.1%
Total	**$37,422**	**$43,774**	**$51,361**	**85.5%**	**72.9%**

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Average Annual Pay - 2014



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

In comparison with the rest of Oklahoma, Cleveland County has higher average wages in local, state and federal government, and lower average wages in each of the other employment sectors.

Working Families

The following table presents data on families by employment status, and presence of children.

Families by Employment Status and Presence of Children										
	Norman		Moore		Noble		Cleveland County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total Families	**25,028**		**14,982**		**1,739**		**64,188**		**961,468**	
With Children <18 Years:	11,295	45.13%	7,454	49.75%	747	42.96%	29,247	45.56%	425,517	44.26%
Married Couple:	7,646	67.69%	5,200	69.76%	320	42.84%	20,676	70.69%	281,418	66.14%
Both Parents Employed	4,513	59.02%	3,442	66.19%	229	71.56%	13,244	64.05%	166,700	59.24%
One Parent Employed	2,937	38.41%	1,632	31.38%	87	27.19%	7,035	34.02%	104,817	37.25%
Neither Parent Employed	196	2.56%	126	2.42%	4	1.25%	397	1.92%	9,901	3.52%
Other Family:	3,649	32.31%	2,254	30.24%	427	57.16%	8,571	29.31%	144,099	33.86%
Male Householder:	912	24.99%	694	30.79%	34	7.96%	2,394	27.93%	36,996	25.67%
Employed	818	89.69%	647	93.23%	34	100.00%	2,141	89.43%	31,044	83.91%
Not Employed	94	10.31%	47	6.77%	0	0.00%	253	10.57%	5,952	16.09%
Female Householder:	2,737	75.01%	1,560	69.21%	393	92.04%	6,177	72.07%	107,103	74.33%
Employed	2,027	74.06%	1,144	73.33%	232	59.03%	4,578	74.11%	75,631	70.62%
Not Employed	710	25.94%	416	26.67%	161	40.97%	1,599	25.89%	31,472	29.38%
Without Children <18 Years:	13,733	54.87%	7,528	50.25%	992	57.04%	34,941	54.44%	535,951	55.74%
Married Couple:	10,993	80.05%	6,007	79.80%	773	77.92%	28,531	81.65%	431,868	80.58%
Both Spouses Employed	4,854	44.16%	2,889	48.09%	278	35.96%	12,649	44.33%	167,589	38.81%
One Spouse Employed	3,615	32.88%	1,912	31.83%	258	33.38%	9,416	33.00%	138,214	32.00%
Neither Spouse Employed	2,524	22.96%	1,206	20.08%	237	30.66%	6,466	22.66%	126,065	29.19%
Other Family:	2,740	19.95%	1,521	20.20%	219	22.08%	6,410	18.35%	104,083	19.42%
Male Householder:	1,125	44.57%	402	33.33%	102	43.04%	2,195	33.95%	32,243	25.58%
Employed	881	78.31%	288	71.64%	49	48.04%	1,636	74.53%	19,437	60.28%
Not Employed	244	21.69%	114	28.36%	53	51.96%	559	25.47%	12,806	39.72%
Female Householder:	1,615	58.94%	1,119	73.57%	117	53.42%	4,215	65.76%	71,840	69.02%
Employed	662	40.99%	641	57.28%	93	79.49%	2,417	57.34%	36,601	50.95%
Not Employed	953	59.01%	478	42.72%	24	20.51%	1,798	42.66%	35,239	49.05%
Total Working Families:	*20,307*	*81.14%*	*12,595*	*84.07%*	*1,260*	*72.46%*	*53,116*	*82.75%*	*740,033*	*76.97%*
With Children <18 Years:	*10,295*	*50.70%*	*6,865*	*54.51%*	*582*	*46.19%*	*26,998*	*50.83%*	*378,192*	*51.10%*
Without Children <18 Years:	*10,012*	*49.30%*	*5,730*	*45.49%*	*678*	*53.81%*	*26,118*	*49.17%*	*361,841*	*48.90%*

Source: 2009-2013 American Community Survey, Table B23007

Within Cleveland County, there are 53,116 working families, 50.83% of which have children under the age of 18 present. This compares with 51.10% in Oklahoma as a whole.

Major Employers

Major employers in the Cleveland County area are presented in the following table, as reported by the Norman Economic Development Coalition.

Major Employers in Cleveland County	
Company	**No. Employees**
The University of Oklahoma	12,446
Norman Regional Hospital	2,950
Norman Public Schools	1,951
Riverwind Casinos	963
Johnson Controls	950
Walmart Supercenters	950
City of Norman	834
Hitachi	440
National Oceanic & Atmospheric Administration (NOAA)	400
U.S. Postal Service - NCED	350
SuperTarget	380
Oklahoma Veterans Center	350
Griffin Memorial Hospital	337
SYSCO Foods	320
SITEL	310
Moore-Norman Technology Center	240
AT&T	225
Astellas Technologies	200
Chickasaw Nation Industries	163
Power Cost, Inc.	154
MSCI	123

Source: Norman Economic Development Coalition

As shown, the largest single employer in the area is the University of Oklahoma by far, though there is a large number of other employers in a variety of industries such as health care, gaming, education, retail, manufacturing, and several major federal agencies (including the NOAA's National Severe Storm Laboratory).

Commuting Patterns

Travel Time to Work

The next table presents data regarding travel time to work in Cleveland County.

Workers 16 Years and Over by Commuting Time to Work										
	Norman		Moore		Noble		Cleveland County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Commuting Workers:	**53,632**		**27,245**		**2,716**		**123,620**		**1,613,364**	
Less than 15 minutes	21,531	40.15%	6,628	24.33%	879	32.36%	37,682	30.48%	581,194	36.02%
15 to 30 minutes	17,060	31.81%	12,936	47.48%	954	35.13%	48,952	39.60%	625,885	38.79%
30 to 45 minutes	9,765	18.21%	5,605	20.57%	482	17.75%	25,077	20.29%	260,192	16.13%
45 to 60 minutes	3,133	5.84%	1,036	3.80%	282	10.38%	6,791	5.49%	74,625	4.63%
60 or more minutes	2,143	4.00%	1,040	3.82%	119	4.38%	5,118	4.14%	71,468	4.43%

Source: 2009-2013 American Community Survey, Table B08303

Within Cleveland County, the largest percentage of workers (39.60%) travel 15 to 30 minutes to work. Although Cleveland County has an active labor market, many of its residents commute to Oklahoma City for work.

Means of Transportation

Data in the following table presents data regarding means of transportation for employed persons in Cleveland County.

Workers 16 Years and Over by Means of Transportation to Work										
	Norman		Moore		Noble		Cleveland County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total Workers Age 16+	**55,531**		**27,867**		**2,745**		**127,162**		**1,673,026**	
Car, Truck or Van:	49,520	89.18%	26,922	96.61%	2,716	98.94%	118,514	93.20%	1,551,461	92.73%
Drove Alone	*44,570*	*90.00%*	*24,105*	*89.54%*	*2,497*	*91.94%*	*106,768*	*90.09%*	*1,373,407*	*88.52%*
Carpooled	*4,950*	*10.00%*	*2,817*	*10.46%*	*219*	*8.06%*	*11,746*	*9.91%*	*178,054*	*11.48%*
Public Transportation	525	0.95%	53	0.19%	0	0.00%	623	0.49%	8,092	0.48%
Taxicab	0	0.00%	0	0.00%	0	0.00%	0	0.00%	984	0.06%
Motorcycle	144	0.26%	119	0.43%	0	0.00%	377	0.30%	3,757	0.22%
Bicycle	764	1.38%	19	0.07%	0	0.00%	792	0.62%	4,227	0.25%
Walked	2,046	3.68%	88	0.32%	0	0.00%	2,302	1.81%	30,401	1.82%
Other Means	633	1.14%	44	0.16%	0	0.00%	1,012	0.80%	14,442	0.86%
Worked at Home	1,899	3.42%	622	2.23%	29	1.06%	3,542	2.79%	59,662	3.57%

Source: 2009-2013 American Community Survey, Table B08301

As shown, the vast majority of persons in Cleveland County commute to work by private vehicle, with a small percentage of persons working from home.

Housing Stock Analysis

Existing Housing Units

The following table presents data regarding the total number of housing units in Cleveland County. This data is provided as of the 2000 Census, the 2010 Census, with a 2015 estimate furnished by Nielsen SiteReports.

Total Housing Units

	2000 Census	2010 Census	Annual Change	2015 Estimate	Annual Change
Norman	41,547	47,965	1.45%	51,699	1.51%
Moore	15,801	21,444	3.10%	23,370	1.74%
Noble	2,134	2,602	2.00%	2,765	1.22%
Cleveland County	84,844	104,821	2.14%	112,937	1.50%
State of Oklahoma	1,514,400	1,664,378	0.95%	1,732,484	0.81%

Sources: 2000 and 2010 Decennial Censuses, Nielsen SiteReports

Since the 2010, Nielsen estimates that the number of housing units in Cleveland County grew by 1.50% per year, to a total of 112,937 housing units in 2015. In terms of new housing unit construction, Cleveland County outpaced Oklahoma as a whole between 2010 and 2015.

Housing by Units in Structure

The next table separates housing units in Cleveland County by units in structure, based on data from the Census Bureau's American Community Survey.

2013 Housing Units by Units in Structure

	Norman		Moore		Noble		Cleveland County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total Housing Units	**49,679**		**22,066**		**2,398**		**105,998**		**1,669,828**	
1 Unit, Detached	31,080	62.56%	19,018	86.19%	1,978	82.49%	74,887	70.65%	1,219,987	73.06%
1 Unit, Attached	1,847	3.72%	292	1.32%	81	3.38%	2,738	2.58%	34,434	2.06%
Duplex Units	1,686	3.39%	431	1.95%	62	2.59%	2,456	2.32%	34,207	2.05%
3-4 Units	2,571	5.18%	375	1.70%	23	0.96%	3,529	3.33%	42,069	2.52%
5-9 Units	3,543	7.13%	664	3.01%	84	3.50%	5,336	5.03%	59,977	3.59%
10-19 Units	4,368	8.79%	838	3.80%	40	1.67%	6,372	6.01%	57,594	3.45%
20-49 Units	1,019	2.05%	48	0.22%	11	0.46%	1,308	1.23%	29,602	1.77%
50 or More Units	1,343	2.70%	142	0.64%	10	0.42%	2,193	2.07%	30,240	1.81%
Mobile Homes	2,196	4.42%	258	1.17%	109	4.55%	7,136	6.73%	159,559	9.56%
Boat, RV, Van, etc.	26	0.05%	0	0.00%	0	0.00%	43	0.04%	2,159	0.13%
Total Multifamily Units	**14,530**	**29.25%**	**2,498**	**11.32%**	**230**	**9.59%**	**21,194**	**19.99%**	**253,689**	**15.19%**

Source: 2009-2013 American Community Survey, Table B25024

Within Cleveland County, 70.65% of housing units are single-family, detached. 19.99% of housing units are multifamily in structure (two or more units per building), while 6.77% of housing units comprise mobile homes, RVs, etc.

Within Norman, 62.56% of housing units are single-family, detached. 29.25% of housing units are multifamily in structure, while 4.47% of housing units comprise mobile homes, RVs, etc.

Within Moore, 86.19% of housing units are single-family, detached. 11.32% of housing units are multifamily in structure, while 1.17% of housing units comprise mobile homes, RVs, etc.

Within Noble, 82.49% of housing units are single-family, detached. 9.59% of housing units are multifamily in structure, while 4.55% of housing units comprise mobile homes, RVs, etc.

Housing Units Number of Bedrooms and Tenure

Data in the following table presents housing units in Cleveland County by tenure (owner/renter), and by number of bedrooms.

2013 Housing Units by Tenure and Number of Bedrooms

	Norman		Moore		Noble		Cleveland County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total Occupied Housing Units	**44,079**		**20,704**		**2,111**		**96,701**		**1,444,081**	
Owner Occupied:	**25,104**	**56.95%**	**15,198**	**73.41%**	**1,555**	**73.66%**	**65,166**	**67.39%**	**968,736**	**67.08%**
No Bedroom	54	0.22%	38	0.25%	0	0.00%	182	0.28%	2,580	0.27%
1 Bedroom	407	1.62%	40	0.26%	0	0.00%	649	1.00%	16,837	1.74%
2 Bedrooms	2,954	11.77%	1,254	8.25%	164	10.55%	6,786	10.41%	166,446	17.18%
3 Bedrooms	15,114	60.21%	11,022	72.52%	1,117	71.83%	42,551	65.30%	579,135	59.78%
4 Bedrooms	5,845	23.28%	2,655	17.47%	261	16.78%	13,568	20.82%	177,151	18.29%
5 or More Bedrooms	730	2.91%	189	1.24%	13	0.84%	1,430	2.19%	26,587	2.74%
Renter Occupied:	**18,975**	**43.05%**	**5,506**	**26.59%**	**556**	**26.34%**	**31,535**	**32.61%**	**475,345**	**32.92%**
No Bedroom	586	3.09%	20	0.36%	0	0.00%	747	2.37%	13,948	2.93%
1 Bedroom	4,357	22.96%	674	12.24%	43	7.73%	6,630	21.02%	101,850	21.43%
2 Bedrooms	7,616	40.14%	1,838	33.38%	233	41.91%	11,917	37.79%	179,121	37.68%
3 Bedrooms	5,018	26.45%	2,570	46.68%	280	50.36%	10,086	31.98%	152,358	32.05%
4 Bedrooms	1,290	6.80%	321	5.83%	0	0.00%	1,955	6.20%	24,968	5.25%
5 or More Bedrooms	108	0.57%	83	1.51%	0	0.00%	200	0.63%	3,100	0.65%

Source: 2009-2013 American Community Survey, Table B25042

The overall homeownership rate in Cleveland County is 67.39%, while 32.61% of housing units are renter occupied. In Norman, the homeownership rate is 56.95%, while 43.05% of households are renters. In Moore 73.41% of households are homeowners while 26.59% are renters, and in Noble the homeownership rate is 73.66% while 26.34% are renters. Norman's relatively low rate of homeownership is largely due to the University of Oklahoma's student population.

Housing Units Tenure and Household Income

The next series of tables analyze housing units by tenure, and by household income.

Cleveland County Owner/Renter Percentages by Income Band in 2013					
Household Income	**Total Households**	**Total Owners**	**Total Renters**	**% Owners**	**% Renters**
Total	**96,701**	**65,166**	**31,535**	**67.39%**	**32.61%**
Less than $5,000	3,207	895	2,312	27.91%	72.09%
$5,000 - $9,999	3,096	844	2,252	27.26%	72.74%
$10,000-$14,999	4,094	1,404	2,690	34.29%	65.71%
$15,000-$19,999	4,238	1,690	2,548	39.88%	60.12%
$20,000-$24,999	4,788	2,220	2,568	46.37%	53.63%
$25,000-$34,999	9,953	4,945	5,008	49.68%	50.32%
$35,000-$49,999	14,061	8,708	5,353	61.93%	38.07%
$50,000-$74,999	19,320	14,180	5,140	73.40%	26.60%
$75,000-$99,999	13,206	11,283	1,923	85.44%	14.56%
$100,000-$149,999	13,601	12,354	1,247	90.83%	9.17%
$150,000 or more	7,137	6,643	494	93.08%	6.92%
Income Less Than $25,000	**19,423**	**7,053**	**12,370**	**36.31%**	**63.69%**

Source: 2009-2013 American Community Survey, Table B25118

Within Cleveland County as a whole, 63.69% of households with incomes less than $25,000 are estimated to be renters, while 36.31% are estimated to be homeowners.

Norman Owner/Renter Percentages by Income Band in 2013					
Household Income	**Total Households**	**Total Owners**	**Total Renters**	**% Owners**	**% Renters**
Total	**44,079**	**25,104**	**18,975**	**56.95%**	**43.05%**
Less than $5,000	2,133	410	1,723	19.22%	80.78%
$5,000 - $9,999	2,060	396	1,664	19.22%	80.78%
$10,000-$14,999	2,613	648	1,965	24.80%	75.20%
$15,000-$19,999	2,272	640	1,632	28.17%	71.83%
$20,000-$24,999	2,677	907	1,770	33.88%	66.12%
$25,000-$34,999	4,636	1,764	2,872	38.05%	61.95%
$35,000-$49,999	6,085	3,022	3,063	49.66%	50.34%
$50,000-$74,999	7,324	4,888	2,436	66.74%	33.26%
$75,000-$99,999	5,054	4,178	876	82.67%	17.33%
$100,000-$149,999	5,418	4,826	592	89.07%	10.93%
$150,000 or more	3,807	3,425	382	89.97%	10.03%
Income Less Than $25,000	**11,755**	**3,001**	**8,754**	**25.53%**	**74.47%**

Source: 2009-2013 American Community Survey, Table B25118

Within Norman, 74.47% of households with incomes less than $25,000 are estimated to be renters, while 25.53% are estimated to be homeowners.

Moore Owner/Renter Percentages by Income Band in 2013					
Household Income	**Total Households**	**Total Owners**	**Total Renters**	**% Owners**	**% Renters**
Total	**20,704**	**15,198**	**5,506**	**73.41%**	**26.59%**
Less than $5,000	379	141	238	37.20%	62.80%
$5,000 - $9,999	499	176	323	35.27%	64.73%
$10,000-$14,999	629	263	366	41.81%	58.19%
$15,000-$19,999	1,065	452	613	42.44%	57.56%
$20,000-$24,999	654	432	222	66.06%	33.94%
$25,000-$34,999	1,967	1,198	769	60.90%	39.10%
$35,000-$49,999	3,530	2,554	976	72.35%	27.65%
$50,000-$74,999	4,852	3,567	1,285	73.52%	26.48%
$75,000-$99,999	3,320	2,954	366	88.98%	11.02%
$100,000-$149,999	2,902	2,575	327	88.73%	11.27%
$150,000 or more	907	886	21	97.68%	2.32%
Income Less Than $25,000	**3,226**	**1,464**	**1,762**	**45.38%**	**54.62%**

Source: 2009-2013 American Community Survey, Table B25118

Within Moore, 54.62% of households with incomes less than $25,000 are estimated to be renters, while 45.38% are estimated to be homeowners.

Noble Owner/Renter Percentages by Income Band in 2013					
Household Income	**Total Households**	**Total Owners**	**Total Renters**	**% Owners**	**% Renters**
Total	**2,111**	**1,555**	**556**	**73.66%**	**26.34%**
Less than $5,000	122	52	70	42.62%	57.38%
$5,000 - $9,999	36	23	13	63.89%	36.11%
$10,000-$14,999	138	81	57	58.70%	41.30%
$15,000-$19,999	58	43	15	74.14%	25.86%
$20,000-$24,999	151	126	25	83.44%	16.56%
$25,000-$34,999	227	126	101	55.51%	44.49%
$35,000-$49,999	286	220	66	76.92%	23.08%
$50,000-$74,999	566	428	138	75.62%	24.38%
$75,000-$99,999	225	177	48	78.67%	21.33%
$100,000-$149,999	201	178	23	88.56%	11.44%
$150,000 or more	101	101	0	100.00%	0.00%
Income Less Than $25,000	**505**	**325**	**180**	**64.36%**	**35.64%**

Source: 2009-2013 American Community Survey, Table B25118

Within Noble, 35.64% of households with incomes less than $25,000 are estimated to be renters, while 64.36% are estimated to be homeowners.

Housing Units by Year of Construction and Tenure

The following table provides a breakdown of housing units by year of construction, and by owner/renter (tenure), as well as median year of construction.

2013 Housing Units by Tenure and Year of Construction										
	Norman		Moore		Noble		Cleveland County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total Occupied Housing Units	**44,079**		**20,704**		**2,111**		**96,701**		**1,444,081**	
Owner Occupied:	**25,104**	**56.95%**	**15,198**	**73.41%**	**1,555**	**73.66%**	**65,166**	**67.39%**	**968,736**	**67.08%**
Built 2010 or Later	264	1.05%	275	1.81%	9	0.58%	925	1.42%	10,443	1.08%
Built 2000 to 2009	5,190	20.67%	4,421	29.09%	326	20.96%	16,841	25.84%	153,492	15.84%
Built 1990 to 1999	4,381	17.45%	1,380	9.08%	227	14.60%	10,677	16.38%	125,431	12.95%
Built 1980 to 1989	4,090	16.29%	2,854	18.78%	214	13.76%	13,093	20.09%	148,643	15.34%
Built 1970 to 1979	4,799	19.12%	3,324	21.87%	407	26.17%	12,316	18.90%	184,378	19.03%
Built 1960 to 1969	3,181	12.67%	2,281	15.01%	188	12.09%	6,430	9.87%	114,425	11.81%
Built 1950 to 1959	1,710	6.81%	454	2.99%	67	4.31%	2,613	4.01%	106,544	11.00%
Built 1940 to 1949	616	2.45%	105	0.69%	61	3.92%	946	1.45%	50,143	5.18%
Built 1939 or Earlier	873	3.48%	104	0.68%	56	3.60%	1,325	2.03%	75,237	7.77%
Median Year Built:	1983		1985		1980		1987		1977	
Renter Occupied:	**18,975**	**43.05%**	**5,506**	**26.59%**	**556**	**26.34%**	**31,535**	**32.61%**	**475,345**	**32.92%**
Built 2010 or Later	509	2.68%	0	0.00%	0	0.00%	818	2.59%	5,019	1.06%
Built 2000 to 2009	2,784	14.67%	1,129	20.50%	66	11.87%	5,375	17.04%	50,883	10.70%
Built 1990 to 1999	1,883	9.92%	595	10.81%	25	4.50%	3,817	12.10%	47,860	10.07%
Built 1980 to 1989	3,609	19.02%	866	15.73%	66	11.87%	6,189	19.63%	77,521	16.31%
Built 1970 to 1979	4,315	22.74%	1,364	24.77%	162	29.14%	6,965	22.09%	104,609	22.01%
Built 1960 to 1969	2,494	13.14%	1,123	20.40%	115	20.68%	4,005	12.70%	64,546	13.58%
Built 1950 to 1959	1,669	8.80%	274	4.98%	11	1.98%	2,202	6.98%	54,601	11.49%
Built 1940 to 1949	922	4.86%	72	1.31%	27	4.86%	1,097	3.48%	31,217	6.57%
Built 1939 or Earlier	790	4.16%	83	1.51%	84	15.11%	1,067	3.38%	39,089	8.22%
Median Year Built:	1978		1979		1973		1981		1975	
Overall Median Year Built:	**1983**		**1983**		**1978**		**1985**		**1976**	

Sources: 2009-2013 American Community Survey, Tables B25035, B25036 & B25037

Within Cleveland County, 24.78% of housing units were built after the year 2000. This compares with 15.22% statewide. Within Norman the percentage is 19.84%. Within Moore the percentage is 28.13%, while in Noble the percentage is 19.00%.

60.24% of housing units in Cleveland County were built prior to 1990, while in Norman the percentage is 65.95%. These figures compare with the statewide figure of 72.78%. In Moore the percentage is 62.33%, and in Noble 69.07% were constructed prior to 1990.

Substandard Housing

The next table presents data regarding substandard housing in Cleveland County. The two most commonly cited figures for substandard housing are a lack of complete plumbing, and/or a lack of a complete kitchen. We have also included statistics regarding homes heated by wood, although this is a less frequently cited indicator of substandard housing since some homes (particularly homes for seasonal occupancy) are heated by wood but otherwise not considered substandard.

The Census Bureau definition of inadequate plumbing is any housing unit lacking any one (or more) of the following three items:

1. Hot and cold running water
2. A flush toilet
3. A bathtub or shower

Inadequate kitchens are defined by the Census Bureau as housing units lacking any of the three following items:

1. A sink with a faucet
2. A stove or range
3. A refrigerator

2013 Substandard Housing Units

	Occupied Units	Inadequate Plumbing		Inadequate Kitchen		Uses Wood for Fuel	
		Number	Percent	Number	Percent	Number	Percent
Norman	44,079	93	0.21%	286	0.65%	192	0.44%
Moore	20,704	26	0.13%	62	0.30%	12	0.06%
Noble	2,111	31	1.47%	31	1.47%	0	0.00%
Cleveland County	96,701	236	0.24%	527	0.54%	756	0.78%
State of Oklahoma	1,444,081	7,035	0.49%	13,026	0.90%	28,675	1.99%

Sources: 2009-2013 American Community Survey, Tables B25040, B25048 & B25052

Within Cleveland County, 0.24% of occupied housing units have inadequate plumbing (compared with 0.49% at a statewide level), while 0.54% have inadequate kitchen facilities (compared with 0.90% at a statewide level). It is likely that there is at least some overlap between these two figures, among units lacking both complete plumbing and kitchen facilities.

Vacancy Rates

The next table details housing units in Cleveland County by vacancy and type. This data is provided by the American Community Survey.

2013 Housing Units by Vacancy

	Norman		Moore		Noble		Cleveland County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total Housing Units	49,679		22,066		2,398		105,998		1,669,828	
Total Vacant Units	5,600	11.27%	1,362	6.17%	287	11.97%	9,297	8.77%	225,747	13.52%
For rent	1,763	31.48%	331	24.30%	124	43.21%	2,796	30.07%	43,477	19.26%
Rented, not occupied	1,457	26.02%	117	8.59%	0	0.00%	1,682	18.09%	9,127	4.04%
For sale only	332	5.93%	267	19.60%	76	26.48%	992	10.67%	23,149	10.25%
Sold, not occupied	569	10.16%	86	6.31%	32	11.15%	799	8.59%	8,618	3.82%
For seasonal, recreational, or occasional use	536	9.57%	59	4.33%	45	15.68%	926	9.96%	39,475	17.49%
For migrant workers	42	0.75%	0	0.00%	0	0.00%	52	0.56%	746	0.33%
Other vacant	901	16.09%	502	36.86%	10	3.48%	2,050	22.05%	101,155	44.81%
Homeowner Vacancy Rate	1.28%		1.72%		4.57%		1.48%		2.31%	
Rental Vacancy Rate	7.94%		5.56%		18.24%		7.76%		8.24%	

Source: 2009-2013 American Community Survey, Tables B25001, B25003 & B25004

Within Cleveland County, the overall housing vacancy rate is estimated to be 8.77%. The homeowner vacancy rate is estimated to be 1.48%, while the rental vacancy rate is estimated to be 7.76%.

In Norman, the overall housing vacancy rate is estimated to be 11.27%. The homeowner vacancy rate is estimated to be 1.28%, while the rental vacancy rate is estimated to be 7.94%.

In Moore, the overall housing vacancy rate is estimated to be 6.17%. The homeowner vacancy rate is estimated to be 1.72%, while the rental vacancy rate is estimated to be 5.56%.

In Noble, the overall housing vacancy rate is estimated to be 11.97%. The homeowner vacancy rate is estimated to be 4.57%, while the rental vacancy rate is estimated to be 18.24%.

Building Permits

The next series of tables present data regarding new residential building permits issued in Norman, Moore, and Noble. This data is furnished by the U.S. Census Bureau Residential Construction Branch, Manufacturing and Construction Division. Please note that average costs reported only represent physical construction costs for the housing units, and do not include land prices, most soft costs (such as finance fees), or builder's profit.

Norman
New Residential Building Permits Issued, 2004-2014

Year	Single Family Units	Avg. Construction Cost	Multifamily Units	Avg. Multifamily Construction Cost
2004	682	$164,472	728	$63,845
2005	730	$166,225	369	$54,549
2006	669	$175,717	126	$62,423
2007	419	$172,615	68	$98,800
2008	516	$184,555	68	$95,550
2009	339	$172,195	170	$35,941
2010	336	$177,488	446	$41,933
2011	350	$184,284	39	$106,205
2012	414	$179,509	928	$38,868
2013	428	$223,545	282	$47,425
2014	539	$208,005	615	$92,016

Source: United States Census Bureau Building Permits Survey

In Norman, building permits for 9,261 housing units were issued between 2004 and 2014, for an average of 842 units per year. 58.55% of these housing units were single family homes, and 41.45% consisted of multifamily units.

Moore

New Residential Building Permits Issued, 2004-2014

Year	Single Family Units	Avg. Construction Cost	Multifamily Units	Avg. Multifamily Construction Cost
2004	764	$124,910	140	$43,727
2005	786	$131,052	22	$91,027
2006	518	$133,775	60	$15,000
2007	561	$144,501	12	$50,000
2008	348	$158,845	0	N/A
2009	326	$151,970	20	$49,250
2010	305	$163,837	40	$62,225
2011	252	$172,824	0	N/A
2012	239	$153,159	43	$65,814
2013	666	$144,781	0	N/A
2014	425	$163,542	53	$81,642

Source: United States Census Bureau Building Permits Survey

In Moore, building permits for 5,580 housing units were issued between 2004 and 2014, for an average of 507 units per year. 93.01% of these housing units were single family homes, and 6.99% consisted of multifamily units.

Noble

New Residential Building Permits Issued, 2004-2014

Year	Single Family Units	Avg. Construction Cost	Multifamily Units	Avg. Multifamily Construction Cost
2004	67	$92,384	28	$49,400
2005	52	$124,332	0	N/A
2006	23	$150,451	8	$68,000
2007	30	$137,233	8	$62,500
2008	20	$147,128	0	N/A
2009	19	$127,132	0	N/A
2010	10	$176,010	0	N/A
2011	11	$181,045	0	N/A
2012	0	N/A	0	N/A
2013	2	$140,000	0	N/A
2014	0	N/A	36	$67,500

Source: United States Census Bureau Building Permits Survey

In Noble, building permits for 314 housing units were issued between 2004 and 2014, for an average of 29 units per year. 74.52% of these housing units were single family homes, and 25.48% consisted of multifamily units.

New Construction Activity

For Ownership:

Significant new home development has occurred throughout Cleveland County over the last several years, in nearly all of the county's communities, but particularly in Norman and Moore. Some new development has been reasonably affordable, priced in the neighborhood of $150,000. Most, however, is priced above this amount and in many cases well above this amount.

In the Norman area, the average price of homes constructed in or after 2014 (and sold after June 2015) is $267,620, or $126.99 per square foot. In Moore, new home prices are somewhat more affordable: the average price of new homes is estimated to be $224,181 or $116.55 per square foot. Sales of new homes in Noble is more limited, but for homes built after 2012 (and sold after January 2015) the average price is $174,143, or $101.86 per square foot.

Although new homes in Noble are comparatively affordable, new homes in Moore and Norman are both priced well above what could be afforded by a household earning at or less than median household income for Cleveland County, estimated at $58,161 in 2015.

For Rent:

There has been significant new rental development in the Norman and Moore areas over the last several years, both market rate and affordable. Recently completed developments throughout the area include:

- The Links of Norman (528 units)
- The Grove at Norman (144 units)
- The Avenue (314 units)
- The Falls at Brookhaven (168 units)
- The Icon at Norman (256 units)
- Mission Point (366 units)
- Thirty Five West (314 units)

Market rate units currently under construction include:

- Windsor Apartments (235 units)
- The Millenium (197 units)
- Aspen Heights (194 units)

We are also aware of two planned market rate developments; a 300 unit development on Classen, and a 300 unit development in the University North Park retail district.

There have also been some affordable developments: Bocage Apartments in Norman is nearing completion, and will include 56 affordable rental units for seniors, under the Affordable Housing Tax Credit program. In addition, a 36 unit tax credit development for seniors was completed in Noble in 2014.

We are also aware of a proposed affordable development in Moore: Legacy Villas of Moore would comprise 40 affordable duplex units for seniors, financed in part through Affordable Housing Tax Credits.

Homeownership Market

This section will address the market for housing units for purchase in Cleveland County, using data collected from both local and national sources.

Housing Units by Home Value

The following table presents housing units in Cleveland County by value, as well as median home value, as reported by the Census Bureau's American Community Survey.

2013 Housing Units by Home Value

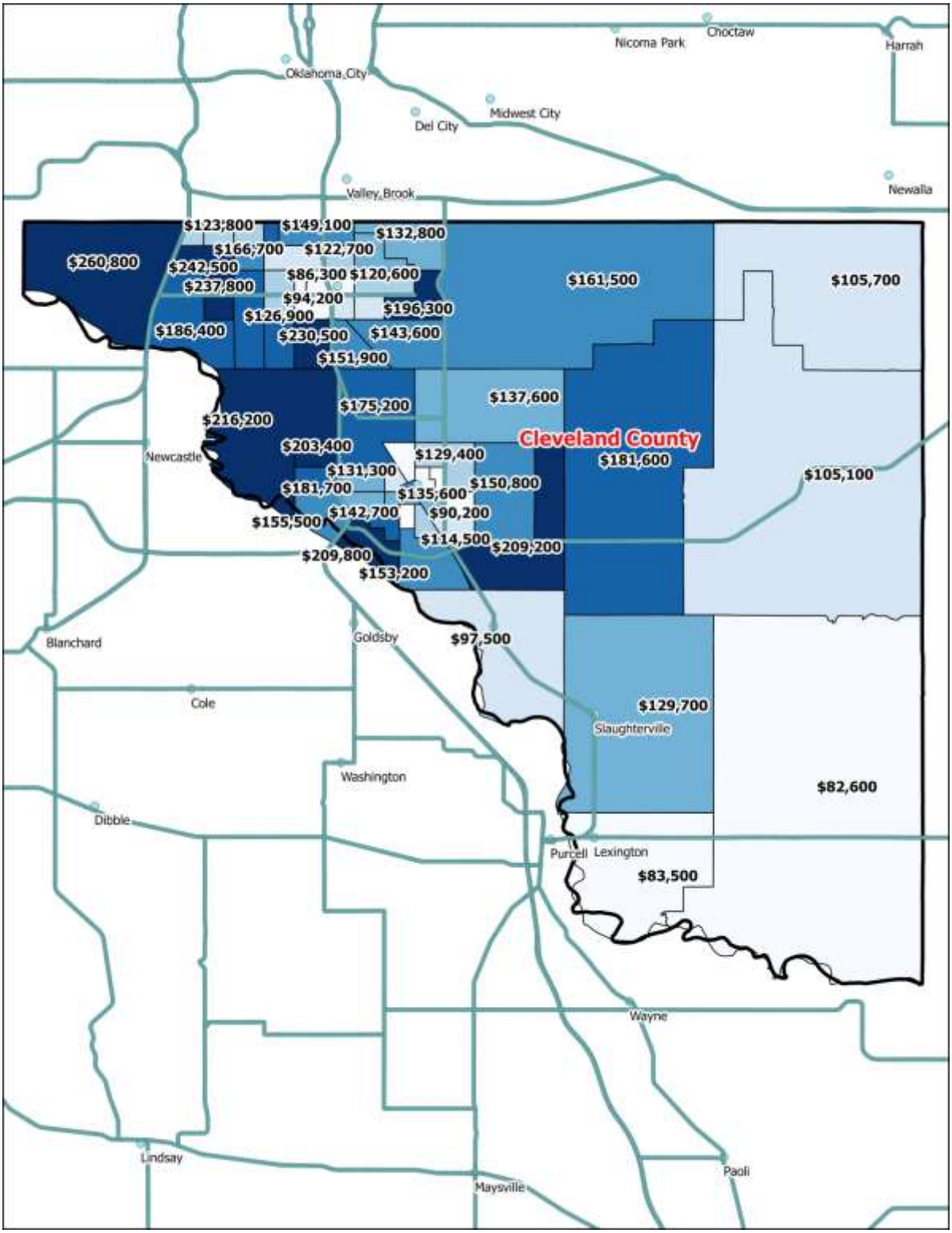
	Norman		Moore		Noble		Cleveland County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total Owner-Occupied Units:	**25,104**		**15,198**		**1,555**		**65,166**		**968,736**	
Less than $10,000	241	0.96%	78	0.51%	44	2.83%	822	1.26%	20,980	2.17%
$10,000 to $14,999	172	0.69%	94	0.62%	0	0.00%	599	0.92%	15,427	1.59%
$15,000 to $19,999	141	0.56%	38	0.25%	0	0.00%	479	0.74%	13,813	1.43%
$20,000 to $24,999	130	0.52%	48	0.32%	0	0.00%	383	0.59%	16,705	1.72%
$25,000 to $29,999	173	0.69%	13	0.09%	0	0.00%	303	0.46%	16,060	1.66%
$30,000 to $34,999	161	0.64%	112	0.74%	58	3.73%	515	0.79%	19,146	1.98%
$35,000 to $39,999	91	0.36%	15	0.10%	38	2.44%	255	0.39%	14,899	1.54%
$40,000 to $49,999	272	1.08%	125	0.82%	26	1.67%	723	1.11%	39,618	4.09%
$50,000 to $59,999	415	1.65%	165	1.09%	39	2.51%	1,070	1.64%	45,292	4.68%
$60,000 to $69,999	438	1.74%	439	2.89%	11	0.71%	1,257	1.93%	52,304	5.40%
$70,000 to $79,999	678	2.70%	722	4.75%	174	11.19%	2,127	3.26%	55,612	5.74%
$80,000 to $89,999	1,310	5.22%	1,436	9.45%	158	10.16%	3,756	5.76%	61,981	6.40%
$90,000 to $99,999	1,093	4.35%	1,328	8.74%	196	12.60%	3,525	5.41%	51,518	5.32%
$100,000 to $124,999	3,346	13.33%	3,780	24.87%	266	17.11%	10,791	16.56%	119,416	12.33%
$125,000 to $149,999	3,603	14.35%	2,182	14.36%	121	7.78%	9,197	14.11%	96,769	9.99%
$150,000 to $174,999	3,413	13.60%	1,702	11.20%	201	12.93%	9,135	14.02%	91,779	9.47%
$175,000 to $199,999	1,815	7.23%	867	5.70%	66	4.24%	4,806	7.38%	53,304	5.50%
$200,000 to $249,999	2,981	11.87%	1,000	6.58%	83	5.34%	6,386	9.80%	69,754	7.20%
$250,000 to $299,999	1,948	7.76%	402	2.65%	44	2.83%	3,802	5.83%	41,779	4.31%
$300,000 to $399,999	1,460	5.82%	436	2.87%	20	1.29%	3,084	4.73%	37,680	3.89%
$400,000 to $499,999	529	2.11%	112	0.74%	0	0.00%	963	1.48%	13,334	1.38%
$500,000 to $749,999	479	1.91%	43	0.28%	10	0.64%	775	1.19%	12,784	1.32%
$750,000 to $999,999	114	0.45%	11	0.07%	0	0.00%	187	0.29%	3,764	0.39%
$1,000,000 or more	101	0.40%	50	0.33%	0	0.00%	226	0.35%	5,018	0.52%
Median Home Value:	**$152,100**		**$119,700**		**$103,100**		**$141,300**		**$112,800**	

Sources: 2009-2013 American Community Survey, Tables B25075 and B25077

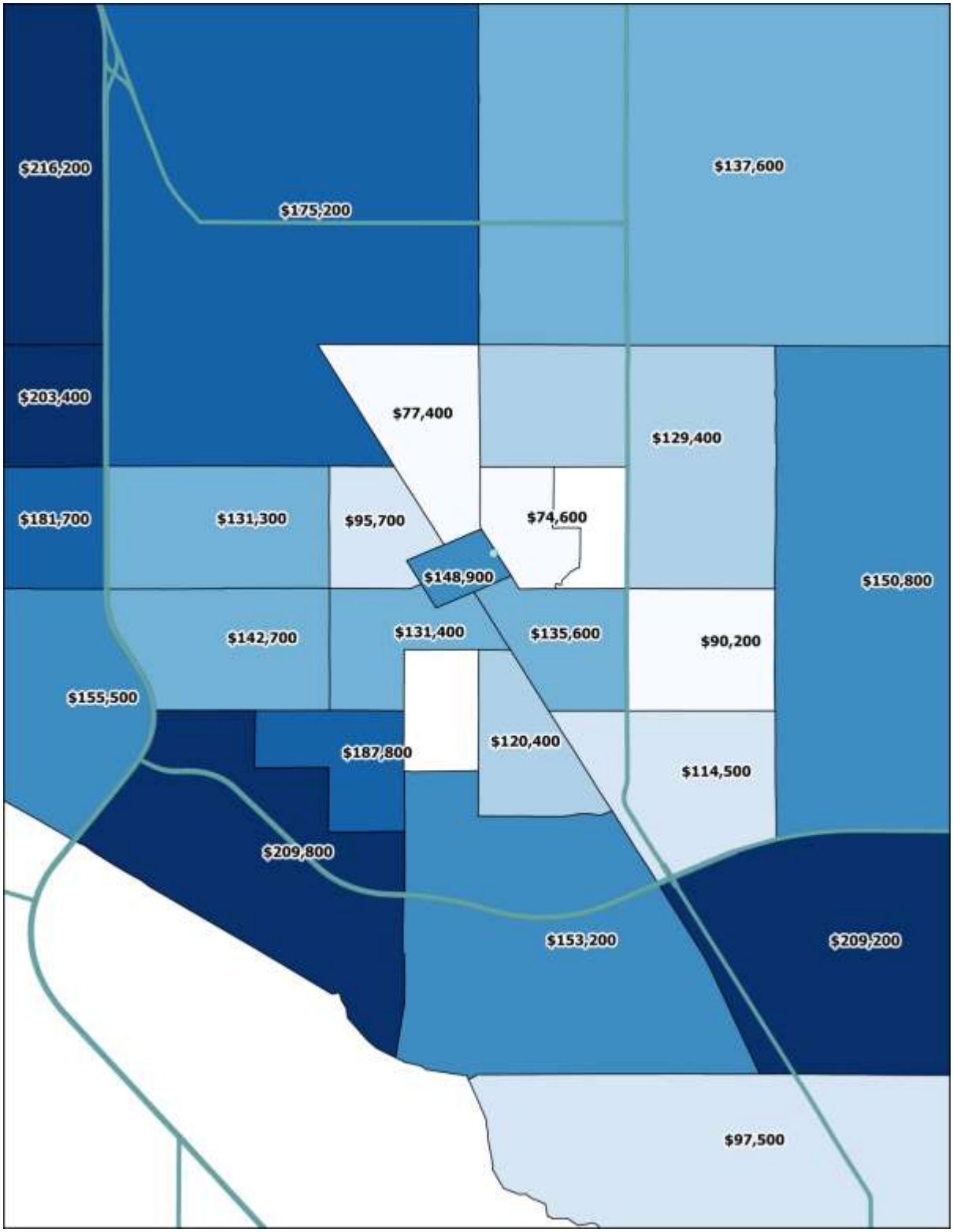
The median value of owner-occupied homes in Cleveland County is $141,300. This is 25.3% greater than the statewide median, which is $112,800. The median home value in Norman is estimated to be $152,100. The median home value in Moore is estimated to be $119,700, while in Noble the estimate is $103,100.

The geographic distribution of home values in Cleveland County can be visualized by the following map.

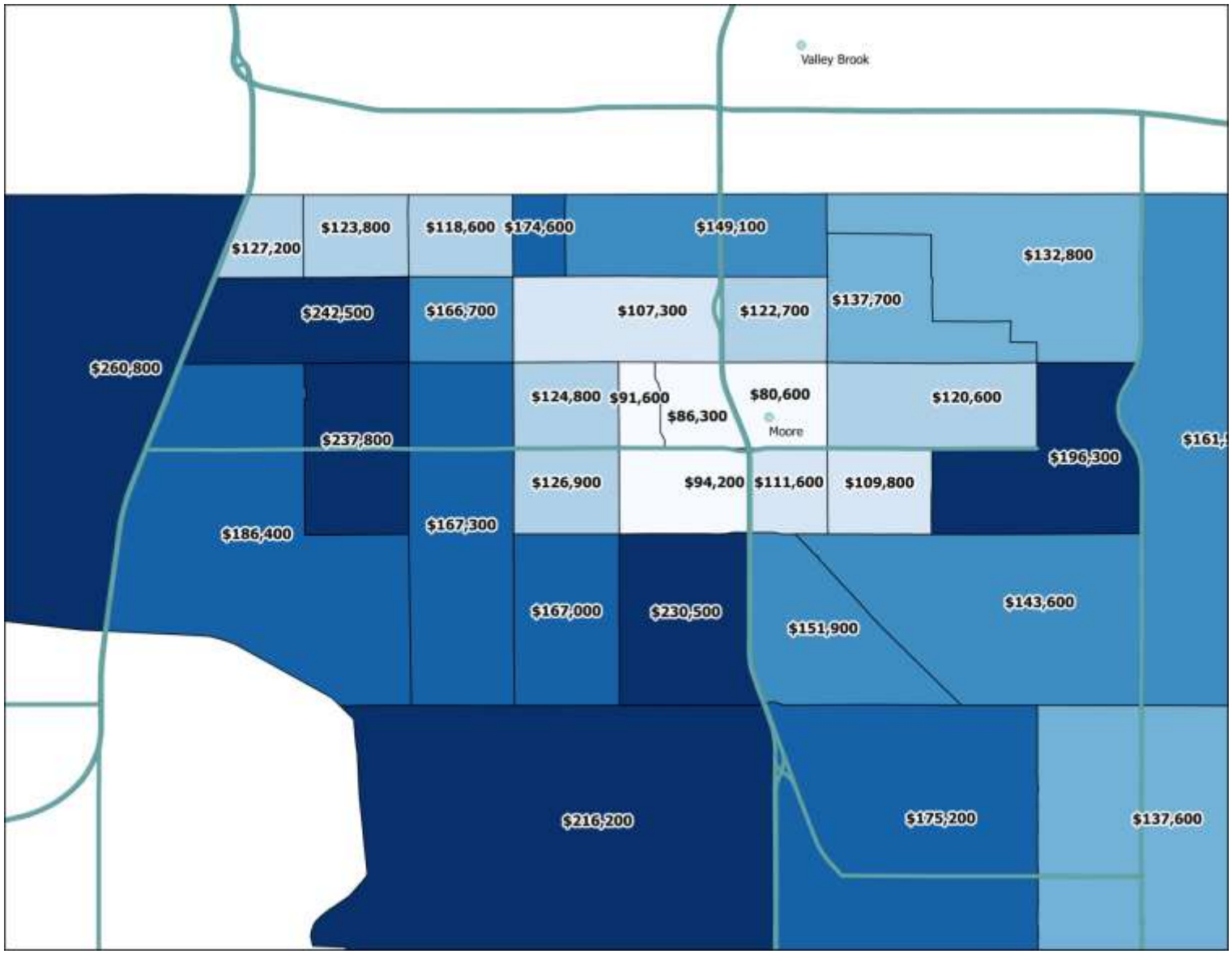
Cleveland County Median Home Values by Census Tract



Median Home Values by Census Tract – Norman Detail



Median Home Values by Census Tract – Moore Detail



Home Values by Year of Construction

The next table presents median home values in Cleveland County by year of construction. Note that missing data fields indicate the Census Bureau had inadequate data to estimate a median value that age bracket.

2013 Median Home Value by Year of Construction

	Norman Median Value	Moore Median Value	Noble Median Value	Cleveland County Median Value	State of Oklahoma Median Value
Total Owner-Occupied Units:					
Built 2010 or Later	$169,500	$185,000	-	$192,800	$188,900
Built 2000 to 2009	$199,600	$173,600	$150,000	$178,100	$178,000
Built 1990 to 1999	$163,900	$131,100	$106,300	$155,100	$147,300
Built 1980 to 1989	$136,900	$112,300	$110,000	$122,200	$118,300
Built 1970 to 1979	$146,200	$106,100	$87,200	$122,700	$111,900
Built 1960 to 1969	$133,600	$91,300	$93,000	$107,900	$97,100
Built 1950 to 1959	$113,800	$82,200	$77,300	$107,200	$80,300
Built 1940 to 1949	$100,900	$63,500	$76,100	$90,700	$67,900
Built 1939 or Earlier	$95,100	$100,700	$79,000	$92,700	$74,400

Note: Dashes indicate the Census Bureau had insufficient data to estimate a median value.
Source: 2009-2013 American Community Survey, Table 25107

Norman Single Family Sales Activity

The following tables show single family sales data for Norman, separated between two, three and four bedroom units, as well as all housing units as a whole.

Norman Single Family Sales Activity
Two Bedroom Units

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	105	143	139	153	129
Median List Price	$85,000	$87,000	$89,900	$87,950	$95,000
Median Sale Price	$80,000	$83,000	$85,000	$85,000	$90,000
Sale/List Price Ratio	96.0%	96.1%	96.5%	96.8%	97.5%
Median Square Feet	1,030	1,037	1,028	1,007	1,007
Median Price/SF	$80.76	$78.19	$84.33	$86.73	$95.48
Med. Days on Market	72	49	47	38	17

Source: OKC MLS

Norman Single Family Sales Activity
Three Bedroom Units

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	803	806	1,042	999	825
Median List Price	$142,500	$144,925	$147,976	$150,000	$157,900
Median Sale Price	$138,827	$143,217	$144,051	$148,900	$156,000
Sale/List Price Ratio	98.0%	98.1%	98.2%	98.2%	98.7%
Median Square Feet	1,568	1,606	1,571	1,564	1,572
Median Price/SF	$89.23	$91.45	$92.40	$95.45	$99.18
Med. Days on Market	60	53	38	29	20

Source: OKC MLS

Norman Single Family Sales Activity
Four Bedroom Units

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	277	325	419	420	335
Median List Price	$219,900	$224,990	$224,900	$230,950	$249,900
Median Sale Price	$215,000	$220,000	$222,000	$226,750	$246,000
Sale/List Price Ratio	97.4%	98.0%	98.6%	98.6%	98.8%
Median Square Feet	2,300	2,265	2,245	2,279	2,324
Median Price/SF	$95.22	$97.81	$99.97	$102.36	$106.90
Med. Days on Market	74	59	47	48	42

Source: OKC MLS

Norman Single Family Sales Activity
All Bedroom Types

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	1,224	1,425	1,664	1,631	1,349
Median List Price	$149,900	$149,900	$156,500	$160,000	$169,500
Median Sale Price	$146,000	$145,950	$152,800	$158,000	$165,000
Sale/List Price Ratio	97.6%	97.8%	98.1%	98.2%	98.6%
Median Square Feet	1,661	1,682	1,688	1,682	1,710
Median Price/SF	$89.42	$91.38	$93.50	$96.23	$100.40
Med. Days on Market	64	55	43	34	25

Source: OKC MLS

Between 2011 and year-end 2014, the median list price grew by 1.64% per year. The median sale price was $165,000 in 2015, for a median price per square foot of $100.40/SF. The median sale price to list price ratio was 98.6%, with median days on market of 25 days. On the whole, the Norman housing market has strengthened over the last five years, with increasing sale prices, increasing sale to list price ratios, and decreasing marketing times.

Moore Single Family Sales Activity

The following tables show single family sales data for Moore, separated between two, three and four bedroom units, as well as all housing units as a whole.

Moore Single Family Sales Activity
Two Bedroom Units

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	31	35	46	45	25
Median List Price	$85,000	$87,900	$94,750	$96,000	$81,500
Median Sale Price	$83,900	$87,500	$94,000	$94,000	$78,000
Sale/List Price Ratio	98.7%	98.3%	98.5%	97.9%	98.7%
Median Square Feet	1,048	1,064	1,075	1,110	1,040
Median Price/SF	$77.30	$83.44	$83.82	$83.39	$78.98
Med. Days on Market	36	65	46	30	27

Source: OKC MLS

Moore Single Family Sales Activity
Three Bedroom Units

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	688	772	838	840	693
Median List Price	$119,900	$120,000	$128,900	$134,900	$134,900
Median Sale Price	$118,610	$118,000	$125,850	$130,000	$133,000
Sale/List Price Ratio	98.9%	99.2%	98.9%	98.9%	99.5%
Median Square Feet	1,496	1,483	1,531	1,508	1,509
Median Price/SF	$82.86	$84.05	$87.85	$90.44	$92.82
Med. Days on Market	53	43	32	29	28

Source: OKC MLS

Moore Single Family Sales Activity
Four Bedroom Units

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	161	173	172	224	181
Median List Price	$167,900	$159,500	$161,200	$173,200	$177,500
Median Sale Price	$165,000	$159,000	$159,000	$171,500	$175,000
Sale/List Price Ratio	99.3%	98.8%	99.4%	99.5%	99.5%
Median Square Feet	1,834	1,849	1,848	1,857	1,820
Median Price/SF	$86.01	$84.99	$87.31	$92.85	$98.52
Med. Days on Market	56	56	35	39	37

Source: OKC MLS

Moore Single Family Sales Activity All Bedroom Types					
Year	**2011**	**2012**	**2013**	**2014**	**YTD 2015**
# of Units Sold	889	992	1,072	1,119	912
Median List Price	$125,000	$125,000	$129,900	$139,500	$143,500
Median Sale Price	$123,500	$124,823	$128,000	$135,000	$140,000
Sale/List Price Ratio	99.0%	99.1%	98.9%	99.0%	99.5%
Median Square Feet	1,560	1,553	1,566	1,573	1,562
Median Price/SF	$83.27	$84.23	$87.36	$90.51	$93.43
Med. Days on Market	53	45	33	30	28

Source: OKC MLS

Between 2011 and year-end 2014, the median list price grew by 2.78% per year. The median sale price was $140,000 in 2015, for a median price per square foot of $93.43/SF. The median sale price to list price ratio was 99.5%, with median days on market of 28 days. Like Norman, Moore's housing market has strengthened over the past several years, and sales prices have grown at a slightly faster pace though they remain lower than Norman's. The sale to list price ratio in Moore is nearly 100%, and marketing time has declined significantly over this period.

Noble Single Family Sales Activity

The following tables show single family sales data for Noble, separated between two, three and four bedroom units, as well as all housing units as a whole.

Noble Single Family Sales Activity Two Bedroom Units					
Year	**2011**	**2012**	**2013**	**2014**	**YTD 2015**
# of Units Sold	11	7	10	13	5
Median List Price	$84,900	$65,900	$72,450	$71,900	$69,500
Median Sale Price	$80,500	$52,500	$68,500	$67,500	$65,000
Sale/List Price Ratio	96.7%	96.4%	90.0%	91.0%	93.5%
Median Square Feet	1,140	1,140	1,057	1,128	960
Median Price/SF	$83.33	$52.08	$58.44	$55.87	$67.71
Med. Days on Market	32	53	42	56	126

Source: OKC MLS

Noble Single Family Sales Activity
Three Bedroom Units

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	57	62	76	87	61
Median List Price	$117,900	$91,450	$103,900	$104,900	$117,500
Median Sale Price	$115,900	$89,450	$100,375	$100,000	$120,000
Sale/List Price Ratio	96.9%	97.5%	98.8%	98.5%	97.9%
Median Square Feet	1,384	1,402	1,439	1,400	1,397
Median Price/SF	$78.55	$67.60	$77.22	$79.38	$81.78
Med. Days on Market	70	70	47	32	41

Source: OKC MLS

Noble Single Family Sales Activity
Four Bedroom Units

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	16	10	12	19	20
Median List Price	$131,400	$165,000	$152,075	$169,000	$162,500
Median Sale Price	$127,723	$164,150	$151,000	$164,000	$156,001
Sale/List Price Ratio	96.1%	95.6%	98.3%	98.3%	97.9%
Median Square Feet	1,818	2,363	1,845	1,809	1,970
Median Price/SF	$70.10	$77.03	$76.18	$87.39	$86.75
Med. Days on Market	115	126	50	74	57

Source: OKC MLS

Noble Single Family Sales Activity
All Bedroom Types

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	86	79	102	124	91
Median List Price	$115,450	$90,000	$101,375	$108,700	$133,500
Median Sale Price	$112,000	$89,000	$98,900	$104,500	$129,000
Sale/List Price Ratio	96.6%	97.4%	98.4%	98.1%	97.7%
Median Square Feet	1,509	1,407	1,433	1,518	1,538
Median Price/SF	$76.47	$67.54	$75.40	$77.33	$81.50
Med. Days on Market	74	70	48	42	43

Source: OKC MLS

Between 2011 and year-end 2014, the median list price fluctuated considerably between $90,000 and $115,450. The median sale price was $129,000 in 2015, for a median price per square foot of $81.50/SF. The median sale price to list price ratio was 97.7%, with median days on market of 43 days. The housing market in Noble is relatively stable, and comparable to other communities of similar size in the region.

Foreclosure Rates

The next table presents foreclosure rate data for Cleveland County, compiled by the Federal Reserve Bank of New York. This data is effective as of May 2014.

Foreclosure Rates

Geography	% of Outstanding Mortgages in Foreclosure, May 2014
Cleveland County	1.6%
State of Oklahoma	2.1%
United States	2.1%
Rank among Counties in Oklahoma*:	46

* Rank among the 64 counties for which foreclosure rates are available

Source: Federal Reserve Bank of New York, Community Credit Profiles

According to the data provided, the foreclosure rate in Cleveland County was 1.6% in May 2014. The county ranked 46 out of 64 counties in terms of highest foreclosure rates in Oklahoma. This rate compares with the statewide and nationwide foreclosure rates, both of which were 2.1%.

With a notably lower foreclosure rate than the rest of the state and the nation, it is unlikely that foreclosures have had any significant detrimental impact on the local housing market.

Rental Market

This section will discuss supply and demand factors for the rental market in Cleveland County, based on publicly available sources as well as our own surveys of landlords and rental properties in the area.

Gross Rent Levels

The following table presents data regarding gross rental rates in Cleveland County. Gross rent is the sum of contract rent, plus all utilities such as electricity, gas, water, sewer and trash, as applicable (telephone, cable, and/or internet expenses are not included in these figures).

2013 Rental Units by Gross Rent

	Norman		Moore		Noble		Cleveland County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Total Rental Units:	**18,975**		**5,506**		**556**		**31,535**		**475,345**	
With cash rent:	18,350		5,316		543		30,263		432,109	
Less than $100	61	0.32%	0	0.00%	0	0.00%	61	0.19%	2,025	0.43%
$100 to $149	36	0.19%	0	0.00%	0	0.00%	53	0.17%	2,109	0.44%
$150 to $199	89	0.47%	20	0.36%	0	0.00%	122	0.39%	4,268	0.90%
$200 to $249	114	0.60%	17	0.31%	0	0.00%	136	0.43%	8,784	1.85%
$250 to $299	82	0.43%	24	0.44%	23	4.14%	141	0.45%	8,413	1.77%
$300 to $349	64	0.34%	26	0.47%	0	0.00%	122	0.39%	9,107	1.92%
$350 to $399	226	1.19%	76	1.38%	0	0.00%	311	0.99%	10,932	2.30%
$400 to $449	263	1.39%	15	0.27%	10	1.80%	303	0.96%	15,636	3.29%
$450 to $499	803	4.23%	216	3.92%	0	0.00%	1,101	3.49%	24,055	5.06%
$500 to $549	1,164	6.13%	215	3.90%	36	6.47%	1,524	4.83%	31,527	6.63%
$550 to $599	1,405	7.40%	160	2.91%	9	1.62%	1,878	5.96%	33,032	6.95%
$600 to $649	1,481	7.81%	210	3.81%	11	1.98%	2,097	6.65%	34,832	7.33%
$650 to $699	1,429	7.53%	220	4.00%	4	0.72%	2,142	6.79%	32,267	6.79%
$700 to $749	1,637	8.63%	243	4.41%	124	22.30%	2,547	8.08%	30,340	6.38%
$750 to $799	1,235	6.51%	507	9.21%	73	13.13%	2,341	7.42%	27,956	5.88%
$800 to $899	2,158	11.37%	845	15.35%	75	13.49%	4,101	13.00%	45,824	9.64%
$900 to $999	1,470	7.75%	917	16.65%	141	25.36%	3,161	10.02%	34,153	7.18%
$1,000 to $1,249	2,496	13.15%	1,099	19.96%	27	4.86%	4,555	14.44%	46,884	9.86%
$1,250 to $1,499	1,172	6.18%	290	5.27%	10	1.80%	1,832	5.81%	14,699	3.09%
$1,500 to $1,999	730	3.85%	216	3.92%	0	0.00%	1,253	3.97%	10,145	2.13%
$2,000 or more	235	1.24%	0	0.00%	0	0.00%	482	1.53%	5,121	1.08%
No cash rent	625	3.29%	190	3.45%	13	2.34%	1,272	4.03%	43,236	9.10%
Median Gross Rent	**$763**		**$884**		**$787**		**$806**		**$699**	

Sources: 2009-2013 American Community Survey, Tables B25063 and B25064

Median gross rent in Cleveland County is estimated to be $806, which is 15.3% greater than Oklahoma's median gross rent of $699/month. Median gross rent in Norman is estimated to be $763. Median rent in Moore is estimated to be $884, while in Noble the estimate is $787.

Median Gross Rent by Year of Construction

The next table presents data from the American Community Survey regarding median gross rent by year of housing unit construction. Note that dashes in the table indicate the Census Bureau had insufficient data to provide a median rent figure for that specific data field.

2013 Median Gross Rent by Year of Construction					
	Norman Median Rent	Moore Median Rent	Noble Median Rent	Cleveland County Median Rent	State of Oklahoma Median Rent
Total Rental Units:					
Built 2010 or Later	$974	-	-	$1,012	$933
Built 2000 to 2009	$924	$957	$500	$945	$841
Built 1990 to 1999	$800	$801	-	$821	$715
Built 1980 to 1989	$770	$899	$726	$784	$693
Built 1970 to 1979	$695	$874	$911	$735	$662
Built 1960 to 1969	$773	$935	$782	$825	$689
Built 1950 to 1959	$771	$699	-	$769	$714
Built 1940 to 1949	$782	$852	-	$785	$673
Built 1939 or Earlier	$693	-	$835	$697	$651

Note: Dashes indicate the Census Bureau had insufficient data to estimate a median gross rent.
Source: 2009-2013 American Community Survey, Table 25111

The highest median gross rent in Cleveland County is among housing units constructed after 2010, which is $1,125 per month. In order to be affordable, a household would need to earn at least $40,480 per year to afford such a unit.

Norman Rental Survey Data

The next two tables show the results of our rental survey of Norman. The data is divided between market rate properties, and affordable properties of all types .

Norman Rental Properties - Market Rate

Name	Year Built	Bedrooms	Bathrooms	Size (SF)	Rate	Rate/SF	Vacancy
The Icon at Norman	2014	1	1	789	$859	$1.089	4.00%
The Icon at Norman	2014	1	1	856	$879	$1.027	4.00%
The Icon at Norman	2014	1	1	860	$1,079	$1.255	4.00%
The Icon at Norman	2014	2	2	1,050	$989	$0.942	4.00%
The Icon at Norman	2014	2	2	1,108	$1,019	$0.920	4.00%
The Icon at Norman	2014	2	2	1,176	$1,229	$1.045	4.00%
Renaissance at Norman Apartments	1998	1	1	777	$837	$1.077	0.00%
Renaissance at Norman Apartments	1998	1	1	813	$858	$1.055	0.00%
Renaissance at Norman Apartments	1998	2	2	1,129	$874	$0.774	0.00%
Renaissance at Norman Apartments	1998	2	2	1,194	$889	$0.745	0.00%
Renaissance at Norman Apartments	1998	3	2	1,314	$1,087	$0.827	0.00%
Renaissance at Norman Apartments	1998	3	2	1,314	$1,099	$0.836	0.00%
Brookhollow Apts	1973	1	1	516	$450	$0.872	0.00%
Brookhollow Apts	1973	1	1	656	$500	$0.762	0.00%
Brookhollow Apts	1973	1	1	748	$530	$0.709	0.00%
Brookhollow Apts	1973	2	2	760	$590	$0.776	0.00%
Brookhollow Apts	1973	2	2	960	$620	$0.646	0.00%
Brookhollow Apts	1973	2	1	1,052	$650	$0.618	0.00%
Brookhollow Apts	1973	3	2	1,256	$720	$0.573	0.00%
Cedar Lake Apartments	1984	1	1	535	$639	$1.194	0.00%
Cedar Lake Apartments	1984	1	1	686	$689	$1.004	0.00%
Cedar Lake Apartments	1984	2	2	857	$809	$0.944	0.00%
Cedar Lake Apartments	1984	2	2	976	$829	$0.849	0.00%
Turnberry Apartments	1973	1	1	700	$580	$0.829	0.00%
Turnberry Apartments	1973	2	1	1,000	$700	$0.700	0.00%
Turnberry Apartments	1973	2	1	1,200	$800	$0.667	0.00%
Turnberry Apartments	1973	3	2	1,300	$940	$0.723	0.00%
Sooner Crossing	1972	1	1	684	$505	$0.738	7.00%
Sooner Crossing	1972	1	1	770	$525	$0.682	7.00%
Sooner Crossing	1972	2	2	952	$605	$0.636	7.00%
Sooner Crossing	1972	2	2	1,035	$625	$0.604	7.00%
Sooner Crossing	1972	3	2	1,368	$750	$0.548	7.00%
Brandywine Gardens	1984	1	1	625	$470	$0.752	1.00%
Brandywine Gardens	1984	2	1	750	$505	$0.673	1.00%
Riverbend	1984	1	1	535	$629	$1.176	5.00%
Riverbend	1984	1	1	686	$689	$1.004	5.00%
Riverbend	1984	2	1	976	$769	$0.788	5.00%
Riverbend	1984	2	2	857	$819	$0.956	5.00%
CrownRidge of Norman	2005	1	1	673	$650	$0.966	10.00%
CrownRidge of Norman	2005	2	2	912	$775	$0.850	10.00%
CrownRidge of Norman	2005	3	2	1,085	$895	$0.825	10.00%
CrownRidge of Norman	2005	4	2	1,285	$1,070	$0.833	10.00%
Summer Pointe Apartments	1971	1	1	681	$570	$0.837	6.00%
Summer Pointe Apartments	1971	2	1	831	$670	$0.806	6.00%
Summer Pointe Apartments	1971	2	2	1,000	$610	$0.610	6.00%
Summer Pointe Apartments	1971	3	2	1,000	$650	$0.650	6.00%
Springfield Apartments	1990	1	1	550	$499	$0.907	6.00%
Springfield Apartments	1990	2	1	675	$515	$0.763	6.00%
Springfield Apartments	1990	2	1	900	$640	$0.711	6.00%
Springfield Apartments	1990	2	1	900	$699	$0.777	6.00%
Springfield Apartments	1990	2	1	900	$615	$0.683	6.00%
Springfield Apartments	1990	3	2	1,200	$910	$0.758	6.00%
Springfield Apartments	1990	3	2	1,200	$910	$0.758	6.00%

Norman Rental Properties - Affordable								
Name	Type	Year Built	Bedrooms	Bathrooms	Size (SF)	Rate	Rate/SF	Vacancy
Senior Cottages of Norman	LIHTC - Elderly	1998	1	1	762	$530	$0.696	0.00%
Senior Cottages of Norman	LIHTC - Elderly	1998	2	1	981	$635	$0.647	0.00%
Senior Cottages of Norman	LIHTC - Elderly	1998	3	2	1,081	$675	$0.624	0.00%
Brookstone Cottages	LIHTC - Elderly	2005	1	1	660	$441	$0.668	3.00%
Brookstone Cottages	LIHTC - Elderly	2005	2	2	807	$540	$0.669	3.00%
Vicksburg Village Apartments	Project Based - Family	1981	1	1	616	30%	N/A	5.00%
Vicksburg Village Apartments	Project Based - Family	1981	2	1	837	30%	N/A	5.00%
Vicksburg Village Apartments	Project Based - Family	1981	3	1	1,058	30%	N/A	5.00%

The previous rent surveys encompass over 2,100 rental units in 14 complexes. These properties are located throughout the community and provide a good indication of the availability and rental structure of multifamily property. Concessions such as free rent or no deposit were not evident in the competitive market survey. These inducements appear to have phased out over the market, and appear only sporadically at individual complexes to induce leasing activity in a particular unit type. Review of historical rental data indicates the comparable rental rates have increased in a predominant range of $10 to $20 per unit per month annually over the past 36 months. Occupancy levels in the Norman area have continued to increase to its present level in the upper 90% range. Rental rates also increased during this same period. The area should continue to show good rental rate and occupancy support due to proximity to the employment centers and limited number of new available units.

Increasing occupancy and rental rates during the 2000s supports the demand for new apartments in Norman. Based on the success of the available units, well diversified economy, and continued growth of the business base, it is apparent that additional supply will be needed in the future.

Rental Market Vacancy – Norman

The developments outlined previously report occupancy levels typically above 92%. These occupancy levels are typical of well-maintained and poorly maintained properties alike. The ability of older, physically deteriorating facilities to maintain high occupancy levels reflects the lack of superior alternatives in the Norman market. The Section 8 units, according to property managers, typically stay well occupied. The overall market vacancy of rental housing units was reported at 7.94% by the Census Bureau as of the most recent American Community Survey.

As noted above, the majority of complexes in Norman report occupancy levels above 92%. Although this analyst's survey does not include all rental units in Wagoner, it represents a reasonable market sample of available units. It is the opinion of this analyst that the overall vacancy rate will remain at minimal levels if no new units are added. It is also obvious that new moderately priced well managed apartment developments would be quickly absorbed and not have a significant negative impact on existing properties.

Vicksburg Village Apartments

Springfield Apartments

Summer Pointe Apartments

CrownRidge of Norman

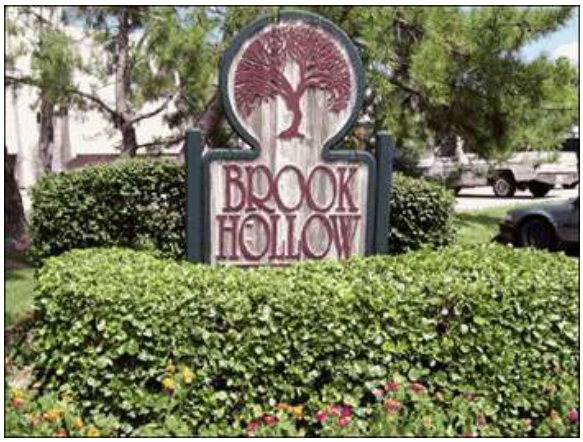
Riverbend

Brandywine Gardens

Sooner Crossing

Turnberry Apartments

Cedar Lake Apartments



Brookhollow Apts

Renaissance at Norman Apartments

The Icon at Norman

Brookstone Cottages

Senior Cottages of Norman

Moore Rental Survey Data

The next two tables show the results of our rental survey of Moore. The data is divided between market rate properties, and affordable properties of all types (project-based Section 8, Low-Income Housing Tax Credit, USDA Rural Development, etc.)

Moore Rental Properties - Market Rate

Name	Year Built	Bedrooms	Bathrooms	Size (SF)	Rate	Rate/SF	Vacancy
Moore Manor	1974	N/A	1	662	$390	$0.589	2.00%
Moore Manor	1974	1	1	762	$420	$0.551	2.00%
Moore Manor	1974	2	1	862	$520	$0.603	2.00%
Southwinds	1970	1	1	750	$465	$0.620	5.00%
Southwinds	1970	2	1	850	$550	$0.647	5.00%
Southwinds	1970	3	2	950	$650	$0.684	5.00%
Hayden's Landing	1974	1	1	697	$495	$0.710	3.00%
Hayden's Landing	1974	2	1	867	$595	$0.686	3.00%
Hayden's Landing	1974	2	1	892	$665	$0.746	3.00%
Hayden's Landing	1974	3	2	1,070	$795	$0.743	3.00%
Villas at Countryside	2002	1	1	800	N/A	N/A	N/A
Villas at Countryside	2002	2	2	978	$780	$0.798	N/A
Villas at Countryside	2002	2	2	1,000	$790	$0.790	N/A
The Fairways at Moore	2002	1	1	545	$585	$1.073	0.00%
The Fairways at Moore	2002	1	1	667	$645	$0.967	0.00%
The Fairways at Moore	2002	2	1	814	$690	$0.848	0.00%
The Fairways at Moore	2002	2	2	989	$770	$0.779	0.00%
The Greens at Moore	1999	1	1	538	$565	$1.050	0.00%
The Greens at Moore	1999	1	1	556	$615	$1.106	0.00%
The Greens at Moore	1999	2	2	851	$670	$0.787	0.00%
The Greens at Moore	1999	2	2	987	$750	$0.760	0.00%
Parkwood Duplexes	1984	N/A	N/A	882	$775	$0.879	N/A

Moore Rental Properties - Affordable

Name	Type	Year Built	Bedrooms	Bathrooms	Size (SF)	Rate	Rate/SF	Vacancy
Lyons Estates	LIHTC - Elderly	2005	1	1	660	$474	$0.718	1.00%
Lyons Estates	LIHTC - Elderly	2005	1	1	660	$499	$0.756	1.00%
Lyons Estates	LIHTC - Elderly	2005	2	2	830	$599	$0.722	1.00%
Lyons Estates	LIHTC - Elderly	2005	2	2	830	$666	$0.802	1.00%
Lyons Estates	LIHTC - Elderly	2005	3	2	1,027	$819	$0.797	1.00%
Savannah House of Moore	Other - Elderly	1983	N/A	N/A	660	$604	$0.915	1.00%
Savannah House of Moore	Other - Elderly	1983	N/A	N/A	824	$717	$0.870	1.00%

The previous rent surveys encompass over 1,400 rental units in nine complexes. These properties are located throughout the community and provide a good indication of the availability and rental structure of multifamily property. Concessions such as free rent or no deposit were not evident in the competitive market survey. These inducements appear to have phased out over the market, and appear only sporadically at individual complexes to induce leasing activity in a particular unit type. Review of historical rental data indicates the comparable rental rates have increased in a predominant range of $10 to $20 per unit per month annually over the past 36 months. Occupancy levels in the Moore area have continued to increase to its present level in the upper 95% range. Rental rates also increased during this same period. The area should continue to show good rental rate and occupancy support due to proximity to the employment centers and limited number of new available units.

Rental Market Vacancy – Moore

The developments outlined previously report occupancy levels typically above 95%. These occupancy levels are typical of well-maintained and poorly maintained properties alike. The ability of older, physically deteriorating facilities to maintain high occupancy levels reflects the lack of superior alternatives in the Moore market. The overall market vacancy of rental housing units was reported at 5.56% by the Census Bureau as of the most recent American Community Survey.

Parkwood Duplexes

Savannah House of Moore

The Greens at Moore

The Fairways at Moore

Villas at Countryside

Lyons Estates

Moore Manor

Southwinds

Hayden's Landing

Noble Rental Survey Data

The next table shows the results of our rental survey of Noble. There are relatively few multifamily rental properties in Noble.

Noble Rental Properties - Affordable

Name	Type	Year Built	Bedrooms	Bathrooms	Size (SF)	Rate	Rate/SF
Rose Rock Cottages	LIHTC - Elderly	2014	1	1	780	$675	$0.865
Rose Rock Cottages	LIHTC - Elderly	2014	2	2	1,000	$810	$0.810
Cedar Creek	USDA - Family	1970	1	N/A	N/A	30%	N/A
Cedar Creek	USDA - Family	1970	2	N/A	N/A	30%	N/A
Noble Senior Village	Project Based - Elderly	1980	1	1	N/A	30%	N/A
Southwind Senior Village	Project Based - Elderly	N/A	1	1	N/A	30%	N/A

Rose Rock Cottages comprises 36 affordable rental units for seniors. It was completed in 2014 and was financed in part with Affordable Housing Tax Credits. Cedar Creek is an affordable rental development for families, comprising 24 units with most receiving USDA rental assistance. Noble Senior Village and Southwind Senior Village are located adjacent to one another, and are HUD-assisted properties for seniors.

Rental Market Vacancy – Noble

The overall market vacancy of rental housing units was reported at 18.24% by the Census Bureau as of the most recent American Community Survey. This figure appears unusually high, and we note that Noble's overall rental vacancy rate as of the 2010 Census was 8.3%, which is more inline with rental vacancy in the rest of Cleveland County.

Summary of HUD Subsidized Properties

The following tables present data for housing units and households subsidized by the United States Department of Housing and Urban Development, for Cleveland County, the State of Oklahoma, and the United States. This data is taken from HUD's "Picture of Subsidized Households" data for 2013, the most recent year available.

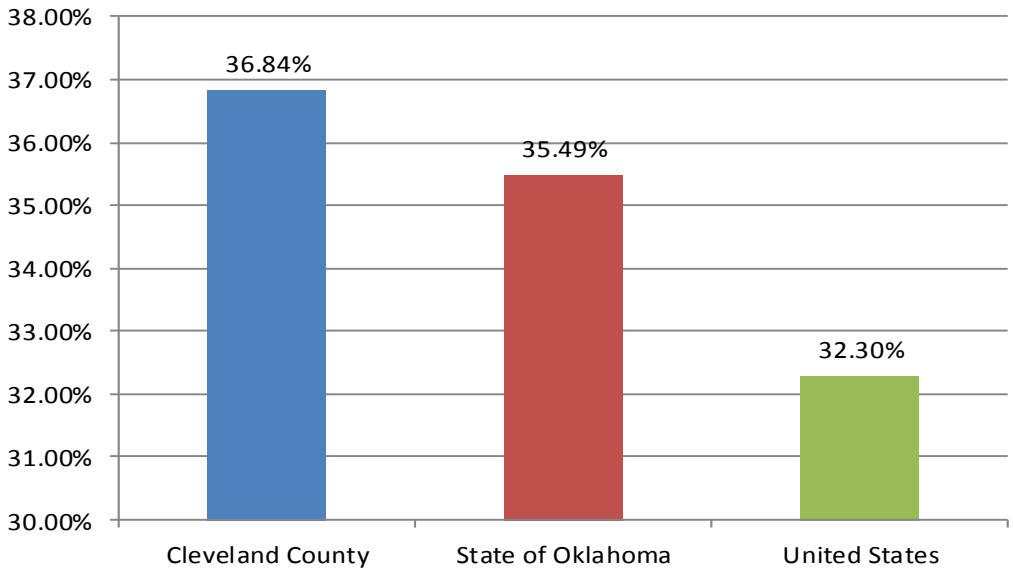
HUD Programs in Cleveland County

Cleveland County	# Units	Occupancy Rate	Avg. Household Income	Tenant Contribution	Federal Contribution	% of Total Rent
Public Housing	173	98%	$13,429	$273	$311	46.71%
Housing Choice Vouchers	1,379	96%	$10,631	$279	$460	37.77%
Mod Rehab	0	N/A	N/A	N/A	N/A	N/A
Section 8 NC/SR	170	97%	$9,910	$222	$573	27.90%
Section 236	0	N/A	N/A	N/A	N/A	N/A
Multi-Family Other	390	94%	$8,684	$194	$363	34.83%
Summary of All HUD Programs	2,112	96%	$10,434	$257	$441	36.84%
State of Oklahoma						
Public Housing	13,088	96%	$11,328	$215	$371	36.71%
Housing Choice Vouchers	24,651	93%	$10,766	$283	$470	37.57%
Mod Rehab	158	89%	$7,272	$129	$509	20.17%
Section 8 NC/SR	4,756	93%	$10,730	$242	$465	34.24%
Section 236	428	89%	$8,360	$192	$344	35.82%
Multi-Family Other	7,518	91%	$7,691	$176	$448	28.18%
Summary of All HUD Programs	50,599	94%	$10,360	$242	$440	35.49%
United States						
Public Housing	1,150,867	94%	$13,724	$275	$512	34.91%
Housing Choice Vouchers	2,386,237	92%	$13,138	$346	$701	33.04%
Mod Rehab	19,148	87%	$8,876	$153	$664	18.78%
Section 8 NC/SR	840,900	96%	$12,172	$274	$677	28.80%
Section 236	126,859	93%	$14,347	$211	$578	26.74%
Multi-Family Other	656,456	95%	$11,135	$255	$572	30.80%
Summary of All HUD Programs	5,180,467	94%	$12,892	$304	$637	32.30%

Source: U.S. Dept. of Housing and Urban Development, Picture of Subsidized Households - 2013

Among all HUD programs, there are 2,112 housing units located within Cleveland County, with an overall occupancy rate of 96%. The average household income among households living in these units is $10,434. Total monthly rent for these units averages $699, with the federal contribution averaging $441 (63.16%) and the tenant's contribution averaging $257 (36.84%).

Percentage of Total Rent Paid by Tenant - HUD Subsidized Properties



Source: 2013 HUD Picture of Subsidized Households

The following table presents select demographic variables among the households living in units subsidized by HUD.

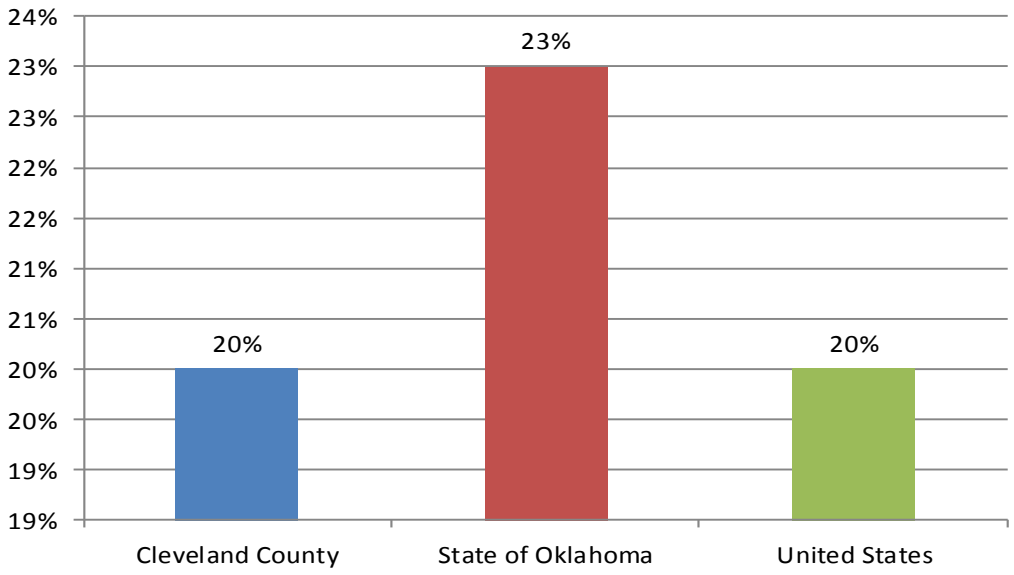
Demographics of Persons in HUD Programs in Cleveland County

Cleveland County	# Units	% Single Mothers	% w/ Disability	% Age 62+	% Age 62+ w/ Disability	% Minority
Public Housing	173	30%	26%	35%	22%	18%
Housing Choice Vouchers	1,379	45%	21%	19%	63%	31%
Mod Rehab	0	N/A	N/A	N/A	N/A	N/A
Section 8 NC/SR	170	27%	24%	31%	25%	23%
Section 236	0	N/A	N/A	N/A	N/A	N/A
Multi-Family Other	390	46%	10%	28%	20%	36%
Summary of All HUD Programs	2,112	42%	20%	23%	43%	30%
State of Oklahoma						
Public Housing	13,088	33%	22%	28%	63%	44%
Housing Choice Vouchers	24,651	46%	25%	17%	77%	60%
Mod Rehab	158	46%	17%	13%	67%	42%
Section 8 NC/SR	4,756	14%	32%	52%	28%	25%
Section 236	428	32%	22%	24%	32%	33%
Multi-Family Other	7,518	42%	12%	22%	25%	47%
Summary of All HUD Programs	50,599	38%	23%	25%	53%	50%
United States						
Public Housing	1,150,867	36%	20%	31%	48%	71%
Housing Choice Vouchers	2,386,237	44%	22%	22%	68%	67%
Mod Rehab	19,148	28%	27%	24%	69%	71%
Section 8 NC/SR	840,900	18%	21%	56%	19%	45%
Section 236	126,859	25%	13%	47%	16%	59%
Multi-Family Other	656,456	31%	13%	44%	16%	63%
Summary of All HUD Programs	5,180,467	36%	20%	33%	40%	64%

Source: U.S. Dept. of Housing and Urban Development, Picture of Subsidized Households - 2013

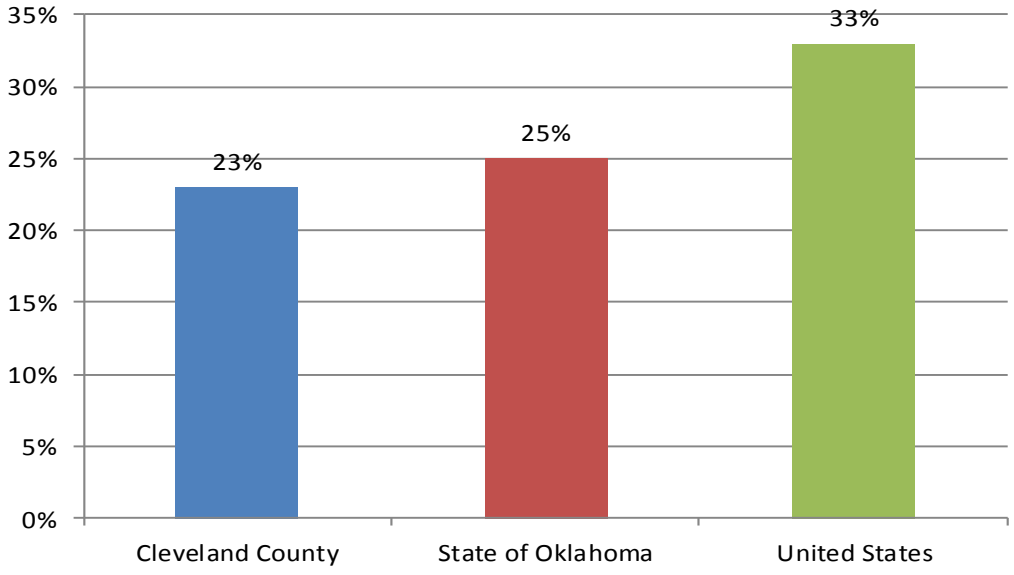
42% of housing units are occupied by single parents with female heads of household. 20% of households have at least one person with a disability. 23% of households have either a householder or spouse age 62 or above. Of the households age 62 or above, 43% have one or more disabilities. Finally, 30% of households are designated as racial or ethnic minorities.

Percentage of Households with Disabilities - HUD Subsidized Properties



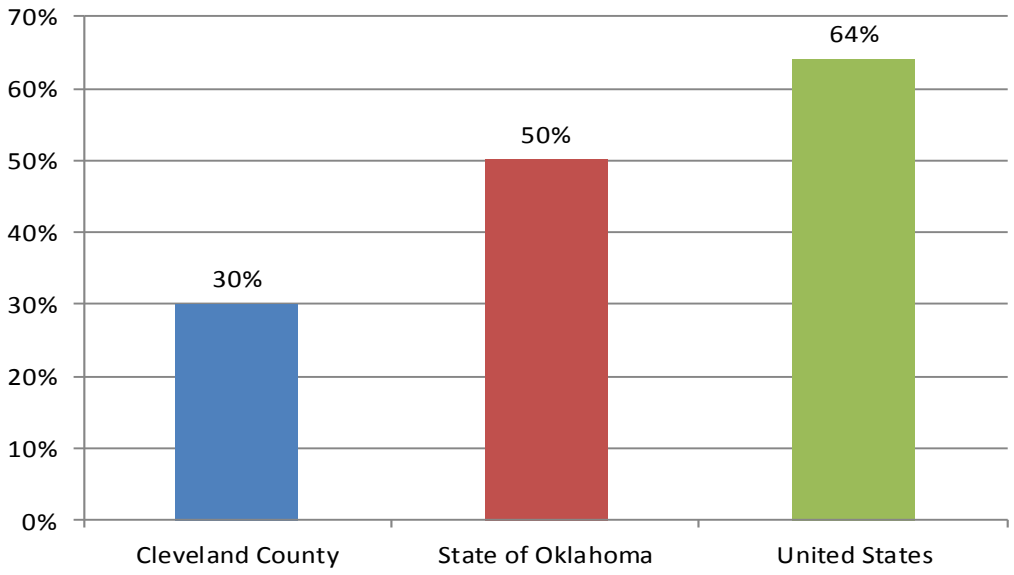
Source: 2013 HUD Picture of Subsidized Households

Percentage of Households Age 62+ - HUD Subsidized Properties



Source: 2013 HUD Picture of Subsidized Households

Percentage of Minority Households - HUD Subsidized Properties



Source: 2013 HUD Picture of Subsidized Households

Projected Housing Need

Consolidated Housing Affordability Strategy (CHAS)

This section will analyze data from the U.S. Department of Housing and Urban Development's Consolidated Housing Affordability Strategy (CHAS) dataset for Cleveland County. This data is typically separated into household income thresholds, defined by HUD Area Median Family Income (HAMFI). HUD Area Median Family Income (HAMFI) is equivalent to Area Median Income (AMI) for the purposes of this report. This data is considered the best indicator of housing need available which separates need into household income thresholds as defined by HUD.

Cost Burden by Income Threshold

The next table presents CHAS data for Cleveland County regarding housing cost burden as a percentage of household income. Renter costs are considered to be the sum of contract rent and any utilities not paid by the landlord (such as electricity, natural gas, and water, but not including telephone service, cable service, internet service, etc.). Homeowner costs include mortgage debt service (or similar debts such as deeds of trust or contracts for deed), utilities, property taxes and property insurance.

Households are considered to be cost overburdened if their housing costs (renter or owner) are greater than 30% of their gross household income. A household is "severely" overburdened if their housing costs are greater than 50% of their gross household income.

Cleveland County : CHAS - Housing Cost Burden by HAMFI				
	Owners		Renters	
Household Income / Cost Burden	Number	Percent	Number	Percent
Income < 30% HAMFI	**2,815**		**7,070**	
Cost Burden Less Than 30%	355	12.61%	625	8.84%
Cost Burden Between 30%-50%	555	19.72%	345	4.88%
Cost Burden Greater Than 50%	1,525	54.17%	5,430	76.80%
Not Computed (no/negative income)	385	13.68%	665	9.41%
Income 30%-50% HAMFI	**4,650**		**5,085**	
Cost Burden Less Than 30%	2,185	46.99%	870	17.11%
Cost Burden Between 30%-50%	1,325	28.49%	2,765	54.38%
Cost Burden Greater Than 50%	1,140	24.52%	1,455	28.61%
Not Computed (no/negative income)	0	0.00%	0	0.00%
Income 50%-80% HAMFI	**8,260**		**6,910**	
Cost Burden Less Than 30%	4,415	53.45%	3,890	56.30%
Cost Burden Between 30%-50%	3,100	37.53%	2,645	38.28%
Cost Burden Greater Than 50%	750	9.08%	375	5.43%
Not Computed (no/negative income)	0	0.00%	0	0.00%
Income 80%-100% HAMFI	**6,510**		**3,340**	
Cost Burden Less Than 30%	4,910	75.42%	2,895	86.68%
Cost Burden Between 30%-50%	1,435	22.04%	345	10.33%
Cost Burden Greater Than 50%	165	2.53%	100	2.99%
Not Computed (no/negative income)	0	0.00%	0	0.00%
All Incomes	**65,355**		**30,065**	
Cost Burden Less Than 30%	52,745	80.71%	15,735	52.34%
Cost Burden Between 30%-50%	8,410	12.87%	6,235	20.74%
Cost Burden Greater Than 50%	3,820	5.85%	7,430	24.71%
Not Computed (no/negative income)	385	0.59%	665	2.21%

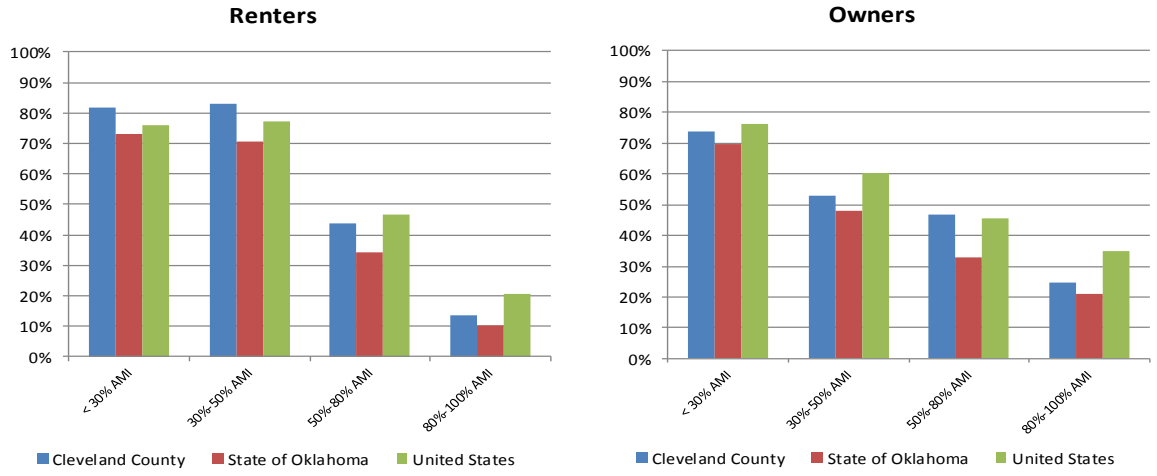
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 8

The next table summarizes the data from the previous table for households with cost burden greater than 30% of gross income, followed by a chart comparing these figures for Cleveland County with the State of Oklahoma as a whole, and the United States.

Cleveland County : Households by Income by Cost Burden				
	Owners		Renters	
Household Income Threshold	Total	% w/ Cost > 30% Income	Total	% w/ Cost > 30% Income
Income < 30% HAMFI	2,815	73.89%	7,070	81.68%
Income 30%-50% HAMFI	4,650	53.01%	5,085	82.99%
Income 50%-80% HAMFI	8,260	46.61%	6,910	43.70%
Income 80%-100% HAMFI	6,510	24.58%	3,340	13.32%
All Incomes	65,355	18.71%	30,065	45.45%

Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 8

Households by Income Threshold: Percentage with Housing Cost Over 30% of Income



Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 6

Substandard Conditions / Overcrowding by Income Threshold

The following table summarizes data regarding substandard housing conditions and overcrowding, separated by owner/renter and HAMFI income threshold. Substandard housing conditions are defined by HUD as any housing unit lacking either complete plumbing or a complete kitchen.

A housing unit without "complete plumbing" is any housing unit lacking one or more of the following features (they do not need to all be present in the same room):

1. Hot and cold running water
2. A flush toilet
3. A bathtub or shower

A lack of a complete kitchen is any housing unit lacking any one or more of the three following items:

1. A sink with a faucet
2. A stove or range
3. A refrigerator

Households are considered to be "overcrowded" if the household has more than 1.0 persons per room (note that this definition is "room" including bedrooms, living rooms and kitchens, as opposed to only "bedrooms"), and is "severely overcrowded" if the household has more than 1.5 persons per room.

Cleveland County : CHAS - HAMFI by Substandard Conditions / Overcrowding				
	Owners		Renters	
Household Income / Housing Problem	Number	Percent	Number	Percent
Income < 30% HAMFI	**2,815**		**7,070**	
Between 1.0 and 1.5 Persons per Room	45	1.60%	250	3.54%
More than 1.5 Persons per Room	0	0.00%	75	1.06%
Lacks Complete Kitchen or Plumbing	50	1.78%	125	1.77%
Income 30%-50% HAMFI	**4,650**		**5,085**	
Between 1.0 and 1.5 Persons per Room	110	2.37%	235	4.62%
More than 1.5 Persons per Room	10	0.22%	55	1.08%
Lacks Complete Kitchen or Plumbing	35	0.75%	110	2.16%
Income 50%-80% HAMFI	**8,260**		**6,910**	
Between 1.0 and 1.5 Persons per Room	100	1.21%	260	3.76%
More than 1.5 Persons per Room	40	0.48%	35	0.51%
Lacks Complete Kitchen or Plumbing	35	0.42%	65	0.94%
Income 80%-100% HAMFI	**6,510**		**3,340**	
Between 1.0 and 1.5 Persons per Room	115	1.77%	120	3.59%
More than 1.5 Persons per Room	30	0.46%	150	4.49%
Lacks Complete Kitchen or Plumbing	0	0.00%	15	0.45%
All Incomes	**65,355**		**30,065**	
Between 1.0 and 1.5 Persons per Room	610	0.93%	940	3.13%
More than 1.5 Persons per Room	150	0.23%	465	1.55%
Lacks Complete Kitchen or Plumbing	175	0.27%	470	1.56%

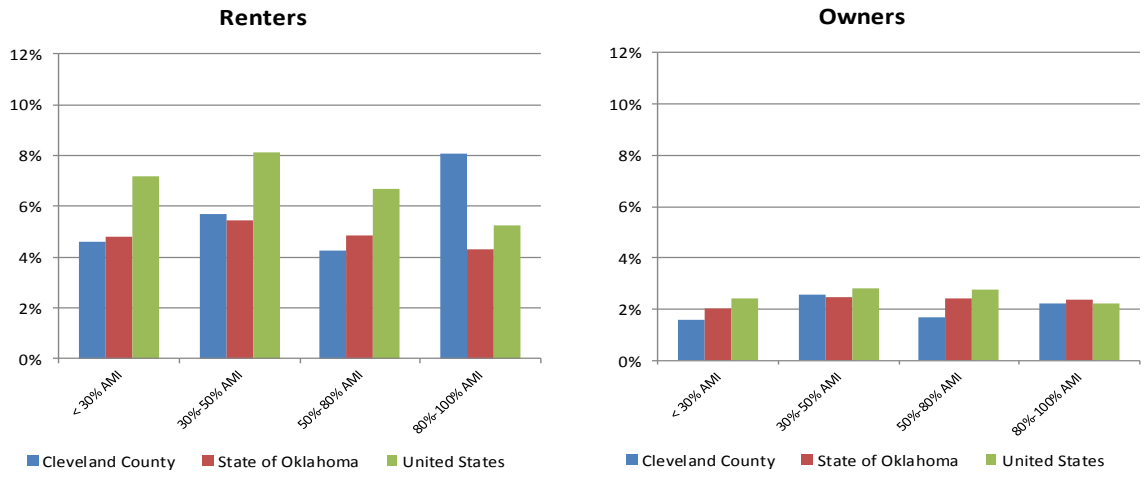
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 3

The next table summarizes this data for overcrowding (i.e. all households with greater than 1.0 persons per room), with a chart comparing this data between Cleveland County, Oklahoma and the nation.

Cleveland County : Households by Income by Overcrowding				
	Owners		Renters	
Household Income Threshold	Total	% > 1.0 Persons per Room	Total	% > 1.0 Persons per Room
Income < 30% HAMFI	2,815	1.60%	7,070	4.60%
Income 30%-50% HAMFI	4,650	2.58%	5,085	5.70%
Income 50%-80% HAMFI	8,260	1.69%	6,910	4.27%
Income 80%-100% HAMFI	6,510	2.23%	3,340	8.08%
All Incomes	65,355	1.16%	30,065	4.67%

Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 3

Households by Income Threshold: Percentage with More than 1.0 Persons per Room



Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 3

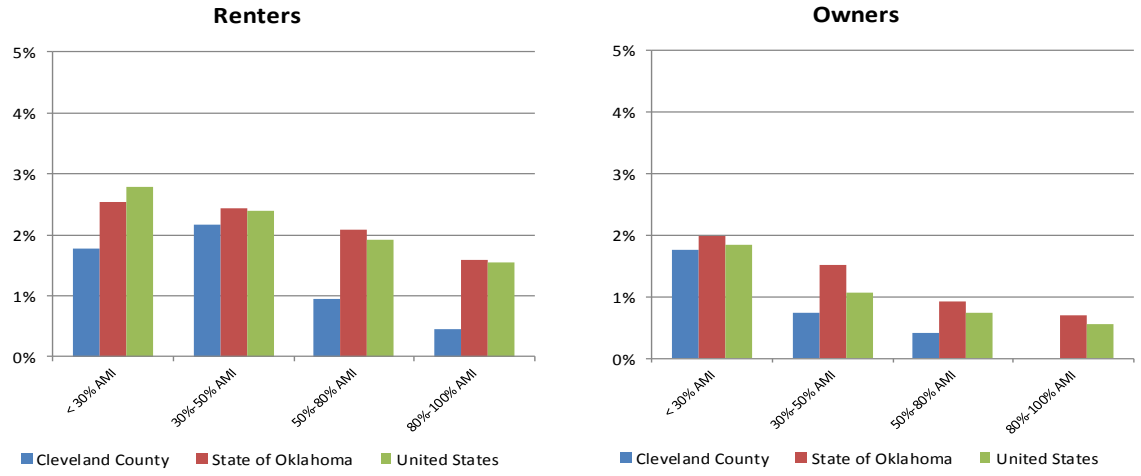
The table following summarizes this data for substandard housing conditions, with a comparison chart between Cleveland County, the state and the nation.

Cleveland County : Households by Income by Substandard Conditions

	Owners		Renters	
Household Size/Type	Total	% Lacking Kitchen or Plumbing	Total	% Lacking Kitchen or Plumbing
Income < 30% HAMFI	2,815	1.78%	7,070	1.77%
Income 30%-50% HAMFI	4,650	0.75%	5,085	2.16%
Income 50%-80% HAMFI	8,260	0.42%	6,910	0.94%
Income 80%-100% HAMFI	6,510	0.00%	3,340	0.45%
All Incomes	65,355	0.27%	30,065	1.56%

Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 3

Households by Income Threshold: Percentage Lacking Complete Plumbing and/or Kitchen



Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 3

Cost Burden by Household Type

The following table provides a breakdown of households by HAMFI, and by household type and size, and by housing cost burden. The categories of household type provided by HUD are:

- Elderly Family: Households with two persons, either or both age 62 or over.
- Small Family: 2 persons, neither age 62 or over, or families with 3 or 4 persons of any age.
- Large Family: families with 5 or more persons.
- Elderly Non-Family (single persons age 62 or over, or unrelated elderly individuals)
- Non-Elderly, Non-Family: all other households.

Cleveland County : CHAS - Housing Cost Burden by Household Type / HAMFI

	Owners			Renters		
Income, Household Size/Type	Total	No. w/ Cost > 30% Income	Pct. w/ Cost > 30% Income	Total	No. w/ Cost > 30% Income	Pct. w/ Cost > 30% Income
Income < 30% HAMFI	**2,815**	**2,085**	**74.07%**	**7,070**	**5,780**	**81.75%**
Elderly Family	215	190	88.37%	140	130	92.86%
Small Family (2-4 persons)	795	640	80.50%	2,020	1,605	79.46%
Large Family (5 or more persons)	140	95	67.86%	395	365	92.41%
Elderly Non-Family	830	635	76.51%	630	455	72.22%
Non-Family, Non-Elderly	830	525	63.25%	3,880	3,225	83.12%
Income 30%-50% HAMFI	**4,650**	**2,465**	**53.01%**	**5,085**	**4,215**	**82.89%**
Elderly Family	750	280	37.33%	130	115	88.46%
Small Family (2-4 persons)	1,345	895	66.54%	1,890	1,585	83.86%
Large Family (5 or more persons)	375	220	58.67%	215	145	67.44%
Elderly Non-Family	1,500	595	39.67%	680	475	69.85%
Non-Family, Non-Elderly	685	475	69.34%	2,170	1,895	87.33%
Income 50%-80% HAMFI	**8,260**	**3,850**	**46.61%**	**6,910**	**3,020**	**43.70%**
Elderly Family	1,450	520	35.86%	200	80	40.00%
Small Family (2-4 persons)	3,405	1,830	53.74%	2,800	990	35.36%
Large Family (5 or more persons)	690	350	50.72%	430	155	36.05%
Elderly Non-Family	1,415	410	28.98%	480	260	54.17%
Non-Family, Non-Elderly	1,300	740	56.92%	2,995	1,535	51.25%
Income 80%-100% HAMFI	**6,510**	**1,599**	**24.56%**	**3,340**	**433**	**12.96%**
Elderly Family	1,120	119	10.63%	135	14	10.37%
Small Family (2-4 persons)	3,040	700	23.03%	1,365	85	6.23%
Large Family (5 or more persons)	625	255	40.80%	280	4	1.43%
Elderly Non-Family	735	170	23.13%	200	125	62.50%
Non-Family, Non-Elderly	990	355	35.86%	1,360	205	15.07%
All Incomes	**65,355**	**12,229**	**18.71%**	**30,065**	**13,653**	**45.41%**
Elderly Family	10,200	1,284	12.59%	815	359	44.05%
Small Family (2-4 persons)	34,295	5,450	15.89%	10,990	4,265	38.81%
Large Family (5 or more persons)	5,330	1,090	20.45%	1,850	669	36.16%
Elderly Non-Family	6,640	1,920	28.92%	2,440	1,470	60.25%
Non-Family, Non-Elderly	8,885	2,485	27.97%	13,960	6,890	49.36%

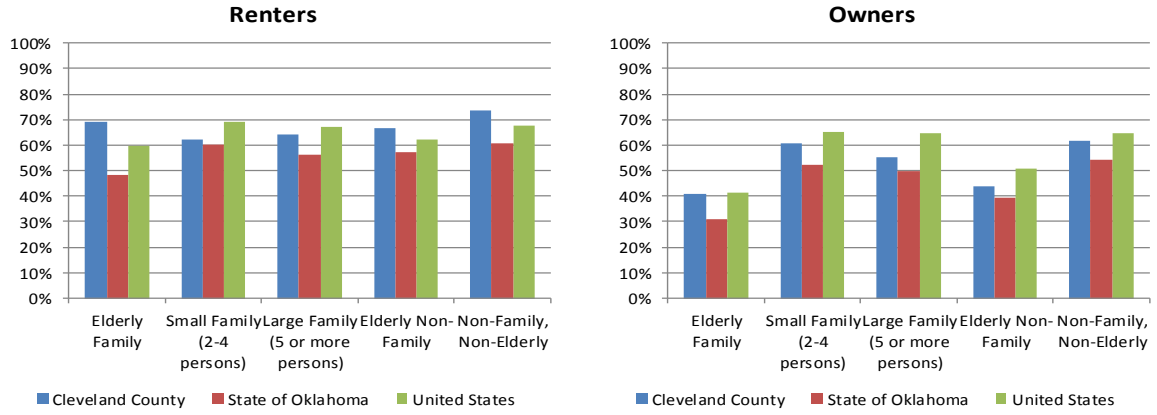
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 7

Cleveland County : Households under 80% AMI by Cost Burden

	Owners			Renters		
Household Size/Type	Total	No. w/ Cost > 30% Income	Pct. w/ Cost > 30% Income	Total	No. w/ Cost > 30% Income	Pct. w/ Cost > 30% Income
Income < 80% HAMFI	**15,725**	**8,400**	**53.42%**	**19,065**	**13,015**	**68.27%**
Elderly Family	2,415	990	40.99%	470	325	69.15%
Small Family (2-4 persons)	5,545	3,365	60.69%	6,710	4,180	62.30%
Large Family (5 or more persons)	1,205	665	55.19%	1,040	665	63.94%
Elderly Non-Family	3,745	1,640	43.79%	1,790	1,190	66.48%
Non-Family, Non-Elderly	2,815	1,740	61.81%	9,045	6,655	73.58%

Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 7

Households Under 80% of AMI: Percentage Housing Cost Overburdened



Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 7

Housing Problems by Household Type

The next set of tables presents data by household type and whether or not the household is experiencing ***any*** housing problems. Housing problems are defined by HUD as any household meeting any of the three following criteria:

1. Housing costs greater than 30% of income (cost-overburdened).
2. Living in a housing unit lacking complete plumbing or a complete kitchen (substandard housing unit).
3. Living in a housing unit with more than 1.0 persons per room (overcrowding).

Cleveland County : CHAS - Housing Problems by Household Type and HAMFI

	Owners			Renters		
Income, Household Size/Type	Total	No. w/ Housing Problems	Pct. w/ Housing Problems	Total	No. w/ Housing Problems	Pct. w/ Housing Problems
Income < 30% HAMFI	**2,815**	**2,100**	**74.60%**	**7,070**	**5,810**	**82.18%**
Elderly Family	215	190	88.37%	140	130	92.86%
Small Family (2-4 persons)	795	640	80.50%	2,020	1,605	79.46%
Large Family (5 or more persons)	140	100	71.43%	395	370	93.67%
Elderly Non-Family	830	635	76.51%	630	450	71.43%
Non-Family, Non-Elderly	830	535	64.46%	3,880	3,255	83.89%
Income 30%-50% HAMFI	**4,650**	**2,555**	**54.95%**	**5,085**	**4,380**	**86.14%**
Elderly Family	750	285	38.00%	130	115	88.46%
Small Family (2-4 persons)	1,345	905	67.29%	1,890	1,655	87.57%
Large Family (5 or more persons)	375	275	73.33%	215	210	97.67%
Elderly Non-Family	1,500	610	40.67%	680	475	69.85%
Non-Family, Non-Elderly	685	480	70.07%	2,170	1,925	88.71%
Income 50%-80% HAMFI	**8,260**	**3,975**	**48.12%**	**6,910**	**3,280**	**47.47%**
Elderly Family	1,450	535	36.90%	200	80	40.00%
Small Family (2-4 persons)	3,405	1,865	54.77%	2,800	1,095	39.11%
Large Family (5 or more persons)	690	410	59.42%	430	265	61.63%
Elderly Non-Family	1,415	425	30.04%	480	285	59.38%
Non-Family, Non-Elderly	1,300	740	56.92%	2,995	1,555	51.92%
Income Greater than 80% of HAMFI	**49,630**	**4,340**	**8.74%**	**11,000**	**1,155**	**10.50%**
Elderly Family	7,785	300	3.85%	345	50	14.49%
Small Family (2-4 persons)	28,755	2,190	7.62%	4,275	210	4.91%
Large Family (5 or more persons)	4,130	795	19.25%	815	270	33.13%
Elderly Non-Family	2,895	285	9.84%	650	300	46.15%
Non-Family, Non-Elderly	6,070	770	12.69%	4,915	325	6.61%
All Incomes	**65,355**	**12,970**	**19.85%**	**30,065**	**14,625**	**48.64%**
Elderly Family	10,200	1,310	12.84%	815	375	46.01%
Small Family (2-4 persons)	34,300	5,600	16.33%	10,985	4,565	41.56%
Large Family (5 or more persons)	5,335	1,580	29.62%	1,855	1,115	60.11%
Elderly Non-Family	6,640	1,955	29.44%	2,440	1,510	61.89%
Non-Family, Non-Elderly	8,885	2,525	28.42%	13,960	7,060	50.57%

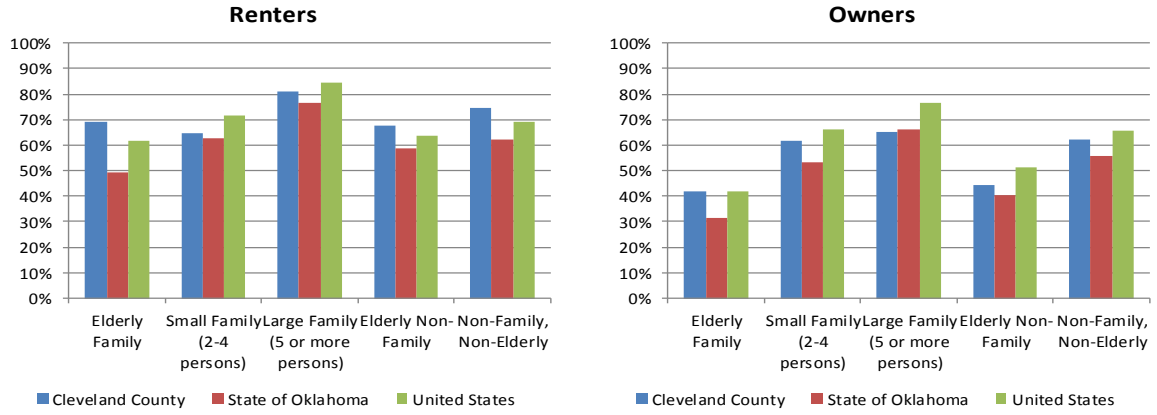
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 16

Cleveland County : Households under 80% AMI by Housing Problems

	Owners			Renters		
Household Size/Type	Total	No. w/ Housing Problems	Pct. w/ Housing Problems	Total	No. w/ Housing Problems	Pct. w/ Housing Problems
Income < 80% HAMFI	**15,725**	**8,630**	**54.88%**	**19,065**	**13,470**	**70.65%**
Elderly Family	2,415	1,010	41.82%	470	325	69.15%
Small Family (2-4 persons)	5,545	3,410	61.50%	6,710	4,355	64.90%
Large Family (5 or more persons)	1,205	785	65.15%	1,040	845	81.25%
Elderly Non-Family	3,745	1,670	44.59%	1,790	1,210	67.60%
Non-Family, Non-Elderly	2,815	1,755	62.34%	9,045	6,735	74.46%

Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 7

Households Under 80% of AMI: Percentage with Housing Problems



Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 7

Housing Problems by Race / Ethnicity

Data presented in the following tables summarizes housing problems (as previously defined), by HAMFI threshold, and by race/ethnicity, for Cleveland County. Under CFR 91.305(b)(1)(ii)(2), racial or ethnic groups have disproportionate need if “the percentage of persons in a category of need who are members of a particular racial or ethnic group in a category of need is at least 10 percentage points higher than the percentage of persons in the category as a whole.”

Cleveland County : CHAS - Housing Problems by Race / Ethnicity and HAMFI

	Owners			Renters		
Income, Race / Ethnicity	Total	No. w/ Housing Problems	Pct. w/ Housing Problems	Total	No. w/ Housing Problems	Pct. w/ Housing Problems
Income < 30% HAMFI	**2,820**	**2,100**	**74.5%**	**7,065**	**5,810**	**82.2%**
White alone, non-Hispanic	2,270	1,685	74.2%	4,875	3,990	81.8%
Black or African-American alone	20	20	100.0%	650	520	80.0%
Asian alone	80	80	100.0%	410	280	68.3%
American Indian alone	125	70	56.0%	295	265	89.8%
Pacific Islander alone	0	0	N/A	30	30	100.0%
Hispanic, any race	194	140	72.2%	490	460	93.9%
Other (including multiple races)	124	105	84.7%	315	265	84.1%
Income 30%-50% HAMFI	**4,650**	**2,555**	**54.9%**	**5,085**	**4,375**	**86.0%**
White alone, non-Hispanic	3,835	2,020	52.7%	3,770	3,345	88.7%
Black or African-American alone	65	65	100.0%	330	275	83.3%
Asian alone	130	80	61.5%	175	130	74.3%
American Indian alone	110	25	22.7%	160	130	81.3%
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	360	260	72.2%	405	285	70.4%
Other (including multiple races)	145	100	69.0%	250	215	86.0%
Income 50%-80% HAMFI	**8,260**	**3,970**	**48.1%**	**6,910**	**3,285**	**47.5%**
White alone, non-Hispanic	6,585	3,070	46.6%	5,390	2,535	47.0%
Black or African-American alone	345	240	69.6%	280	140	50.0%
Asian alone	240	100	41.7%	215	85	39.5%
American Indian alone	300	130	43.3%	325	130	40.0%
Pacific Islander alone	0	0	N/A	4	0	0.0%
Hispanic, any race	480	290	60.4%	445	225	50.6%
Other (including multiple races)	315	145	46.0%	260	175	67.3%
Income 80%-100% HAMFI	**6,510**	**1,705**	**26.2%**	**3,340**	**725**	**21.7%**
White alone, non-Hispanic	5,410	1,350	25.0%	2,555	570	22.3%
Black or African-American alone	175	100	57.1%	225	25	11.1%
Asian alone	145	85	58.6%	45	0	0.0%
American Indian alone	200	35	17.5%	135	30	22.2%
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	375	75	20.0%	215	90	41.9%
Other (including multiple races)	210	60	28.6%	170	10	5.9%
All Incomes	**65,360**	**12,960**	**19.8%**	**30,060**	**14,620**	**48.6%**
White alone, non-Hispanic	54,870	10,115	18.4%	22,755	10,790	47.4%
Black or African-American alone	1,635	560	34.3%	1,985	1,005	50.6%
Asian alone	1,695	490	28.9%	1,110	495	44.6%
American Indian alone	2,075	310	14.9%	1,200	555	46.3%
Pacific Islander alone	4	0	0.0%	38	30	78.9%
Hispanic, any race	2,869	920	32.1%	1,735	1,080	62.2%
Other (including multiple races)	2,214	565	25.5%	1,250	675	54.0%

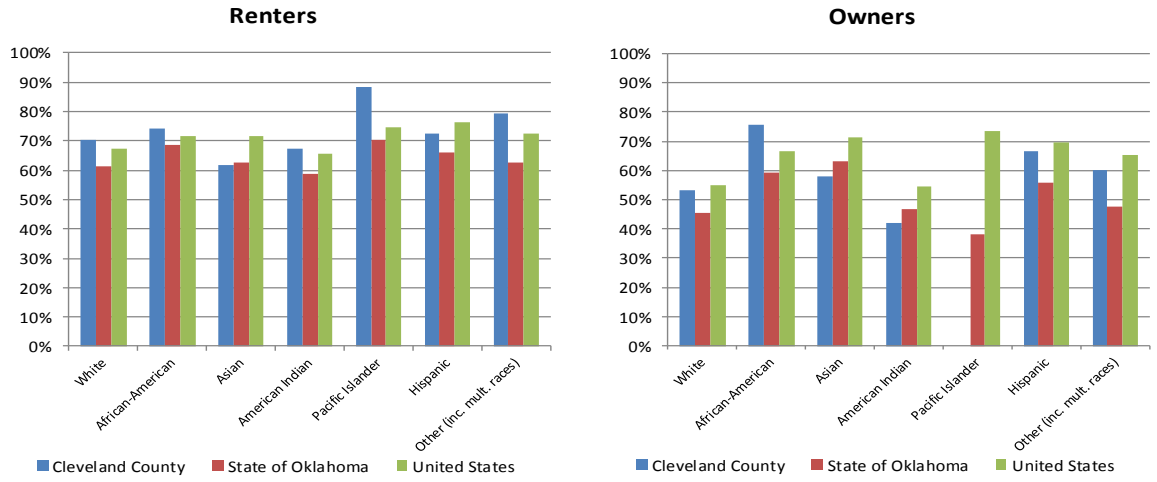
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 1

Cleveland County : Households under 80% AMI by Race/Ethnicity

	Owners			Renters		
Household Size/Type	Total	No. w/ Housing Problems	Pct. w/ Housing Problems	Total	No. w/ Housing Problems	Pct. w/ Housing Problems
Income < 80% HAMFI	**15,730**	**8,625**	**54.83%**	**19,060**	**13,470**	**70.67%**
White alone, non-Hispanic	12,690	6,775	53.39%	14,035	9,870	70.32%
Black or African-American alone	430	325	75.58%	1,260	935	74.21%
Asian alone	450	260	57.78%	800	495	61.88%
American Indian alone	535	225	42.06%	780	525	67.31%
Pacific Islander alone	0	0	N/A	34	30	88.24%
Hispanic, any race	1,034	690	66.73%	1,340	970	72.39%
Other (including multiple races)	584	350	59.93%	825	655	79.39%

Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 7

Households Under 80% of AMI: Percentage with Housing Problems by Race



Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 7

CHAS Conclusions

The previous data notes many areas of need (and severe need) among the existing population of Cleveland County. The greatest needs are among households with incomes less than 50% of Area Median Income. Several other areas of note:

- Among households with incomes less than 50% of Area Median Income, there are 9,995 renter households that are cost overburdened, and 4,545 homeowners that are cost overburdened.
- Among **elderly** households with incomes less than 50% of Area Median Income, there are 1,175 renter households that are cost overburdened, and 1,700 homeowners that are cost overburdened.

- 88.24% of Pacific Islander renters with incomes less than 80% of Area Median Income have one or more housing problems
- 75.58% of African American homeowners, and 66.73% of Hispanic homeowners with incomes less than 80% of Area Median Income have one or more housing problems.

Overall Anticipated Housing Demand

Future demand for housing units in Cleveland County can be estimated from population and household growth. Population estimates are based on known factors such as noted increases in the city employment base and indications from demographic services. In this case we have considered data from both the U.S. Census Bureau and Nielsen SiteReports. The estimates of changes in households and population were presented in a previous section of this report. The anticipated future demand is estimated for Norman, Moore, and Noble, as well as Cleveland County as a whole. The calculations are shown in the following tables.

Norman Anticipated Demand

Households in Norman grew at an annually compounded rate of 1.41% from 2000 to 2010. Nielsen SiteReports estimates households have grown 1.60% per year since that time, and that households will grow 1.19% per year through 2020. For these reasons we will rely on the Nielsen SiteReports forecast of 1.19% per year in forecasting future household growth for Norman.

The percentage of owner households was estimated at 56.95% with renter households estimated at 43.05%, based on data from the U.S. Census Bureau. The estimated number of additional units needed to service increasing demand can be estimated by applying this percentage to the anticipated growth in households. It should be noted that this is an estimate of rental and owner requirements and should be relied upon only as a guideline for possible new demand. The calculations are shown below.

Future Housing Demand Estimates for Norman

Year		2015	2016	2017	2018	2019	2020
Household Estimates		48,352	48,929	49,513	50,105	50,703	51,308
Owner %:	56.95%	27,538	27,866	28,199	28,536	28,876	29,221
Renter %:	43.05%	20,814	21,063	21,314	21,569	21,826	22,087
				Total New Owner Households			**1,684**
				Total New Renter Households			**1,272**

Based on an estimated household growth rate of 1.19% per year, Norman would require 1,684 new housing units for ownership, and 1,272 units for rent, over the next five years. Annually this equates to 337 units for ownership per year, and 254 units for rent per year.

Moore Anticipated Demand

Households in Moore grew at an annually compounded rate of 3.25% from 2000 to 2010. Nielsen SiteReports estimates households have grown 1.78% per year since that time, and that households will grow 1.53% per year through 2020. For these reasons we will rely on the Nielsen SiteReports forecast of 1.53% per year in forecasting future household growth for Moore.

The percentage of owner households was estimated at 73.41% with renter households estimated at 26.59%, based on data from the U.S. Census Bureau. The estimated number of additional units needed to service increasing demand can be estimated by applying this percentage to the anticipated growth

in households. It should be noted that this is an estimate of rental and owner requirements and should be relied upon only as a guideline for possible new demand. The calculations are shown below.

Future Housing Demand Estimates for Moore							
Year		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Household Estimates		22,335	22,677	23,025	23,378	23,736	24,100
Owner %:	73.41%	16,395	16,647	16,902	17,161	17,424	17,691
Renter %:	26.59%	5,940	6,031	6,123	6,217	6,312	6,409
				Total New Owner Households			**1,296**
				Total New Renter Households			**469**

Based on an estimated household growth rate of 1.53% per year, Moore would require 1,296 new housing units for ownership, and 469 units for rent, over the next five years. Annually this equates to 259 units for ownership per year, and 94 units for rent per year.

Noble Anticipated Demand

Households in Noble grew at an annually compounded rate of 2.19% from 2000 to 2010. Nielsen SiteReports estimates households have grown 1.17% per year since that time, and that households will grow 1.27% per year through 2020. For these reasons we will rely on the Nielsen SiteReports forecast of 1.27% per year in forecasting future household growth for Noble.

The percentage of owner households was estimated at 73.66% with renter households estimated at 26.34%, based on data from the U.S. Census Bureau. The estimated number of additional units needed to service increasing demand can be estimated by applying this percentage to the anticipated growth in households. It should be noted that this is an estimate of rental and owner requirements and should be relied upon only as a guideline for possible new demand. The calculations are shown below.

Future Housing Demand Estimates for Noble							
Year		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Household Estimates		2,574	2,607	2,640	2,673	2,707	2,741
Owner %:	73.66%	1,896	1,920	1,944	1,969	1,994	2,019
Renter %:	26.34%	678	687	695	704	713	722
				Total New Owner Households			**123**
				Total New Renter Households			**44**

Based on an estimated household growth rate of 1.27% per year, Noble would require 123 new housing units for ownership, and 44 units for rent, over the next five years. Annually this equates to 25 units for ownership per year, and 9 units for rent per year.

Cleveland County Anticipated Demand

Households in Cleveland County grew at an annually compounded rate of 2.19% from 2000 to 2010. Nielsen SiteReports estimates households have grown 1.58% per year since that time, and that

households will grow 1.30% per year through 2020. For these reasons we will rely on the Nielsen SiteReports forecast of 1.30% per year in forecasting future household growth for Cleveland County.

The percentage of owner households was estimated at 67.39% with renter households estimated at 32.61%, based on data from the U.S. Census Bureau. The estimated number of additional units needed to service increasing demand can be estimated by applying this percentage to the anticipated growth in households. It should be noted that this is an estimate of rental and owner requirements and should be relied upon only as a guideline for possible new demand. The calculations are shown below.

Future Housing Demand Estimates for Cleveland County

Year		2015	2016	2017	2018	2019	2020
Household Estimates		106,300	107,681	109,081	110,498	111,934	113,389
Owner %:	67.39%	71,635	72,566	73,509	74,464	75,432	76,412
Renter %:	32.61%	34,665	35,116	35,572	36,034	36,503	36,977

Total New Owner Households	**4,777**
Total New Renter Households	**2,312**

Based on an estimated household growth rate of 1.30% per year, Cleveland County would require 4,777 new housing units for ownership, and 2,312 units for rent, over the next five years. Annually this equates to 955 units for ownership per year, and 462 units for rent per year.

Housing Demand – Population Subsets

This section will address 5-year forecasted needs and trends for population special population subsets for Cleveland County. These forecasts are based on the previously forecasted overall trends for the next five years.

Housing Needs by Income Thresholds

The first table will address future housing needs and trends for households in Cleveland County by income threshold: households within incomes below 30%, 50%, 60% and 80% of Area Median Income, by tenure (owner/renter). These forecasts are primarily based on HUD Consolidated Housing Affordability Strategy data presented previously. Households with incomes below 60% of Area Median Income (AMI) are estimated at 120% of the households at 50% of AMI. Note that these figures are cumulative and should not be added across income thresholds.

Cleveland County: 2015-2020 Housing Needs by Income Threshold

	Owner Subset %	Renter Subset %	Owners	Renters	**Total**
Total New Demand: 2015-2020	100.00%	100.00%	4,777	2,312	7,089
Less than 30% AMI	4.31%	23.52%	206	544	**749**
Less than 50% AMI	11.42%	40.43%	546	935	**1,480**
Less than 60% AMI	13.71%	48.51%	655	1,122	**1,776**
Less than 80% AMI	24.06%	63.41%	1,149	1,466	**2,615**

Elderly Housing Needs

The next table will address future housing needs and trends for households with elderly persons (age 62 and up). Like the previous table, this data is based on the overall trends previously defined, and the 2008-2012 CHAS data previously discussed (specifically CHAS Table 16). It is further broken down by income threshold and tenure.

Cleveland County: 2015-2020 Housing Needs Age 62 and Up

	Owner Subset %	Renter Subset %	Elderly Owners	Elderly Renters	**Elderly Total**
Total New Elderly (62+) Demand: 2015-2020	25.77%	10.83%	1,231	250	**1,481**
Elderly less than 30% AMI	1.60%	2.56%	76	59	**136**
Elderly less than 50% AMI	5.04%	5.26%	241	121	**362**
Elderly less than 60% AMI	6.05%	6.31%	289	146	**435**
Elderly less than 80% AMI	9.43%	7.52%	450	174	**624**

Housing Needs for Persons with Disabilities / Special Needs

The following table will address future trends and needs for households with at least one household member with at least one disability as identified by HUD CHAS Table 6 (hearing or vision impairments, ambulatory limitations, cognitive limitations, self-care limitations, or independent living limitations). As with the previous tables, this data is also further broken down by income threshold and tenure.

Cleveland County: 2015-2020 Housing Needs for Persons with Disabilities					
	Owner Subset %	Renter Subset %	Disabled Owners	Disabled Renters	**Disabled Total**
Total New Disabled Demand (2015-2020)	25.02%	23.42%	1,195	541	**1,736**
Disabled less than 30% AMI	1.87%	7.25%	90	168	**257**
Disabled less than 50% AMI	4.61%	12.67%	220	293	**513**
Disabled less than 60% AMI	5.54%	15.21%	264	352	**616**
Disabled less than 80% AMI	9.14%	17.18%	437	397	**834**

Housing Needs for Veterans

This section will address housing needs for households with at least one veteran. This data is not available through HUD's Consolidated Housing Affordability Strategy, so we have instead relied on data from the U.S. Census Bureau, specifically the 2009-2013 American Community Survey, Table C21007. This data is further broken down by tenure, poverty status, and disability status.

Cleveland County: 2015-2020 Housing Needs for Veterans					
	Owner Subset %	Renter Subset %	Veteran Owners	Veteran Renters	**Veteran Total**
Total New Demand (2015-2020)	100.00%	100.00%	4,777	2,312	7,089
Total Veteran Demand	11.22%	11.22%	536	259	**795**
Veterans with Disabilities	3.14%	3.14%	150	73	**223**
Veterans Below Poverty	0.62%	0.62%	30	14	**44**
Disabled Veterans Below Poverty	0.27%	0.27%	13	6	**19**

Housing Needs for Working Families

The final table addresses housing needs for working families. Working families are in this case defined as families (households with at least two members related by blood or marriage) with at least one person employed. Like the forecasts for veteran needs, this data cannot be extracted from the HUD CHAS tables, so we have again relied on the Census Bureau's American Community Survey (table B23007 in this instance). The data is further broken down by the presence of children (below the age of 18).

Cleveland County: 2015-2020 Housing Needs for Working Families					
	Owner Subset %	Renter Subset %	Owners	Renters	**Total**
Total New Demand (2015-2020)	100.00%	100.00%	4,777	2,312	7,089
Total Working Families	54.93%	54.93%	2,624	1,270	**3,894**
Working Families with Children Present	27.92%	27.92%	1,334	645	**1,979**

Population Subset Conclusions

Based on population and household growth over the next five years, a total of 7,089 housing units will be needed in Cleveland County over the next five years. Of those units:

- 1,776 will be needed by households earning less than 60% of Area Median Income

- 435 will be needed by households age 62 and up, earning less than 60% of Area Median Income
- 616 will be needed by households with disabilities / special needs, earning less than 60% of Area Median Income
- 44 will be needed by veterans living below the poverty line
- 1,979 will be needed by working families with children present

This data suggests a strong need in Cleveland County for housing units that are both affordable and accessible to persons with disabilities / special needs, and particularly working families with children present.

Special Topics

Cleveland County Disaster Resiliency Assessment

The purpose of this section is to assess at the county level key components of disaster resiliency. Housing location and quality as well as planning activities can help reduce impacts from disaster events and allow for faster recovery. Disasters can include tornadoes, extreme weather, high winds, as well as man-made events. These events may largely be inevitable, but the ability to reduce damage and casualties as well recovery can be improved with good planning.

C.0 Comprehensive Plans & Hazard Mitigation Plans

There are 8 cities and towns within the county. Two key cities within the county, Norman and Moore. **Comprehensive plans** are the guiding documents for cities of various sizes to address key aspects of their community from land use, transportation, environment, housing, and economic development. City of Norman and City of Moore have comprehensive plans.

The following is language in the plans that addresses land use decisions that reduce placing housing and businesses within historical areas of risk (e.g. flooding) and other supporting actions to increase disaster resiliency.

City of Norman Comprehensive Plan Elements addressing housing and community resiliency:

- Goal 5, Objective 6: Minimize the amount of development that occurs in the 10-Mile Flats area, in order to preserve the area's character as well as protect residents from hazards associated with flooding.
- Country Residential area – Garber- Wellington Aquifer as the primary recharge zone; recommended for rural or very low density development.

City of Moore Comprehensive Plan Elements addressing housing and community resiliency:

Emergency Management Response:

Fire - Eliminate fire hazards that endanger life and property.

Hazardous Materials - Encourage the proper handling of hazardous materials.

"The Emergency Management Division focuses on identifying and mitigating hazards that could potentially affect the City and coordinating preparedness, response, and recovery efforts for large-scale emergencies and disasters.

Potential hazards that can effect development decisions include:

- The location of the railroad
- The location of electrical substations
- The location of natural gas plants
- Flooding and floodplain issues
- The location of businesses that utilize hazardous chemicals
- The location of highways and other streets carrying hazardous chemicals
- The location of pipelines "

Emergency Management

- **Personnel -** To adequate meet growing numbers of emergency calls and to properly serve the additional fire and police personnel, the Communications Division needs to add three personnel. This will allow the minimum staffing level of the Department to be raised to three from the current level of two. Additional personnel should be phased in over the next five years, coordinated with increases in fire and police staffing.
- **Facility –** A new Emergency Operations/Communications Center is needed. The new facility should be constructed to withstand threats from terrorism and severe weather, as it must be 100% operational at all times. The new facility should be an Emergency Operations Center from which City officials may coordinate the response to all emergencies.
- **Mobile Command Vehicle –** The need to properly command and control the response and recovery efforts to large emergencies also extends to the field. A new mobile command vehicle is needed to properly support police and fire command staff on incident scenes. The current vehicle is too small to adequately house the number of decision and support personnel needed or this mission and is also 26 years old.
- **Radio System –** The City's police and fire personnel will be moving to a new 800 mHz radio system in the summer of 2006. However, the rest of the City departments are currently remaining on their 150 mHz systems and will no longer be able to communicate directly with the public safety personnel during emergencies. The City needs to purchase additional 800 mHz mobile and handheld radios to replace the older systems.
- **Hazard Buffer –** The City should investigate changes to the Subdivision Regulations to include mandatory setbacks from potentially hazardous land uses, such as the railroad, oil and gas operations, and gas pipelines.

  High population densities and residential development should be adequately buffered with open space from these hazards. The buffer should be of adequate size for emergency personnel and equipment to respond to an accident should one occur.

The other key plan for a city to manage, mitigate and plan for recovery related to disasters are county or city **Hazard Mitigation Plans and/or Emergency Management Plans**.

City of Norman and City of Moore both have Hazard Mitigation Plans that provide guidance related to major risks that impact the area and methods to address and mitigate those risks.

Coordination between Norman, Moore, Noble, Lexington, and the county overall Hazard Mitigation Plans and Emergency Operations Plans are explicitly stated in the plan documents.

C.2.1.1. Historical Data on Natural Disasters and Other Hazards

The Cleveland County Hazard Mitigation Plan (2013-2018) had six key goals:

Goal 1: **Protect lives and property.**
Goal 2: To improve or enhance emergency services.
Goal 3: To prevent or reduce the effects of natural hazards/disasters.
Goal 4: To identify and protect critical facilities in Cleveland County.
Goal 5: To develop or improve structures to become a more disaster resistant county.

Goal 6: To provide more public awareness of the natural disaster threat.

The Hazard Identification for the Cleveland County included assessing the risks for the area and the likelihood of occurrence:

Table 3-2

CLEVELAND COUNTY NATURAL HAZARDS

Hazard	How reviewed	Why identified
Dam failure	• Oklahoma Water Resources Board • CCHMPT input • Public Input	There has never been a dam failure in Cleveland County; however, there are six high hazard dams in Cleveland County.
Drought	• Oklahoma Climatological Survey, • Oklahoma Water Resources Bulletin, • Historical Data	Recent episodes of drought.
Earthquake	• Oklahoma Geological Survey • Past Historical Records	Past history, existing nearby faults within central Oklahoma.
Extreme heat	• National Weather Service • Oklahoma Climatological Survey	Oklahoma has prolonged periods of high temperatures and is prone to wide swings of temperature
Flood	• Local Emergency Management Records • Public Input • FEMA Declarations • NCDC	There has been a past history of major flooding in Cleveland County due to heavy rains and inadequate drainage.
Hailstorm	• Local Input • NCDC	Cleveland County experiences hailstorms during severe thunderstorms.
High winds	• NCDC data • Public Input • Team Hazard Survey • Oklahoma Climatological Survey • National Weather Service • Storm Prediction Center	Oklahoma experiences hundreds of severe thunderstorms high winds every year, including downdrafts that have damaged structures.
Lightning	• NCDC data • Public Input • Team Hazard Survey • Oklahoma Climatological Survey • National Weather Service	Oklahoma experiences hundreds of severe thunderstorms with lightning every year.
Tornado	• Local Emergency Management Records • Public Input • FEMA Declarations • NCDC	Oklahoma has a distinction as the epicenter of Tornado Alley. Cleveland County has experienced recent tornados.
Wildfire	• Fire Department Records • Public Input	Local FD records reflect damage from wildfires frequently in Cleveland County.
Winter storm	• Public Input • National Weather Service • FEMA Declarations	Severe ice and snowstorms occur regularly in central Oklahoma. The last occurrence was in 2011.

Historical natural disaster in Cleveland County are documented in Cleveland County Hazard Mitigation Plan (2013-2018). Thirteen natural disasters since 2001 have been formally declared disaster area by the President. Typical hazard disasters in the region include flooding, severe storms, wildfires, severe winter storms, and tornadoes. (Cleveland County Hazard Mitigation Plan 2013-2018)

Table 3-3

Disasters in Cleveland County – 2001 through June 2013

Incident Period	Nature of Disaster	FEMA #	Declaration Date	Declaration Area
May 18 – June 2, 2013	Severe Storms, Tornados	FEMA -DR -4117	May 20, 2013	
May 10, 2010 – May 13, 2010	Severe Storms, Tornados, and Straight-Line Winds	FEMA-1917-DR	May 24, 2010	
January 28, 2010 – January 30, 2010	Severe Winter Storm	FEMA-DR-1883	March 5, 2010	
December 24, 2009 – December 25, 2009	Severe Winter Storm	FEMA-DR-1876	February 25, 2009	
April, 9, 2009 – April 12, 2009	Wildfires	FEMA-DR-1846	June 19, 2009	
December 8, 2007 – January 3, 2008	Severe Winter Storms	FEMA-DR-1735	December 18, 2009	

Disasters in Cleveland County – 2001 through June 2013				
Incident Period	**Nature of Disaster**	**FEMA #**	**Declaration Date**	**Declaration Area**
August 18, 2007 – September 12, 2007	Severe Storms, Tornados, and Flooding	FEMA-DR1718	August 24, 2007	
June 10, 2007 – July 25, 2007	Severe Storms, Tornados, and Flooding	FEMA-DR-1712	July 7, 2007	
January 12, 2007 – January 26, 2007	Severe Winter Storms	FEMA-DR-1678	February 1, 2007	
November 27, 2005 – March 31, 2006	Severe wildfire threat	FEMA-DR-1623	January 10, 2006	
May 8, 2003 – May 31, 2003	Severe Storms and Tornados	FEMA-DR-1465	May 10, 2003	
January 30, 2002 – February 11, 2002	Ice Storm	1401	February 1, 2002	
December 25, 2000 – January 10, 2001	Severe winter storms	1355	January 5, 2001	

www.fema.gov/disasters

Dam Failure Risks

Historical Context: The 5 dams assessed as part of the HMP included Hall Park, Shadow Lake, Stanley Draper, Summit Lake, Sutton Wilderness Lake (Cleveland County Hazard Mitigation Plan 2013-2018).

Hall Park: A breach of this dam is noted to potentially impact approximately 50 residences, several businesses and the Norman Veterans Center.

Stanley Draper Lake: Robin Hill School and approximately 100 homes, primarily acreages and small farms and ranches, would be inundated until the flood water reached the Little River five miles south of the dam.

Sutton Lake Wilderness: This is a small private lake however is listed as a High Hazard Dam due to its location in an urban area.

There has been one historical dam breach in 2007 in Cleveland County at Reynolds Lake. No structures were impacted by the breach.

Mitigation Strategy / Recommendations from HMP: "Cleveland County has five dams rated as high hazard based on evaluation and ranking by the Oklahoma Water Resources Board. Officials with Oklahoma's conservation districts have said the state's dam control system is flooded with problems and desperately needs money to fix them. Efforts are underway throughout the state to fix the

problems but it takes money that is not currently available." (Cleveland County Hazard Mitigation Plan 2013-2018)

Drought

Historical Context: Drought has cyclically been a problem for the state. Drought is often followed by potential for severe flooding due to absorption rates for soils. There have been six drought years/events (Cleveland County Hazard Mitigation Plan 2013-2018):

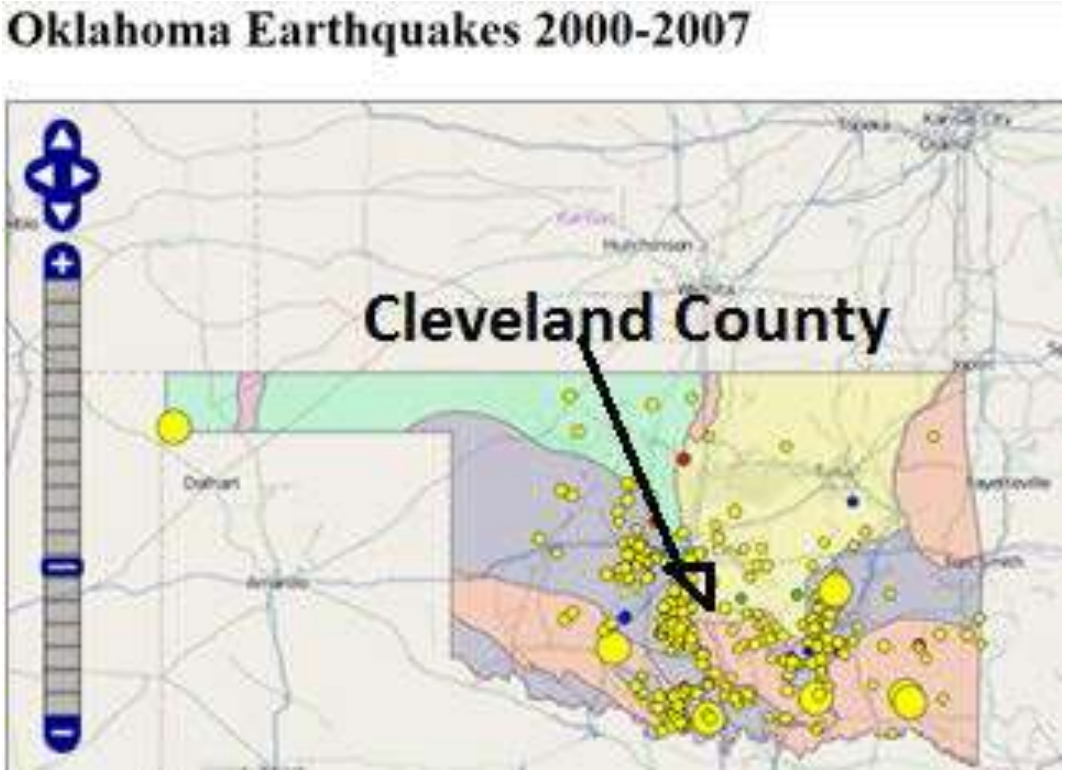
Table 3-6

CLEVELAND COUNTY DROUGHT EVENTS 2007 through January 2013	
Date	**Description**
Jan. – Feb 2013	D3 (extreme) drought continued through the month of January in Cleveland County with persistent dry conditions. D3 (extreme) drought conditions were present at the beginning of the month in Cleveland County, but had improved slightly to D2 (severe) drought by the end of the month due to several winter storms.
July - Dec 2012	As a mid-level ridge of high pressure built into the Southern Plains late in July, few opportunities for rain lead to expanding drought conditions across much of Oklahoma. Abnormally dry conditions were present at the beginning of the month, but D3 (extreme) drought developed by the end of the month with persistent dry conditions.
Mar - Dec 2011	Since Thanksgiving 2010, much of central and western Oklahoma has seen its driest precipitation totals since the 1920s and 30s. The lack of beneficial rainfall, combined with extreme high temperatures continued the drought that had plagued Oklahoma for several months. July 2011 was officially the hottest month on record locally and nationally. High temperatures were over 100 degrees for almost the entire month. Rainfall totals, especially for those over western and southern Oklahoma were little more than a trace. The dry vegetation contributed to several grass fires. Some municipalities had restricted water use, as water levels in area lakes have dropped to very low levels. The exact monetary loss for the crop loss cannot be determined, although it would probably be in the millions.
01 Mar 2007	The drought officially came to an end, thanks to heavy rainfall that fell during the latter half of the month. The drought went from a D2 (extreme) to a D1 (Moderate) on 3/22. Several rounds of heavy rainfall from the 26th through the 30th continued the trend, upgrading the status to D0 (Abnormally Dry).
01 Feb 2007	Severe (D2) drought conditions continued across much of the northern half of Oklahoma during the month of February. Normal rainfall that fell for February did nothing to help the drought, considering precipitation totals are not usually high in February. Water worries continue over this area with lake levels remaining low. Even with beneficial above normal rainfall earlier this year, and the slow improvement of lake levels over the last 3 months, many boat docks and ramps still remained on dry ground. Many people did not venture out on area lakes this month due to prolonged cold spells, so recreation in and around the lake were minimally affected. Water rationing is starting to be considered, although most lakes are still considered at safe levels for everyday living. The agriculture industry continued to be hit hard by the drought.
01 Jan 2007	Severe to extreme (D2-D3) drought conditions were seen however, much needed precipitation during the latter half of the month, mainly in some form of winter precipitation, allowed for these areas to improve to just severe conditions (D2). This also allowed for an improvement to areas farther south that were in D2 drought conditions during the month of December. The winter storm from the 12th through the 14th provided much needed precipitation to improve these areas to D1 or less.

Mitigation Strategy / Recommendations from HMP: Vulnerability with drought is most closely felt by farmers and ranchers through crop and livestock loses (Cleveland County Hazard Mitigation Plan 2013-2018). Oklahoma City, Moore and Norman often coordinate conservation and rationing of water during particularly severe drought conditions.

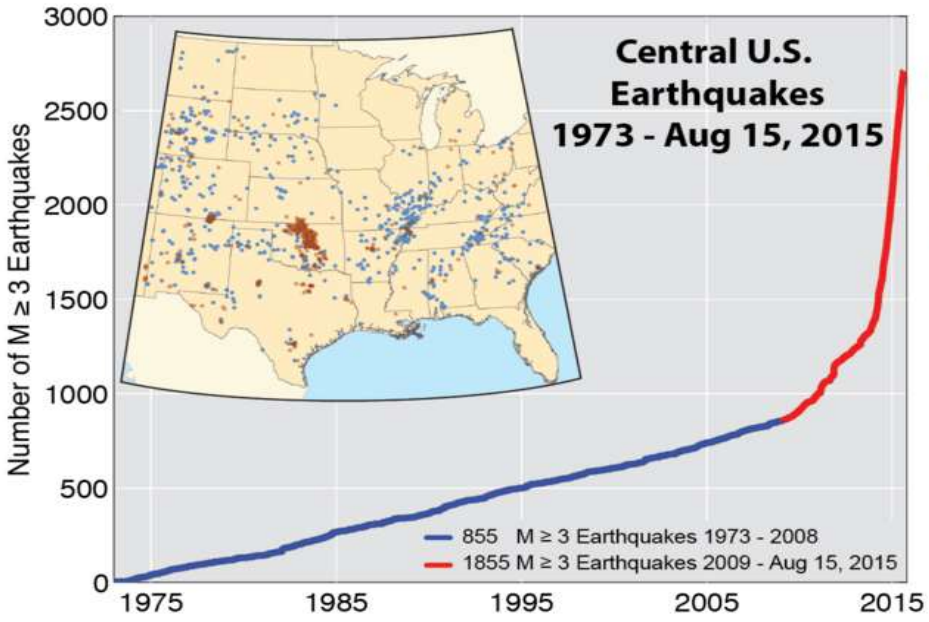
Earthquake

Historical Context: "The largest earthquake experienced in Oklahoma occurred on November 06, 2011 with a magnitude of 5.6. The Geological Survey said the earthquake was shallow, about three miles deep, and that the epicenter was four miles east of Sparks, located about 44 miles northeast of Oklahoma City. The quake followed smaller ones earlier in the day, including one at 2:12 a.m. with a preliminary magnitude of 4.7. Its epicenter was in Prague, about 50 miles east of Oklahoma City. The previous record earthquake was in 1952 when a 5.5 tremor occurred in Canadian County near El Reno." (Cleveland County Hazard Mitigation Plan 2013-2018). Concerns about fracking or fluid injection as part of the process for extraction of oil/ natural gas continues to factor into discussions for risk assessment for building codes and mitigation.



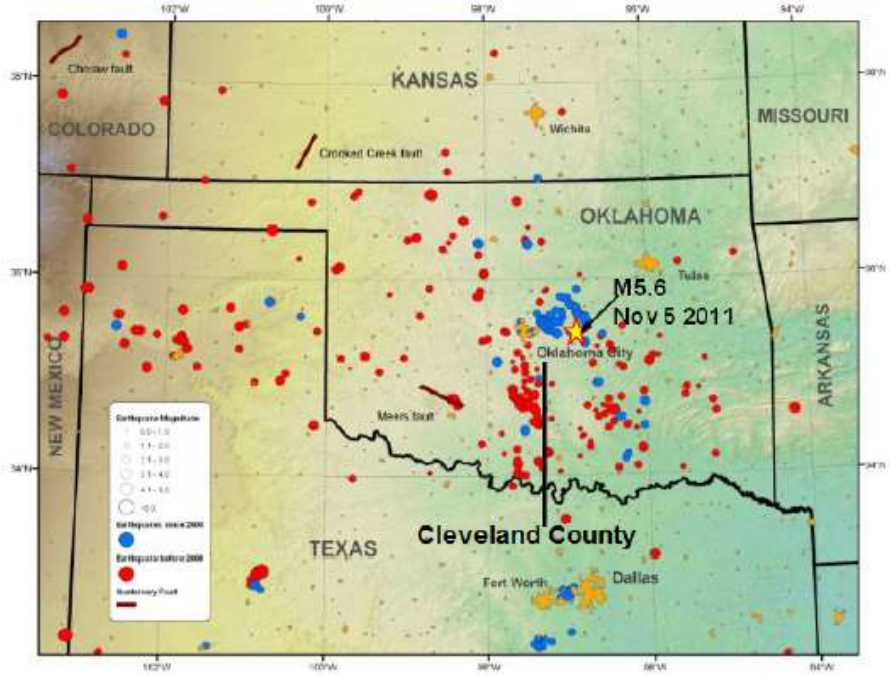
(Cleveland County Hazard Mitigation Plan 2013-2018)

Increasing Rate of Earthquakes Beginning in 2009



Cumulative number of earthquakes with a magnitude of 3.0 or larger in the central and eastern United States, 1970–2015. The long-term rate of approximately 29 earthquakes per year increased sharply starting around 2009.

http://earthquake.usgs.gov/research/induced/



Seismicity in the Oklahoma region since 1973. Events shown in red pre-date January 1, 2008, while events in blue post-date this time. Star shows the epicenter of the 5 November 2011 magnitude 5.6 earthquake. The locations of known Quaternary or younger faults are shown as red lines.

(Cleveland County Hazard Mitigation Plan 2013-2018)

CLEVELAND COUNTY EARTHQUAKE EVENTS 2007 - October 2013 Oklahoma Geological Survey Observatory			
Date	**Location**	**Magnitude**	**Damage**
Apr 16, 2013	Located in the Perkins OK area 76 miles NE of Norman. Depth = 2.3	4.7	None known
Apr 20, 2012	Rural area of 14000 block of Indian Hills Road in north Norman. Depth= 13.0	1.9	None known
Oct 27, 2011	Rural area in 12000 block of N. Banner Road in El Reno. Depth= 5.6	1.9	None known
Nov 5, 2011	Rural area in Lincoln County Depth = unk.	5.6	Minor damage in Cleveland County
Mar 2, 2010	Rural area in the 10121 W Britton Road in Yukon. Depth = 5.0	0.3	None known
Jul 20, 2010	Rural area 10 miles east of 3100 120th Ave SE Norman Depth= 3.35	0.8	None Known
Oct 13, 2010	1509 Westmore Drive in south Oklahoma City NW of Moore. Depth= 11.0	4.7 MMI - IV	Minor damages reported
Oct 13, 2010	West of Moore 13 miles in the Newcastle area Depth= 7.56	1.3	None Known
Oct 13, 2010	NW of Moore in SW Oklahoma City rural area. Depth= 4.54	2.0	None Known
Oct 14, 2010	NW of Moore in SW Oklahoma City rural area. Depth= 5.00	0.8	None Known
Oct 18, 2010	Rural area west of Norman Depth= 1.45	2.4	None Known
Oct 19, 2010	Rural area NW of Norman Depth= 3.98	3.0 MMI - III	None Known
Jun 26, 2009	Rural area of NW Oklahoma City near Piedmont Depth = 5.0	3.7	None Known
Dec 1, 2008	Rural area of NW Oklahoma City Depth = 5.0	2.7	None Known

Mitigation Strategy / Recommendations from HMP: "Data from the Oklahoma Geological Survey and the USGS, along with immediate past history, indicates the potential of damaging earthquakes in Cleveland County is "Likely."" (Cleveland County Hazard Mitigation Plan 2013-2018). New construction is anticipated to handle low level tremors. This risk to areas within the state will likely be an issue to revisit fairly regularly to determine the best course of action.

Extreme Heat

Historical Context: Cleveland County's average maximum temperature according to the Oklahoma Climatological Survey is 72 degrees with the highest recorded temperature occurring in Guthrie (Logan County) on August 10, 1936 when temperatures reached 116 degrees F (Cleveland County Hazard Mitigation Plan 2013-2018). Projections for increased number of the hottest days has been estimated to increase from 7 days (hottest days) to 30 of the hottest days (SCIP).

Mitigation Strategy / Recommendations from HMP: Vulnerable populations include disabled, elderly, the ill and lower incomes where electricity (fans) and air conditioning is not affordable.

Flood

Historical Context: Flooding can be connected to development being permitted too close to stream, rivers and floodplains. Flooding can also have devastating impacts to property owners without flood insurance.

Date	Location	General Description of Incident
6/14/10	Moore	Flash Flood
9/13/10	Lake Thunderbird dam to Slaughterville	Flash Flood - Wind gusts exceeded severe limits, with gusts of 60 to 70 mph reported; Minor damage was reported in Garfield county.
4/10/08	Cleveland County, Norman, Moore	Flood - Other roads around the county were also closed due to high water running over top of them. $5,000 damages were estimated.
9/10/07	Cleveland County, Norman	Flood - Several cars stalled while attempting to drive through the high water. Water also entered a home at SW 199th and Rockwell. **$20,000.00 damages were estimated.**
8/19/07	Norman	Flash Flood - Rainfall amounts exceeded five inches over a large area, with some locations receiving eight to ten inches. A couple of homes were flooded on Lahoma street. Numerous streets were closed due to high water. One road collapsed due to the persistent rainfall. $20,000.00 damages were estimated.
7/10/07	Norman	Flood - Several businesses had water in them as well. Continuous rounds of heavy rainfall proved more than the Reynolds Lake earthen dam could take. A ten-inch pipe in place to help control rising lake levels was not near enough for the rapid increase in the lake level. A 25 to 30 foot diameter and 15 foot deep portion of the dam collapsed, sending water rushing out and over Rock Creek and Alameda Roads. The roads were closed for a couple of days as a result until the water levels that were once over a foot deep receded. **$15,000.00 damages are estimated.**
5/7/07	Cleveland County, Lexington	Flood, Flash Flooding - Three water rescues were made due to water over rising near the top of the cars. Three minor injuries were reported. $15,000.00 damages were estimated.
6/10/03	Moore	Flash Flood- no damage reported
6/27/01	Stella	Flash Flood no damage reported
4/30/00	Moore	Flash Flood- no damage reported
10/20/00	Moore	Flash Flood- no damage reported

(Cleveland County Hazard Mitigation Plan 2013-2018)

Mitigation Strategy / Recommendations from HMP: Moore has identified locations where repeated flooding has occurred and drainage improvements have been modified to decrease potential for flooding. Norman has developed a 50 year Greenbelt and Stormwater Management plan to address past flooding and improve planning practices near floodzones and flood prone areas. Additional drainage and stream restoration projects are also included in the HMP.

Hail

Historical Context:

Date	Location	General Description of Event
5/28/12	Stella	**1.75"- Monetary damages unavailable**
4/14/12	Cleveland County	**1.75"- Monetary damages unavailable**
4/24/11	3 miles SSW of Moore	**1.50"– 1.75" - Monetary damages unavailable**
6/14/11	2 miles SSE of Norman	**1.50" – 1.75" - Monetary damages unavailable**
5/19/10	6 miles SSE of Lake Thunderbird Dam	**2.5" HAIL - Monetary damages unavailable**
5/19/10	2 miles SSE of Noble	**3" HAIL - Monetary damages unavailable**
5/10/10	1 mile ESE of Moore	**2.75" HAIL - Monetary damages unavailable**
5/10/10	1 mile ENE of Moore	**4.6" HAIL - Monetary damages unavailable**
5/10/10	Moore	**2.13" – 2.75" HAIL - Monetary damages unavailable**
4/30/09	2 miles S of Noble	**2.75" HAIL - Monetary damages unavailable**
5/12/09	2 miles E of Norman	**2" HAIL – Monetary damages unavailable**
11/5/08	4 miles WNW of Norman	**1.75 - 2" HAIL - $40,000,000 damage estimated**
6/13/08	Moore	**2" HAIL - Monetary damages unavailable**
7/30/03	Norman	**1.75" Hail - $500,000 damage estimated**
3/24/04	Cleveland County	**1.75" – 2.75" Hail - $50,000 damage estimated**
3/24/01	1 mile NW of Moore	**2.0" – 2,75" HAIL - Monetary damages unavailable**

(Cleveland County Hazard Mitigation Plan 2013-2018)

Mitigation Strategy / Recommendations from HMP: "Hail damage to roofs of structures causes roofs to be replaced more frequently than the normal life of roofing material, thus costing insurance companies and property owners millions of dollars annually. Property owners on occasion may have to find temporary housing or business location due to the amount of roof damage on their structure. For businesses, this causes a loss of business and in extreme cases could affect employee jobs. In addition to structural damage, vehicles,

agricultural crops, livestock and wildlife also are threatened by hailstorms most of which cause economic losses. Livestock and wildlife occasionally are injured or killed (especially during large hail events) causing an economic loss." (Cleveland County Hazard Mitigation Plan 2013-2018)

"Little can be done to mitigate damages to crops or livestock, but thanks to technology, mitigation for residents and structures is available today. Window film or hail resistant roofing materials can help alleviate the effects of hail on structures." (Cleveland County Hazard Mitigation Plan 2013-2018)

High winds

Historical Context: 39 High Wind events have caused damage since 2001. In the interest of space, only the eighteen storms which caused structural damage of at least $10,000 or more

High Wind Events 60 Knots or Higher Data from NCDC 1950 – 2010

Date	Location	General Description of Event
5/29/12	Norman	**61 knots** Damages: $1,000,000 (statewide) ; house, fence and roof damamges
11/7/11	Norman	**61 knots; damages to Max Westheimer Airport**
4/2/10	Norman	**65 knots ; damage to flag poles and fencing**
7/7/09	Slaughterville	**61 knots** Damages: $17,000 Roof and tree damages
7/9/08	Norman	**56 knots**

		Damages:$10,000 ; tree damages
5/31/08	Guthrie	**75 knots** Damages $ 25,000 Power line and tree damage
7/9/07	Norman	**52 knots** Damages $ 12,000 Tree damage
6/19/07	Norman	**52 knots** Damages $15,000. Tree damage
2/24/07	Cleveland County	**50 knots** - Damages $12,000 Power line and tree damage
8/8/06	Norman	**61 knots** Damages $ 20,000. Fence damage
6/12/05	Moore	**61 knots** Damages $ 10,000
7/30/03	Norman	**68 knots** Damages $ 500,000 Garage damage, roof damage, airport damage
5/8/03	Moore	**56 knots** Damages $25,000
6/8/02	Norman	Damages $50,000 Fences, roof and guttering damages
9/16/01	Stella	Damages $40,000 Tree and roof damages
5/18/01	Lexington	Damages $10,000 trees and power lines damages
5/18/01	Norman	Damages $35,000 Roof damage to Tinker Credit Union.
5/18/01	Moore	Damages $25,000 Greenhouse was destroyed at Walmart

Cleveland County Hazard Mitigation Plan 2013-2018

Mitigation Strategy / Recommendations from HMP: This is a regular hazard in the area but typically causes minor damage. No specific actions are called out to address this risk.

Lightning

Historical Context: "While lightning has not caused any known deaths in Cleveland County, it has caused 2 injuries and $1,059,000 in damage since 1993, when the NCDC began keeping records of deaths, injuries, and damage caused by lightning."

Date	Location	General Description of Event
7/10/06	Norman	Lighting causing fire damage; Damage:$110,000
7/10/06	Norman	Lighting fire damage to house; Damages: $100,000
10/31/05	Norman	Lighting fire damage to house; Damages: $150,000
10/10/01	Norman	Injury to a man on a porch
10/10/01	Norman	Lighting fire damage to house; Damages $300,000
09/20/01	Norman	Lighting fire damage to house; Damages: $180,000

Cleveland County Hazard Mitigation Plan 2013-2018

Mitigation Strategy / Recommendations from HMP: Education campaign to lessen impacts on residents by seeking cover during lightning storm.

Tornado

Historical Context:"Moore has experienced 25 tornados since 1890. The May 3, 1999 tornado was one of the costliest natural disasters in US history and ranks among the deadliest in Oklahoma history with May 20, 2013 becoming equal or more devastating"

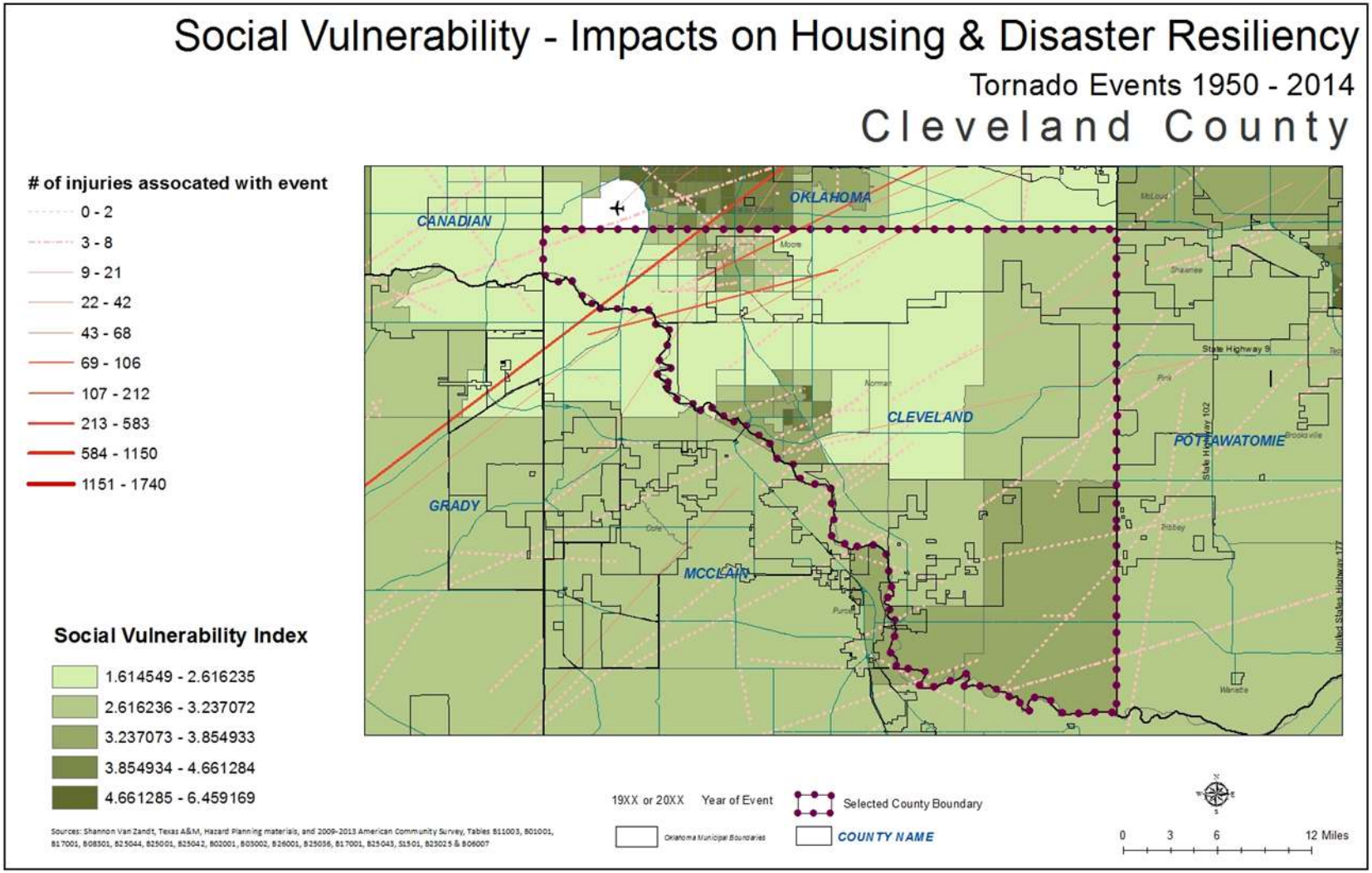
Date	Location	General Description of Event
5/31/13	**Moore**	The 2.6 mile tornado path width is believed to be the widest tornado on record in the united states. (Information taken from NWS Norman investigative report 6-5-2013)
5/20/13	**Moore**	**EF5 -** At 2:56 p.m. CDT, the tornado touched down roughly 4.4 miles (7.1 km) west of Newcastle in Grady County as an EF0. **Early damage estimates exceed two billion dollars. FATALITIES: 51 INJURED**: **350**
4/13/12	Norman and SW Cleveland County	**EF1 ;** There was damage to Jackson Elementary School on Wylie Road just north of Boyd Avenue and roof damage reported all across Norman from Berry Road to Porter Avenue, fire officials said. There was some damage at Norman High School. Several buildings, including one that used to house a paint store, were damaged near downtown. **Injuries: 19 treated for minor injuries at Norman Hospital**
5/24/11	Grady, McClain and Cleveland County	**EF4**
5/10/10	4 to 5 miles E of Lake Thunderbird Dam	**EF2; damages to mobile home park, Country Boy IGA grocery store & service station; INJURIES: 3**

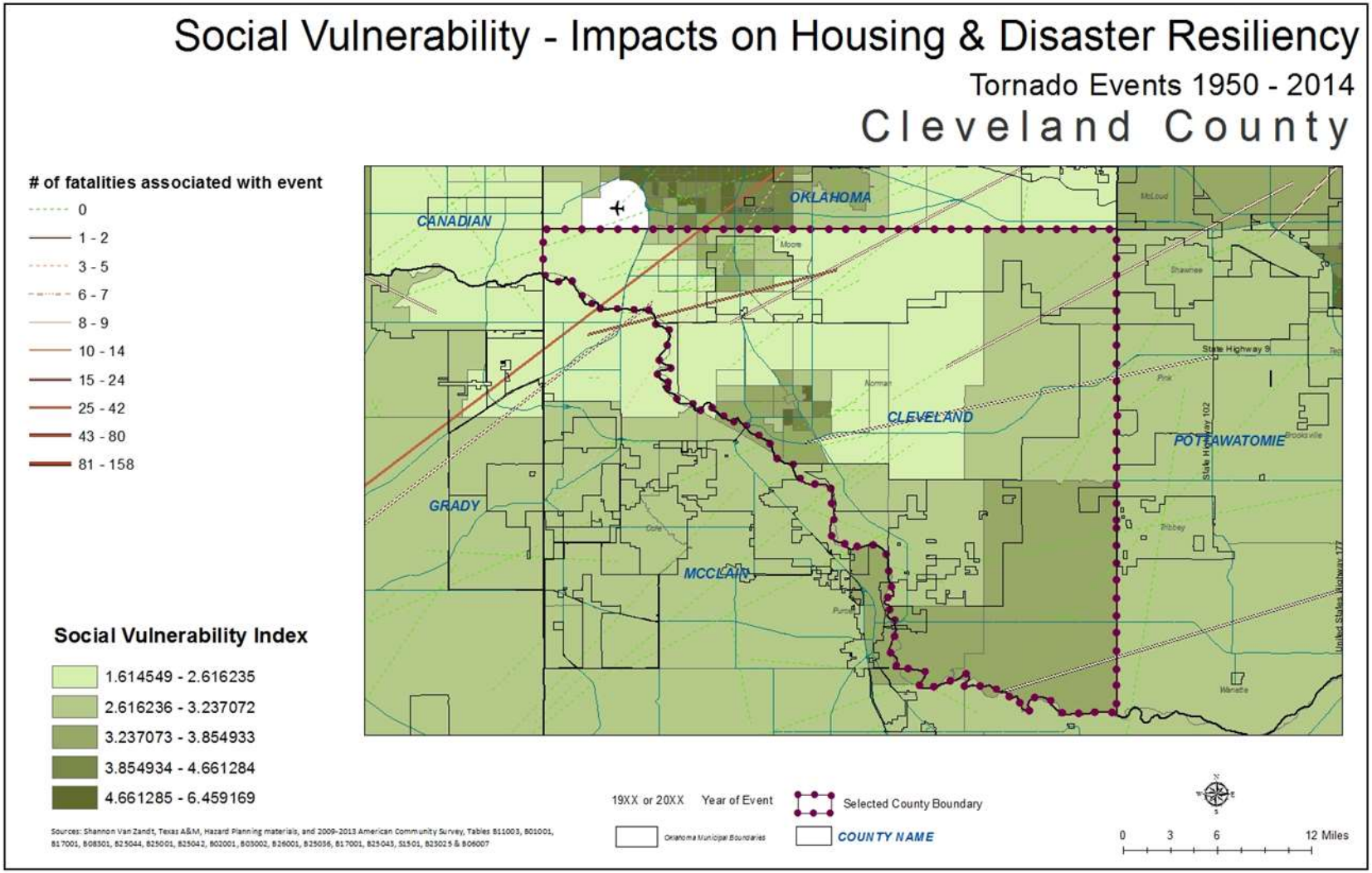
2/10/10	4 miles NNE of Noble	**EF1;** tree damage
5/10/10	5 miles ENE of Lake Thunderbird Dam	**EF4;** severe damage occurred from the Little Axe School; tree damage, Considerable structural damage also occurred, as some foundation homes were mostly destroyed. In addition to the damage, one person lost their life as a result of the tornado. **Fatalities: 1, Injuries: 32**
5/10/10	4 miles WSW of Stanley Draper Lake	**EF1; roof damage**
5/10/10	4 miles ENE of Moore	**EF1;** Power poles and a house were damaged; shingle damage
5/10/10	4 miles NE of Stanley Draper Lake	**F3;** Several homes also sustained damage, roof damage, siding damage, fence damage, tree damage. A few mobile homes in this area were also completely destroyed. Where the tornado crossed I-40, a gas station and drive-in restaurant sustained up to EF3 damage. **Injuries: 20**
6/12/09		
5/13/09		
5/7/08		
6/9/04		
5/8/03		
5/8/03		

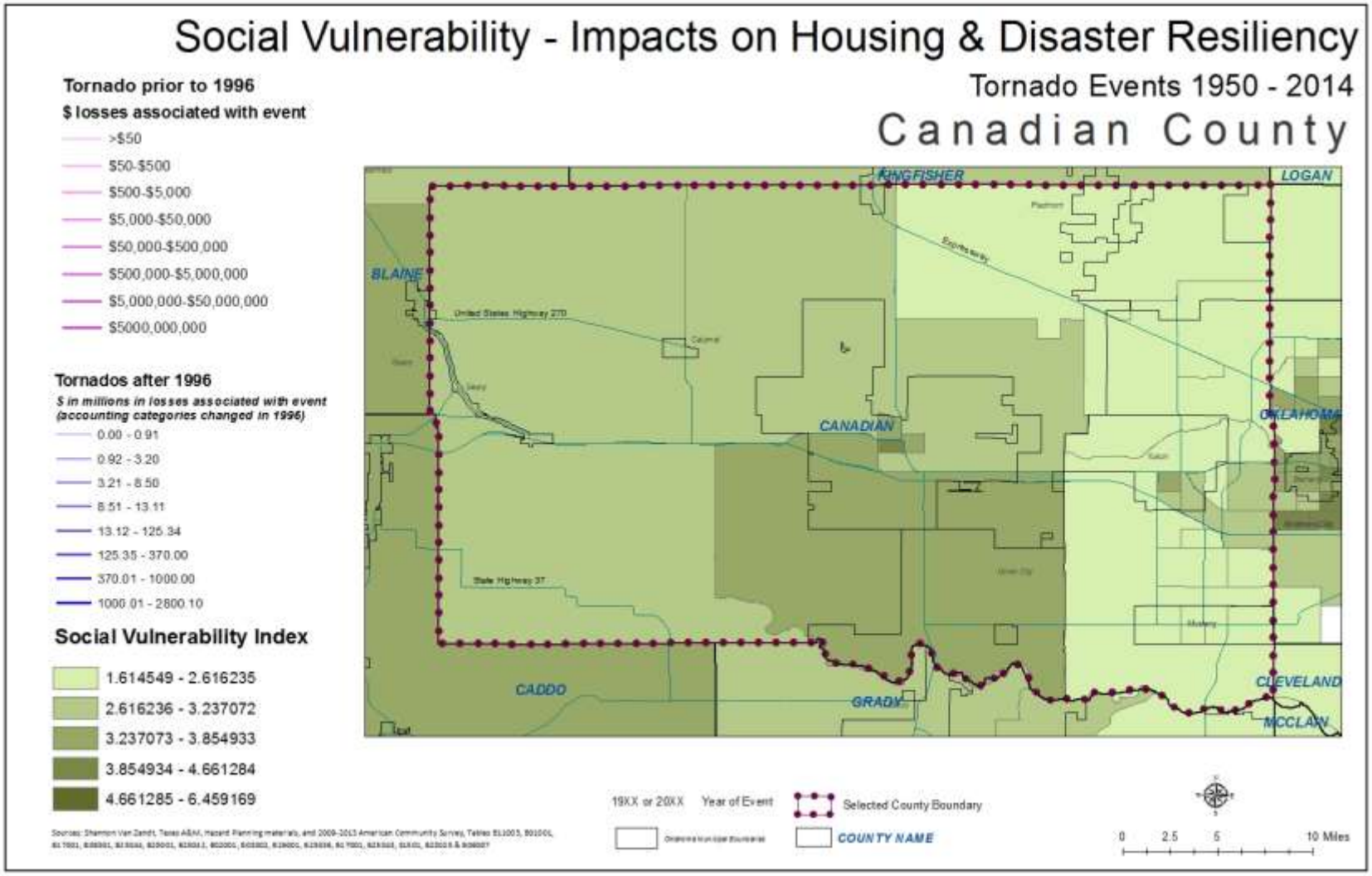
Mitigation Strategy / Recommendations from HMP: The HMP "Action Projects" listed to address safety of residents due to tornados and other events includes (p. 216):

- Safe room rebate program
- Outdoor warning devices and repair of older devices
- Emergency generators for critical facilities
- Safe rooms in community and schools (various locations)
- Weather monitoring equipment
- Tone Alert Radio Warning System
- Mass Communications System

For all the county profiles for this study we are providing maps of the historic tornados mapped over the developed social vulnerability index. This is in addition to the data prepared and summarized from the HMP in this section.


Social Vulnerability - Impacts on Housing & Disaster Resiliency
Tornado Events 1950 - 2014
Cleveland County
# of injuries assocated with event
0 - 2
3 - 8
9 - 21
22 - 42
43 - 68
69 - 106
107 - 212
213 - 583
584 - 1150
1151 - 1740
OKLAHOMA
CANADIAN
CLEVELAND
POTTAWATOMIE
GRADY
MCCLAIN
Social Vulnerability Index
1.614549 - 2.616235
2.616236 - 3.237072
3.237073 - 3.854933
3.854934 - 4.661284
4.661285 - 6.459169
19XX or 20XX Year of Event
Selected County Boundary
Oklahoma Municipal Boundaries
COUNTY NAME
0 3 6 12 Miles


Social Vulnerability - Impacts on Housing & Disaster Resiliency
Tornado Events 1950 - 2014
Cleveland County
# of fatalities associated with event
0
1 - 2
3 - 5
6 - 7
8 - 9
10 - 14
15 - 24
25 - 42
43 - 80
81 - 158
CANADIAN
OKLAHOMA
CLEVELAND
POTTAWATOMIE
GRADY
MCCLAIN
Social Vulnerability Index
1.614549 - 2.616235
2.616236 - 3.237072
3.237073 - 3.854933
3.854934 - 4.661284
4.661285 - 6.459169
19XX or 20XX Year of Event
Selected County Boundary
Oklahoma Municipal Boundaries
COUNTY NAME
0 3 6 12 Miles


Social Vulnerability - Impacts on Housing & Disaster Resiliency
Tornado Events 1950 - 2014
Canadian County
Tornado prior to 1996
$ losses associated with event
>$50
$50-$500
$500-$5,000
$5,000-$50,000
$50,000-$500,000
$500,000-$5,000,000
$5,000,000-$50,000,000
$5000,000,000
Tornados after 1996
$ in millions in losses associated with event (accounting categories changed in 1996)
0.00 - 0.91
0.92 - 3.20
3.21 - 8.50
8.51 - 13.11
13.12 - 125.34
125.35 - 370.00
370.01 - 1000.00
1000.01 - 2800.10
Social Vulnerability Index
1.614549 - 2.616235
2.616236 - 3.237072
3.237073 - 3.854933
3.854934 - 4.661284
4.661285 - 6.459169
KINGFISHER
LOGAN
BLAINE
CANADIAN
OKLAHOMA
CADDO
GRADY
CLEVELAND
MCCLAIN
19XX or 20XX Year of Event
Selected County Boundary
COUNTY NAME
0 2.5 5 10 Miles

Wildfires

Historical Context: Wildfires are a regular occurrence in many counties, including Cleveland County.

Table 3-21

2010 - No report available

Cleveland County Wildfire Events 2005-2009 (only data available)												
Fire Dept.	Number of Events						Approx. # Acres Lost					
	2005	2006	2007	2008	2009	2011	2005	2006	2007	2008	2009	2011
Cedar Country FD	24	48	4	14	27	42	356	580	125	30	2706	156

(Cleveland County HMP pg. 173)

Mitigation Strategy / Recommendations from HMP: The Wildland Urban Interface was mapped for all the major cities in the county in order to understand where the potential for wildfires and loss of property and lives could occur. Protection of critical infrastructure such as fire stations, transportation routes and electrical transmissions is a priority both in terms of planning for wildfire events and strategies of fighting the fires during an event. Maintaining firefighters in the cities and county and public education regarding fire safety are the main methods for mitigation.

Winter Storms

Historical Context: Heavy snow and extreme temperatures can impact structures and can be a threat to human lives.

Winter storms regularly occur but damages directly connected to winter storms are not recorded as frequently. In Dec 2007 winter weather of 4-6 inches caused $8,000 damages. In Jan 2007 freezing rain, snow and sleet resulted in numerous traffic accidents,14 indirect fatalities, and $50,000 in damages.

Mitigation Strategy / Recommendations from HMP: Moving power lines underground would help protect from loss of power during these events, which may be even more critical to rural residents (p.210).

C.2.1.2; C.2.1.6; C.2.1.7;C.2.1.8 Shelters from Disaster Event

Most jurisdictions have elected to not have public shelters in order to discourage people from leaving safe places and ultimately be caught on the road trying to reach a public shelter (**http://www.cityofmoore.com/storm-shelters**). Efforts and funding are continuing to be pursued to install shelters in schools and allow residence to have places to shelter in place for example:

The Red Cross Red Cross has released $6.5 Million for Oklahoma Storm Shelters (**http://www.emergencymgmt.com/disaster/Red-Cross-6-Million-Oklahoma-Storm-Shelters.html**)

Moore passed $204 million for storm shelters for the 23 schools still in needed in the area.

Cleveland County keeps an online form for registering locations of private shelters: http://www.clevelandcountyok.com/FormCenter/Storm-Shelter-Registration-3/Storm-Shelter-Registry-43

C.2.1.3 Public Policy and Governance to Build Disaster Resiliency

Building Codes for Lexington, Little Axe Public Schools, Noble, Norman follow the standard 2009 International Building Codes. Recently Moore, OK has updated their Building Codes to address recent tornados and storm events: "Moore's new residential building codes include requiring roof sheathing, hurricane clips or framing anchors, continuous plywood bracing and wind-resistant garage doors. The homes would be built to withstand winds up to 135 miles per hour rather than the accepted standard building requirements of 90 miles per hour" (http://www.cityofmoore.com/node/2111) . County resolutions are reviewed and coordinated with the Hazard Mitigation Plan. Fire Department ISO ratings are set within the Hazard Mitigation Plan.

Site Plan review requirements are included for hazards/risks in Lexington, Moore, Noble, Norman, and Slaughterville. Floodplain related provisions are included in the Zoning Ordinance and Subdivision Ordinances for Lexington, Moore, Noble, Norman, Slaughterville.

Cleveland County Hazard Mitigation Planning Team includes representation by: Cleveland County, Etowah, Lexington, Lexington Public Schools, Little Axe Public Schools , Moore, Moore Public Schools, Noble, Noble Public Schools, Norman, Norman Public Schools, Slaughterville, and the University of Oklahoma.

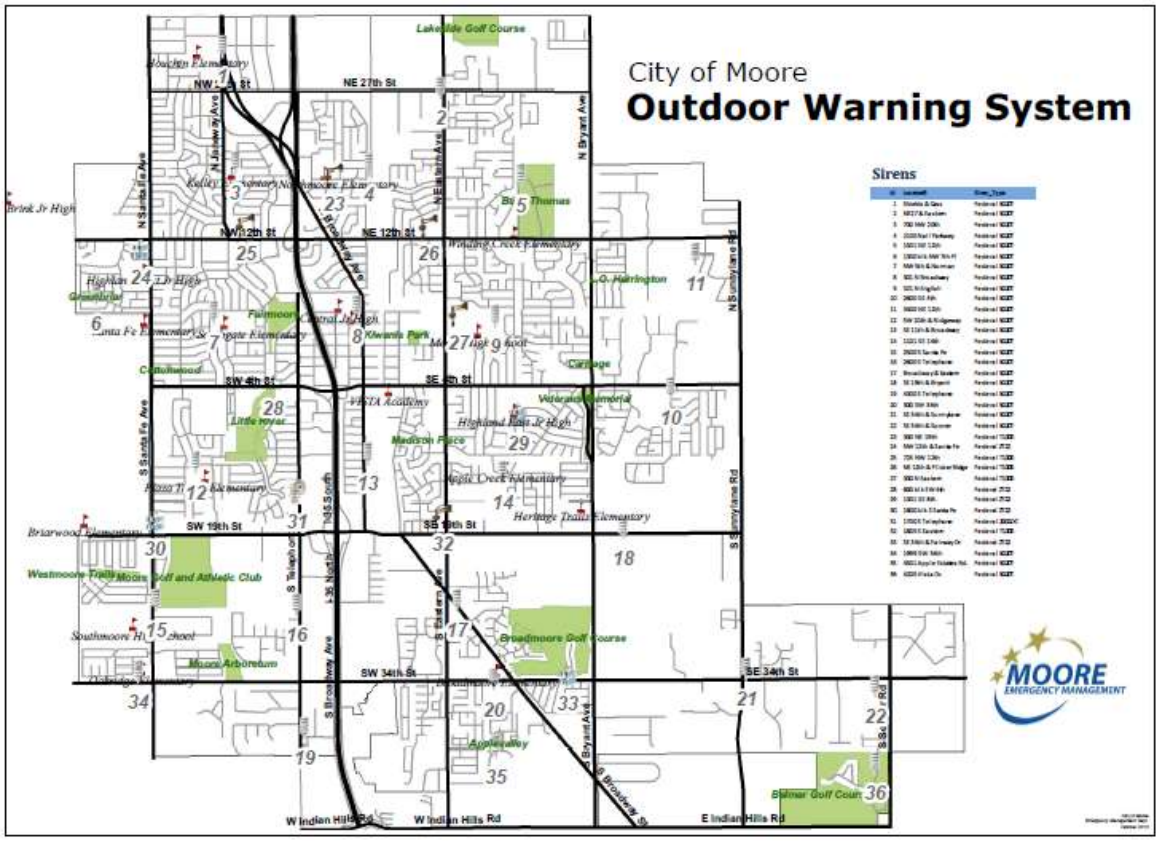
C.2.1.4 Local Emergency Response Agency Structure

The 2013 Emergency Operations Systems Plan, City of Moore clearly identifies that local resilience to risks starts with prepared individuals. The EOP for the City of Moore has a detailed table of task assignments and responsibilities. The tasks outlined include for example "access control of restricted areas, disaster declarations, food supply inspection, emergency medical triage, and recovery services. Clear roles are assigned in primary and assisting roles.

C.2.1.5 Threat & Hazard Warning Systems

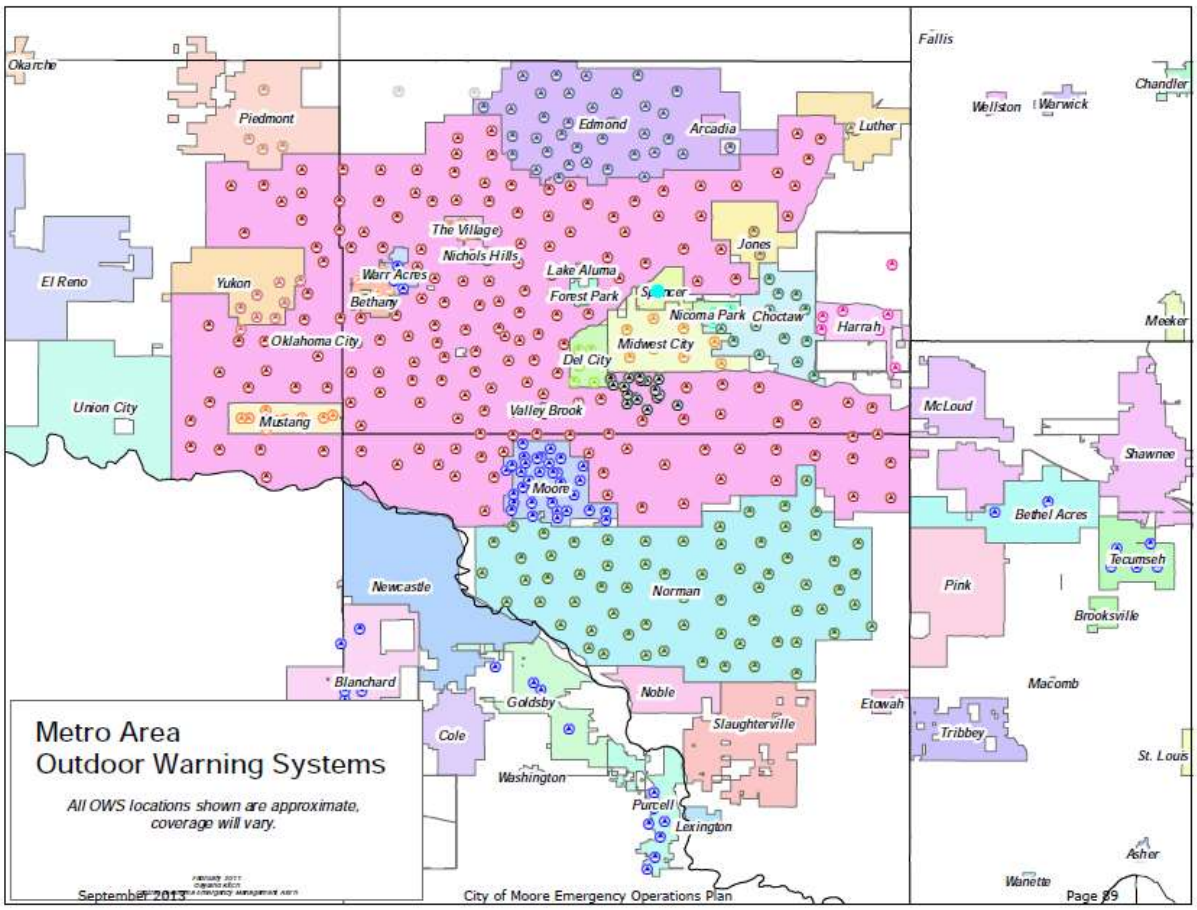
Warning Systems are in place in Lexington (outdoor public address), Lexington Public Schools has internal alert systems as does the Little Axe Public Schools.

Moore has dense outdoor warning system (37 sirens) and mass notification, including social media outlets. Twenty-six of the sirens have the capability to not only sound a siren tone and several other tones, but also provide live or pre-recorded voice..Twenty-eight of the sirens operate from battery power, so commercial power outages do not affect the operation of most of our system. Moore Public Schools utilize mass calling/texting/and email system with some outdoor warning sirens. All Moore Schools have NOAA weather radios.

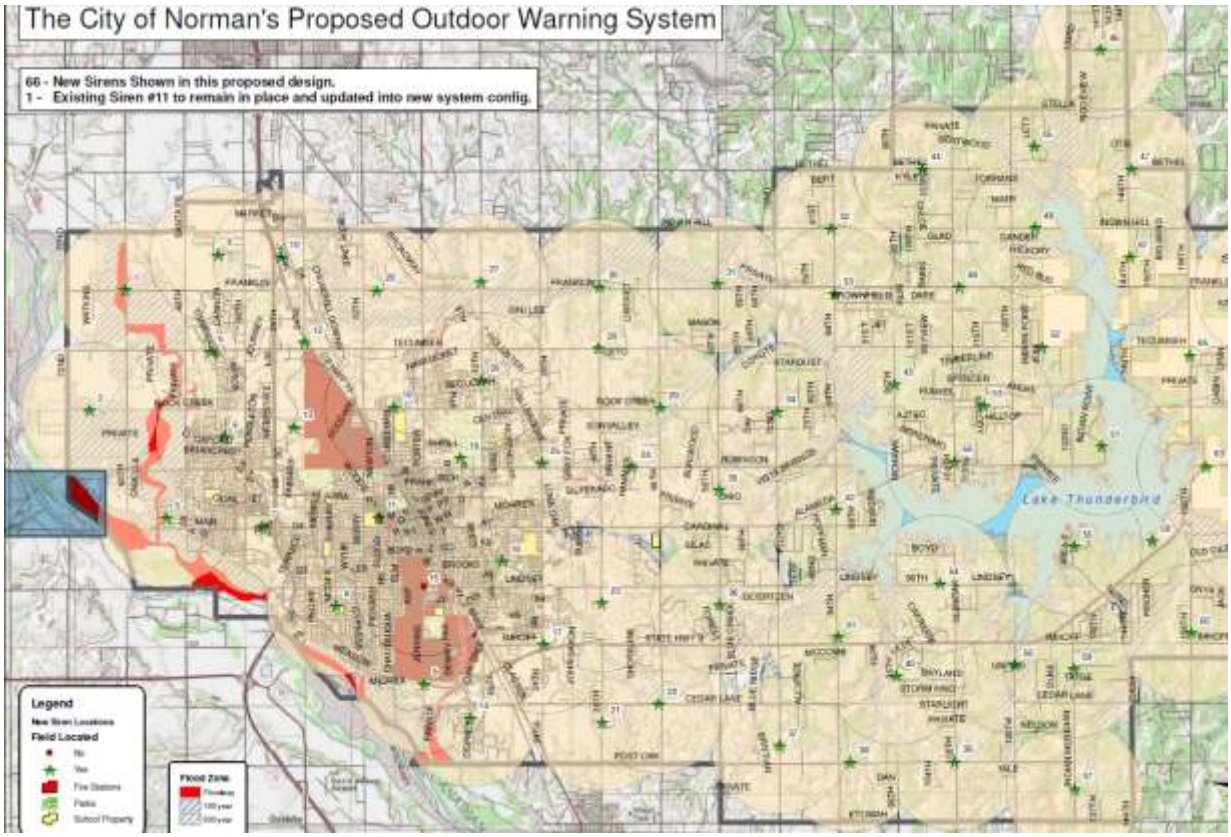


2013 Emergency Operations Plan, City of Moore, OK

Noble has 5 warning sirens. Noble Public Schools have an internal alert system. Norman has 68 warning sirens, with 67 sirens that have voice capabilities. Norman Public Schools have an internal alert system.



2013 Emergency Operations Plan, City of Moore, OK


The City of Norman's Proposed Outdoor Warning System
66 - New Sirens Shown in this proposed design.
1 - Existing Siren #11 to remain in place and updated into new system config.
Lake Thunderbird
Legend
Field Located
Flood Zone

\

Social Vulnerability

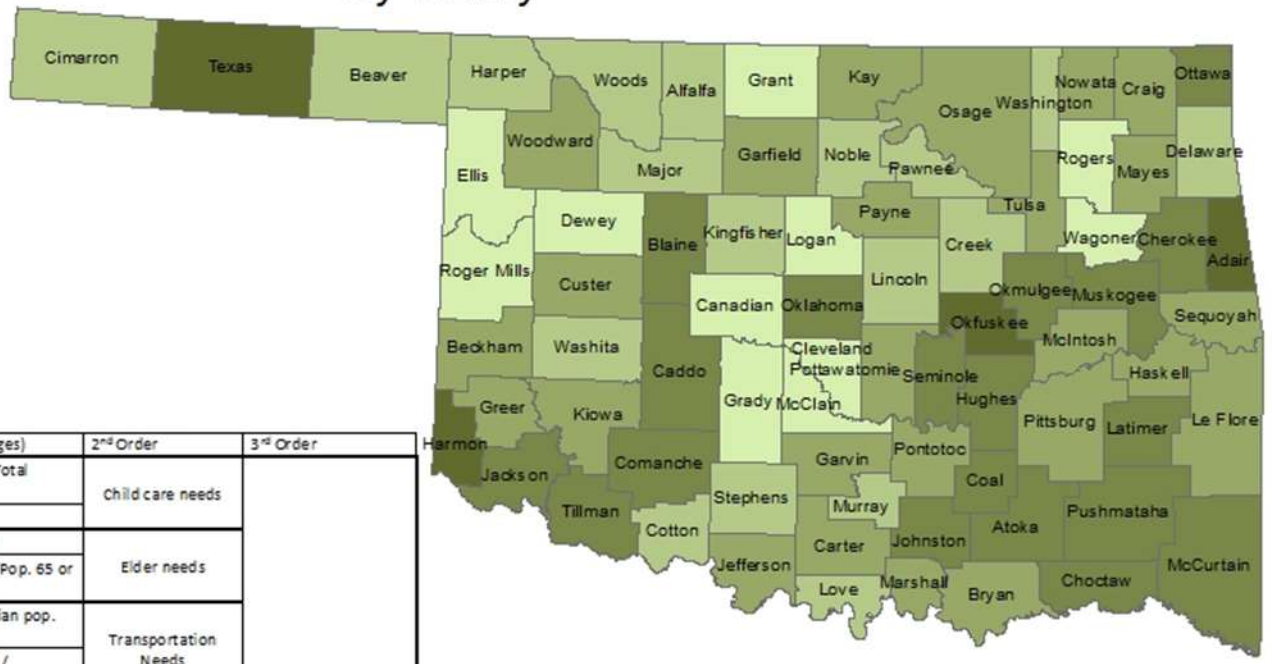
Based on the research work done by the Texas A&M University Hazard Reduction and Recovery Center, an added component is being included in this section. Social vulnerability can place households at a further disadvantage during and after a disaster. This analysis is assessing for the county the levels of social vulnerability based on demographic indicators to highlight 'hotspots' or counties that have higher social vulnerability. That combined with Hazard Mitigation Plans – or lack thereof – can highlight places where additional work is needed to reduce impacts on households.

Levels of Social Vulnerability Analysis

Social Vulnerability Analysis - Cleveland County			
Base Social Vulnerability Indicators (%)		**2nd Order**	**3rd Order**
1.) Single Parent Households	13.35%	0.197 (Child Care Needs)	**2.933 Social Vulnerability 'Hotspot' or Area of Concern**
2.) Population Under 5	6.31%		
3.) Population 65 or Above	10.66%	0.17 (Elder Needs)	
4.) Population 65 or Above Poverty Rate	6.38%		
5.) Workers Using Public Transportation	0.49%	0.039 (Transportation Needs)	
6.) Occupied Housing Units w/o Vehicle	3.45%		
7.) Housing Unit Occupancy Rate	91.23%	2.33 (Temporary Shelter and Housing Recovery Needs)	
8.) Rental Occupancy Rate	32.61%		
9.) Non-White Population	25.02%		
10.) Population in Group Quarters	4.30%		
11.) Housing Units Built Prior to 1990	60.24%		
12.) Mobile Homes, RVs, Vans, etc.	6.77%		
13.) Poverty Rate	12.87%		
14.) Housing Units Lacking Telephones	1.59%	0.196 (Civic Capacity Needs)	
15.) Age 25+ With Less Than High School Diploma	9.10%		
16.) Unemployment Rate	5.48%		
17.) Age 5+ Which Cannot Speak English Well or Not At All	3.43%		
Sources: Shannon Van Zandt, Texas A&M, Hazard Planning materials, and 2009-2013 American Community Survey, Tables B11003, B01001, B17001, B08301, B25044, B25001, B25042, B02001, B03002, B26001, B25036, B17001, B25043, S1501, B23025 & B06007			

Social Vulnerability Index

By County



Levels of Social Vulnerability Analysis

Base Social Vulnerability Indicators (Percentages)	2nd Order	3rd Order
1. Single parent households with children/ Total Households	Child care needs	Social vulnerability "Hotspot" or area of concern
2. Population 5 or below/Total Population		
3. Population 65 or above/Total Population	Elder needs	
4. Population 65 or above & below poverty/Pop. 65 or above		
5. Workers using public transportation/Civilian pop. 16+ and employed	Transportation Needs	
6. Occupied housing units without a vehicle / Occupied housing units (Hus)		
7. Occupied housing units / Total housing units	Temporary Shelter and housing Recovery needs	
8. Persons in renter occupied housing units/ Total housing units		
9. Non-white population/Total population		
10. Population in group quarters / Total population		
11. Housing units built 20 years ago / Total housing units		
12. Mobile Homes/ Total housing units		
13. Persons in poverty / Total population		
14. Occupied housing units without a telephone/ Total occupied HU	Civic Capacity needs	
15. Population above 25 with less than high school/ Total pop above 25		
16. Population 16+ in labor force an unemployed/ Pop in Labor force 16+		
17. Population above 5 that speak English not well or not at all / Pop >5		

Source: Shannon Van Zandt, Texas A&M, Hazard Planning materials; 2008-2013 American Community Survey, Tables B11003, B01001, B17001, B08201, B25044, B15001, B25042, B01001, B08007, B16001, B25026, B17001, B25042, B15001, B19058 & B08007

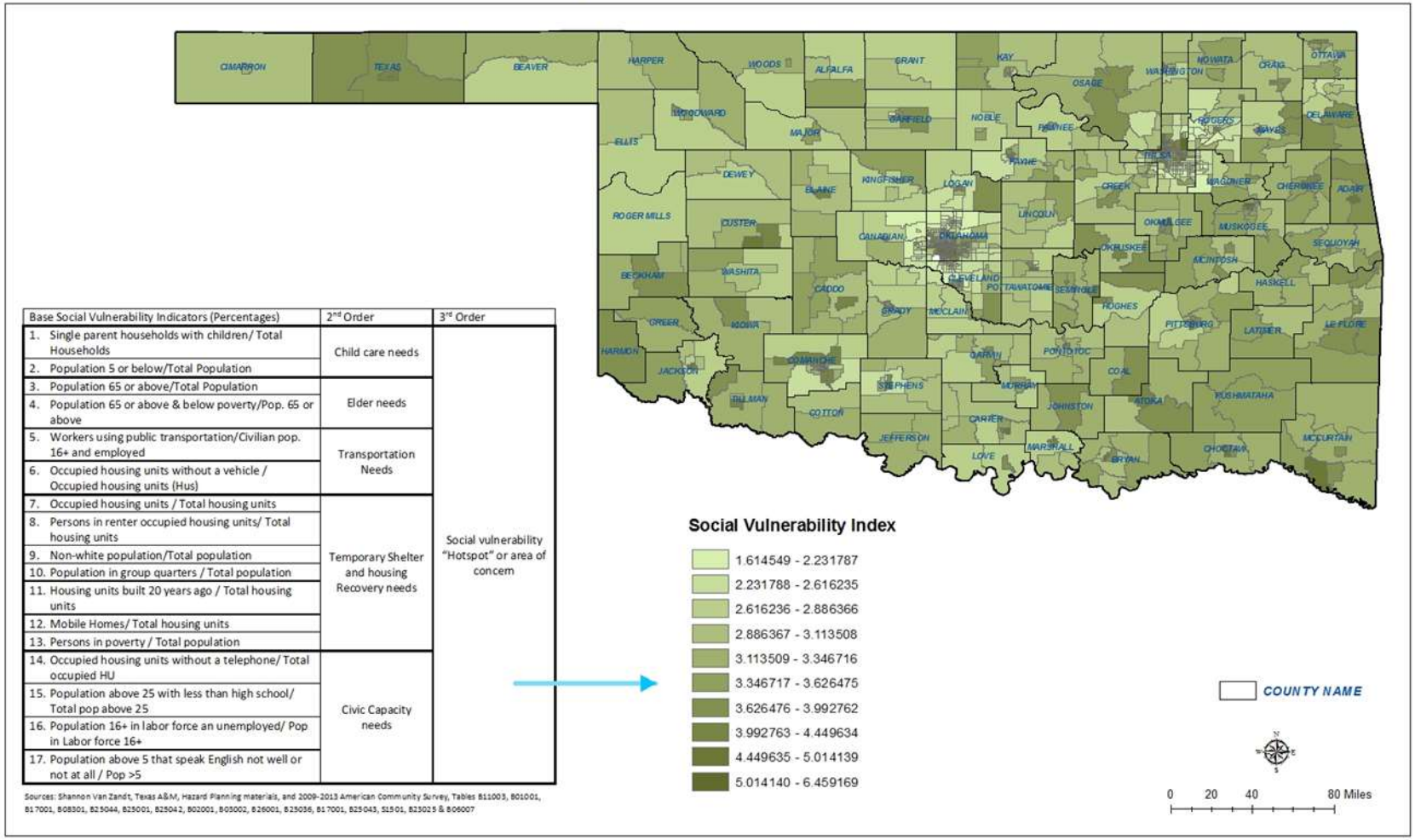
Legend

Social Vulnerabiity "Hot Spots"

- 2.6340 - 2.9760
- 2.9761 - 3.2170
- 3.2171 - 3.4180
- 3.4181 - 3.6370
- 3.6371 - 3.9500

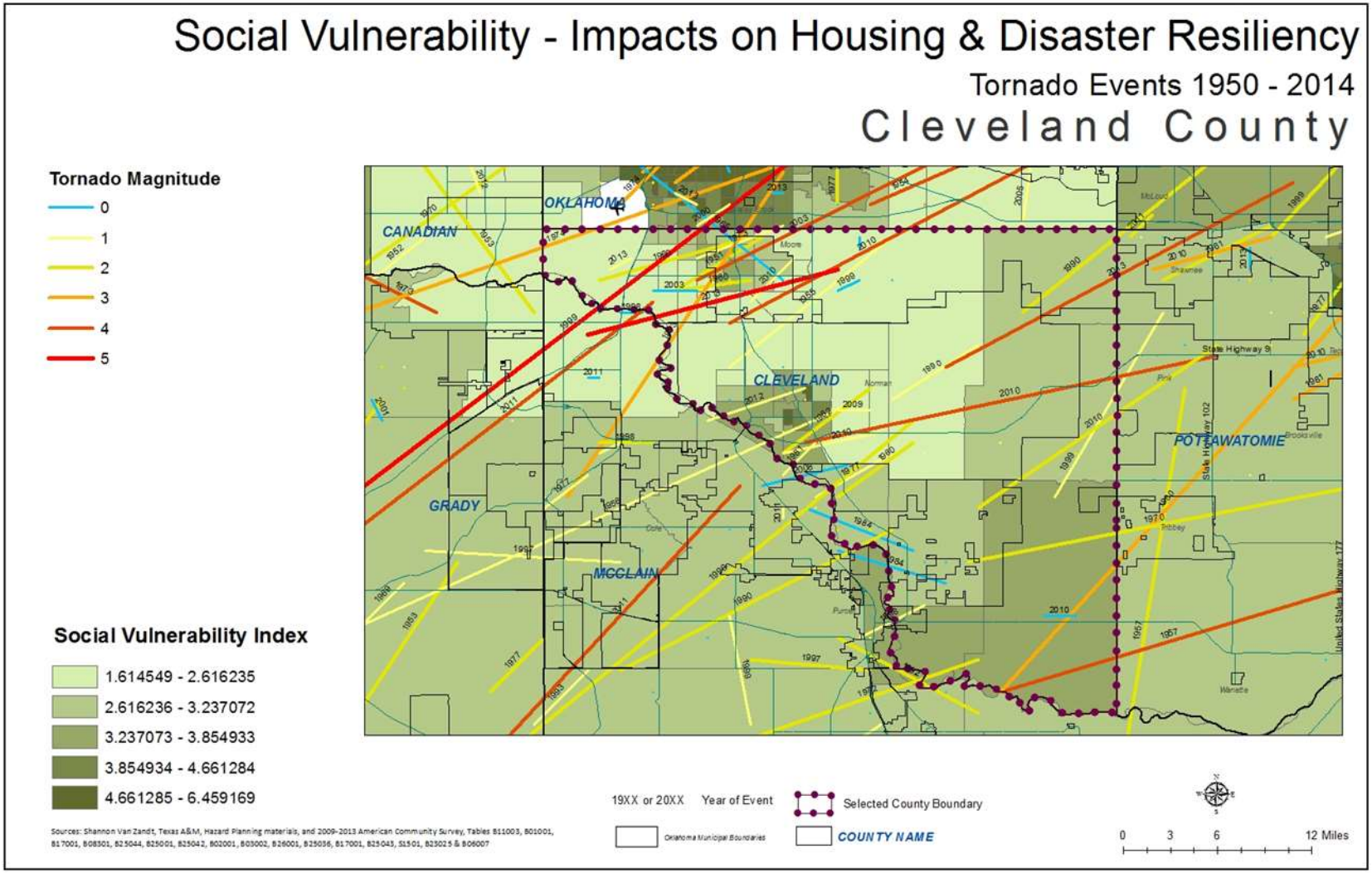
0 25 50 100 Miles

Social Vulnerability - Impacts on Housing & Disaster Resiliency



Base Social Vulnerability Indicators (Percentages)	2nd Order	3rd Order
1. Single parent households with children/ Total Households	Child care needs	Social vulnerability "Hotspot" or area of concern
2. Population 5 or below/Total Population		
3. Population 65 or above/Total Population	Elder needs	
4. Population 65 or above & below poverty/Pop. 65 or above		
5. Workers using public transportation/Civilian pop. 16+ and employed	Transportation Needs	
6. Occupied housing units without a vehicle / Occupied housing units (Hus)		
7. Occupied housing units / Total housing units	Temporary Shelter and housing Recovery needs	
8. Persons in renter occupied housing units/ Total housing units		
9. Non-white population/Total population		
10. Population in group quarters / Total population		
11. Housing units built 20 years ago / Total housing units		
12. Mobile Homes/ Total housing units		
13. Persons in poverty / Total population		
14. Occupied housing units without a telephone/ Total occupied HU	Civic Capacity needs	
15. Population above 25 with less than high school/ Total pop above 25		
16. Population 16+ in labor force an unemployed/ Pop in Labor force 16+		
17. Population above 5 that speak English not well or not at all / Pop >5		

Sources: Shannon Van Zandt, Texas A&M, Hazard Planning materials, and 2009-2013 American Community Survey, Tables B11003, B01001, B17001, B08301, B25044, B25001, B25042, B02001, B05002, B26001, B25036, B17001, B25043, S1501, B23025 & B06007


Social Vulnerability - Impacts on Housing & Disaster Resiliency
Tornado Events 1950 - 2014
Cleveland County
Tornado Magnitude
0
1
2
3
4
5
OKLAHOMA
CANADIAN
CLEVELAND
GRADY
MCCLAIN
POTTAWATOMIE
State Highway 9
Social Vulnerability Index
1.614549 - 2.616235
2.616236 - 3.237072
3.237073 - 3.854933
3.854934 - 4.661284
4.661285 - 6.459169
19XX or 20XX Year of Event
Selected County Boundary
Oklahoma Municipal Boundaries
COUNTY NAME
0 3 6 12 Miles
Sources: Shannon Van Zandt, Texas A&M, Hazard Planning materials, and 2009-2013 American Community Survey, Tables B11003, B01001, B17001, B08301, B25044, B25001, B25042, B02001, B03002, B26001, B25036, B17001, B25043, S1501, B23025 & B06007

Social vulnerability combined with the devastating impacts of a natural or man-made disaster can compound a household's ability to recover and in fact can place those individuals at an even great gap or disadvantage prior to the event (Shannon Van Zandt, Texas A&M, Hazard Planning materials).

As a county, Cleveland county ranks as less vulnerable than other counties in the state. However, looking at the census tracts portions of the central area of the county near Norman and Moore and the southeast portion of the county have populations that are more socially vulnerable and therefore can experience greater negative impacts in recovery after a disaster event.

Recommendations for this county:

- Continue to update and maintain the county HMP and include attention to areas within the county that in addition to physical vulnerability may have compounding social vulnerability factors. Working through the priorities and projects within the Cleveland County HMP will help strengthen the ability to reduce loss of life and property as well as recover more effectively after an event.
- Efforts to strengthen building codes related to tornadoes and natural disasters should be considered.
- Planning for shelters from disaster events for multifamily, HUD and LIHTC units, in addition to all housing in the community should be incorporated with any effort to increase housing.

Homelessness

By Continuum of Care

Oklahoma is comprised of eight Continuums of Care (CoC). These entities manage the provision of services to the homeless, among other functions. By definition, CoCs involve nonprofit homeless providers; victim service providers; faith-based organizations; governments; businesses; advocates; public housing agencies; school districts; social service providers; mental health agencies; hospitals; universities; affordable housing developers; law enforcement and other organizations that serve the homeless and those at risk of becoming homeless (Continuum of Care Network pamphlet, 2015). These entities are governed by a community plan that helps them deliver services to the homeless and/or to prevent a return to the homeless. CoCs provide a variety of services aimed at outreach, engagement and assessment, including emergency shelter, rapid re-housing, transitional housing, and permanent housing, among others (Continuum of Care Network pamphlet, 2015).

The data below describes the characteristics of those receiving or eligible for the CoC in which Cleveland County is located. This data is collected by the CoCs on last day of January each year and reported on an annual basis. It is currently the best source of data available at the State level of understanding the demographics of these populations.

OK 504 Norman/Cleveland County

OK 504 represents Cleveland County, as well the cities of Norman and Moore. The majority of the homeless in this region are over the age of 24 (39). The two most represented homeless populations include: chronically homeless (48) and mentally ill (43). Griffin, one of the State's mental health hospitals, is located in Norman. This facility, as well as other agencies that serve the needs of the mentally ill and those with substance abuse problems, Victims of domestic violence (24) comprise a notable subpopulation of the homeless count in this area. Domestic violence advocates are serving their clients well, ensuring that they are sheltered when needed. The same appears to be true for homeless veterans who are all sheltered within this CoC. A tent city exists outside the city of Norman along the river. This settlement is semi-permanent and remains undisturbed by city police. The population of this settlement is unknown.

This CoC has utilized its resources to build 164 units of permanent supportive housing. This investment demonstrates a commitment by cities in Cleveland Country to providing long-term shelter for homeless families. Women, with and without children, receive ample housing services from the Women's Resource Center.

OK 504 Norman/Cleveland County	Emergency Shelter(sheltered)	Transitional Housing(sheltered)	Unsheltered	Total
Households without children	42	9	22	73
Households with at least 1 adult & 1 child	13	7	0	20
Households with only children	0	0	0	0
total homeless households	55	16	22	93
Persons in households without children	42	9	22	73
persons age 18-24	3	0	3	6
persons over age 24	39	9	19	67
Persons in households with at least 1 adult & 1 child	49	18	0	67
children under age 18	22	9	0	31
persons age 18-24	4	0	0	4
persons over 24	23	9	0	32
persons in households with only 1 children	0	0	0	0
Total homeless persons	91	27	22	140
Subpopulations	**Sheltered**		**Unsheltered**	**Total**
Chronically Homeless	35		13	48
Chronically Homeless Individuals	35		13	48
Chronically Homeless Persons in Families	0		0	0
Severely Mentally Ill	38		5	43
Chronic Substance Abuse	16		8	24
Veterans	6		0	6
HIV/AIDS	1		0	1
Victims of Domestic Violence	24		0	24

CoC Number: OK-504

CoC Name: Norman/Cleveland County CoC

Summary of all beds reported by Continuum of Care:

	Family Units[1]	Family Beds[1]	Adult-Only Beds	Child-Only Beds	Total Yr-Round Beds	Seasonal	Overflow / Voucher	Subset of Total Bed Inventory: Chronic Beds[2]	Veteran Beds[3]	Youth Beds[4]
Emergency, Safe Haven and Transitional Housing	**13**	**37**	**46**	**0**	**83**	**30**	**40**	**n/a**	**0**	**0**
Emergency Shelter	6	14	34	0	48	30	40	n/a	0	0
Transitional Housing	7	23	12	0	35	n/a	n/a	n/a	0	0
Permanent Housing	**50**	**122**	**42**	**0**	**164**	**n/a**	**n/a**	**5**	**0**	**0**
Permanent Supportive Housing*	50	122	42	0	164	n/a	n/a	5	0	0
Grand Total	**63**	**159**	**88**	**0**	**247**	**30**	**40**	**5**	**0**	**0**

CoC beds reported by Program Type:

Emergency Shelter for Mixed Populations

Provider Name	Facility Name	Family Units[1]	Family Beds[1]	Adult-Only Beds	Child-Only Beds	Seasonal	Overflow / Voucher	Total Beds	Subset of Total Bed Inventory: Chronic Beds[2]	Veteran Beds[3]	Youth Beds[4]
Women's Resource Center	WRC Shelter	4	9	6	0	0	6	21	n/a	0	0
Total		**4**	**9**	**6**	**0**	**0**	**6**	**21**	**n/a**	**0**	**0**

COC Conclusion

Each of the CoC's represents a unique area. It's important to note that the Point In Time data serves as a baseline. It is likely that the homeless population is much larger than counted. Generally, the State's homeless population is over the age of 24. In some areas of the State, there is a disproportionately high rate of homeless youth. More detailed exploration is necessary to understand the reasons which led them to this State and the needs of homeless youth. Domestic violence victims comprise a significant portion of the homeless population in the State. In some areas, the presence of social service providers for this subpopulation has reduced homeless rates. The same is true with respect to homeless veterans. As anticipated, the majority of the homeless population across the state can be classified as: mentally ill, chronically homeless, and chronic substance abusers. The needs of these difficult to house homeless must remain a priority across the State.

A Snap Shot of Homelessness in the State

Point in Time data was last collected on January 29, 2015 across the State. On that date, counts revealed a homeless populations of more than 3,000 residents. The majority of those counted (2,603 individuals) were classified as households without children. The majority of this group lives in emergency shelters (1,652) or transitional housing (376) with 575 classified as unsheltered.

The number of households with children is seemingly small totaling 343. The vast majority of those in this classification live at emergency shelters (201) or transitional housing (104) with only 38 classified as unsheltered. Homeless service providers in Oklahoma City and Tulsa emphasized that this group was likely undercounted across the State because they are less visible than other categories of homeless. They emphasized that emergency shelters, as presently designed, do not meet the needs of families with children in terms of both privacy and safety.

The Point in Time data reveals less than 100 households comprised of only children. Of these 74 counted households, 35 live in emergency shelters and 39 are unsheltered. This population is likely significantly undercounted as youth who are homeless typically seek to avoid identification for fear of being returned to their homes. These young people often have specific needs for supportive services that are difficult to deliver because the population remains unseen. Homeless advocates in the State hold up Tulsa as a good example of the State for serving homeless youth. OKC's Be the Change is also a leader in identifying and providing needed service to homeless youth in the metropolitan region. The problem of homeless youth is not just isolated to large urban areas. Mid-sized and smaller cities also look for innovative ways to service. Cities like El Reno and Enid have their own drop in centers for homeless youth. Social networks in smaller cities fill similar functions.

Oklahoma City public schools also tracks homeless students within the district. There are homeless students attending 78 elementary and middle schools in Oklahoma City. This data suggests that the majority of the city's homeless students are African American or Hispanic. There are 664 homeless African American students, 724 homeless Hispanic students, and 254 homeless Caucasian students. There are ten high schools in OKC that have reported having homeless students. Douglass and Capitol Hill high schools have the highest homeless student populations. Douglass has 50 homeless African American students. Capitol Hill has 49 homeless Hispanic students. The majority of these students can be classified as "couch homeless" or doubled up, meaning that they are finding

shelter with extended family members, friends, and other non-relatives for a brief amount of time due to hardship.

The majority of Oklahoma's homeless population is over 24 years old. This classification system is not particularly useful in helping to assess the number and needs of the elderly population, which is reported to be a substantial subset of this population.

The Point in Time data categorizes the homeless population into two categories: Hispanic/Latino and Non-Hispanic/Non-Latino. The lion's share of homeless in Oklahoma are Non-Hispanic/Non-Latino (3,528). In Oklahoma City, 62% of the homeless served are classified a Caucasian. Twenty-five percent of the homeless population is African American. Seven percent of the homeless in OKC identify as Native American. Less than one percent of those identified as homeless in OKC are Asian. By contrast, a relative small fraction of the State's homeless population is Hispanic/Latino. The Point in Time data identified a relatively small Hispanic homeless population, including less than 250 individuals. This follows OKC counts that identify 7% of the city's homeless population as Hispanic. Homeless advocates in OKC indicate that social networks, including churches and extended families, keep the number of homeless in the Hispanic population proportionately lower than their Non-Hispanic/Non-Latino counterparts. However, these individual likely classify as "couch homeless" and are in a continued state of being vulnerable to becoming homeless.

The PIC data indicates that are more homeless males (2,237) than females (1,535). This follows national trends. Care should be taken when interpreting this data, as women are less likely to participate in Point in Time counts. There is a growing population of homeless in Oklahoma that identifies as transgender. PIC data identified 5 individuals identifying as transgender. This population is likely much higher and will continue to grow due to family and national attitudes about this population. Transgender populations may require special housing accommodations, especially in the emergency shelter context, to provide for their social and emotional needs.

Another group of homeless individuals that merits special consideration in the distribution of resources is those identified as having special needs. This classification includes persons with "physical, mental or behavioral disabilities, persons with HIV/AIS and/or persons with alcohol or drug addictions. The Point in Time data estimates that there are nearly 1300 homeless persons with special needs in OKC alone.

The Point in Time data is coarse and does not do an effectively track homeless populations with specific needs, such as those persons who are homeless and living with HIV/AIDS. This special population of homeless is likely growing in Oklahoma. According to the Oklahoma State Department of Health there were an estimated 5,375 cases of persons living with HIV/AIDS by the end of 2013. There were a total of 437 newly diagnosed HIV/AIDS cases in 2013 for the state of Oklahoma. The vast majority of populations living with HIV/AIDS (nearly 72%) reside in urban areas. In OKC alone, the Point in Time data identified at least 25 homeless individuals living with HIV/AIDS. This is likely an undercount. Based on this information and anecdotal data from homeless service providers, special effort must be made to understand the housing, medical, and supportive services needs of homeless persons living with HIV/AIDs.

Shelter is crucial for homeless persons with HIV/AIDS in the management of this illness. However, traditional shelter setting(s) may not be suitable to house this population. Those with suppressed immune systems are vulnerable to the spread of infectious diseases which may be present in open shelters. In addition, shelter personally may not be properly trained in handling AIDS related issues. For these reasons, as well as resources made available by the federal government, homeless persons living with HIV/AIDs are often given housing choice vouchers, created by HOPWA, so that they secure housing on the private market. This can be challenging in constrained rental markets like Norman, for example, where affordable housing options are limited. It is estimated that more than 60 individuals living in OKC with HIV/AIDs are homeless because they have been unable to find a landlord that will accept their housing choice voucher.

State Name: Oklahoma

Point-in Time Date: 1/29/2015

Summary by household type reported:

	Sheltered			
	Emergency Shelter	Transitional Housing*	Unsheltered	Total
Households without children[1]	1,652	376	575	2,603
Households with at least one adult and one child[2]	201	104	38	343
Households with only children[3]	35	0	39	74
Total Homeless Households	**1,888**	**480**	**652**	**3,020**

Summary of persons in each household type:

Persons in households without children[1]	**1,676**	**397**	**623**	**2,696**
Persons Age 18 to 24	214	61	110	385
Persons Over Age 24	1,462	336	513	2,311
Persons in households with at least one adult and one child[2]	**595**	**293**	**108**	**996**
Children Under Age 18	373	176	57	606
Persons Age 18 to 24	40	29	13	82
Persons Over Age 24	182	88	38	308
Persons in households with only children[3]	**38**	**0**	**47**	**85**
Total Homeless Persons	**2,309**	**690**	**778**	**3,777**

Demographic summary by ethnicity:

	Sheltered			
	Emergency Shelter	Transitional Housing*	Unsheltered	Total
Hispanic / Latino	154	43	52	249
Non-Hispanic / Non- Latino	2,155	647	726	3,528
Total	**2,309**	**690**	**778**	**3,777**

Demographic summary by gender:

Female	1,004	272	259	1,535
Male	1,302	416	519	2,237
Transgender	3	2	0	5
Total	**2,309**	**690**	**778**	**3,777**

Rural Areas

Homelessness in the rural areas of the State is much more difficult to calculate. Given the population density of the State, the majority of services that serve the homeless are concentrated in urban and semi-urban areas. Even if beds are available, many rural homeless lack knowledge about the services or a means to travel to receive the same. As a part of this study, OU students were dispatched into the 77 counties in the State to, among other issues, attempt to understand the degree to which there is rural homelessness in the State. Their qualitative inquiries yielded very little data, in part, because rural homeless is difficult to identify and often ignored. For the purposes of this report, a literature review was prepared on the topic of rural homelessness in the United States. The goals of this academic review is to assist policymakers and service providers in the State in uncovering the dimensions of this illusive population.

In the U.S., the rural homeless population is predominantly Caucasian. This population is comprised of single mothers, widowed wives and husbands, divorced and separated men and women, and young people. A study examining rural homelessness in Ohio found that nearly 40% of those who classify as homeless were divorced, separated, or widowed (First, Richard J., John C. Rife, and Beverly G. Toomey, 1994, pg. 101). Ohio's rural homeless were also relatively young. Close to 80% of homeless population in this study was between the ages of 18 and 39 years old (First et al, 1994, pg. 101). Rural homelessness is often less visible than urban homelessness because these populations commonly take shelter are at a friend's house, in their vehicles, or on abandoned properties. These populations can also be found on "…campgrounds or in hollows, desert canyons, farmers' fields, state parks, and highway rest areas" (Milbourne and Cloke, 2006, pg. 17).

The causes of rural homelessness mirror, in most ways, the plight of the urban homeless. The study of homelessness in rural Ohio revealed family problems and substance abuse issues as primary causes of rural homelessness. The incidence of homelessness resulting from situations of domestic violence is high in rural areas (Cummins et al, 1998). Substance abuse issues are a common cause for homelessness in rural America. The literature reveals that this population tends to be homeless because they have isolated themselves from family and people who want to help (First et al, 1994). In the case of both domestic violence and substance abuse, it is often difficult for these individuals to find shelter and the supportive services they require in rural areas where options are limited, if available at all. The thought of moving to an urban area to find both shelter and supportive services is sometimes not considered at all by these vulnerable populations.

Rural areas are also more prone to the kind of poverty that puts individuals and families at risk for homelessness. The number of people living at or below the poverty line in rural places is higher than anywhere else in the United States (Moore, 2001). The statement "rural homelessness is a microcosm of national economic and political developments" cannot be truer for American rural communities (Vissing, 1996, pg. 103). The disinvestment of small towns and their inability to attract long-term sustainable business development, cripples a small town's economy. In effect, this is a main contributor for why poverty is such a common theme for rural communities. As a result, the State should carefully consider its investments in rural Oklahoma. While there is a need for shelter in these places, the construction of this housing type should be weighed with long term opportunities for employment in the area.

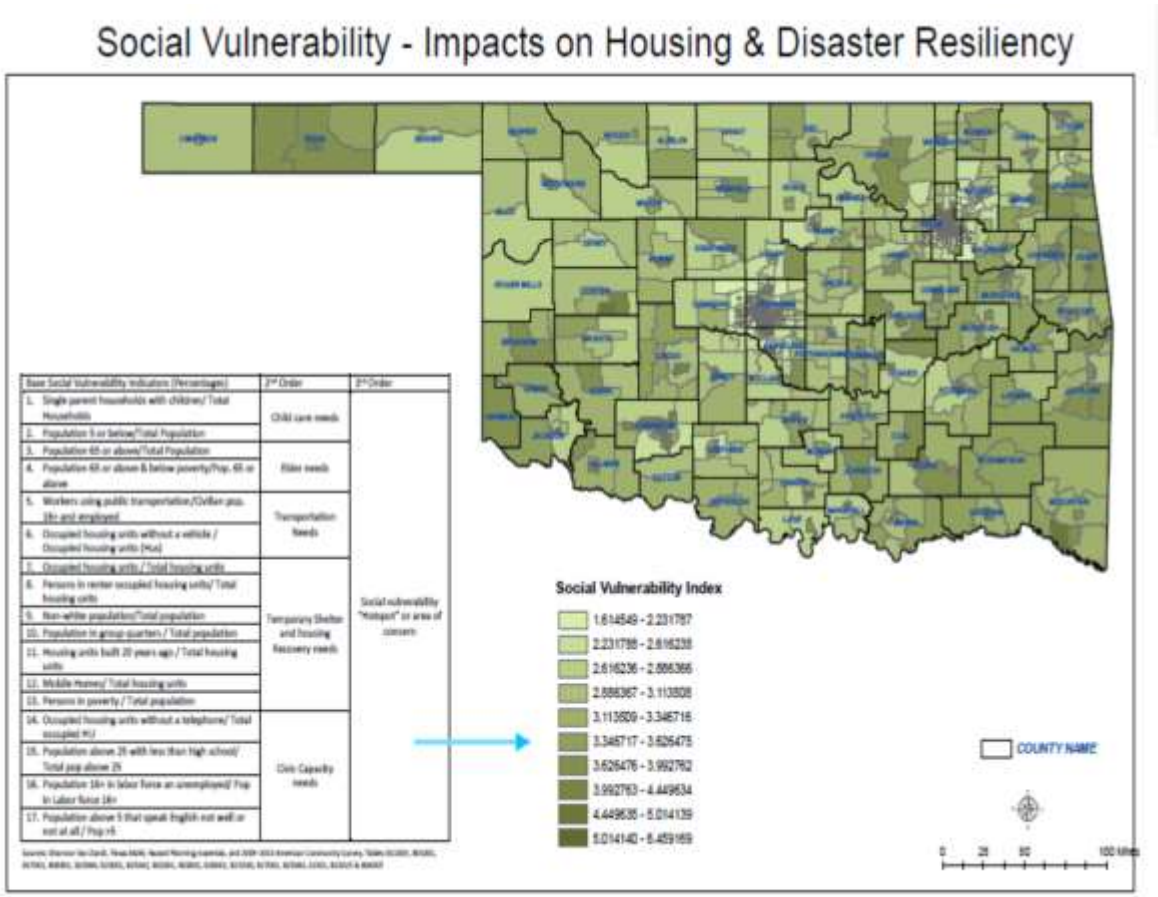
It is not surprising that rural areas typically lack both emergency shelters and temporary housing options. Services that provide temporary housing and provide relief and support services for those who cannot find food are virtually nonexistent in rural communities across the United States (Moore, 2001). Sheltering the homeless is undercapitalized in rural areas because communities do not see a concentration of homeless individuals (Vissing, 1996, pg. 146). As a result, the homeless must satisfice where they are. For instance, for families who are homeless, some of them use a friend's house to store clothes or to seek shelter, while some receive assistance from churches (Cummins et al, 1998). Others migrate to urban areas where services are available and more accessible (Rollinson, Paul A., and John T. Pardeck, 2006).

The absence of affordable housing in rural areas is a root cause of homelessness (Levinson, David, and Marcy Ross, 2007). In fact, it was noticed that many of the people were receiving monetary assistance or previously had some money saved up to spend on housing, but these measures were not enough to keep them afloat (First et al, 1994, pg. 101). Housing costs rise in rural areas typically rise as a result of competition for a limited amount of housing stock. In some rural areas, low income families are spending 70% of their household incomes on housing, sometimes substandard housing (Vissing, 1996, pg. 124). As Levinson et al explain, "housing costs are lower but so are incomes, with the result of placing a heavier rent burden in the community" (Levinson, David, and Marcy Ross, 2007, pg. 45). Renters in rural communities, as a result, are far more susceptible to becoming homeless than their urban or suburban counterparts because they do not have the financial safety net sometimes associated with homeownership (Fitchen, 1991, pg. 193).

While this brief review of the literature describes the state of homelessness across rural America, many of the lessons learned are easily translated to an Oklahoma context. The condition and supply of affordable housing units is relatively poor in many rural portions of the State. Rent burden, as more fully characterized in the Consolidated Housing Affordability Strategy (CHAS) section of this report, is high. This leaves families living and working in relatively weak economies vulnerable to homelessness. Once homeless, supportive services in these areas are relatively limited, especially for the chronically homeless, those with substance abuse problems, and victims of domestic violence. Services available to these populations in urban areas may not be attractive to individuals and families who are accustomed to life in rural communities. Where practicable, more consideration must be given to providing supportive services and temporary and permanent housing to homeless populations wishing to remain in rural areas.

At Risk For Homelessness

Poverty is the primary factor that places Oklahoma families at risk of being homeless. There are many factors experienced by those living in poverty which leave residents more or less vulnerable to homelessness. For the purposes of this study, a social vulnerability index has been constructed to measure the likelihood or risk that residents living in poverty might find themselves homeless. This index includes factors such as single headed households, concentration of young and elderly residents, the reliance on public transportation, private vehicle availability, racial composition, housing type, presence or absence of a telephone in the household, amongst other factors. This index is additive and seeks to understand the collective impact of these factors in estimating the vulnerability of a local population. While employed in more significant detail in the section of this report focusing on disaster resiliency, this tool is useful in identifying areas of the State where populations may be most vulnerable to homelessness. The index utilized in this section is different from the one crafted in the Disaster Resiliency chapter of this report in that it estimates social vulnerability at the county level, rather than by census tract. The decision to study vulnerability to homelessness at the county level was made to help policymakers understand, more generally, where resources and economic interventions are most necessary to stave off the potential effects of homelessness. This maps presents vulnerability to homelessness on the county level, depicting the most vulnerable counties in dark green.



The Oklahoma families most likely at risk are those living in public and subsidized housing. They live below the poverty line. Even those who are employed, remain vulnerable to homeless because an unexpected expense, like a medical emergency, threatens their ability to pay for their share of rent owed or utilities. A missed payment can easily lead to eviction and homeless.

Through the U.S. Department of Housing and Urban Development, Oklahoma service providers have been vested with more than 24,000 housing choice vouchers. Their spatial distribution is outlined below. Of significance is the size of the waiting lists for public housing units and housing choice vouchers in cities across the State. These individuals are the most vulnerable to being homeless.

		Authorized Vouchers	Public Housing Waiting List	Voucher waiting list
Ada	OK024	110	Unknown	Unknown
Bristow	OK033	87	Unknown	Unknown
Broken Bow	OK006	217	Unknown	Unknown
Fort Gibson	OK118	44	Unknown	Unknown
Henryetta	OK142	115	Unknown	Unknown
Hugo	OK044	178	14	56
Lawton	OK005	92	Unknown	Unknown
McAlester	OK062	73	118	36
Miami	OK027	243	126	179
Muskogee	OK099	843	Unknown	230
Norman	OK139	1,185	Unknown	313
Oklahoma City	OK002	4,219	830	8021
Oklahoma HFA	OK901	10,708	Unknown	11,155
Ponca City	OK111	134	70	148
Seminole	OK032	189	53	44
Shawnee	OK095	497	320	623
Stillwater	OK146	656	550	420
Stilwell	OK067	29	Unknown	Unknown
Tecumseh	OK148	31	90	171
Tulsa	OK073	4,808	4951	5859
Wewoka	OK096	154	Unknown	
Oklahoma		24,612		

Findings and Recommendations

The chronically homeless population remains high in Oklahoma and follows national trends. While this population does not appear to be growing, the needs of the chronically homeless merit continued attention. Ample emergency shelters and soup kitchens must be made available for these sizable population in both urban and rural contexts. Social service providers should be clustered, to the extent possible, where these groups of homeless populations cluster. Given the future projections for the increase in the number of cold and hot days in the region, social service providers must provide places that allow these individuals to seek refuge from the elements.

Those living with HIV/AIDS tend to underreport their status and needs. Given the cost of medical care these individuals face, the need for permanent and stable housing is critical. Housing providers must work to ensure that there are enough units for this undercounted population. Working with county health care providers, OHFA is much more likely to estimate the size and needs of this population of homeless and potentially homeless persons. Special care must be taken to ascertain the barriers these individuals face when using vouchers to secure housing in the marketplace.

Victims of domestic violence require temporary and transitional housing statewide. CoCs with high supportive services tend to better accommodate the housing needs for these population. Cleveland County provides a good model for the State. However, many homeless victims of domestic violence live in rural areas that are underserved. Efforts must be undertaken to work with social services provides, schools, churches, and the police to help identify these individuals and to lead them to available housing and supportive services.

While not mentioned in the PIC data, estimates must be prepared to calculate the number and needs of homeless populations with felonies. In particular, there has been a rise nationally in the number of homeless sex offenders. Zoning regulations and discrimination from the private market has pushed many registered sex offenders to the periphery of many communities. Given their criminal histories, this population of homeless is harder to house but should not be forgotten for health and safety of these individuals and the communities they inhabit.

The size of the homeless veteran population seems to be decreasing as a result of national initiatives to end homelessness for veterans in Oklahoma. The needs of homeless veterans are highest in areas of the State near VA facilities. Temporary and permanent housing should be constructed at a higher rate in these areas to meet demand. Care should be taken to make certain that the housing constructed is built to meet the psychological needs of veterans, particularly those suffering from PTSD.

Rural homelessness, in general, is a challenge to assess and characterize. The rate of homelessness in rural areas is most likely much higher than annual counts demonstrate. The majority of rural homeless likely find shelter out of public view. Some may shelter in their cars, in undeveloped areas or in the homes of those who allow them to stay. They are not likely to find their way to urban areas given their lack of transportation options and preferences for rural living. Programs that are developed to provide shelter to the rural homeless must be developed to allow sheltering in place where possible. Sheltering in place should only be allowed, however, in places where individuals are likely to be able to find what they need, including opportunities to work.

Very little is known about the age distribution of homeless over the age of 24. It is likely that the homeless population, including those who are chronically homeless, is aging. Elderly homeless individuals have special needs. Counts must be more sensitive to understanding the size and needs of this population. This does not mean arbitrarily building units to house this population unless a need can be demonstrated for the same.

Waiting lists for public housing and section 8 vouchers are high across the State. This is not uncommon to Oklahoma. However, when we are considering the size of the population that is at risk to homelessness, these waiting lists are an important factor to consider. Resources should be spent in a manner which is preventative so that these individuals' and families' needs are met before they become homeless.

The absence of affordable housing alternatives across some parts of the State is the largest threat to homelessness. In markets that are constrained by an aging housing stock or those that are rapidly growing, individuals and families who live on the economic margins are at risk for becoming homeless. Communities must work to ensure that zoning regulations promote the development of housing types serving all income levels, including the providing of temporary and permanent housing to meet the needs of the presently homeless and those at risk for becoming the same. Funding distributions should be targeted to communities with the highest needs who are willing to do what is necessary to meet the needs of the homeless and those at risk for the same.

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Fair Housing

Summary

Fair housing addresses discrimination in the provision of housing as well as discrimination in access to opportunities provided by the location of affordable housing. Recent actions by the United States Department of Housing and Urban Development (HUD) and the United States Supreme Court focus our attention on localized access to opportunity.

These findings are intended to aid the Oklahoma Housing Finance Agency (OHFA) determine the location of new affordable housing in relation to vulnerable populations and explore ways to expand the opportunities available to help communities of existing affordable housing achieve self-sufficiency.

Key Findings:

- 70% of affordable housing units are located in census tracts marked by poverty
- 62% of affordable housing is located in census tracts where a majority of the residents are not white
- 13% of affordable housing units have no access to transit services and 56% have access to limited service, on-demand transit
- 2.6% of affordable housing units have limited access to a hospital
- 7.8% of affordable housing units are located in food deserts

Recommendations:

Continued efforts to improve the quality of life for affordable housing residents and reduce discrimination associated with affordable housing will likely need to include strategies that integrate new affordable housing as well as support existing communities of affordable housing. This will likely include public policies and funding designed to integrate low-income and workforce housing into a more diverse set of communities. Additionally, those living existing affordable housing communities need increased opportunities to stay in place, become self-sufficient, and participate in determining the future of their neighborhood. OHFA may consider partnering with other state, non-profit, and for-profit agencies to explore strategies for helping communities thrive economically, socially, and environmentally.

What is Fair Housing?

Fair housing addresses discrimination in the provision of housing as well as discrimination in access to opportunities provided by the location of affordable housing. On one hand, this protects the ability of individuals to obtain housing regardless of personal characteristics such as race, skin color, national origin, gender, familial status, or disability. It also focuses attention on more subtle forms of discrimination that cluster low-income housing in ways that inhibit the ability of communities to access services and amenities that support self-sufficiency and autonomy.

Recent actions by the United States Department of Housing and Urban Development (HUD) and the United States Supreme Court focus our attention on localized access to opportunity. In 2014, HUD released the Affirmatively Furthering Fair Housing (AFFH) rule for public comment. The draft rule

"directs HUD's program participants to take significant actions to overcome historic patterns of segregation, achieve truly balanced and integrated living patterns, promote fair housing choice, and foster inclusive communities that are free from discrimination" (HUD 2015). In 2015, the United States Supreme Court provided legal support for actions taken to remedy patterns that impede the upward mobility and opportunity of low-income individuals and communities. In the case of Texas Department of Housing and Community Affairs v. The Inclusive Communities Project the court reiterated the need to address disparate impacts in considering the location of affordable housing and reinforced the importance of AFFH (Bostic 2015). Housing discrimination from this perspective is not only felt by individual residents, it can also be the result of actions that work to limit the opportunities to improve the quality of life in local communities.

Approach

In Oklahoma, a combination of federal and state programs work to support the opportunities provided to individuals and families who rest safely and comfortably in an apartment or home. Here we use publicly available data for units that are part of the Low Income Housing Tax Credit (LIHTC) Program, the Rural Rental Housing Loans, or OHFA administered programs such as Oklahoma Affordable Housing Tax Credit (AHTC), the HOME investment partnership program, the Section 8 Housing Choice Voucher Program, and multi-family bonds. Collectively, these programs represent state efforts to assist individuals who are unable to afford housing.

Indicators of disparate impact vary but seem to contingent upon the contextual characteristics of a particular neighborhood. In an effort to help communities investigate and understand community level disparate impacts, HUD created a Fair Housing Assessment Tool (http://www.huduser.gov/portal/affht_pt.html#affh). The assessment tool includes measures on indicators of disparate impacts based on the clustering of potentially vulnerable populations, including:

- Race/Ethnicity of Residents
- National Origin of Residents
- English Proficiency of Residents
- Job Accessibility
- Transit Accessibility
- Level of Poverty
- Environmental Exposure (e.g. pollution, crime, food, health care, etc.)
- Disability

This report uses the Fair Housing Assessment Tool in conjunction with readily available data to initiate a more thorough investigation of the potential for disparate impacts in the state. The findings are intended to aid the Oklahoma Housing Finance Agency regarding future location of new fair housing in relation to vulnerable populations and the future opportunities available to help communities of existing affordable housing achieve self-sufficiency.

Data

Data for this report are compiled from a variety of sources including the United States Census, the University of Oklahoma Center for Spatial Analysis, and primary data collected as part of ongoing research efforts at the University of Oklahoma. Data are aggregated into census tracts and reported statewide as well as by county (see Appendix 1).

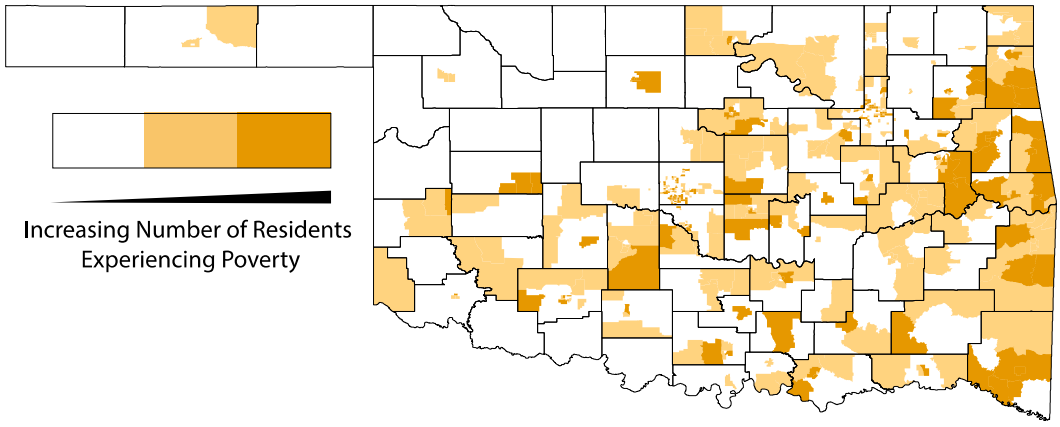
1. Urban/Rural

A majority of the affordable housing in Oklahoma is situated in rural communities. Urban communities including Edmond, Lawton, Norman, Oklahoma City, and Tulsa are home to just over 1/3 of the affordable housing units in the state.

	Total Affordable Housing Units		Situated an Urban Setting		Situated in a Rural Setting
OHFA	35,292		11,699 (33.1%)		23,593 (66.9%)
515	5,384		0		5,384 (100%)
LIHTC	23,537		8,255 (35.1%)		15,282 (64.9%)
Total	64,213		19,954 (31.1%)		44,259 (68.9%)

2. Poverty

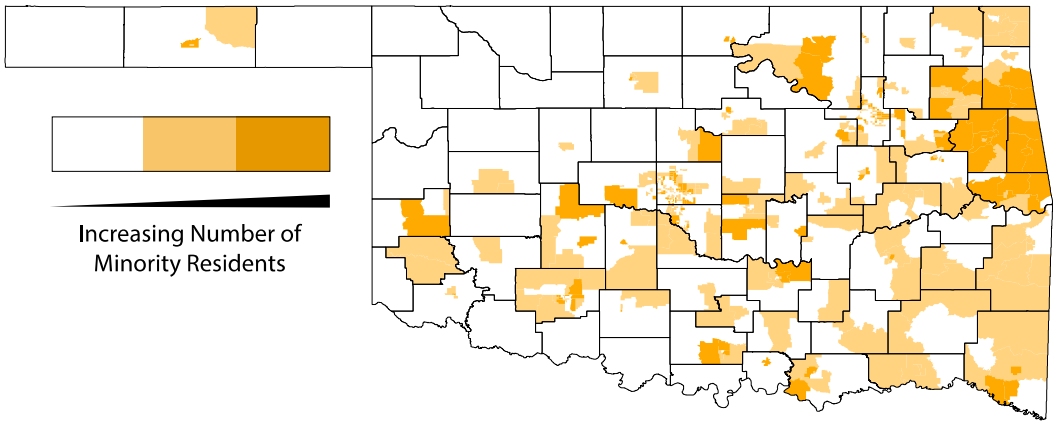
Approximately 70% of affordable housing units in Oklahoma are located in census tracts where the number of residents living in poverty is above the state average. About half of these units are located in areas of extreme poverty, where the number of individuals who are economically vulnerable exceeds 994, more than one standard deviation (411) from the mean (583).



	Total Affordable Housing Units		Situated in Poverty		Situated in Extreme Poverty
OHFA	35,292		12,295 (34.8%)		12,464 (35.3%)
515	5,384		2,093 (38.9%)		1,839 (34.2%)
LIHTC	23,537		7,483 (31.8%)		8,924 (38.0%)
Total	64,213		21,796 (33.9%)		23,227 (36.2%)

3. Non-white Enclaves

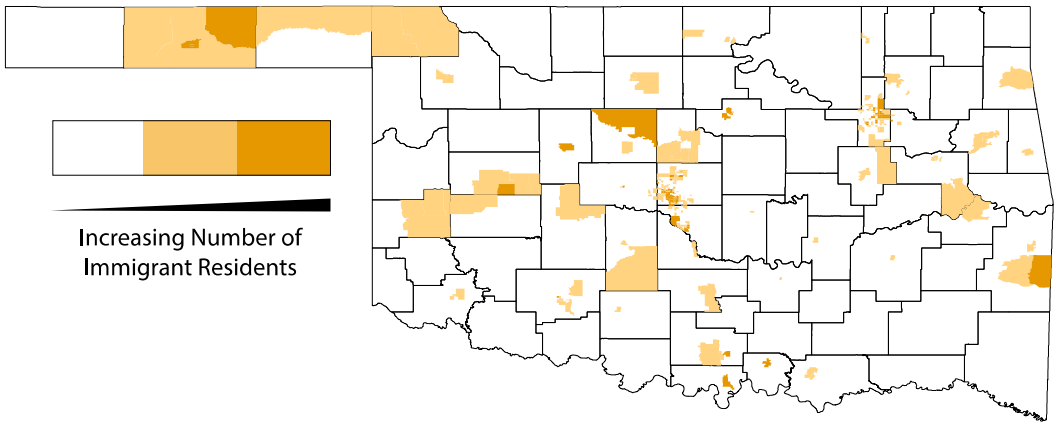
Just over 60% of affordable housing units in Oklahoma are located in census tracts where a majority of the residents are non-white. With just fewer than 24% of the total affordable housing units in census tracts heavily populated with residents who are not white – identified as census tracts where the number of non-white residents is more than 1,595 - one standard deviation (653) greater than the mean (542).



	Total Affordable Housing Units		Situated in Majority Non-White Community		Situated in Heavily Non-White Community
OHFA	35,292		12,814 (36.3%)		7,907 (22.4%)
515	5,384		2,229 (41.4%)		1,288 (23.9%)
LIHTC	23,537		10,285 (43.7%)		5,677 (24.1%)
Total	64,213		25,328 (39.4%)		14,872 (23.2%)

4. Immigrant Enclaves

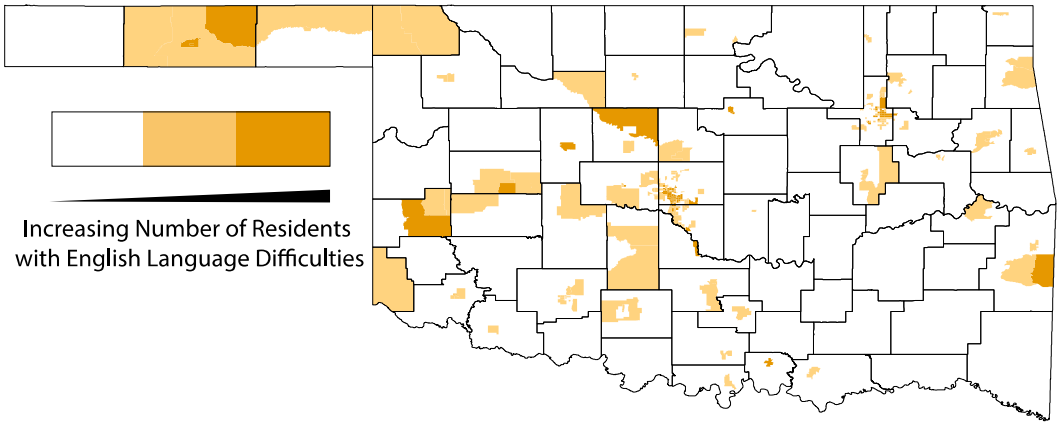
One-third of affordable housing units in Oklahoma are located in census tracts where more than the average number of residents are immigrants. About half of these units are located in areas dense with immigrants, where the number of individuals who are not citizen exceeds 349, more than one standard deviation (219) from the mean (130).



	Total Affordable Housing Units		Situated in Immigrant Enclave		Situated in Heavily Immigrant Enclave
OHFA	35,292		8,114 (23.0%)		3,358 (9.5%)
515	5,384		1,017 (18.9%)		159 (3.0%)
LIHTC	23,537		5,457 (23.2%)		3,364 (14.3%)
Total	64,213		14,588 (22.7%)		6,881 (10.7%)

5. Limited English Proficiency

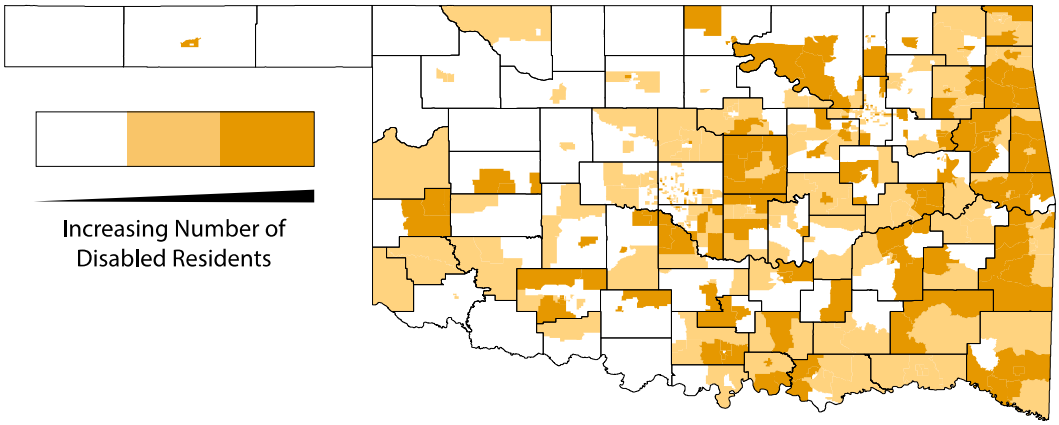
Almost 17,000 existing affordable housing units in Oklahoma are located in census tracts where more residents than average do not speak English very well. A little more than half of these units are located in areas dense with individuals with limited English proficiency, where the number of individuals who speak English less than very well exceeds 380, more than one standard deviation (240) from the mean (140).



	Total Affordable Housing Units		Community with more than average number of Limited English Speakers		Community dense with limited English Speakers
OHFA	35,292		6,250 (17.7%)		3,122 (8.8%)
515	5,384		799 (14.8%)		240 (4.5%)
LIHTC	23,537		4,034 (17.1%)		3,475 (14.8%)
Total	64,213		11,083 (17.3%)		6,837 (10.6%)

6. Disability

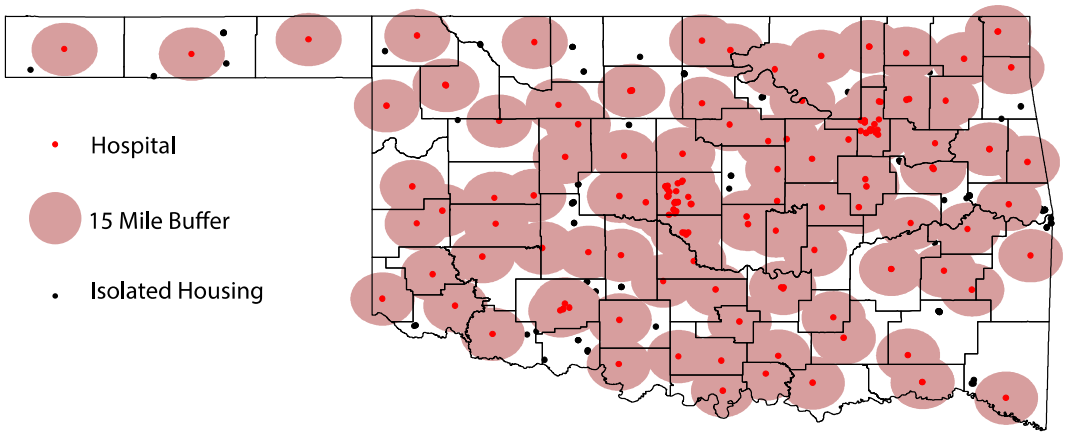
Almost 60% of existing affordable housing units in Oklahoma are located in census tracts where more residents than average have a disability. A little more than half of these units are located in areas dense with individuals with a disability, where the number of individuals who are disabled is greater than 831, more than one standard deviation (289) from the mean (542).



	Total Affordable Housing Units		Community with more than average number of Disabled Residents		Community dense with Disabled Residents
OHFA	35,292		10,098 (28.6%)		10,722 (30.4%)
515	5,384		1,686 (31.3%)		2,594 (48.8%)
LIHTC	23,537		7,074 (30.1%)		6,289 (26.7%)
Total	64,213		18,858 (29.4%)		19,605 (30.5%)

7. Hospitals

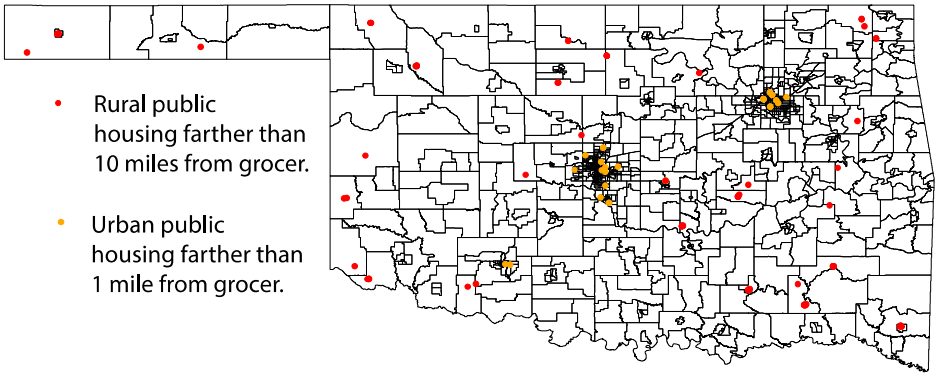
There are no affordable housing units more than 30 miles from a hospital. Approximately 2.6% of affordable housing units are farther than 15 miles from the nearest hospital. As indicated by the larger percentage of Rural Rental Housing Loan units, most of these are located in rural areas.



	Total Affordable Housing Units		More than 15 miles to nearest hospital		More than 30 miles to nearest hospital
OHFA	35,292		628 (1.8%)		0
515	5,384		500 (9.3%)		0
LIHTC	23,537		532 (2.3%)		0
Total	64,213		1,660 (2.6%)		0

8. Grocery Stores

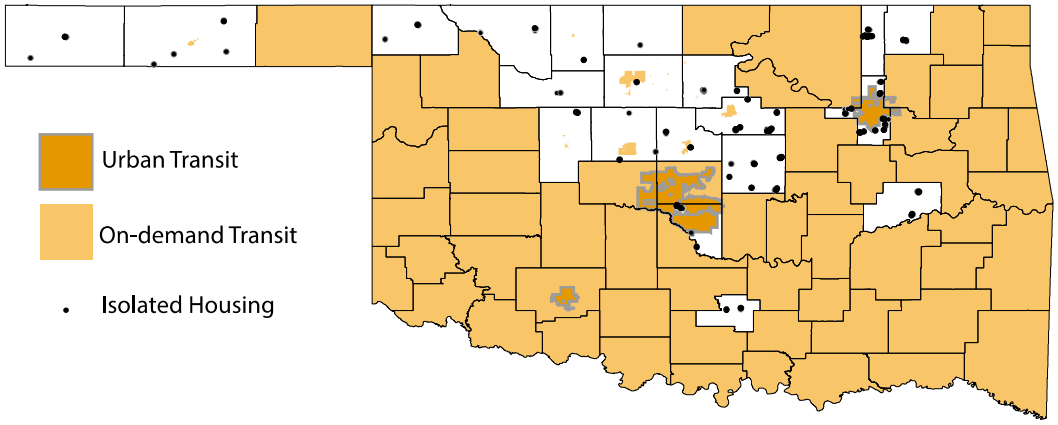
Approximately 7.8% of affordable housing units are in areas that are classified as food deserts. According to the United States Department of Agriculture, food deserts exist in urban environments further than 1 mile from a grocery store and in rural environments further than 10 miles from a grocery store (https://apps.ams.usda.gov/fooddeserts/foodDeserts.aspx).



	Total Affordable Housing Units		Urban > 1 Mile from nearest Grocer		Rural > 10 miles to nearest Grocer
OHFA	35,292		1,493 (4.2%)		1,097 (3.1%)
515	5,384		0		466 (8.7%)
LIHTC	23,537		1,175 (5.0%)		769 (3.3%)
Total	64,213		2,668 (4.2%)		2,332 (3.6%)

9. Transit

A little over 69% of affordable housing in Oklahoma is located in a census tract with limited or no access to transit services. This includes 8,367 affordable housing units in areas that lack public transit services all together as well as 36,363 units that are situated in areas that have on-demand transportation services that often have limited operation times and may only serve elderly and disabled populations or those going to a medical appointment.



	Total Affordable Housing Units		No Transit		Urban Transit		On-Demand Transit
OHFA	35,292		4,035 (11.4%)		11,265 (31.9%)		19,992 (56.6%)
515	5,384		767 (14.2%)		0		4,617 (85.8%)
LIHTC	23,537		3,565 (15.1%)		8,217 (34.9%)		11,755 (49.9%)
Total	64,213		8,367 (13.0%)		19,482 (30.3%)		36,363 (56.6%)

What does this mean for Oklahoma?

This report suggests a number of possible ways forward for the Oklahoma Housing Finance Agency as it continues to support quality low-income and workforce housing for residents of the state. Across a number of indicators of opportunity, affordable housing in the state clusters in ways that raise concerns about the opportunities available to affordable housing residents in comparison to other residents.

Continued efforts to improve the quality of life for affordable housing residents and reduce discrimination associated with affordable housing will likely need to include strategies that integrate new affordable housing as well as support existing communities of affordable housing. This will likely include public policies and funding designed to integrate low-income and workforce housing into a more diverse set of communities. Additionally, those living existing affordable housing communities need increased opportunities to stay in place, become self-sufficient, and participate in determining the future of their neighborhood. OHFA may consider partnering with other state, non-profit, and for-profit agencies to explore strategies for helping communities thrive economically, socially, and environmentally.

Moving ahead, Oklahoma should be wary of a narrowly focused vision focused solely on the problems of existing affordable housing and the integration of these residents into other communities. The relocation of residents harkens back to the physical and social destruction brought about by urban renewal. Such an approach pits efforts to enhance existing affordable housing through community development against efforts to build a more integrated and diverse society (Goetz 2015). Rather, Oklahoma has the opportunity to work closely with local municipalities to improve the conditions of current affordable housing communities while simultaneously advancing integration of low-income and workforce housing through the construction in new settings.

For future new development, a number of case studies and emerging scholarship on the importance of neighborhood effects provide guidance on possible ways forward for Oklahoma. For instance, in El Paso, Texas a public private partnership between the Housing Authority of the City of El Paso and private developers led to the development of a mixed income housing development. Eastside Crossings (http://www.hacep.org/about-us/eastside-crossings) provides 74 traditional affordable housing units, 79 affordable housing units, and 45 market rate units in partnership with the Texas Department of Housing and Community Affairs (Housing Authority of El Paso 2015). In Sacramento, partnership between private developers and the Capital Area Redevelopment Authority resulted in the adaptive reuse of a building listed on the National Register of Historic Buildings into affordable Housing (Vellinga 2015). Located in a dense, walkable, transit-oriented community, the Warehouse Artist Lofts (http://www.rstreetwal.com) are home to 116 units, 86 of which are affordable and 13,000 square feet of ground floor retail.

For existing affordable housing, strategies exist to help enhance localized opportunities and build a culture of community participation around housing. Across the nation, there is a need to refocus the discussion away from the deficits found in many communities to look for closely at opportunities (Lens 2015) and to think about the consequences of physical, social, and economic isolation (Clarke, Morenoff, Debbink, Golberstein, Elliott, & Lantz, 2014.).

The Oklahoma Housing Finance Agency may need to collaborate more closely with other governmental agencies to develop comprehensive strategies that not only improve existing housing but also work toward enhancing access to food, recreation, amenities, jobs, and quality schools. By doing so, OHFA could help build the social and physical resiliency of these communities so that residents would be empowered to choose for themselves whether or not they want to stay and be part of their existing community or move elsewhere in search of a better quality of life. A set of tools for doing some of this work is available through Policy Link (http://www.policylink.org/equity-tools/equitable-development-toolkit/about-toolkit). For those who are relocated due to circumstances that make staying in place impossible, intensive case management may be required to ensure that these residents avoid pitfalls and thrive in a new environment (Theodos, Popkin, Guernsey, & Getsinger, 2010). But evidence continues to suggest that stability, particularly in the lives of children, is an essential part of ensuring that everyone has the opportunity to succeed and thrive (HUD 2014).

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Data Sources

2014 American Community Survey Estimates

- Poverty: ACS_13_5YR_S1701 > HC02_EST_VC01 > Below poverty level; Estimate; Population for whom poverty status is determined
- Non-white enclaves: ACS_13_5YR_BO2001 > HD01_VD02 > [Total Population] - Estimate; Total: - White alone
- Immigrant enclaves: ACS_13_5YR_BO5001 > HD01_VD06 > Estimate; Total: - Not a U.S. citizen
- Limited English Proficiency: ACS_13_5YR_S1601 > HC03_EST_VC01 > Percent of specified language speakers - Speak English less than "very well"; Estimate; Population 5 years and over
- Disability: ACS_13_5YR_S1810 > HC02_EST_VC01 > with a disability; estimate; total civilian noninstitutionalized population

University of Oklahoma Center for Spatial Analysis: Data Warehouse

- Hospital locations as of 2008 derived from Oklahoma State Department of Health, Health Care Information Division.

University of Oklahoma Division of Regional and City Planning

- Grocery store locations retrieved from Internet search conducted by faculty and student research assistants at the University of Oklahoma.
- Transit locations retrieved from Oklahoma Department of Transportation (http://www.okladot.state.ok.us/transit/pubtrans.htm) and geocoded by faculty and student research assistants at the University of Oklahoma.

Appendix 1: County affordable housing Summaries

County	Total Units	Units at Risk for Poverty	Units in mostly Non-white Enclaves	Units in Community of Immigrants	Units in Limited English Neighborhood	Units nearer Elevated Number of Disabled	Units farther than 15 miles to Hospital	Units located in a Food Desert	Units that lack readily available Transit
Adair	676	676	676	0	0	177	0	0	0
Alfalfa	93	0	0	0	0	0	93	0	23
Atoka	145	121	0	0	0	0	24	145	24
Beaver	0	0	0	0	0	0	0	0	0
Beckham	343	87	228	0	228	315	0	28	0
Blaine	169	0	0	127	127	0	24	0	42
Bryan	1,005	538	501	0	0	501	0	0	0
Caddo	658	292	387	0	0	292	95	0	0
Canadian	1,655	0	248	0	0	0	48	24	0
Carter	1,040	373	938	189	0	972	24	24	24
Cherokee	1,359	986	412	0	0	436	0	13	0
Choctaw	433	312	0	0	0	0	0	0	0
Cimarron	69	0	0	0	0	0	8	69	69
Cleveland	2,389	1,080	194	758	648	601	0	214	718
Coal	71	0	0	0	0	71	0	0	0
Comanche	1,214	200	182	0	0	225	123	151	24
Cotton	114	0	0	0	0	0	114	0	0
Craig	290	0	0	0	0	157	0	72	0
Creek	1,359	163	163	0	0	670	0	0	0
Custer	255	78	0	0	0	172	0	0	0
Delaware	712	695	285	0	0	712	28	0	0
Dewey	75	0	0	0	0	0	16	0	0
Ellis	39	0	0	0	0	0	0	0	0
Garfield	824	683	127	0	0	0	0	52	50

County	Total Units	Units at Risk for Poverty	Units in mostly Non-white Enclaves	Units in Immigrant Enclaves	Units in Limited English Neighborhood	Units nearer Elevated Number of Disabled	Units farther than 15 miles to Hospital	Units located in a Food Desert	Units that lack readily available Transit
Garvin	557	0	0	0	0	265	0	0	0
Grady	758	71	0	0	0	621	71	0	0
Grant	8	0	0	0	0	0	8	8	8
Greer	100	0	0	0	0	0	0	0	0
Harmon	62	0	0	0	0	0	0	2	0
Harper	50	0	0	0	0	0	14	36	50
Haskell	63	0	0	0	0	0	0	0	0
Hughes	341	0	0	0	0	0	0	76	0
Jackson	322	18	18	0	18	0	30	30	0
Jefferson	36	0	0	0	0	0	0	0	0
Johnston	517	493	0	0	0	493	0	0	0
Kay	1,001	196	168	0	0	344	0	0	0
Kingfisher	153	0	0	8	8	0	8	8	40
Kiowa	143	0	0	0	0	0	0	0	0
Latimer	220	0	0	0	0	220	0	0	0
Le Flore	1,050	204	0	0	0	573	166	0	0
Lincoln	705	143	0	0	0	705	42	0	705
Logan	629	0	0	0	0	300	0	0	158
Love	62	0	0	62	0	0	0	0	0
Major	76	0	0	0	0	0	0	0	76
Marshall	134	0	109	109	109	109	0	0	0
Mayes	546	382	218	0	0	382	0	0	0
McClain	346	55	0	0	47	299	0	0	0
McCurtain	767	767	746	0	0	767	57	315	0
McIntosh	488	0	0	0	0	169	0	0	488

County	Total Units	Units at Risk for Poverty	Units in mostly Non-white Enclaves	Units in Community of Immigrants	Units in Limited English Neighborhood	Units nearer Elevated Number of Disabled	Units farther than 15 miles to Hospital	Units located in a Food Desert	Units that lack readily available Transit
Murray	224	95	0	0	0	224	0	0	224
Muskogee	1,572	642	59	0	0	44	48	0	0
Noble	387	0	0	0	0	0	42	30	345
Nowata	229	0	0	0	0	185	0	0	229
Okfuskee	214	169	0	0	0	213	0	1	0
Oklahoma	11,497	3,920	3,518	2,445	2,641	456	0	1,202	25
Okmulgee	663	303	227	0	0	127	0	0	0
Osage	1,544	538	700	0	0	1,391	42	0	0
Ottawa	409	0	0	0	0	96	0	84	0
Pawnee	65	0	0	0	0	0	37	20	0
Payne	1,797	1,209	0	120	120	648	0	0	971
Pittsburg	1,268	0	50	0	0	284	16	16	0
Pontotoc	810	311	286	0	0	336	0	0	0
Pottawatomi	1,715	1,009	587	0	0	954	0	284	0
Pushmataha	381	234	0	0	0	381	147	381	0
Roger Mills	14	0	0	0	0	0	0	14	0
Rogers	973	0	0	0	0	0	36	0	0
Seminole	426	76	75	0	0	75	0	123	0
Sequoyah	1,449	922	922	0	0	726	243	0	0
Stephens	841	0	0	0	0	310	12	0	0
Texas	816	0	372	782	782	372	60	6	75
Tillman	114	0	0	0	0	0	0	0	0
Tulsa	9,868	4,750	1,807	2,281	2,109	1,419	0	1,441	2,220
Wagoner	1,094	691	461	0	0	701	0	0	0
Washington	1,262	0	108	0	0	108	0	0	1,262
Washita	189	0	0	0	0	0	0	0	0

County	Total Units	Units at Risk for Poverty	Units in mostly Non-white Enclaves	Units in Community of Immigrants	Units in Limited English Neighborhood	Units nearer Elevated Number of Disabled	Units farther than 15 miles to Hospital	Units located in a Food Desert	Units that lack readily available Transit
Woods	65	0	0	0	0	0	2	0	65
Woodward	161	0	0	0	0	0	0	60	0

Lead-Based Paint Hazards

Findings / Health and Well-being

Lead is known to be highly toxic particularly to young children 5 years of age and under. Excessive exposure results in reduced intelligence, impaired hearing, reduced stature and a host of other negative health effects. It is well documented that a common source of lead exposure for children is lead-based paint in older housing along with the dust and soil it generates. Children are exposed to lead-based paint most commonly by directly eating paint chips or indirectly by ingesting lead-contaminated house dust or soil through normal hand-to-mouth contact.

For purposes of this analysis, the federal definition of "lead-based paint hazard" at 24 CFR Part 35.86 was applied. Under this definition, lead-based paint hazard is defined as, "…any condition that causes exposure to lead from lead-contaminated dust, lead-contaminated soil, or lead-contaminated paint that is deteriorated or present in accessible surfaces, friction surfaces, or impact surfaces that would result in adverse human health effects as established by the appropriate Federal agency."

It is noteworthy estimates presented can only be stated as dwellings that "potentially" have LBP hazards because there are no real-time surveys or studies of residential structures built prior to 1978. However, there have been previous estimations provided in the state's Consolidated Plan.

Statewide Findings

Using methodology which will be discussed later in this section, we have estimated the number of housing units in Oklahoma with lead-based paint hazards as defined in 24 CFR Part 35.86. Our estimates are shown in the following table.

Lead-Based Paint Hazards in Oklahoma

	Number	Percent
Total Housing Units	1,432,730	
Total Housing Units with Lead-Based Paint Hazards	240,229	16.8%
Owner-Occupied Units w/LBP Hazards	159,861	66.5%
Renter-Occupied Units w/LBP Hazards	80,368	33.5%
Housing Units w/LBP Hazards Occupied by Low-to-Moderate Income Households	113,931	47.4%
Housing Units w/LBP Hazards with Children < 6 Years of Age Present	37,426	15.6%
Housing Units w/LBP Hazards Occupied by LMI Households and Children < 6 Years of Age Present	19,761	52.8%

Sources: American Healthy Homes Survey Table 5-1 & CHAS Tables 12 & 13

As shown, we estimate that there are 240,229 housing units in Oklahoma containing lead-based paint hazards, representing 16.8% of Oklahoma's total housing stock. 66.5% of those units are owner-occupied, while 33.5% are renter-occupied. Of the 240,229 housing units containing lead-based paint hazards, 113,931 units, or 47.4%, are occupied by households with low-to-moderate incomes as defined by HUD. Among all housing units with lead-based paint hazards, 37,426 units have children under the age of six present, and 52.8% of those units, or 19,761 units total, are households with low-to-moderate incomes. Exhibits 2 through 6, found at the end of this section, graphically summarize our statewide findings at a county level.

Disaster Resiliency/ Economy and Society, Infrastructure and Environment

While communities strive to address lead-based paint hazards through education and removal when detected in connection with federally funded local housing rehabilitation initiatives, hazard detection and mitigation may have special considerations in terms of disaster resiliency.

Many disasters are accompanied by widespread damage to residential structures often times scattering building material debris across the landscape necessitating removal by heavy equipment and disposal in landfills. When building materials contaminated with lead-based paint become part of non-contaminated debris disposal, it presents an environmental hazard that can span well beyond recovery and rebuilding efforts.

Leadership and Strategy

Given the albeit large but finite number of potential housing units with lead hazards, the state and local communities may wish to consider initiatives aimed at reducing and/or eventually eliminating residential lead-based paint hazards, particularly in housing occupied by low and moderate income households with young children present. One such initiative could be the use of the state's various federal and state housing programs' competitive funding selection criteria. By designing rating criteria that specifically awards points to applicants that purposefully seek out properties within counties known to have higher percentages of lead hazards, housing developers along with those engaged in rehabilitation may be incentivized to engage in hazard mitigation.

State and local governments may wish to capitalize on the results of this study by using the data to support competitive applications to the Federal Home Loan Bank Topeka's Affordable Housing Program funding for owner occupied rehabilitation which, among other competitive rating criteria, awards points for the "Abatement of Hazardous Environmental Conditions". Similarly, this report's data may be used to document hazards and need in applications for competitive health care grants offered at the federal level.

Similar to initiatives undertaken by USHUD, the state may want to consider undertaking a real-time sample survey of homes built prior to 1978 across the state's community sizes and counties to more accurately ascertain the extent of the hazard and/or conducting real-time surveys of LBP Risk Assessors licensed by the ODEQ.

Survey of Previous Lead-based Paint Studies

Using a combination of US Census Bureau and US Department of Housing and Urban Development Comprehensive Housing Affordability Strategy data and age of housing stock built prior to 1980, the Oklahoma Department of Commerce's, "State of Oklahoma Five-Year E-Consolidated Plan FY 2014 – 2018" estimated 59% of the owner occupied and 65% of the renter occupied housing had the potential of containing lead-based paint. To address lead paint hazards, the Consolidated Plan recommended assessment of hazard presence be conducted at the point dwelling rehabilitation is undertaken and that nonprofits advise persons receiving federal rehabilitating assistance regarding the dangers of lead exposure.

At the national level, between 1998 and 2000, USHUD Office of Health Homes and Lead Hazard Control staff and the National Institute of Environmental Health Sciences conducted a real-time

random sampling of 831 permanently occupied housing units (multifamily, single family and mobile homes) taken from all 50 states and the District of Columbia. The results indicated an estimated 38 million (39% of the 96 million total housing units) of the nation's housing units had lead-based paint hazards. Of that total, 24 million had significant lead hazards with 1.2 million of those units occupied by low income families. It was further estimate that 35% of all low income housing had lead-based paint hazards. The study also noted the prevalence of lead-based paint increases with age of housing. However, most painted surfaces, even in older homes don't have lead paint. Geography was found to be related to the incidence of lead-based paint with the Northeast and Midwest having 2 times the prevalence of lead paint than the South and West. Finally, the study recommends "public-private sector resources be directed units posing the greatest risk" as a preventive measure to avoid lead poisoning.

In April 2011, the U.S. Department of Housing and Urban Development, Office of Healthy Homes and Lead Hazard Control updated its 1998-2000 nationwide report in its publication, "American Healthy Homes Survey, Lead and Arsenic Findings". This report, conducted from June 2005 through March 2006, estimated 37.1 million homes (34.9%) out of a total of 106 million total housing units have lead-based paint somewhere in the building. Of the 65.6 million homes built before 1978, 34.4 million (52%) have lead-based paint. The study reaffirmed the previous finding that the prevalence of lead-based paint is higher in the Northeast and Midwest parts of the United States than South and West. It also confirmed earlier finding that the incidence of lead-based paint increases with age of housing with 86% of the homes built prior to 1940 containing lead. An estimated 3.6 million homes with children less than 6 years of age have lead-based paint hazards of which 1.1 million are low income households. Of the 16.8 million homes with children under the age of 6, 5.7 million (34%) have lead-based paint, about the same incidence of lead-based paint in all homes.

In June 2006, the Oklahoma State Department of Health's Childhood Lead Poisoning Prevention Program (OCLPPP) received a 5-year project grant "Oklahoma Childhood Lead Poisoning Prevention Program Focusing in High Risk Groups". That program focused on communities evidencing high numbers of children 6-72 months of age who are at high risk for lead poisoning.

In order to more effectively target high-risk areas and populations, the OCLPPP identified 21 high-risk target area (HRTA) zip codes (see Exhibit #1) located within Oklahoma, Tulsa, Muskogee, Jackson, Okmulgee, Ottawa, Kay, Garfield, and Hughes counties. These 21 zip codes were narrowed from a list of 57 zip codes out of the state's approximately 700 zip codes that with populations of 5,000 or more persons; greater than or equal to 22% of housing stock built prior to 1950; and, greater than or equal to 18% of children under the age of 6 years living below the poverty level.

The 57 zip codes were further compared and evaluated based on selected characteristics such as EBLL cases and proportion of minority population. Zip codes with higher EBLL prevalence and/or minority populations (Hispanic/African American/American Indian) were ranked higher and given the designation as HRTA zip codes.

Cleveland County Findings

The number of housing units in Cleveland County containing lead-based paint hazards can be estimated by applying the percentages of housing units with such hazards reported by the American

Healthy Homes Survey, to the number of occupied homes in Cleveland County, by year of construction. The following table presents the percentage of housing units in the Census Bureau South Region based on the AHHS findings.

Housing Units in the South Census Region with Lead-Based Paint Hazards by Year of Construction

Year of Construction	No. of Housing Units (000s)	Units w/ LBP Hazards (000s)	Percent of Units w/ LBP Hazards
1978-2005	18,625	664	3.6%
1960-1977	11,724	1,311	11.2%
1940-1959	5,575	2,145	38.5%
1939 or Earlier	3,072	1,947	63.4%
Total	**38,996**	**6,067**	**15.6%**

Source: U.S. Dept. of Housing and Urban Development, American Healthy Homes Survey, Table 5-1

These percentages can then be applied to the number of housing units in Cleveland County, by year of construction and by tenure (owner-occupied versus renter-occupied), as reported by HUD's Comprehensive Housing Affordability Strategy (CHAS) data for Cleveland County.

Total Housing Units in Cleveland County with Lead-Based Paint Hazards by Tenure

Total Owner-Occupied Housing Units	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	43,066	3.57%	1,535
1960-1977	16,700	11.18%	1,867
1940-1959	3,500	38.48%	1,347
1939 or Earlier	1,290	63.38%	818
Total	**64,555**	**8.62%**	**5,567**
Total Renter-Occupied Housing Units	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	15,965	3.57%	569
1960-1977	9,720	11.18%	1,087
1940-1959	2,990	38.48%	1,150
1939 or Earlier	865	63.38%	548
Total	**29,540**	**11.36%**	**3,355**
Total Housing Units	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	59,031	3.57%	2,104
1960-1977	26,420	11.18%	2,954
1940-1959	6,490	38.48%	2,497
1939 or Earlier	2,155	63.38%	1,366
Total	**94,095**	**9.48%**	**8,922**

Sources: American Healthy Homes Survey Table 5-1 & CHAS Table 12

Finally, we can use the same methodology to estimate the number of housing units in Cleveland County with lead-based paint hazards, occupied by households with low-to-moderate incomes, by tenure:

Housing Units in Cleveland County with Lead-Based Paint Hazards by Tenure, Occupied by Low-Income Families

Owner-Occupied Housing Units < 50% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	3,695	3.57%	132
1960-1977	2,070	11.18%	231
1940-1959	705	38.48%	271
1939 or Earlier	215	63.38%	136
Total	**6,685**	**11.53%**	**771**
Renter-Occupied Housing Units < 50% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	5,516	3.57%	197
1960-1977	3,744	11.18%	419
1940-1959	1,480	38.48%	569
1939 or Earlier	535	63.38%	339
Total	**11,275**	**13.52%**	**1,524**
Total Housing Units < 50% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	9,211	3.57%	328
1960-1977	5,814	11.18%	650
1940-1959	2,185	38.48%	841
1939 or Earlier	750	63.38%	475
Total	**17,960**	**12.78%**	**2,295**

Sources: American Healthy Homes Survey Table 5-1 & CHAS Table 12

Housing Units in Cleveland County with Lead-Based Paint Hazards by Tenure, Occupied by Moderate-Income Families

Owner-Occupied Housing Units 50%-80% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	4,752	3.57%	169
1960-1977	2,579	11.18%	288
1940-1959	575	38.48%	221
1939 or Earlier	170	63.38%	108
Total	**8,075**	**9.74%**	**787**
Renter-Occupied Housing Units 50%-80% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	3,797	3.57%	135
1960-1977	2,583	11.18%	289
1940-1959	800	38.48%	308
1939 or Earlier	135	63.38%	86
Total	**7,315**	**11.18%**	**818**
Total Housing Units 50%-80% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	8,549	3.57%	305
1960-1977	5,162	11.18%	577
1940-1959	1,375	38.48%	529
1939 or Earlier	305	63.38%	193
Total	**15,390**	**10.42%**	**1,604**

Sources: American Healthy Homes Survey Table 5-1 & CHAS Table 12

To conclude, we estimate that there are a total of 8,922 homes in Cleveland County containing lead-based paint hazards, 5,567 owner-occupied and 3,355 renter-occupied. Of the 8,922 homes in the county estimated to have lead-based paint hazards, 2,295 are estimated to be occupied by households with low-incomes (incomes less than 50% of Area Median Income), and 1,604 are estimated to be occupied by households with moderate incomes (between 50% and 80% of Area Median Income), for a total of 3,899 housing units in Cleveland County with lead-based paint hazards occupied by households with low or moderate incomes.

Lead-Based Paint Hazards in Homes with Children Present

Using the same methodology, we can estimate the number of housing units in Cleveland County occupied by households with children under the age of six present. For this analysis we apply the lead-based paint hazards percentages from the American Healthy Homes Survey to the data in HUD CHAS Table 13, which details housing units by year of construction, household income, and presence of children under the age of six. The data is presented in the following table:

Housing Units in Cleveland County with Lead-Based Paint Hazards with Children under Age 6 Present Occupied by Low or Moderate-Income Families

Housing Units < 50% AMI w/ Children under 6 Present	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	1,636	3.57%	58
1940-1977	1,439	19.98%	288
1939 or Earlier	90	63.38%	57
Total	**3,165**	**12.73%**	**403**
Housing Units 50%-80% AMI w/ Children under 6 Present	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	1,809	3.57%	64
1940-1977	1,116	19.98%	223
1939 or Earlier	29	63.38%	18
Total	**2,954**	**10.35%**	**306**
Total LMI Housing Units w/ Children Present	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	3,445	3.57%	123
1940-1977	2,556	19.98%	511
1939 or Earlier	119	63.38%	75
Total	**6,119**	**11.58%**	**709**
Total Housing Units w/ Children Present	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	11,285	3.57%	402
1940-1977	5,320	19.98%	1,063
1939 or Earlier	264	63.38%	167
Total	**16,869**	**9.68%**	**1,632**

Sources: American Healthy Homes Survey Table 5-1 & CHAS Table 13

As shown, we estimate there are 1,632 housing units in Cleveland County with lead-based paint hazards and children under the age of six present, and that 709 of those housing units are occupied by families with low to moderate incomes.

Research Footnotes/Sources

Oklahoma Department of Commerce, “State of Oklahoma Five-Year E-Consolidated Plan FY 2014 – 2018”

“The Prevalence of Lead-Based Paint Hazards in U.S. Housing”, Environmental Health Perspectives, Volume 110, Number 10, October 2002

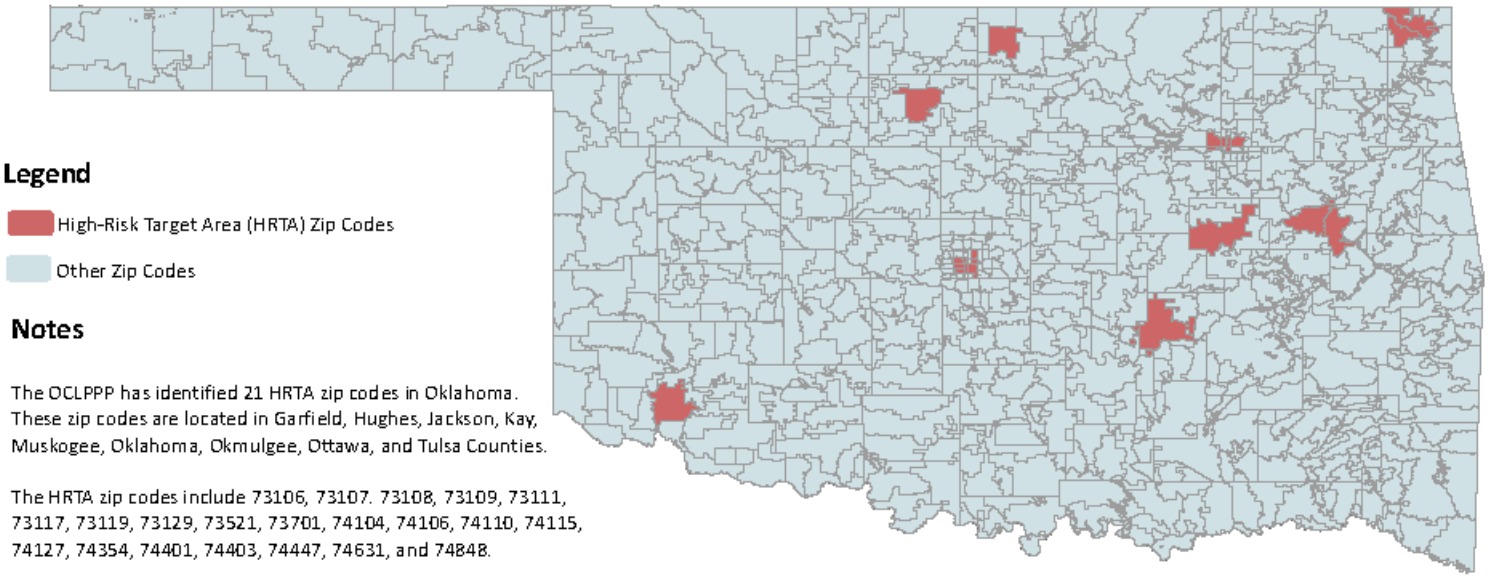
U.S. Department of Housing and Urban Development, Office of Healthy Homes and Lead Hazard Control, “American Healthy Homes Survey, Lead and Arsenic Findings”, April 2011

Oklahoma State Department of Health, Oklahoma Childhood Lead Poisoning Prevention Program Focusing in High Risk Groups”

U.S. Department of Housing and Urban Development, Comprehensive Housing Affordability Strategy (CHAS), 2007-2011

Exhibit #1

Map 2: High-RiskTarget Areas (HRTA) Zip Codes for Childhood Lead Poisoning



Legend

High-Risk Target Area (HRTA) Zip Codes

Other Zip Codes

Notes

The OCLPPP has identified 21 HRTA zip codes in Oklahoma. These zip codes are located in Garfield, Hughes, Jackson, Kay, Muskogee, Oklahoma, Okmulgee, Ottawa, and Tulsa Counties.

The HRTA zip codes include 73106, 73107. 73108, 73109, 73111, 73117, 73119, 73129, 73521, 73701, 74104, 74106, 74110, 74115, 74127, 74354, 74401, 74403, 74447, 74631, and 74848.

The HRTA zip codes are identified using the following criteria:

1- Zip codes having the highest proportion of pre-1950 housing;
2- Zip codes having the highest proportion of children under six years of age living in poverty;
3- Zip codes having high elevated blood lead level (EBLL) prevelence rate; and
4- Zip codes having the highest proportion of minority populations.

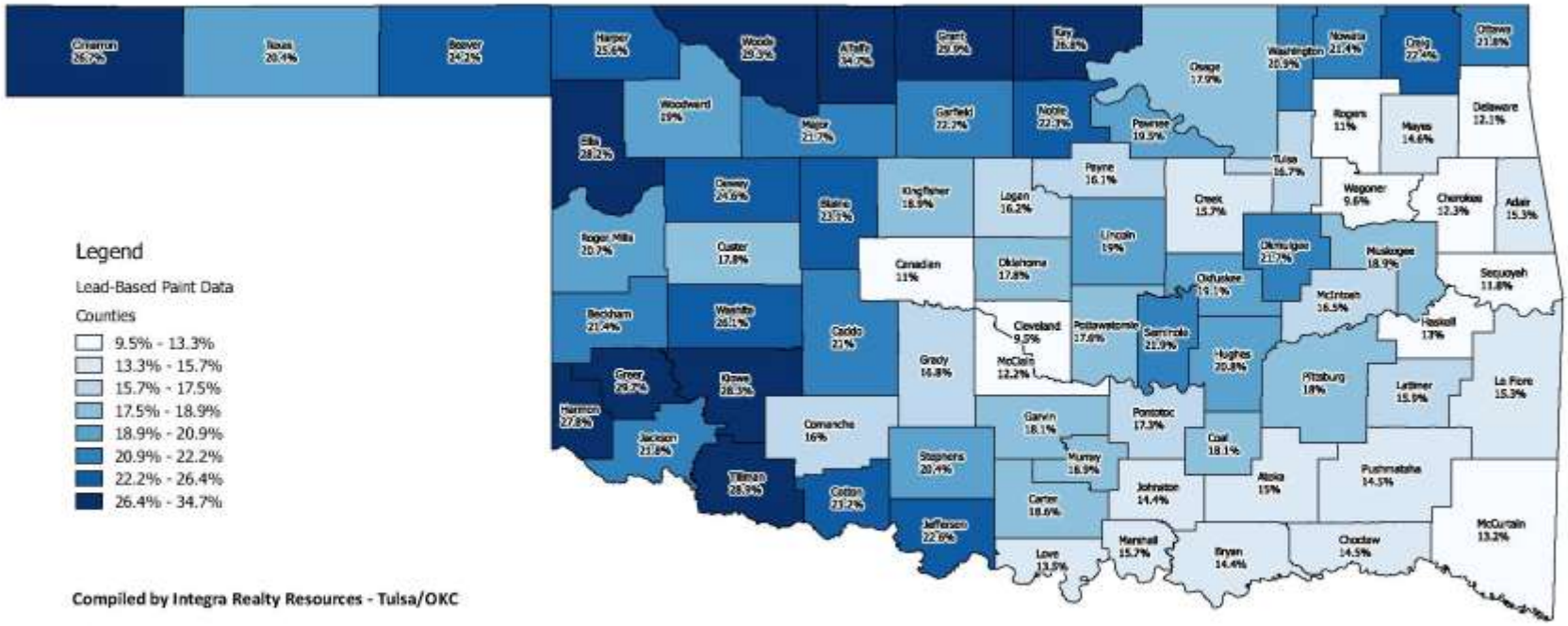
0 40 80 160 Miles

N W E S

Childhood Lead Poisoning Prevention Program
Screening and Special Services
Prevention and Preparedness Service
Oklahoma State Department of Health

Exhibit #2

Percentage of Housing Units Containing Lead-Based Paint Hazards

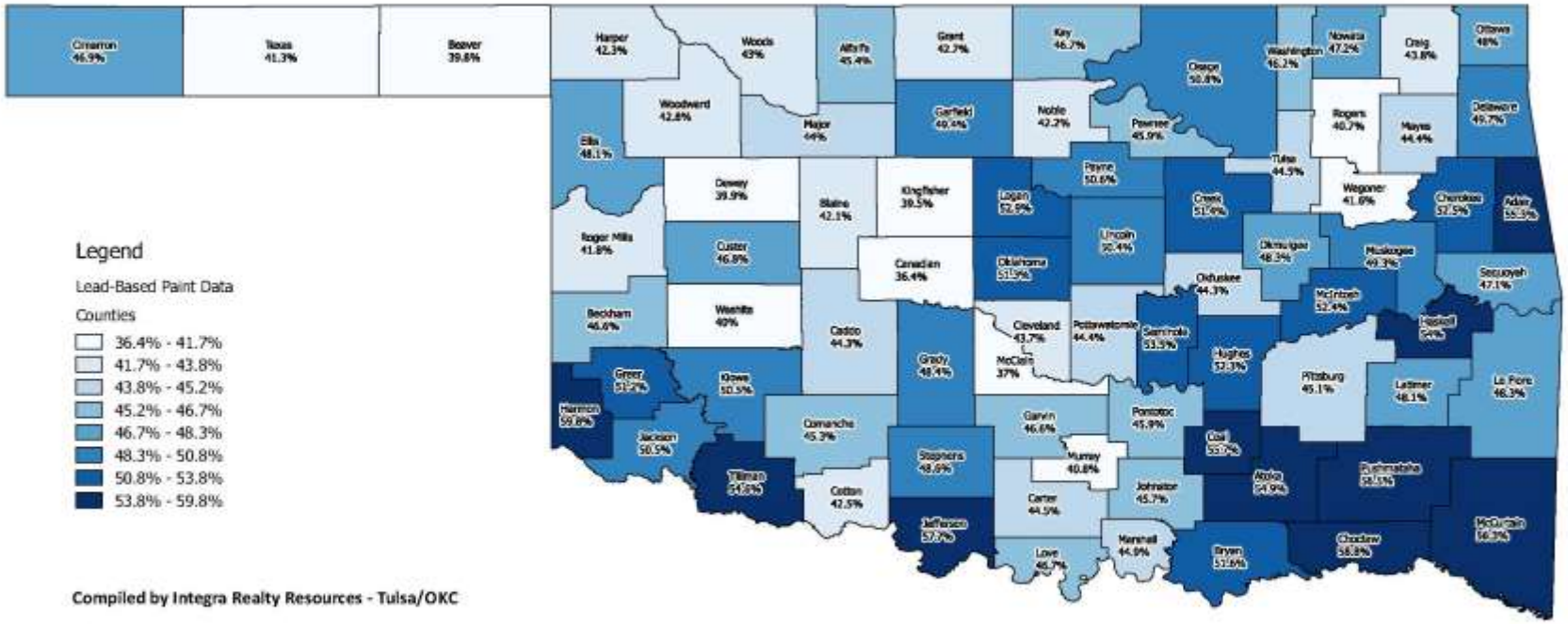


Compiled by Integra Realty Resources - Tulsa/OKC

Sources:
HUD Comprehensive Housing Affordability Strategy Data 2007-2011, Table 13
HUD American Healthy Homes Survey, Table 5-1

Exhibit #3

Percentage of Housing Units Containing Lead-Based Paint Hazards Occupied by Low to Moderate Income Households

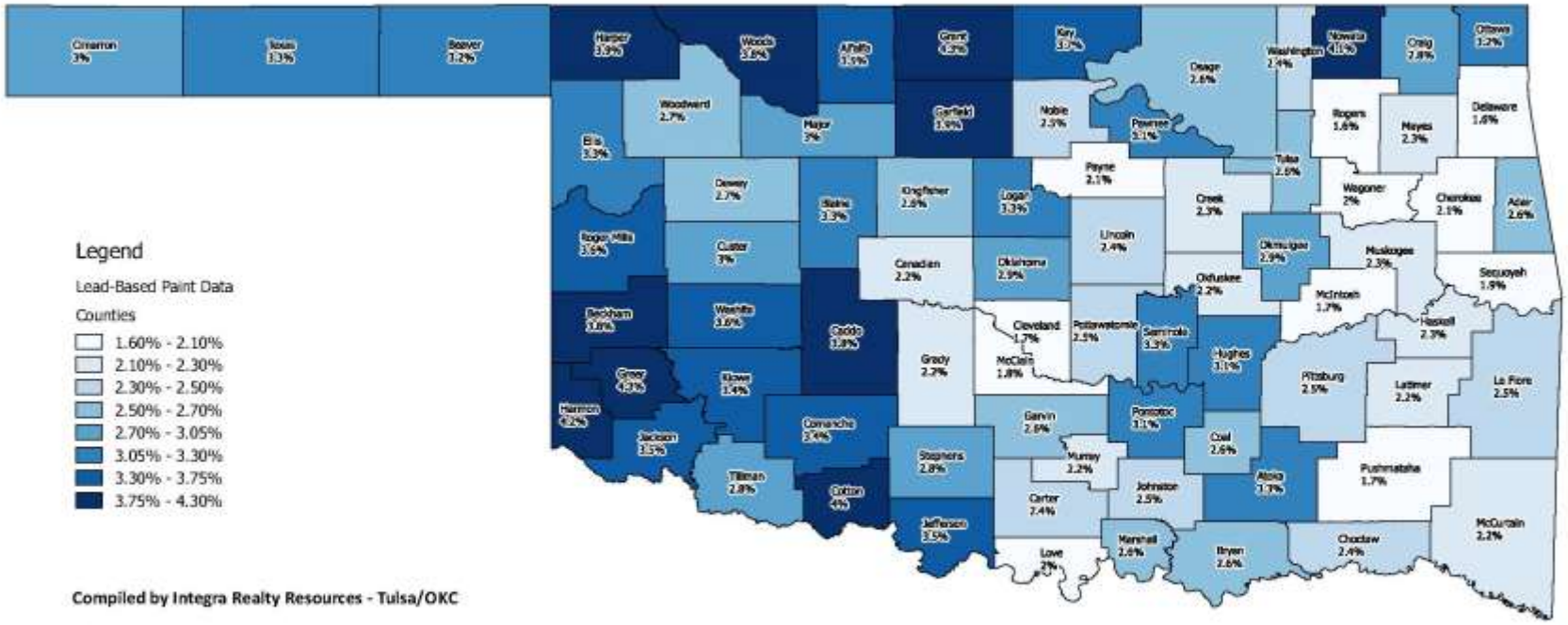


Compiled by Integra Realty Resources - Tulsa/OKC

Sources:
HUD Comprehensive Housing Affordability Strategy Data 2007-2011, Table 13
HUD American Healthy Homes Survey, Table 5-1

Exhibit #4

Percentage of Housing Units Containing Lead-Based Paint Hazards with Children Age 6 or Younger Present

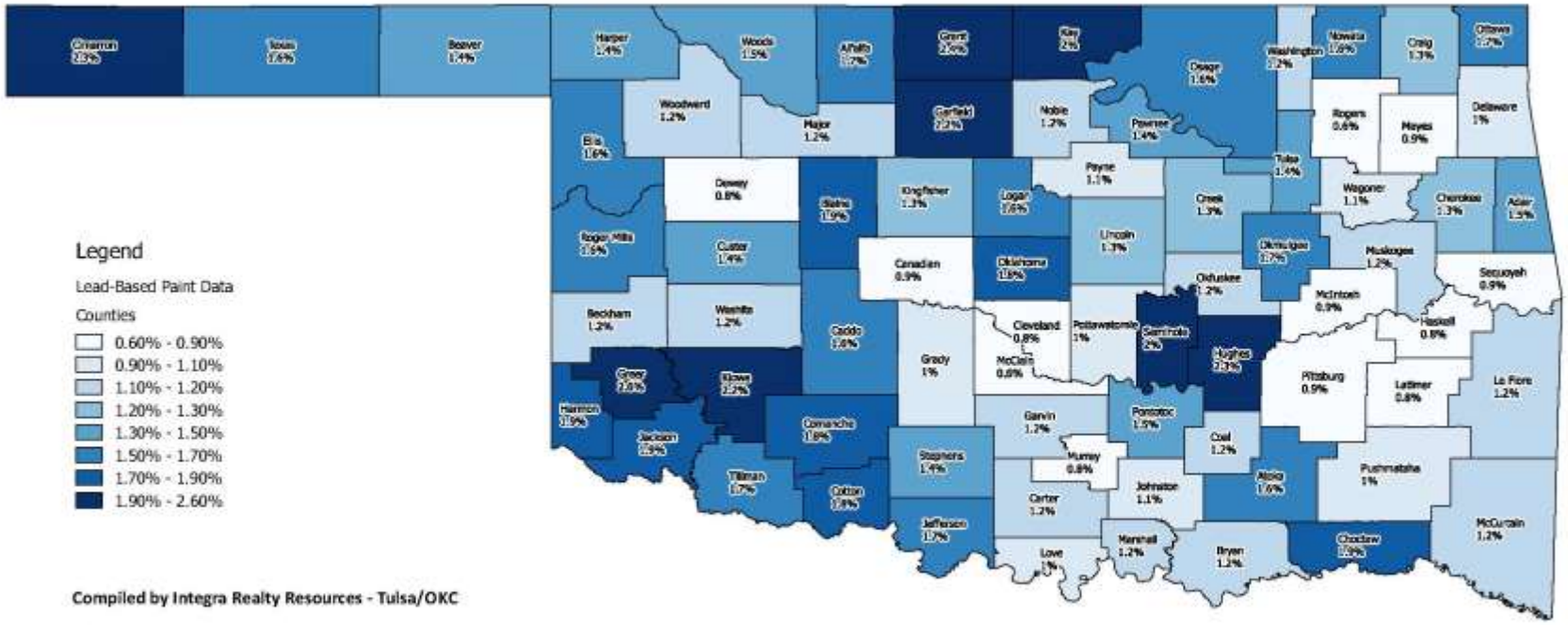


Compiled by Integra Realty Resources - Tulsa/OKC

Sources:
HUD Comprehensive Housing Affordability Strategy Data 2007-2011, Table 13
HUD American Healthy Homes Survey, Table 5-1

Exhibit #5

Percentage of Housing Units Occupied by Low to Moderate Income Households Containing Lead-Based Paint Hazards with Children Age 6 or Younger Present

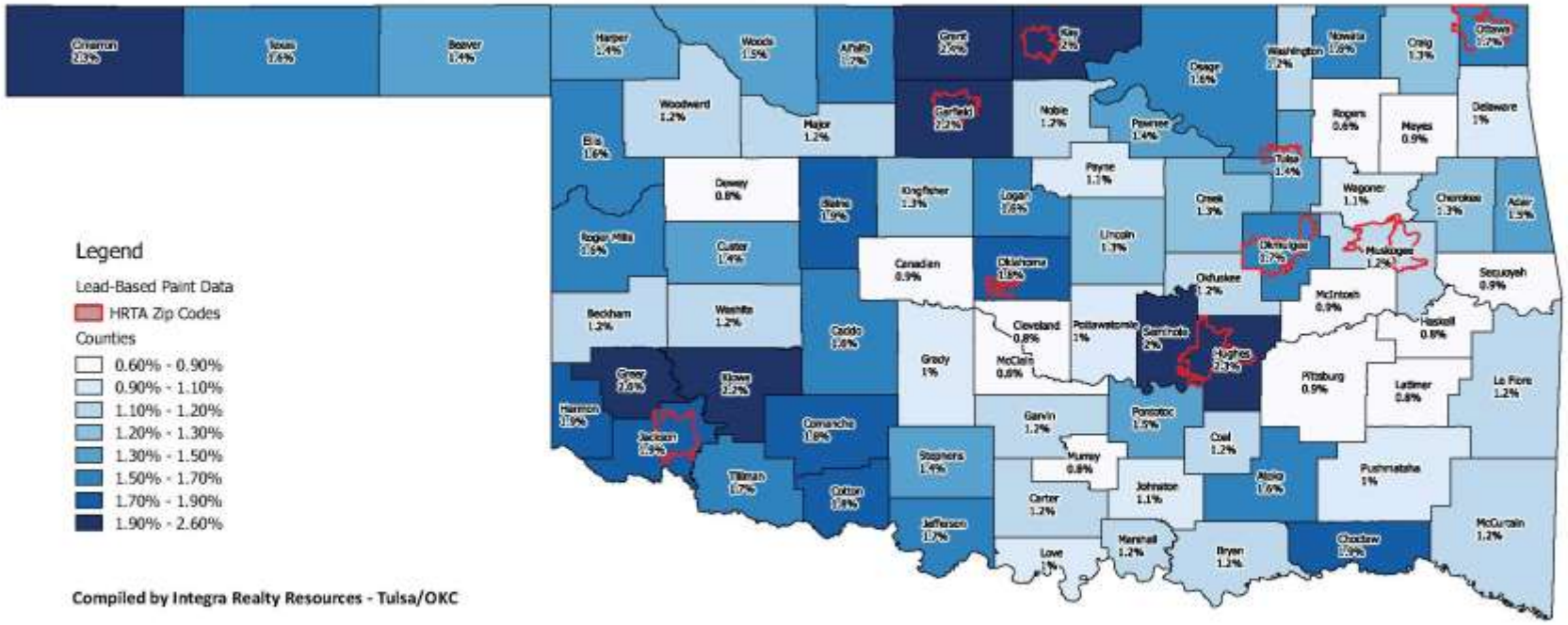


Compiled by Integra Realty Resources - Tulsa/OKC

Sources:
HUD Comprehensive Housing Affordability Strategy Data 2007-2011, Table 13
HUD American Healthy Homes Survey, Table 5-1

Exhibit #6

Percentage of Housing Units Occupied by Low to Moderate Income Households Containing Lead-Based Paint Hazards with Children Age 6 or Younger Present
High-Risk Target Area (HRTA) Zip Codes Highlighted in Red



Compiled by Integra Realty Resources - Tulsa/OKC

Sources:
HUD Comprehensive Housing Affordability Strategy Data 2007-2011, Table 13
HUD American Healthy Homes Survey, Table 5-1

Conclusions

The previous analysis has attempted to describe the state of the residential housing market in Cleveland County, Oklahoma. Where possible, information regarding the population centers of the county was included to assess need on a community level. Much of the information is based on demographic information from local authorities and national information services. However, personal interviews were performed with property owners and managers, real estate professionals, and community officials in an effort to substantiate information from the national organizations and understand current market conditions. Several important issues regarding housing have become apparent through this analysis and are identified below.

Cleveland County has undergone significant growth over the last fifteen years, in terms of population, households and employment levels. New population and employment growth has been met with new housing construction, both for rent and for ownership, and for the most part new housing construction appears to have kept pace with new housing demand. Notable new rental housing developments include The Links of Norman (528 market rate units), The Avenue (314 market rate units), Mission Point (366 market rate units) and Bocage Apartments (56 affordable rental units for senriors). There has been new construction of single family homes for ownership, and although some of this construction appears reasonably affordable (priced near $150,000), the average price of homes constructed since 2014 is estimated to be $267,620 in Norman, and $224,181 in Moore: these figures are well above what could be afforded by a household earning median household income for Cleveland County, estimated to be $58,161 in 2015.

Cleveland County has a very high rate of renters with high rent costs (45.45%). The percentage of overburdened homeowners is slightly lower than the state (18.71% in Cleveland County versus 19.12% statewide). The county's poverty rate is well below the state, at 12.87% compared with 16.85% statewide.

In terms of disaster resiliency we note that 69 tornadoes have impacted the county between 1959 and 2014, with 1,127 injuries and 73 fatalities combined, with a significant disaster in the community of Moore in May 2013. Cleveland County and is local governments should continue to update and maintain the county Hazard Mitigation Plan and include attention to areas within the county that in addition to physical vulnerability may have compounding social vulnerability factors. Working through the priorities and projects within the Cleveland County HMP will help strengthen the ability to reduce loss of life and property as well as recover more effectively after an event.

Cleveland County is located within the Norman / Cleveland County Continuum of Care (CoC), which provides services to the area's homeless populations among other functions. Within its jurisdiction there are an estimated 140 homeless persons, 118 of which are estimated to be sheltered. Notable subpopulations within the area are the chronically homeless, mentally ill, and victims of domestic violence. We note that women (either with or without children) receive ample housing services through the Women's Resource Center.

In terms of fair housing issues, many affordable housing units are located in areas at risk for poverty, in primarily non-white enclaves, in neighborhoods where limited English is spoken, and in areas with high numbers of persons with one or more disabilities. 214 units are identified as being located in a food desert, and we note that 718 affordable housing units lack readily available transit.

Due to the age of the county's housing stock, lead-based paint hazards are an issue, with an estimated 8,922 occupied housing units with such hazards, and 1,632 of those units occupied by low-to-moderate income households with children under the age of 6 present.

In summary, it is apparent that new housing in several categories is required in Cleveland County. While the upper end of the market is being satisfied, the lower end of the population that requires rental and moderate cost ownership property has a more limited product available. As the population continues to grow in Cleveland County as a whole, this demand will continue to increase. We estimate the county will need 4,777 housing units for ownership and 2,312 housing units for rent over the next five years, in order to accommodate projected population and household growth. These units should include a mixture of both market rate rental units, affordable housing units, and housing for ownership affordable to a range of incomes.

Addendum A

Acknowledgments

The Housing Needs Assessment research team extends a special thanks to the following individuals and organizations for their many contributions of data, program information and time that helped make this project possible:

University of Oklahoma Intern Team

Derrick “Rhys” Wilson, Eyakem Gulilat, Chase Phillips, Jane Wyrick, Charlotte Adcock,Sam Shreder, Jacquelyn Porter, Amy Wilson, Kevin Wang, Lora Gwartney, Forrest Bennett, Maryam Moradian, Salma Al Nairab

Federal Agencies

Federal Reserve Bank of Kansas City-Oklahoma City Branch, Steven Shepelwich

US Federal Emergency Management Agency, Harold Latham

US Department of Housing and Urban Development Oklahoma City Field Office, Jackie McBride

Oklahoma State Agencies

Department of Health Karen Fenserly, Susan J. Quigley and Marisa New

Department of Human Services, Connie Schlittler

Department of Emergency Management Dara Hayes

Department of Commerce, Rebekah Zahn-Pittser

Local Organizations

Regional Council of Governments and Oklahoma Association of Regional Councils

Continuums of Care Network

Hazard Mitigation Plan personnel/administrators

Community economic development professionals

City Managers and Planners

Community Action Agencies

Chambers of Commerce

Affordable housing developers, owners and investors

Homeless Alliance, Dan Straughan, Sunshine Hernandez

Pathways, Patrice Pratt

Women's Resource Center, Vanessa Morrison

AIDS Care Fund, Sunshine Schillings

Addendum B

Qualifications

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Experience

Senior Managing Director of Integra Realty Resources - Tulsa/OKC, a full service valuation and consulting firm. Actively engaged in real estate valuation and consulting assignments since 1984, Mr. Ard has performed appraisal services consisting of narrative and summary real estate appraisals, ad valorem tax protests, consulting, litigation support services, market and feasibility studies, reviews, market study analyses and appraisals in connection with allocation of tax credits, brokerage services for commercial and residential transactions, property management, and expert litigation testimony. All types of real property are encompassed -apartments, ranches, theaters, hotel/motel, multi-purpose and resort properties, golf courses, high-rise and garden office buildings, manufacturing facilities, warehousing and distribution centers, nursing homes, assisted living facilities, banks, shopping centers and malls, residential subdivisions, industrial parks, and sports arenas. Valuations and market studies have been prepared on proposed, partially completed, renovated and existing structures. Appraisals have been made for condemnation purposes, estates, mortgage financing, equity participation and due diligence support. Clients served include corporations, law firms, financial institutions, investment firms and public/private agencies.

Professional Activities & Affiliations

Central Oklahoma Chapter, Appraisal Institute (Past Chapter President)
National Association of Realtors
Urban Land Institute
National Council of Affordable Housing Market Analysts
Appraisal Institute National Committees
Tulsa Metropolitan Area Planning Commission
Tulsa Preservation Commission
Tulsa Local Development Act Review Committee
Appraisal Institute, Member (MAI)

Licenses

Oklahoma, Oklahoma General Appraiser License, 11245CGA, Expires April 2018

Education

B.S.B.A. Degree, Marketing, University of Tulsa, Tulsa, Oklahoma (1984)

Successfully completed numerous real estate related courses and seminars sponsored by the Appraisal Institute, accredited universities and others.

Currently certified by the Appraisal Institute's voluntary program of continuing education for its designated members.

Qualified Before Courts & Administrative Bodies

District Court of Tulsa County, Oklahoma
District Court of Oklahoma County, Oklahoma
District Court of Garfield County, Oklahoma
Tulsa County Board of Equalization

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Owen S. Ard, MAI

Qualified Before Courts & Administrative Bodies (Cont'd)

Kansas Board of Tax Appeals
United States Federal Bankruptcy Court, Tulsa, Oklahoma
United States Federal Bankruptcy Court, Minneapolis, Minnesota
United States Federal Bankruptcy Court, Jackson, Mississippi

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Experience

Senior Director with Integra Realty Resources - Oklahoma, a full service valuation and consulting firm. Actively engaged in real estate valuation and consulting assignments since May 2002, Mr. Puckett has performed appraisal services consisting of narrative and summary real estate appraisals. All types of real property are encompassed-apartments, garden office buildings, manufacturing and warehouse industrial buildings, mobile home parks, restaurants and retail structures. Valuations and market studies have been prepared on proposed and existing structures. Appraisals have been made for estates, mortgage financing, equity participation and due diligence support. Prior to his employ at Integra Realty Resources - Oklahoma, Mr. Puckett was an employee of the University of Oklahoma Center for Business and Economic Development, working as a data analyst for the All County Affordable Housing Study commissioned by the Oklahoma Department of Commerce. Responsibilities included demographic, economic and real estate data collection from federal, state and local sources, as well as interviews of regional planning district, county and municipal officials, real estate market experts and local economic development experts. Mr. Puckett was responsible for site visits of 23 of the 77 Oklahoma counties, and personally authored 18 of the final reports. As an employee of IRR-Oklahoma, Mr. Puckett also performed the site visits and authored the final reports for four of the nine entitlement cities: Tulsa, Broken Arrow, Shawnee and Lawton. Mr. Puckett has also completed numerous housing market studies for use in applications for Federal Low-Income Housing Tax Credits in Oklahoma, Kansas, Missouri and Arkansas, and has performed market studies and appraisals for use in H.U.D.'s Multifamily Accelerated Processing (M.A.P.) program. Clients served include corporations, financial institutions, investment firms and public/private agencies.

Professional Activities & Affiliations

Appraisal Institute-Candidate for Designation

Licenses

Oklahoma, Oklahoma General Appraiser License, 12795CGA, Expires December 2016

Education

University of Oklahoma, Norman – Bachelor of Arts (Economics)

Successfully completed the following Appraisal Institute courses and seminars:

- Uniform Standards of Professional Appraisal Practice, 15-Hour
- Introduction to Income Capitalization Seminar
- Basic Income Capitalization 310
- Advanced Income Capitalization 510
- Highest and Best Use and Market Analysis 520
- Advanced Sales Comparison and Cost Approaches 530
- Report Writing and Valuation Analysis 540
- Advanced Concepts and Case Studies
- Real Estate Finance Statistics and Valuation Modeling
- Business Practices and Ethics 420

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Integra Realty Resources, Inc.
Corporate Profile

Integra Realty Resources, Inc. offers the most comprehensive property valuation and counseling coverage in North America with over 60 independently owned and operated offices located throughout the United States and the Caribbean. Integra was created for the purpose of combining the intimate knowledge of well-established local firms with the powerful resources and capabilities of a national company. Integra offers integrated technology, national data and information systems, as well as standardized valuation models and report formats for ease of client review and analysis. Integra's local offices have an average of 25 years of service in the local market, and virtually all are headed by a Senior Managing Director who is an MAI member of the Appraisal Institute.

A listing of IRR's local offices and their Senior Managing Directors follows:

ATLANTA, GA - Sherry L. Watkins., MAI, FRICS
AUSTIN, TX - Randy A. Williams, MAI, SR/WA, FRICS
BALTIMORE, MD - G. Edward Kerr, MAI, MRICS
BIRMINGHAM, AL - Rusty Rich, MAI, MRICS
BOISE, ID - Bradford T. Knipe, MAI, ARA, CCIM, CRE, FRICS
BOSTON, MA - David L. Cary, Jr., MAI, MRICS
CHARLESTON, SC - Cleveland "Bud" Wright, Jr., MAI
CHARLOTTE, NC - Fitzhugh L. Stout, MAI, CRE, FRICS
CHICAGO, IL - Eric L. Enloe, MAI, FRICS
CINCINNATI, OH - Gary S. Wright, MAI, FRICS, SRA
CLEVELAND, OH - Douglas P. Sloan, MAI
COLUMBIA, SC - Michael B. Dodds, MAI, CCIM
COLUMBUS, OH - Bruce A. Daubner, MAI, FRICS
DALLAS, TX - Mark R. Lamb, MAI, CPA, FRICS
DAYTON, OH - Gary S. Wright, MAI, FRICS, SRA
DENVER, CO - Brad A. Weiman, MAI, FRICS
DETROIT, MI - Anthony Sanna, MAI, CRE, FRICS
FORT WORTH, TX - Gregory B. Cook, SR/WA
GREENSBORO, NC - Nancy Tritt, MAI, SRA, FRICS
GREENVILLE, SC - Michael B. Dodds, MAI, CCIM
HARTFORD, CT - Mark F. Bates, MAI, CRE, FRICS
HOUSTON, TX - David R. Dominy, MAI, CRE, FRICS
INDIANAPOLIS, IN - Michael C. Lady, MAI, SRA, CCIM, FRICS
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JACKSONVILLE, FL - Robert Crenshaw, MAI, FRICS
KANSAS CITY, MO/KS - Kenneth Jaggers, MAI, FRICS
LAS VEGAS, NV - Charles E. Jack IV, MAI
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LOS ANGELES, CA - Matthew J. Swanson, MAI
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MEMPHIS, TN - J. Walter Allen, MAI, FRICS
MIAMI/PALM BEACH, FL- Anthony M. Graziano, MAI, CRE, FRICS
MINNEAPOLIS, MN - Michael F. Amundson, MAI, CCIM, FRICS
NAPLES, FL - Carlton J. Lloyd, MAI, FRICS
NASHVILLE, TN - R. Paul Perutelli, MAI, SRA, FRICS
NEW JERSEY COASTAL - Halvor J. Egeland, MAI
NEW JERSEY NORTHERN - Matthew S. Krauser, CRE, FRICS
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RALEIGH, NC - Chris R. Morris, MAI, FRICS
RICHMOND, VA - Kenneth L. Brown, MAI, CCIM, FRICS
SACRAMENTO, CA - Scott Beebe, MAI, FRICS
ST. LOUIS, MO - P. Ryan McDonald, MAI, FRICS
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SAN DIEGO, CA - Jeff A. Greenwald, MAI, SRA, FRICS
SAN FRANCISCO, CA - Jan Kleczewski, MAI, FRICS
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SAVANNAH, GA - J. Carl Schultz, Jr., MAI, FRICS, CRE, SRA
SEATTLE, WA - Allen N. Safer, MAI, MRICS
SYRACUSE, NY - William J. Kimball, MAI, FRICS
TAMPA, FL - Bradford L. Johnson, MAI, MRICS
TULSA, OK - Owen S. Ard, MAI
WASHINGTON, DC - Patrick C. Kerr, MAI, FRICS, SRA
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EDUCATION:

Ph.D. Urban and Regional Planning, Florida State University, Tallahassee, FL, 2004.

J.D./M.U.P. Law and Urban Planning, University of Kansas, Lawrence, KS, 2000.

B.S. Urban Affairs and Theatre Arts, Bradley University, Peoria, IL, 1996.

RESEARCH INTERESTS:
The legal aspects of land use, affordable housing, historic preservation and aesthetics regulation at the federal, state, and local level.

WORK EXPERIENCE:
Associate Professor and Director of Regional and City Planning, University of Oklahoma (07/12-present)

Assistant Professor with a Joint Appointment in Planning and Law, University of Florida (01/08-6/12)

Director of the Center for Building Better Communities, University of Florida (05/11-06/12)

Assistant Professor and Minor Program Coordinator, Texas A&M University (01/05-12/07)

Lecturer, Rutgers University Blounstein Institute (01/06-present)

Lecturer, Texas A&M University (01/04-12/04)

Adjunct Professor, Florida State University (01/03-12/03)

Graduate Teaching Assistant, Florida State University (05/02-12/03)

Legal Intern, 1000 Friends of Florida (05/02-12/03)

Associate, Holland & Knight LLP (05/00-08/01)

AWARDS:

Student Planning Award for the Pinellas County Post Disaster Ordinance Drafting Project from the Florida Chapter of the American Planning Association, Fall, 2011.

Award for Service as the University Liaison to the Florida Chapter of the American Planning Association, Fall, 2010.

Teacher of the year award by the UF Student Planning Association, April, 2010.

Best paper in the real estate valuation category by the Appraisal Institute with Kimberly Geideman and Shan Gao, Fall, 2009.

Excellence in Teach Award by the College of Architecture of Texas A & M University, September, 2005.

Student Planning Award by the Texas Chapter of the American Planning Association, Fall, 2007.

Early Dissertation Research Grant to Study the Effects of Intergenerational Planning on Relocation Grief from the U.S. Department of Housing and Urban Development, November, 2003.

COURSES TAUGHT:

Principles and Practice of Urban Planning (graduate level, at the University of Oklahoma)

Land Use Controls (graduate level, at the University of Oklahoma)

Sociology of Housing (graduate level, at the University of Oklahoma with Dean Charles Graham)

Growth Management Powers II (graduate-law course, at the University of Florida)

Growth Management Powers I (graduate-law course, at the University of Florida)

Affordable Housing Law (graduate-law course, at the University of Florida)

Planning History and Theory (graduate level, at the University of Florida and Texas A&M University)

Land Use Planning Law (law school, at the University of Florida College of Law)

Land Development Law (graduate level, at Texas A&M University)

Historic Preservation Law (graduate level, at Texas A&M University)

Introduction to Urban Planning (undergraduate level, at Texas A&M University and Florida State University)

Attorney-Client Communications (undergraduate level, at Florida State University)

Legal Communications (undergraduate level, at Florida State University)

Environmental Law (continuing education, at Rutgers University)

Historic Preservation Law (continuing education, at Rutgers University)

Ordinance Drafting (continuing education, at Rutgers University)

PUBLICATIONS:

Refereed Journal Articles

K. Frank, J. Macedo, and **D. Jourdan**, Fostering Rural Adaptive Capacity for Sea Level Rise Planning Using Methods of Community Engagement (pending review- special edition of the Journal of the Community Development Society).

D. Jourdan and S. Pilat, Preserving Public Housing: Federal, State and Local Efforts to Preserve the Social and Architectural Forms Associated with Housing for the Poor in the *Journal of Preservation Education and Research* (*forthcoming*).

Ozor, B., K. Frank, and **D. Jourdan,** Confronting Wicked Problems with Games: How Role-Play Informs Planning for Sea Level Rise in Northeast Florida (pending review).

Jourdan, D., A. Ray, and L. Thompson**,** Relocating from Subsidized Housing in Florida: Are Residents Moving to Opportunity in *Journal of Housing and Community Development Law (forthcoming).*

Jourdan, D., K. Hurd, W. Gene Hawkins, and K. Winson Geideman, Evidence Based Sign Regulation: Regulating Signage on the Basis of Empirical Wisdom in *The Urban Lawyer,* 45:2, Spring 2014, 327-348.

Jourdan, D. S. Van Zandt, and E. Tarleton, Coming home: Resident satisfaction regarding return to a revitalized HOPE VI community in *Cities available at:* http://www.sciencedirect.com/science/article/pii/S0264275113000322, 2013.

Jourdan, D., A Response to Mandelker's Free Speech Law for On Premise Signs in *Planning and Environmental Law, 65:4, 2013, 4-10.*

Land Development Law (graduate level, at Texas A&M University)

Historic Preservation Law (graduate level, at Texas A&M University)

Introduction to Urban Planning (undergraduate level, at Texas A&M University and Florida State University)

Attorney-Client Communications (undergraduate level, at Florida State University)

Legal Communications (undergraduate level, at Florida State University)

Environmental Law (continuing education, at Rutgers University)

Historic Preservation Law (continuing education, at Rutgers University)

Ordinance Drafting (continuing education, at Rutgers University)

PUBLICATIONS:

Refereed Journal Articles

K. Frank, J. Macedo, and **D. Jourdan**, Fostering Rural Adaptive Capacity for Sea Level Rise Planning Using Methods of Community Engagement (pending review- special edition of the Journal of the Community Development Society).

D. Jourdan and S. Pilat, Preserving Public Housing: Federal, State and Local Efforts to Preserve the Social and Architectural Forms Associated with Housing for the Poor in the *Journal of Preservation Education and Research* (*forthcoming*).

Ozor, B., K. Frank, and **D. Jourdan,** Confronting Wicked Problems with Games: How Role-Play Informs Planning for Sea Level Rise in Northeast Florida (pending review).

Jourdan, D., A. Ray, and L. Thompson**,** Relocating from Subsidized Housing in Florida: Are Residents Moving to Opportunity in *Journal of Housing and Community Development Law (forthcoming).*

Jourdan, D., K. Hurd, W. Gene Hawkins, and K. Winson Geideman, Evidence Based Sign Regulation: Regulating Signage on the Basis of Empirical Wisdom in *The Urban Lawyer,* 45:2, Spring 2014, 327-348.

Jourdan, D. S. Van Zandt, and E. Tarleton, Coming home: Resident satisfaction regarding return to a revitalized HOPE VI community in *Cities available at:* http://www.sciencedirect.com/science/article/pii/S0264275113000322, 2013.

Jourdan, D., A Response to Mandelker's Free Speech Law for On Premise Signs in *Planning and Environmental Law, 65:4, 2013, 4-10.*

Jourdan, D., Enhancing HOPE VI Revitalization Processes with Participation, in *Journal of the Community Development Society*, Vol. 39:No. 2, 2008, pp. 75-90.

Jourdan, D., Reducing Pre-Relocation Grief with Participation in a HOPE VI Grant Application Process, in *International Journal of Public Participation, Vol. 2:No. 2*, 2008, pp. 75-92.

Jourdan, D., Mending Fences: Resolving Neighbor Disputes With Squatters Settlements in Belize, in *PACE Institute for Environmental and Regional Studies Proceedings*, Vol. 4, 2004, pp. 135-149.

White, S. M. and **D. Jourdan**, Neotraditional Development: A Legal Analysis, in *Land Use Law and Zoning Digest* (1999).

Books

Jourdan, D. and E. Strauss. Planner's Guide to Land Use Law: Planning for Wicked Problems, NY: Routledge (under contract).

Book Chapters and Entries

Jamal, T. and **D. Jourdan**. Interdisciplinary Tourism Education in Interdisciplinary Teaching and Learning in Higher Education: theory and practice. *Interdisciplinary Learning and Teaching in Higher Education: theory and practice*. Dr Balasubramanyam Chandramohan and Dr Stephen Fallows (eds.), London: Routledge Falmer. (2008).

D. Jourdan. Grounding Theory: Developing New Theory on Intergenerational Participation in Qualitative Methods for Housing Research. *Qualitative Housing Research Methods*. Paul Maquin (ed.), London: Elsevier. (2008).

Non-Refereed Publications

Jourdan, D., Hawkins, G., Winson-Geideman, K., and R. Abrams. The Model Sign Code. International Sign Association (December, 2008).

Winson-Geideman, K., **D. Jourdan** and S. Gao. The Effects of Adaptive Reuse by the Savannah College of Art & Design on Property Value and Community Change in Savannah, Georgia. *Lincoln Land Institute Working Papers* (December, 2006).

Jourdan, D. Bomb Proof Schools. *Plan Canada*. (Fall, 2006).

Van Zandt, S., Jourdan, D., Martin, J., and C. Giusti. Final Report for Beaumont's HOPE VI Project. Prepared for the Beaumont Housing Authority (December 2012)

Jourdan, D., Enhancing HOPE VI Revitalization Processes with Participation, in *Journal of the Community Development Society*, Vol. 39:No. 2, 2008, pp. 75-90.

Jourdan, D., Reducing Pre-Relocation Grief with Participation in a HOPE VI Grant Application Process, in *International Journal of Public Participation, Vol. 2:No. 2*, 2008, pp. 75-92.

Jourdan, D., Mending Fences: Resolving Neighbor Disputes With Squatters Settlements in Belize, in *PACE Institute for Environmental and Regional Studies Proceedings*, Vol. 4, 2004, pp. 135-149.

White, S. M. and **D. Jourdan**, Neotraditional Development: A Legal Analysis, in *Land Use Law and Zoning Digest* (1999).

Books

Jourdan, D. and E. Strauss. Planner's Guide to Land Use Law: Planning for Wicked Problems, NY: Routledge (under contract).

Book Chapters and Entries

Jamal, T. and **D. Jourdan**. Interdisciplinary Tourism Education in Interdisciplinary Teaching and Learning in Higher Education: theory and practice. *Interdisciplinary Learning and Teaching in Higher Education: theory and practice*. Dr Balasubramanyam Chandramohan and Dr Stephen Fallows (eds.), London: Routledge Falmer. (2008).

D. Jourdan. Grounding Theory: Developing New Theory on Intergenerational Participation in Qualitative Methods for Housing Research. *Qualitative Housing Research Methods*. Paul Maquin (ed.), London: Elsevier. (2008).

Non-Refereed Publications

Jourdan, D., Hawkins, G., Winson-Geideman, K., and R. Abrams. The Model Sign Code. International Sign Association (December, 2008).

Winson-Geideman, K., **D. Jourdan** and S. Gao. The Effects of Adaptive Reuse by the Savannah College of Art & Design on Property Value and Community Change in Savannah, Georgia. *Lincoln Land Institute Working Papers* (December, 2006).

Jourdan, D. Bomb Proof Schools. *Plan Canada*. (Fall, 2006).

Van Zandt, S., Jourdan, D., Martin, J., and C. Giusti. Final Report for Beaumont's HOPE VI Project. Prepared for the Beaumont Housing Authority (December 2012)

Van Zandt, S., Jourdan, D., Martin, J., and C. Giusti. Interim Report for Beaumont's HOPE VI Project. Prepared for the Beaumont Housing Authority (December 2011).

Van Zandt, S., **Jourdan, D.,** Martin, J., and C. Giusti. Interim Report for Beaumont's HOPE VI Project. Prepared for the Beaumont Housing Authority (December 2009).

Van Zandt, S., **Jourdan, D.,** Martin, J., and C. Giusti. Interim Report for Beaumont's HOPE VI Project. Prepared for the Beaumont Housing Authority (December 2008).

Van Zandt, S., **Jourdan, D.**, Martin, J., and C. Giusti. Baseline Report for Beaumont's HOPE VI Project. Prepared for the Beaumont Housing Authority (December 2007).

Van Zandt, S., **Jourdan, D.,** Martin, J., and C. Giusti. Need and Demand for Affordable Housing in the Brazos Valley. Report to Brazos Valley Affordable Housing Corporation. (June 2006).

SPONSORED RESEARCH:

Co-PI, Tribal Climate Change and Extreme Event Response Studies to Identify Vulnerabilities, South Central Climate Science Center, 2014-2015.

PI, Oklahoma City, Sustainability Audit, May 2013-present.

PI, Shimberg Center for Housing Studies, The Lost Properties and Moving To Opportunity, October 2010 – Present.

Investigator and Collaboration Lead, Planning for Sea Level Rise: A Pilot Study to Evaluate and Improve the Development and Delivery of Habitat Vulnerability Assessments and Adaptive Conservation Designs to Coastal Decision Makers, National Estuarine Research Reserve System Science Collaborative, 2011-2014.

Co-PI, Rural Coastal Region Adaptation Planning for Sea Level Rise, Florida Sea Grant, 2012-14.

Co-PI, Development of Sea Level Rise Adaptation Planning Procedures and Tools Using NOAA Sea Level Rise Impacts Viewer, Gulf of Mexico Regional Research Competition, 2012-14.

Co-PI, Impact of Parking Supply and Demand Management on Central Business District (CBD) Traffic Congestion, Transit Performance and Sustainable Land Use, Florida Department of Transportation, January 2010 – October 2011.

A Parameterized Climate Change Projection Model for Hurricane Flooding, Wave Action, Economic Damages, and Population Dynamics, sponsored by NOAA, September 2009-September 2011, Role, Co-Principal Investigator.

HOPE VI Community Services Study for the Redevelopment of Magnolia Gardens in Beaumont, Texas, sponsored by the U.S. Department of Housing and Urban Development and the Beaumont Public Housing Authority, January 2007-December 2011, Role, Co-Principal Investigator.

Preserve America Grant for an Intergenerational Oral History for Hearne, Texas, sponsored by the National Parks Service, January 2007-December 2007, Role, Investigator.

A Hedonic Model of the Effects of Adaptive Reuse on Community Change in Savannah, Georgia, sponsored by the Lincoln Institute of Land Policy, Role, Investigator.

Legal Analysis and Policy Formulation Regarding the Use of Regional Rural Landbanking to Enhance the Development of Affordable Housing Opportunities in Brazos Valley Texas, sponsored by the Brazos Valley Affordable Housing Corporation, January 2007-August 2007, Role, Co-Principal Investigator.

Market Study of the Barriers to the Provision of Affordable Housing in Brazos Valley Texas, sponsored by the Brazos Valley Affordable Housing Corporation, January 2006-August 2006, Role, Co-Principal Investigator.

Comparative Analysis of the Effects of the Location of Big Box Retail on Housing Prices in Urban and Suburban Areas, sponsored by Texas A&M College of Architecture, December 2005-December 2006, Role, Principal Investigator.

PROFESSIONAL SERVICE AND AFFILIATIONS:

Professional Services

Chair of the Academic Advisory Council for Sign Research and Education (August 2014-present)

Chair of the Planner Outreach Subcommittee for the International Sign Association (January 2014-present)

Appointed to the Alachua County Affordable Housing Advisory Board (April 2010-2011)

University Liaison to the Florida Chapter of the American Planning Association (September 2007-September 2010)

Fellow to the Center for Children and Families at the Levin College of Law (May 2007-2012)

Member of the Law School Honor Code Committee (2009-2010)

Member of the ICCHP Committee (2009-2010)

Member of DCP Faculty Council (2009-2012)

Member of UF Historic Buildings and Structures Committee (2009-2010)

UF Commencement Marshall (2008-2010)

Ad Hoc Member of the Amicus Committee for the American Planning Association
Fellow for the Center for Heritage Conservation at Texas A&M University (2005-2007).

Professional Affiliations

American Planning Association

Oklahoma Chapter of the APA

Association of Collegiate Schools of Planning

Member of the Illinois Bar

Served as a manuscript and grant proposal reviewer for the following:
Journal of the Community Development Society
Journal of Planning History
US-China Law Review
UF Journal of Law and Public Policy
Journal of Planning Education and Research
National Science Foundation

CONFERENCE PRESENTATIONS:

International Conferences-Refereed Presentations

Jourdan, D., K. Hurd, H. G. Hawkins, and K. Winson-Geideman. Evidence-based Sign Regulation: Regulating Signage on the Basis of Empirical Wisdom. Presented at the AESOP-ACSP Conference in Dublin, Ireland, July 2013.

Nolon, J., Call, C., Murtaza, A, and **Jourdan, D.** Property Rights, Political Drama, and Smart Growth: The Challenges of Sustainable Development in 2011. Presented at the National Conference of the American Bar Association in Toronto, August 2011.

Jourdan, D., Wal-Mart in the Garden District- Does the Arbitrary and Capricious Standard of Review Lessen the Right of Citizens to Participate. Presented at the

International Association of Planning Law and Property Rights, Aalborg, Denmark, February, 2008.

Jourdan, D. and VanZandt, S, Creating Regional Landbanks to Meet Rural Affordable Housing Needs. Presented at the Joint International Conference of the Association of Collegiate Schools of Planning (ACSP) and the Association of European Planning Schools (AESOP), Chicago, IL, July 2008.

Jourdan, D., Should Children Have the Right to Speak for Themselves: The legal rights of youth to participate in national level policymaking. Presented at the International Conference on the Rights of Children, Ghent, Belgium (2006).

Jourdan, D., Grounding Theory: Developing New Theory on Intergenerational Participation. Presented at the Joint International Conference of the Association of Collegiate Schools of Planning (ACSP) and the Association of European Planning Schools (AESOP), Mexico City, Mexico (2006).

Jourdan, D., Planning to Reduce Worry. Presented at the Making Cities Livable Conference, Venice, Italy (2005).

National Conferences

Jourdan, D. Community Aesthetics and Sign Regulations: How far can a city go to prescribe aesthetics?" Presented at the National Signage Research and Education Conference in Cincinnati, OK, October, 2013.

Jourdan, D. and J. Kellaris, Collaborating with City Officials on Urban Signage, Presented at the International Sign Expo, in Las Vegas, NV, April, 2012.

Jourdan, D. Evidence-Based Sign Regulation: Regulating Signage on the Basis of Empirical Wisdom. Presented at the National Signage Research and Education Conference in Cincinnati, OK, October, 2012.

Jourdan, D., Ray, A., and Thompson, L. Relocating from Subsidized Housing in Florida: Are Residents Moving to Opportunity? Urban Affairs Association, Pittsburgh, PA, April 2012.

Frank, K., **Jourdan, D.,** Easley, G., and F. Eddleton. Leveraging community historical identity for climate change adaptation planning. Society for American City and Regional Planning History Conference, Baltimore, MD, November 17-20, 2011.

Frank, K., **Jourdan, D.,** and Obonyo, E. Sea level rise adaptation planning for rural coastal areas in Florida. Initiative on Climate Adaptation Research and Understanding through the Social Sciences: Climate Vulnerability and Adaptation (ICARUS II). May 5-8, Ann Arbor, MI, 2011.

Steiner, R., **Jourdan, D.,** Blanco, A., Mackey, J., Hanley, G., Sucar, V., and Shmaltsuyev, M., Understanding the Connection between Parking Management and Transit Usage: A Case Study of Miami and Fort Lauderdale Central Business Districts. Presented at the Association of Collegiate Schools of Planning (ACSP) Conference. Minneapolis. Oct. 13 – 16, 2011.

Steiner, R., Blanco, A. and **Jourdan, D.,** Impact of Parking Supply And Demand Management on Central Business District (CBD) Traffic Congestion. Presented at the Association of Collegiate Schools of Planning (ACSP) Conference. Minneapolis. Oct. 5 – 10, 2010.

Jourdan, D. Coming Home: The Relocation Effects of Expedited HOPE VI Revitalization Processes. Presented at the Urban Affairs Association, New Orleans, LA, 2011.

Zhao, J. and **Jourdan, D.** Zoning Variance Administration in Practice: Influencing Factors and Trends. Presented at the ACSP Conference in Minneapolis, MN, November, 2010.

Jourdan, D., Valuing Grief: A Proposal to Compensate Relocated Public Housing Residents for Intangibles. Presented at the ACSP Conference, Washington, D.C., October, 2009.

Jourdan, D., Garvin, E. and Stroud, N. Potential Legal Challenges to Form Based Codes: the Miami 21 Test Case. Presented at the IMLA Conference, Miami, FL, October, 2009.

Jourdan, D., Creating Regional Landbanks to Meet Rural Affordable Housing Needs. Presented at the Joint ACSP/AESOP Conference, Chicago, IL, July 2008.

VanZandt, S. and **Jourdan, D.** Landbanking to Meet Affordable Housing Needs. Presented at the National Conference of the American Planning Association Conference, Las Vegas, NV, April, 2008.

Jourdan, D. and Wieters, M. Serious Play: Constructing Learning to Promote Meaningful Dialogue in the Planning Classroom. Presented at the Association of Collegiate Schools of Planning National Conference, Fort Worth, TX, 2006.

Geideman, K. and **Jourdan, D.** Preserving Who's Neighborhood: The Effects of Adaptive Reuse by the Savannah College of Art & Design on Property Value and Community Change in Savannah, Georgia. Presented at the Lincoln Land Institute, Cambridge, MA, 2006.

Jourdan, D., Sentencing Goldilocks. Presented at the Association of Collegiate Schools of Planning National Conference, Kansas City, MO, 2005.

Jourdan, D., Public Housing: Is it Worth Preserving?"Presented at the Association of Collegiate Schools of Planning National Conference, Kansas City, MO, 2005.

Jourdan, D., Grieving for a Lost Home?: A Case Study of How Participation in an Intergenerational Planning Process Lessened the Pre-Relocation Grief Effects of Experienced by the Youth and Adult Residents of the McDaniel Glenn Public Housing Community in Atlanta. Presented at the Association of Collegiate Schools of Planning National, Portland, OR, 2004.

Jourdan, D., Mending Fences: Resolving Neighbor Disputes With Squatter Settlements in Belize. Presented at Pace University, NYC, April 2004.

Jourdan, D., Increasing Youth Participation in the Planning Process. Presented at the Association of Collegiate Schools of Planning National Conference, Baltimore, MD, 2002.

National Conferences – Invited Discussant and/or Moderator

Jourdan, D. Institute for Quality Communities Placemaking Conference in Norman, OK (2013) on the topic of "Healthy, Walkable Communities."

Jourdan, D. Annual Conference of the ACSP in Washington D.C. (2009) on the topic of "Comparative Jurisprudence Relating to Takings and Due Process Law."

Jourdan, D. Joint ACSP/AESOP Conference, Chicago, IL, (2008) on the topic of "Comparative Legal Jurisprudence on Property Rights."

Jourdan, D. Annual Conference of the ACSP in Fort Worth, TX (2006) on the topic of "Researching Wal-Mart."

Jourdan, D. Annual Conference of the ACSP in Kansas City, MO (2005) on the topic of "Research Wal-Mart."

Jourdan, D. Annual Conference of the ACSP in Portland, OR (2004) on the topic of "What Planners Should Know About the Law."

Jourdan, D. Sustainable Campus Planning, Annual Conference of the ACSP in Baltimore, MD (2002).

State Conferences –Presentations by Invitation

Jourdan, D. The New Urbanism: Optimizing Imagination, Creativity, Innovation, and Human Flourishing, Presented at the State Creativity Forum in Oklahoma City, OK, November, 2013.

Jourdan, D. So You Want to Take on Your Sign Code, Presented at the State Conference of the Oklahoma Chapter of the American Planning Association in Tahlequah, OK, October, 2013.

Steiner, R., Blanco, A., and **Jourdan, D.** Parking as a Smart Growth Strategy, Presented at the Florida Chapter of the American Planning Association Conference September 2011.

Silver, C. and **Jourdan, D**. Legal Aspects of Sustainable Development, Presented at the Florida Chapter of the American Planning Association Conference, September, 2011.

Jourdan, D. The Land Use Revolution: The Tea Party's Influence on Planning Process. Presented at the Annual Conference of the Utah Land Institute, Salt Lake City, Utah, November 2011.

Jourdan, D., Measuring the Winds of Change: the Introduction of Qualitative Research Methods in Planning Processes. Presented at the Annual Conference of the Texas Chapter of the American Planning Association, Corpus Christi, TX (2006).

REFERENCES AVAILABLE UPON REQUEST

K. MEGHAN WIETERS, PH.D., AICP
University of Oklahoma, Regional & City Planning, 830 Van Vleet Oval - Gould Hall RM 162
Norman, OK 73019, kmeghanwieters@ou.edu

EDUCATION

Texas A&M University
Ph.D in Urban Regional Science **2003 – August 2009**
Dissertation: "Integrating Walking for Transportation and Physical Activity for Sedentary Office Workers in Texas"

University of Texas at Austin
Masters of Science in Community & Regional Planning **1993-1995**
Thesis: "Building a Community: Transit Options in the Land Development Code and Land Development Process"

Trinity University
Bachelors of Arts **1989-1993**
Majors: Philosophy, International Studies (concentration on Latin America), Minor: Spanish

TEACHING

Assistant Professor - University of Oklahoma **Fall 2009 – to present**

- RCPL 5813 Environmental Planning Methods
- RCPL 5513 Subdivision Planning
- RCPL 5493 Transportation and Land Use Planning
- RCPL 5013 History and Theory of Urban Planning
- RCPL 5823 Rural and Regional Planning
- RCPL 5990 Public Health & Built Environment

PREVIOUS RESEARCH POSITIONS & PRACTICE

Texas A&M University **August 2006**
Graduate Assistant **May 2009**

Texas Transportation Institute **August 2003 –**
Graduate Research Assistant **August 2006**

City of Austin - Transportation, Planning & Sustainability Department **August 1998 –**
Principal Planner / Senior Planner **August 2003**

Capital Metropolitan Transportation Authority **April 1994 –**
Land Use/Transportation Planner **August 1998**

PUBLICATIONS & REPORTS

Wieters, K M. Office Workers Stuck at their Desks: Built Environment Implications on Walk Trips. Under review – *Health & Place*, April 2014.

Wieters, K M. Advantages of Online Methods in Planning Research: Capturing Walking Habits in Different Built Environments. Under Review -- *Sage Open*, February 2014

Wieters, K M, Kim, J-H, Lee, C. "Assessment of Wearable Global Positioning System Units for Physical Activity Research", *Journal of Physical Activity & Health, September 2012 (published)*

Zietsman, J., Villa, J.C., Forrest, T. L., and Storey, J. M. (2005) "Mexican Truck Idling Emissions at the El Paso - Ciudad Juarez Border Location" *Report 473700-00033.* Prepared for Southwest Region University Transportation Center.

Zietsman, J., Bubbosh, P., Li, L., Bochner, B., Villa, J. (2005)"National Deployment Strategy for Truck Stop Electrification". Prepared for U.S. Environmental Protection Agency.

Zietsman, J., Bynum, J., Wieters, K., and Bochner, B. (2005) "Reducing School Bus Emissions in Texas". Prepared for Texas Department of Transportation. Proceedings of the 2005 Mid-Continent Transportation Research Symposium.

Wieters, K. and J. Borowiec. (2004)"An Examination of Methods for Increasing On-Airport Revenue". Prepared for Texas Department of Transportation: Aviation Division.

Hard, Ed. et al. (2003) "TxDOT Involvement in the Local Development Process", Report 4429-1.

CONFERENCE & INVITED PRESENTATIONS

Wieters, K, M Wiens, T.O. Bowman. Walkability: A Tool for Promoting Health, Better Planning and Building Community. Presentation at "Planning Oklahoma Together" OKAPA Conference, Tahlequah, OK, October 2013.

Gibson, H and K. Wieters, Talking Green in Red States. Kansas APA Conference, Manhattan, KS October 2013

Wieters, K. Teaching, Learning and Implementing Walkability in Oklahoma City. Oklahoma Service Learning Conference, "The Art of Teaching through Science of Service", Friday November 22, 2013

Wieters, K, D Hess, P Firth. Invited panelist for Pedestrian and Bicycle University Education, Transportation Research Board 82nd Annual Meeting, January 13-17, 2013.

Wieters, K, J Fees, and B McCann. Why should we care about those silly pedestrians and bicyclists? Barriers to Adoption of Complete Streets Ordinances in Cowboy Country. Presented paper at the Association of Collegiate Schools of Planning Conference, Cincinnati, OH, 2012

Wieters, K. Office workers -- Sedentary by Practice: How can we integrate physical activity as part of daily routines at work. Oklahoma Public Health Association Conference, Health Equity Caucus, April 2012

Wieters, K M, L Fithian, T McCuen, and C Barrett. Teaching How to Manage Competing Interests: Planners, Architects and Construction Science Students Developing a Subdivision Together. Presented paper at the Association of Collegiate Schools of Planning Conference, Salt Lake City, UT; 2011.

Wieters K M. Methodology in assessing walking behavior for office workers using online survey methods. Presented paper at the Association of Collegiate Schools of Planning Conference. Minneapolis, MN; 2010.

Lee C, Wieters M, Giusti C, Lord D. The Environment and Obesity among Latino Adults: A case study exploring the roles of built environments in promoting physical activity and reducing obesity among colonia residents. Inter-University Program for Latino Research. University of Notre Dame; 2010.

Wieters KM, Kim J-H, Lee C. A walk to grab a cup of coffee: Assessment of available research instruments for measuring physical activity. Presented paper at the Association of Collegiate Schools of Planning Conference Chicago, Il; 2008.

Jourdan, D., Wieters, K. "Serious Play: Constructing Learning To Promote Meaningful Dialogue In The Planning Classroom". Co-Presented paper at the Association of Collegiate Schools of Planning Conference. Milwaukee, WS; 2006.

INVITED LECTURES

University of Oklahoma
Department of Geography & Sustainability, Spring Colloquium
"Walking & Biking: Active Transportation and the Built Environment" January 2014

Kansas State University – Big 12 Fellowship

- The messiness of random sampling spatially Oct. 21, 2013
- Watershed Functions & Impacts from Development Oct. 21, 2013
- Creating an audit tool and operationalizing data Oct. 23,2013
- Bicycle Facility Design & Planning Oct. 23,2013
- Observational Methods Oct. 23, 2013
- Pedestrian Planning and Design: How does the environment we live in impact our lives? Oct. 2013
- Office workers – Sedentary by Practice: How can we integrate physical activity as part of daily routines at work – Formal presentation to faculty and students Oct. 2013

Department of Biostatistics and Epidemiology College of Public Health,
University of Oklahoma Health Sciences Center

- Planning, Built Environment, and Public Health: How does the environment we live in impact our lives? March 11, 2013

GRANT FUNDING

Received Ed Cline Faculty Development Award ($1450), Spring 2014
Received Big 12 Faculty Fellowship Program Award ($2500) June 2013
Received College of Architecture IT recipient ($3450) July 2013
Sooner Parents Mini-Grant Funding ($500) for student mentoring –prepared and submitted to assist RCPL Student Planning Association July 2013
Received Junior Faculty Research ($7,000) for summer research on rural planning and physical activity opportunities. University of Oklahoma, Summer 2012
Robert Wood Johnson Active Living Research Dissertation Grant ($25,000), Texas A&M University, 2007

SERVICE

University-Level Service

- Advisory Committee Course Management Systems (ACCMS) Spring 2013

College-Level Service

- Graduate Liaison for Regional & City Planning Division (Fall 2013 – present)
- Graduate Research & Curriculum Committee (Fall 2013 – present)
- RCPL orientation (Fall 2010- present)
- Search committee for new RCPL hires, new LA hire (Summer 2011, Summer 2012, Spring 2013, Spring 2014)
- IT Committee (member since 2012), Chair (Fall 2013-Spring 2014)
- Model Shop Committee (member since 2012-Fall 2013)
- RCPL website (2011- present)
- GHGI committee (Gould Hall Green Initiative) (Fall 2011)
- Co-hosting and arranging guest seminar: Dr. Chanam Lee – "The Built Environment and Disparities in Physical Activity", December 2012.

SERVICE

State-level / City-Level Service

- President – Health Equity Caucus, subgroup of Oklahoma Public Health Association
- APA/AICP member
- Bicycle Advisory Committee, City of Norman – Committee member (Spring 2013 – 2016)

National-Level Service

- Secretary/Treasurer of Faculty Women's Interest Group (FWIG), committee under Association of Collegiate Schools of Planning (ACSP).
- CDC Weight of the Nation Conference planning, Built Environment & Transportation Subcommittee
- Reviewer for Journal of Physical Activity and Health

Bryce C. Lowery, PhD

Contact

University of Oklahoma
College of Architecture - Division of Regional and City Planning
830 Van Vleet Oval
Gould Hall 255
Norman, OK 73019
(405) 325-8953
bryce.c.lowery@ou.edu

Academic Experience

Assistant Professor 2014 - present
College of Architecture – Division of Regional and City Planning
University of Oklahoma – Norman, OK

Education

Doctor of Philosophy – Policy, Planning, and Development 2014
Sol Price School of Public Policy
University of Southern California - Los Angeles, CA

Dissertation: *Social Construction of the Experience Economy:*
The spatial ecology of outdoor advertising in Los Angeles
Jack Dyckman Award - Best Dissertation in Planning & Development

Committee: David Sloane, PhD
Tridib Banerjee, PhD
Pierrette Hondagneu-Sotelo, PhD (Sociology)

Master of Landscape Architecture 2008
College of Environmental Design
California State Polytechnic University - Pomona, CA

Master of Science – Environmental Policy and Behavior 2000
School of Natural Resources and Environment
University of Michigan - Ann Arbor, MI

Bachelor of Arts – Economics and Environmental Studies 1996
Dornsife College of Letters, Arts, and Sciences
University of Southern California - Los Angeles, CA

Publications

The Prospects and Problems of Integrating Sketch Maps with Geographic Information Systems (GIS) to Understand Environmental Perception: A case study of mapping youth fear in Los Angeles gang neighborhoods 2014
Environment and Planning B: Planning and Design 41(2): 251-271.
Curtis, J.W., E. Shiau, B. Lowery, D. Sloane, K. Hennigan and A. Curtis

The Prevalence of Harmful Content on Outdoor Advertising in Los Angeles: Land use, community characteristics, and the spatial inequality of a public health nuisance 2014
American Journal of Public Health 104(4): 658–664.
Lowery, B.C. and D.C. Sloane

Presentations

From Regional Center to Sign District: Regulating outdoor advertising in Los Angeles, 1881-2012
Association of Collegiate Schools of Planning – Philadelphia, PA – November 1, 2014
with David Sloane

Do Farmers' Markets Improve the Availability of Healthy Foods for All Communities?
A case study of 19 markets in Los Angeles.
Association of Collegiate Schools of Planning – Philadelphia, PA – October 30, 2014
with Denise Payan, LaVonna Blair Lewis and David Sloane

If You See Something, Say Something:
Community response (and non-response) to outdoor advertising regulation in Los Angeles
Council of Educators in Landscape Architecture – Austin, TX – March 29, 2013

The Spatial Ecology of Outdoor Advertising in Los Angeles:
The unjust impact of the commercial landscape
Association of Collegiate Schools of Planning – Cincinnati, OH – November 3, 2012
with David Sloane

Employing Social Network Analysis to Understand the Formation of Sustainable Social Capital
Council of Educators in Landscape Architecture - Tucson, AZ – January 15, 2009

Teaching Experience

Assistant Professor 2014-present
University of Oklahoma – College of Architecture
Subdivision and Site Planning (graduate)
Computer Mapping and GIS in Planning (graduate)
Comprehensive Planning Studio (graduate)

Lecturer 2014
University of California, Irvine – School of Social Ecology
Design and Planning Graphics (graduate)

Teaching Assistant 2008-2013
University of Southern California - Sol Price School of Public Policy
Citizenship and Public Ethics (undergraduate)
History of Planning and Development (undergraduate)
Planning History and Urban Form (graduate)
Smart Growth and Urban Sprawl (graduate)
Urban Context for Policy and Planning (undergraduate)
Urban Planning and Development (undergraduate)
Urban Planning and Social Policy (graduate - online)

Graduate Student Instructor 1999-2000
University of Michigan - School of Natural Resources and Environment
Introduction to Environmental Policy (undergraduate)
Introduction to Natural Resource Management (undergraduate)

Other Experience

Research Assistant 2009 - 2014
Sol Price School of Public Policy - University of Southern California

Editorial Assistant – Terry L. Cooper 2011 - 2012
The Responsible Administrator:
An Approach to Ethics for the Administrative Role, 6th Edition. 2012.

Research Associate 2005 - 2006
Lodestar Management/Research Inc. (now Harder+Company)

Project Coordinator 2004 - 2005
Perinatal Advisory Council of Los Angeles County

Community Researcher 2002 - 2004
Children's Planning Council - Los Angeles County Board of Supervisors

Assistant Director 2000 - 2002
Health DATA Program - UCLA Center for Health Policy Research

Curriculum Coordinator 2000
UCLA Labor, Occupational, Safety and Health Program

Research Coordinator 1996 - 1998
The Wild Thornberry's Television Series
Klasky-Csupo Incorporated/Nickelodeon Studios

Activities and Service

Committee Member
University of Oklahoma
Anna Siprikova – Master of City and Regional Planning Thesis 2014 - present

Reviewer
American Journal of Public Health
Council of Educators in Landscape Architecture

Member
American Planning Association
American Public Health Association
American Society of Landscape Architects
Association of American Geographers
Environmental Design Research Association

Member 2014 - present
Creating/Making Facilities Coordination Team
University of Oklahoma – College of Architecture

Member 2013
Billboard and Visual Landscape Visioning Group
City of Los Angeles

Area Chairperson 2010 - 2012
Hollywood Hills West Neighborhood Council – Area 2: Cahuenga Pass
City of Los Angeles

Vice-Chairperson 2010 - 2012
Appointee 2008 - 2012
Cahuenga/Ventura Corridor Specific Plan Review Board
City of Los Angeles - Council District 4

President 2011 - 2012
Member 2000 - 2012
Cahuenga Pass Property Owners' Association

Byron DeBruler
DeBruler, Inc.
8200 NE 139th Street
Edmond, OK 73103
United States of America
Phone: 405/396-2032 Cell Phone: 405/202-1610

BACKGROUND SUMMARY

Executive Manager with extensive experience in public sector resource design, management and evaluation. Knowledge and skills include: structuring and design of state and local service programs and initiatives, developing written proposals for project financing, identifying community economic development resources and training.

EXPERIENCE

DeBruler, Inc.

Vice President, Oklahoma City, August 2001 to Present

Provide services including:

- ✓ Researching public and private resources and preparing applications for financial assistance in response to client requests for economic and community development projects.
- ✓ Technical assistance to nonprofits and units of local government regarding federal and state resources and structuring project-beneficial partnerships; preparing strategic and business plans for public and private sector entities.
- ✓ Group facilitation services.
- ✓ Technical training for nonprofits and units of local government regarding federal and state financial assistance programs. Conducting organizational assessments and developing capacity building curriculums.

Oklahoma Housing Finance Agency

Team Leader, Housing Development Team, Oklahoma City, July 1998 to July 2001

Provided direct supervision and oversight of sixteen staff engaged in the administration of multiple federal and state affordable housing program resources.

While employed by the agency:

- ✓ Reorganized state's Single Family Mortgage Revenue Bond, Low-income Housing Tax Credit, HOME Investment Partnerships and Housing Trust Fund Programs into a single work unit.
- ✓ Streamlined Low-income Housing Tax Credit Program administrative rules to provide for market responsive design flexibility.
- ✓ Streamlined affordable housing resources by developing a singular application package and process for the agency's affordable housing development resources and established e-information network.
- ✓ Facilitated the development of working partnerships between the state's nonprofit and for-profit housing development organizations and agency's mortgage revenue bond lenders.
- ✓ Financed the development of affordable housing by leveraging public sector development funds with private investments.

- ✓ Facilitated legislative task force on rural affordable housing issues and devised legislative and programmatic actions to spur rural development.
- ✓ Developed, financed and implemented the state's first statewide affordable housing market analysis in partnership with a major university center.
- ✓ Drafted enabling legislation, capitalized and implemented state's Housing Trust Fund.

Oklahoma Department of Commerce
Program Manager/Department Head, Oklahoma City, March 1988 to July 1998

- ✓ In response to market-based demand, directed a team of professional agency staff with diverse skills, in the redesign of the state's HOME Investment Partnerships Program from primarily rehabilitation services to the production of rural affordable housing units.
- ✓ Led HOME Program administrative team in the relocation of the Program from its state agency environment to the Oklahoma Housing Finance Agency, a public trust.
- ✓ Leveraged HOME Program development resources with other public and private debt capital to finance the development of rural affordable housing statewide.
- ✓ Formulated and implemented a legislative agenda to enact and capitalizing the state's Housing Trust Fund.
- ✓ Provided daily oversight and administration for several state administered federal programs including: U.S. Department of Energy State Energy Program, Community Development Block Grant, Home Investment Partnerships, Rental Rehabilitation, Solar Energy and Energy Conservation Bank, and State Appropriated Funds for regional councils of government.

City of Oklahoma City January 1984 to February 1988
Division Head, Code Inspections Division/Department of Environmental Services
Assistant Superintendent, Utility Services Division/Water Department
Administrative Assistant, Street Maintenance Division, Public Works Department
Management Intern, Personnel Department

EDUCATION
Masters of Public Administration, University of Oklahoma 1983
Bachelor of Arts Political Science, University of Oklahoma, 1979