

Housing Needs Assessment
Pawnee 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:

December 1, 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.





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
 Pawnee County
 IRR - Tulsa/OKC File No. 140-2015-0072

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 Pawnee County Residential Housing Market Analysis. Analyst Maryam Moradian personally inspected the Pawnee County area during the month of December 2015 to collect the data used in the preparation of the Pawnee 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.

Mr. Dennis Shockley
Oklahoma Housing Finance Agency
December 31, 2015
Page 2

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

Owen S. Ard, MAI
Certified General Real Estate Appraiser
Oklahoma Certificate #11245CGA
Telephone: 918-492-4844, x103
Email: oard@irr.com

David A. Puckett
Certified General Real Estate Appraiser
Oklahoma Certificate #12795CGA
Telephone: 918-492-4844, x104
Email: dpuckett@irr.com

Maryam Moradian
Market Analyst



Table of Contents

Introduction and Executive Summary	1	Housing Stock Analysis	28
General Information	4	Existing Housing Units	28
Purpose and Function of the Market Study	4	Housing by Units in Structure	28
Effective Date of Consultation	4	Housing Units Number of Bedrooms and Tenure	29
Scope of the Assignment	4	Housing Units Tenure and Household Income	29
Data Sources	4	Housing Units by Year of Construction and Tenure	30
Pawnee County Analysis	6	Substandard Housing	31
Area Information	6	Vacancy Rates	32
Access and Linkages	6	Building Permits	33
Educational Facilities	7	New Construction Activity	33
Medical Facilities	7	Homeownership Market	35
Demographic Analysis	10	Housing Units by Home Value	35
Population and Households	10	Pawnee County Median Home Values by Census Tract	36
Population by Race and Ethnicity	11	Home Values by Year of Construction	37
Population by Age	11	Pawnee Single Family Sales Activity	37
Families by Presence of Children	13	Foreclosure Rates	38
Population by Presence of Disabilities	14	Rental Market	40
Group Quarters Population	15	Gross Rent Levels	40
Household Income Levels	17	Pawnee Rental Survey Data	41
Household Income Trend	18	Rental Market Vacancy – Pawnee	41
Poverty Rates	19	Summary of HUD Subsidized Properties	42
Economic Conditions	20	Projected Housing Need	47
Employment and Unemployment	20	Consolidated Housing Affordability Strategy (CHAS)	47
Employment Level Trends	20	Cost Burden by Income Threshold	47
Unemployment Rate Trends	21	Substandard Conditions / Overcrowding by Income Threshold	49
Employment and Wages by Industrial Supersector	22	Cost Burden by Household Type	52
Working Families	25		
Major Employers	26		
Commuting Patterns	26		

Table of Contents

Housing Problems by Household Type	54	At Risk For Homelessness	83
Housing Problems by Race / Ethnicity	56	Findings and Recommendations	85
CHAS Conclusions	58	Fair Housing	88
Overall Anticipated Housing Demand	59	Summary	88
Pawnee Anticipated Demand	59	Key Findings:	88
Pawnee County Anticipated Demand	59	Recommendations:	88
Housing Demand – Population Subsets	60	Appendix 1: County affordable housing	
Housing Needs by Income Thresholds	60	Summaries	103
Elderly Housing Needs	60	Lead-Based Paint Hazards	107
Housing Needs for Persons with Disabilities		Pawnee County Findings	109
/ Special Needs	60		
Housing Needs for Veterans	61	Conclusions	120
Housing Needs for Working Families	61	Addenda	
Population Subset Conclusions	61	A. Acknowledgments	
Special Topics	63	B. Qualifications	
Pawnee County Disaster Resiliency Assessment	64		
C.0 Comprehensive Plans & Hazard			
Mitigation Plans	64		
C.2.1.1. Historical Data on Natural Disasters			
and Other Hazards	64		
C.2.1.2; C.2.1.6; C.2.1.7; C.2.1.8 Shelters			
from Disaster Event	68		
C.2.1.3 Public Policy and Governance to			
Build Disaster Resiliency	68		
C.2.1.4 Local Emergency Response Agency			
Structure	68		
C.2.1.5 Threat & Hazard Warning Systems	68		
Social Vulnerability	69		
Homelessness	74		
By Continuum of Care	74		
A Snap Shot of Homelessness in the State	77		
Rural Areas	81		

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 Pawnee County is projected to grow by 0.08% per year over the next five years, underperforming the State of Oklahoma.
2. Pawnee County is projected to need a total of 38 housing units for ownership and 11 housing units for rent over the next five years.
3. Median Household Income in Pawnee County is estimated to be \$45,129 in 2015, compared with \$47,049 estimated for the State of Oklahoma. The poverty rate in Pawnee County is estimated to be 14.15%, compared with 16.85% for Oklahoma.
4. Homeowner and rental vacancy rates in Pawnee County are higher than the state averages.
5. Home values and rental rates in Pawnee County are lower than the state averages.
6. Average sale price for homes in Pawnee was \$61,091 in 2015, with an average price per square foot of \$37.90. The average year of construction for homes sold in 2015 is estimated to be 1944
7. Approximately 33.10% of renters and 14.86% of owners are housing cost overburdened.

Disaster Resiliency Specific Findings:

1. Create and maintain the county HMP
2. Apply for grants/funding to develop a county hazard mitigation plan.
3. Create a shelter registry for location of individual and business-based shelters (online or paper)
4. Tornadoes (1959-2014): Number:30 Injuries:282 Fatalities:19 Damages (1996-2014): \$1,010,000.00
5. Social Vulnerability: Below state score at the county level; most vulnerable by census tract is in the populated area of Pawnee
6. Floodplain: updated flood maps not available

Homelessness Specific Findings

1. Pawnee County is located in the North Central Oklahoma Continuum of Care.
2. There are an estimated 201 homeless individuals in this area, 154 of which are identified as sheltered.
3. There is no record of homeless youth and young adults in this region.
4. The largest subpopulations of homeless in OK 500 include: the chronically homeless (29), chronic substance abusers (23), and domestic violence victims (24).
5. The population of domestic violence victims in this area is disproportionately high.
6. Permanent housing options are significantly limited. More funds should be diverted to meet the long term housing needs of the mentally ill, substance abusers, and victims of domestic violence.

Fair Housing Specific Findings

1. Units located further than 15 miles from a hospital: 37
2. Units located in a food desert: 20

Lead-Based Paint Specific Findings

1. We estimate there are 1,243 occupied housing units in Pawnee County with lead-based paint hazards.
2. 570 of those housing units are estimated to be occupied by low-to-moderate income households.
3. We estimate that 197 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 Pawnee 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 Pawnee 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 Pawnee 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 Pawnee County, Oklahoma. The analysis will consider existing supply and projected demand and overall market trends in the Pawnee County area.

Effective Date of Consultation

The Pawnee County area was inspected and research was performed during December, 2015. The effective date of this analysis is December 1, 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 Pawnee County area was inspected during December, 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



Pawnee County Analysis

Area Information

The purpose of this section of the report is to provide a basis for analyzing and estimating trends relating to Pawnee 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

Pawnee County is located in north central Oklahoma. The county is bordered on the north and east by Osage County, on the west by Noble and Payne counties, and on the south by Payne and Creek counties. The Pawnee County Seat is Pawnee, which is located in the west central part of the county. This location is approximately 55.9 miles northwest of Tulsa and 92.4 miles northeast of Oklahoma City.

Pawnee County has a total area of 595 square miles (568 square miles of land, and 27 square miles of water), ranking 64th out of Oklahoma's 77 counties in terms of total area. The total population of Pawnee County as of the 2010 Census was 16,577 persons, for a population density of 29 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 Pawnee. These are US-412, US-64, OK-15, OK-18, OK-99, and OK-48. The nearest interstate highway is I-244, which is located approximately 16.8 miles east of the county. The county also has an intricate network of county roadways.

Public transportation is provided by Cimarron Public Transit System, which operates a demand-response service throughout the county. 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.

Cleveland Municipal Airport is located 22.8 miles east in Cleveland. The primary asphalt runway measures 4,000 feet in length. The nearest full-service commercial airport is the Tulsa International Airport, located 63.9 miles east in Tulsa.

Educational Facilities

All of the county communities have public school facilities. Pawnee is served by Pawnee Public Schools which operates one high school, one middle school, and one elementary school. Higher education offerings near Pawnee include Oklahoma State University, located 25.5 miles southwest in Stillwater, as well as Langston University (in Langston) and Northern Oklahoma College in Tonkawa.

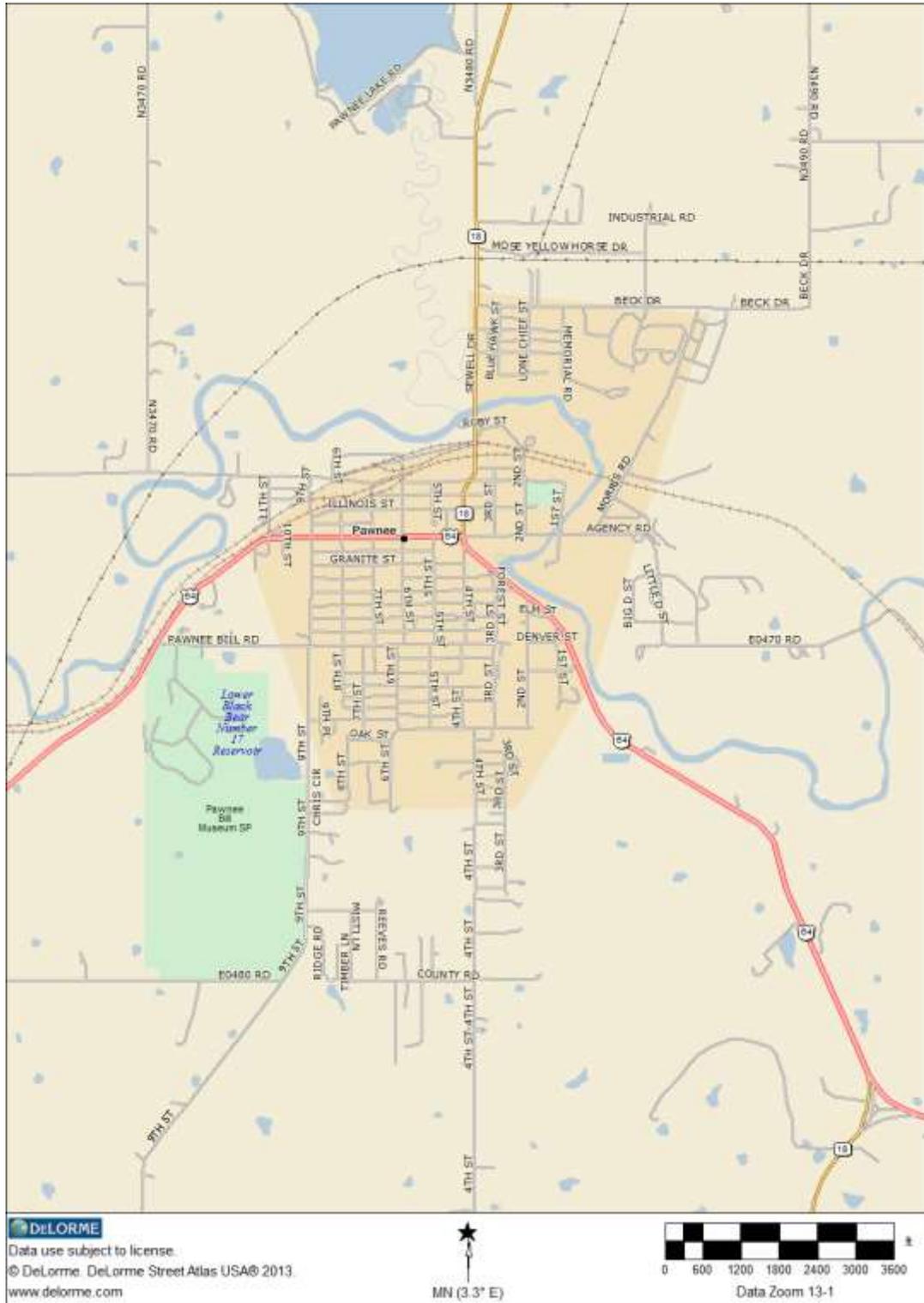
Medical Facilities

Medical services are provided by Pawnee Indian Health Service, an acute-care hospital offering surgical, emergency, and in and outpatient's services for tribal members living within the county. Additionally, the Cleveland Area Hospital, located 22.5 miles east in Cleveland, offers additional medical care. The smaller county communities typically have either small outpatient medical services or doctor's officing in the community.

Pawnee County Area Map



Pawnee Area Map



Demographic Analysis

Population and Households

The following table presents population levels and annualized changes in Pawnee 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	2010	Annual	2015	Annual	2020	Annual
	Census	Census	Change	Estimate	Change	Forecast	Change
Pawnee	2,230	2,196	-0.15%	2,157	-0.36%	2,104	-0.50%
Pawnee County	16,612	16,577	-0.02%	16,440	-0.17%	16,507	0.08%
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 Pawnee County was 16,577 persons as of the 2010 Census, a -0.02% annualized rate of change from the 2000 Census. As of 2015, Nielsen SiteReports estimates the population of Pawnee County to be 16,440 persons, and projects that the population will show 0.08% annualized growth over the next five years.

The population of Pawnee was 2,196 persons as of the 2010 Census, a -0.15% annualized rate of change from the 2000 Census. As of 2015, Nielsen SiteReports estimates the population of Pawnee to be 2,157 persons, and projects that the population will show -0.50% annualized decline over the next five years.

The next table presents data regarding household levels in Pawnee 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	2010	Annual	2015	Annual	2020	Annual
	Census	Census	Change	Estimate	Change	Forecast	Change
Pawnee	878	862	-0.18%	841	-0.49%	818	-0.55%
Pawnee County	6,383	6,486	0.16%	6,476	-0.03%	6,525	0.15%
State of Oklahoma	1,342,293	1,460,450	0.85%	1,520,327	0.81%	1,585,130	0.84%
Family Households	2000	2010	Annual	2015	Annual	2020	Annual
	Census	Census	Change	Estimate	Change	Forecast	Change
Pawnee	581	542	-0.69%	535	-0.26%	520	-0.57%
Pawnee County	4,747	4,546	-0.43%	4,546	0.00%	4,585	0.17%
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, Pawnee County had a total of 6,486 households, representing a 0.16% annualized rate of change since the 2000 Census. As of 2015, Nielsen SiteReports estimates Pawnee County to have 6,476 households. This number is expected to experience a 0.15% annualized rate of decline over the next five years.

As of 2010, Pawnee had a total of 862 households, representing a -0.18% annualized rate of change since the 2000 Census. As of 2015, Nielsen SiteReports estimates Pawnee to have 841 households. This number is expected to experience a -0.55% annualized rate of decline over the next five years.

Population by Race and Ethnicity

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

2013 Population by Race and Ethnicity				
Single-Classification Race	Pawnee		Pawnee County	
	No.	Percent	No.	Percent
Total Population	2,248		16,592	
White Alone	1,442	64.15%	13,333	80.36%
Black or African American Alone	74	3.29%	159	0.96%
Amer. Indian or Alaska Native Alone	585	26.02%	1,644	9.91%
Asian Alone	0	0.00%	56	0.34%
Native Hawaiian and Other Pac. Isl. Alone	0	0.00%	13	0.08%
Some Other Race Alone	11	0.49%	65	0.39%
Two or More Races	136	6.05%	1,322	7.97%
Population by Hispanic or Latino Origin	Pawnee		Pawnee County	
	No.	Percent	No.	Percent
Total Population	2,248		16,592	
Hispanic or Latino	85	3.78%	388	2.34%
<i>Hispanic or Latino, White Alone</i>	74	87.06%	224	57.73%
<i>Hispanic or Latino, All Other Races</i>	11	12.94%	164	42.27%
Not Hispanic or Latino	2,163	96.22%	16,204	97.66%
<i>Not Hispanic or Latino, White Alone</i>	1,368	63.25%	13,109	80.90%
<i>Not Hispanic or Latino, All Other Races</i>	795	36.75%	3,095	19.10%

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

In Pawnee County, racial and ethnic minorities comprise 20.99% of the total population. Within Pawnee, racial and ethnic minorities represent 39.15% of the population.

Population by Age

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

Pawnee County Population By Age								
	2010	Percent	2015	Percent	2020	Percent	2000 - 2015	2015 - 2020
	Census	of Total	Estimate	of Total	Forecast	of Total	Ann. Chng.	Ann. Chng.
Population by Age	16,577		16,440		16,507			
Age 0 - 4	1,055	6.36%	998	6.07%	998	6.05%	-1.10%	0.00%
Age 5 - 9	1,121	6.76%	1,041	6.33%	986	5.97%	-1.47%	-1.08%
Age 10 - 14	1,175	7.09%	1,128	6.86%	1,032	6.25%	-0.81%	-1.76%
Age 15 - 17	735	4.43%	697	4.24%	694	4.20%	-1.06%	-0.09%
Age 18 - 20	586	3.54%	621	3.78%	646	3.91%	1.17%	0.79%
Age 21 - 24	634	3.82%	792	4.82%	891	5.40%	4.55%	2.38%
Age 25 - 34	1,711	10.32%	1,707	10.38%	1,823	11.04%	-0.05%	1.32%
Age 35 - 44	2,079	12.54%	1,873	11.39%	1,713	10.38%	-2.07%	-1.77%
Age 45 - 54	2,477	14.94%	2,212	13.45%	1,996	12.09%	-2.24%	-2.03%
Age 55 - 64	2,281	13.76%	2,347	14.28%	2,293	13.89%	0.57%	-0.46%
Age 65 - 74	1,609	9.71%	1,831	11.14%	2,153	13.04%	2.62%	3.29%
Age 75 - 84	835	5.04%	884	5.38%	939	5.69%	1.15%	1.21%
Age 85 and over	279	1.68%	309	1.88%	343	2.08%	2.06%	2.11%
<i>Age 55 and over</i>	<i>5,004</i>	<i>30.19%</i>	<i>5,371</i>	<i>32.67%</i>	<i>5,728</i>	<i>34.70%</i>	<i>1.43%</i>	<i>1.30%</i>
<i>Age 62 and over</i>	<i>3,128</i>	<i>18.87%</i>	<i>3,419</i>	<i>20.80%</i>	<i>3,780</i>	<i>22.90%</i>	<i>1.79%</i>	<i>2.03%</i>
Median Age	41.1		41.6		41.9		0.24%	0.14%

Source: Nielsen SiteReports

As of 2015, Nielsen estimates that the median age of Pawnee County is 41.6 years. This compares with the statewide figure of 36.6 years. Approximately 6.07% of the population is below the age of 5, while 20.80% is over the age of 62. Over the next five years, the population age 62 and above is forecasted to grow by 2.03% per year.

Pawnee Population By Age								
	2010	Percent	2015	Percent	2020	Percent	2000 - 2015	2015 - 2020
	Census	of Total	Estimate	of Total	Forecast	of Total	Ann. Chng.	Ann. Chng.
Population by Age	2,196		2,157		2,104			
Age 0 - 4	149	6.79%	143	6.63%	140	6.65%	-0.82%	-0.42%
Age 5 - 9	169	7.70%	148	6.86%	140	6.65%	-2.62%	-1.11%
Age 10 - 14	158	7.19%	164	7.60%	137	6.51%	0.75%	-3.53%
Age 15 - 17	101	4.60%	90	4.17%	96	4.56%	-2.28%	1.30%
Age 18 - 20	87	3.96%	82	3.80%	89	4.23%	-1.18%	1.65%
Age 21 - 24	89	4.05%	110	5.10%	108	5.13%	4.33%	-0.37%
Age 25 - 34	237	10.79%	243	11.27%	249	11.83%	0.50%	0.49%
Age 35 - 44	260	11.84%	253	11.73%	229	10.88%	-0.54%	-1.97%
Age 45 - 54	296	13.48%	240	11.13%	234	11.12%	-4.11%	-0.51%
Age 55 - 64	294	13.39%	299	13.86%	251	11.93%	0.34%	-3.44%
Age 65 - 74	172	7.83%	203	9.41%	250	11.88%	3.37%	4.25%
Age 75 - 84	127	5.78%	119	5.52%	117	5.56%	-1.29%	-0.34%
Age 85 and over	57	2.60%	63	2.92%	64	3.04%	2.02%	0.32%
<i>Age 55 and over</i>	<i>650</i>	<i>29.60%</i>	<i>684</i>	<i>31.71%</i>	<i>682</i>	<i>32.41%</i>	<i>1.02%</i>	<i>-0.06%</i>
<i>Age 62 and over</i>	<i>387</i>	<i>17.63%</i>	<i>412</i>	<i>19.09%</i>	<i>442</i>	<i>21.02%</i>	<i>1.23%</i>	<i>1.44%</i>
Median Age	39.2		38.9		39.1		-0.15%	0.10%

Source: Nielsen SiteReports

As of 2015, Nielsen estimates that the median age of Pawnee is 38.9 years. This compares with the statewide figure of 36.6 years. Approximately 6.63% of the population is below the age of 5, while 19.09% is over the age of 62. Over the next five years, the population age 62 and above is forecasted to grow by 1.44% per year.

Families by Presence of Children

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

2013 Family Type by Presence of Children Under 18 Years

	Pawnee		Pawnee County	
	No.	Percent	No.	Percent
Total Families:	498		4,443	
Married-Couple Family:	308	61.85%	3,422	77.02%
With Children Under 18 Years	114	22.89%	1,180	26.56%
No Children Under 18 Years	194	38.96%	2,242	50.46%
Other Family:	190	38.15%	1,021	22.98%
Male Householder, No Wife Present	46	9.24%	307	6.91%
With Children Under 18 Years	8	1.61%	194	4.37%
No Children Under 18 Years	38	7.63%	113	2.54%
Female Householder, No Husband Present	144	28.92%	714	16.07%
With Children Under 18 Years	71	14.26%	379	8.53%
No Children Under 18 Years	73	14.66%	335	7.54%
<hr/>				
Total Single Parent Families	79		573	
Male Householder	8	10.13%	194	33.86%
Female Householder	71	89.87%	379	66.14%

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

As shown, within Pawnee County, among all families 12.90% are single-parent families, while in Pawnee, the percentage is 15.86%.

Population by Presence of Disabilities

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

2013 Age by Number of Disabilities

	Pawnee		Pawnee County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Civilian Non-Institutionalized Population:	2,154		16,440		3,702,515	
Under 18 Years:	569		4,057		933,738	
With One Type of Disability	0	0.00%	152	3.75%	33,744	3.61%
With Two or More Disabilities	0	0.00%	45	1.11%	11,082	1.19%
No Disabilities	569	100.00%	3,860	95.14%	888,912	95.20%
18 to 64 Years:	1,220		9,664		2,265,702	
With One Type of Disability	112	9.18%	837	8.66%	169,697	7.49%
With Two or More Disabilities	142	11.64%	860	8.90%	149,960	6.62%
No Disabilities	966	79.18%	7,967	82.44%	1,946,045	85.89%
65 Years and Over:	365		2,719		503,075	
With One Type of Disability	56	15.34%	520	19.12%	95,633	19.01%
With Two or More Disabilities	87	23.84%	605	22.25%	117,044	23.27%
No Disabilities	222	60.82%	1,594	58.62%	290,398	57.72%
Total Number of Persons with Disabilities:	397	18.43%	3,019	18.36%	577,160	15.59%

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

Within Pawnee County, 18.36% of the civilian non-institutionalized population has one or more disabilities, compared with 15.59% of Oklahomans as a whole. In Pawnee the percentage is 18.43%.

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

2013 Population by Veteran and Disability Status

	Pawnee		Pawnee County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Civilian Population Age 18+ For Whom Poverty Status is Determined	1,585		12,383		2,738,788	
Veteran:	147	9.27%	1,521	12.28%	305,899	11.17%
With a Disability	63	42.86%	538	35.37%	100,518	32.86%
No Disability	84	57.14%	983	64.63%	205,381	67.14%
Non-veteran:	1,438	90.73%	10,862	87.72%	2,432,889	88.83%
With a Disability	334	23.23%	2,284	21.03%	430,610	17.70%
No Disability	1,104	76.77%	8,578	78.97%	2,002,279	82.30%

Source: 2009-2013 American Community Survey, Table C21007

Within Pawnee County, the Census Bureau estimates there are 1,521 veterans, 35.37% of which have one or more disabilities (compared with 32.86% at a statewide level). In Pawnee, there are an estimated 147 veterans, 42.86% of which are estimated to have a disability.

Group Quarters Population

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

2010 Group Quarters Population

	Pawnee		Pawnee County	
	No.	Percent	No.	Percent
Total Population	2,196		16,577	
Group Quarters Population	104	4.74%	194	1.17%
Institutionalized Population	96	4.37%	157	0.95%
Correctional facilities for adults	42	1.91%	42	0.25%
Juvenile facilities	0	0.00%	0	0.00%
Nursing facilities/Skilled-nursing facilities	54	2.46%	115	0.69%
Other institutional facilities	0	0.00%	0	0.00%
Noninstitutionalized population	8	0.36%	37	0.22%
College/University student housing	0	0.00%	0	0.00%
Military quarters	0	0.00%	0	0.00%
Other noninstitutional facilities	8	0.36%	37	0.22%

Source: 2010 Decennial Census, Table P42

The percentage of the Pawnee County population in group quarters is somewhat lower than the statewide figure, which was 2.99% in 2010.

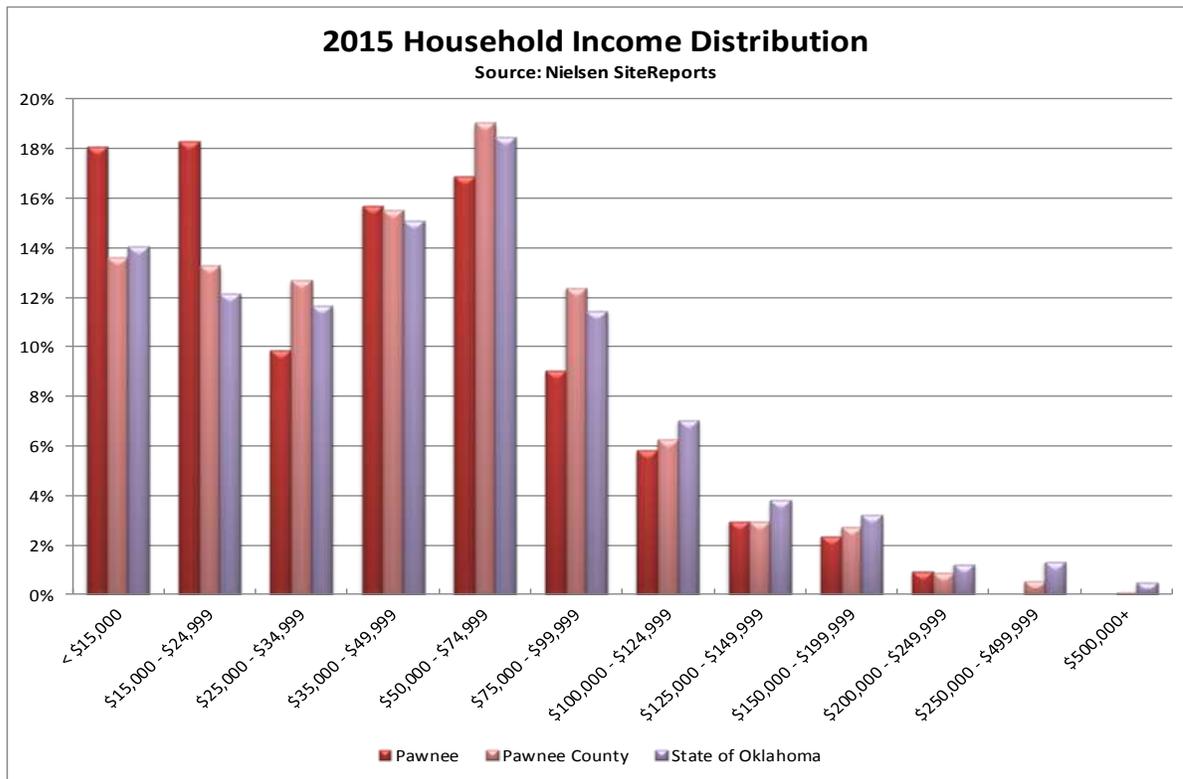
Household Income Levels

Data in the following chart shows the distribution of household income in Pawnee 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						
	Pawnee		Pawnee County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Households by HH Income	841		6,476		1,520,327	
< \$15,000	152	18.07%	880	13.59%	213,623	14.05%
\$15,000 - \$24,999	154	18.31%	859	13.26%	184,613	12.14%
\$25,000 - \$34,999	83	9.87%	821	12.68%	177,481	11.67%
\$35,000 - \$49,999	132	15.70%	1,004	15.50%	229,628	15.10%
\$50,000 - \$74,999	142	16.88%	1,233	19.04%	280,845	18.47%
\$75,000 - \$99,999	76	9.04%	802	12.38%	173,963	11.44%
\$100,000 - \$124,999	49	5.83%	406	6.27%	106,912	7.03%
\$125,000 - \$149,999	25	2.97%	193	2.98%	57,804	3.80%
\$150,000 - \$199,999	20	2.38%	176	2.72%	48,856	3.21%
\$200,000 - \$249,999	8	0.95%	59	0.91%	18,661	1.23%
\$250,000 - \$499,999	0	0.00%	36	0.56%	20,487	1.35%
\$500,000+	0	0.00%	7	0.11%	7,454	0.49%
Median Household Income	\$38,580		\$45,129		\$47,049	
Average Household Income	\$50,083		\$57,205		\$63,390	

Source: Nielsen SiteReports

As shown, median household income for Pawnee County is estimated to be \$45,129 in 2015. By way of comparison, the median household income of Oklahoma is estimated to be \$47,049. For Pawnee, median household income is estimated to be \$38,580. The income distribution can be better visualized by the following chart.



Household Income Trend

Next we examine the long-term growth of incomes in Pawnee 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
Pawnee	\$24,962	\$38,580	2.76%	2.40%	0.36%
Pawnee County	\$31,661	\$45,129	2.24%	2.40%	-0.16%
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 Pawnee 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 Pawnee 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 Pawnee 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
Pawnee	20.46%	14.46%	-600	37.50%	22.54%
Pawnee County	13.03%	14.15%	111	17.53%	47.49%
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 Pawnee County is estimated to be 14.15% by the American Community Survey. This is an increase of 111 basis points since the 2000 Census. Within Pawnee, the poverty rate is estimated to be 14.46%. 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 Pawnee 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)
Pawnee County	6,970	7,256	0.81%	8.9%	5.6%	-330
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

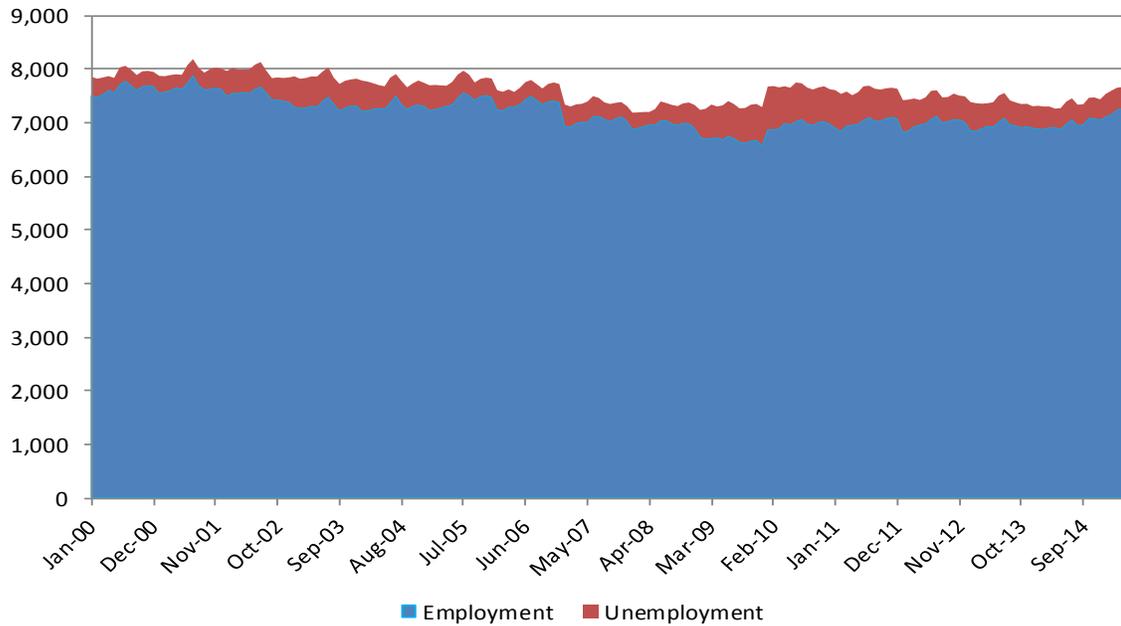
Sources: Bureau of Labor Statistics, Local Area Unemployment Statistics and Current Population Survey

As of May 2015, total employment in Pawnee County was 7,256 persons. Compared with figures from May 2010, this represents annualized employment growth of 0.81% per year. The unemployment rate in May was 5.6%, a decrease of -330 basis points from May 2010, which was 8.9%. Over the last five years, both the statewide and national trends have been improving employment levels and declining unemployment rates, and Pawnee County has underperformed both the state and nation in these statistics.

Employment Level Trends

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

**Employment and Unemployment in Pawnee County
January 2000 through May 2015**



Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

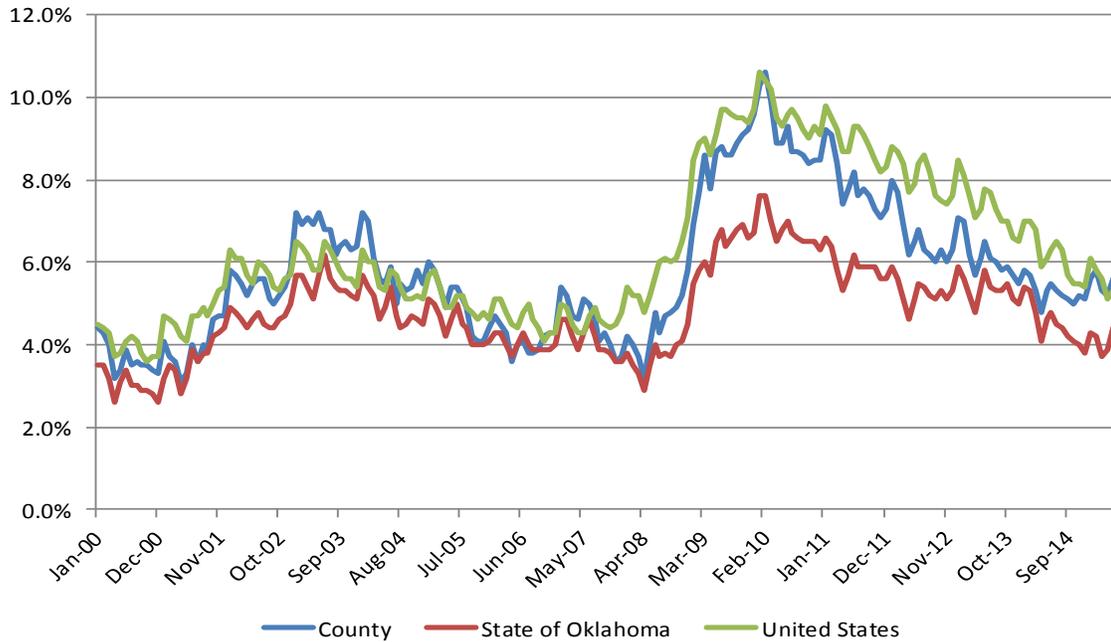
As shown, total employment levels have generally trended downward from 2000 through 2010. Total employment was relatively stable from 2010 through early 2014, when employment growth resumed, growing to its current level of 7,256 persons. The number of unemployed persons in May 2015 was 429, out of a total labor force of 7,685 persons.

Unemployment Rate Trends

The next chart shows historic unemployment rates for Pawnee 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 Pawnee 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 Pawnee 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 5.6%. On the whole, unemployment rates in Pawnee County track very well with statewide figures but are typically above the state. Compared with the United States, unemployment rates in Pawnee County and Oklahoma are and have historically been below the national average for the last several years.

Employment and Wages by Industrial Supersector

The next table presents data regarding employment in Pawnee 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.

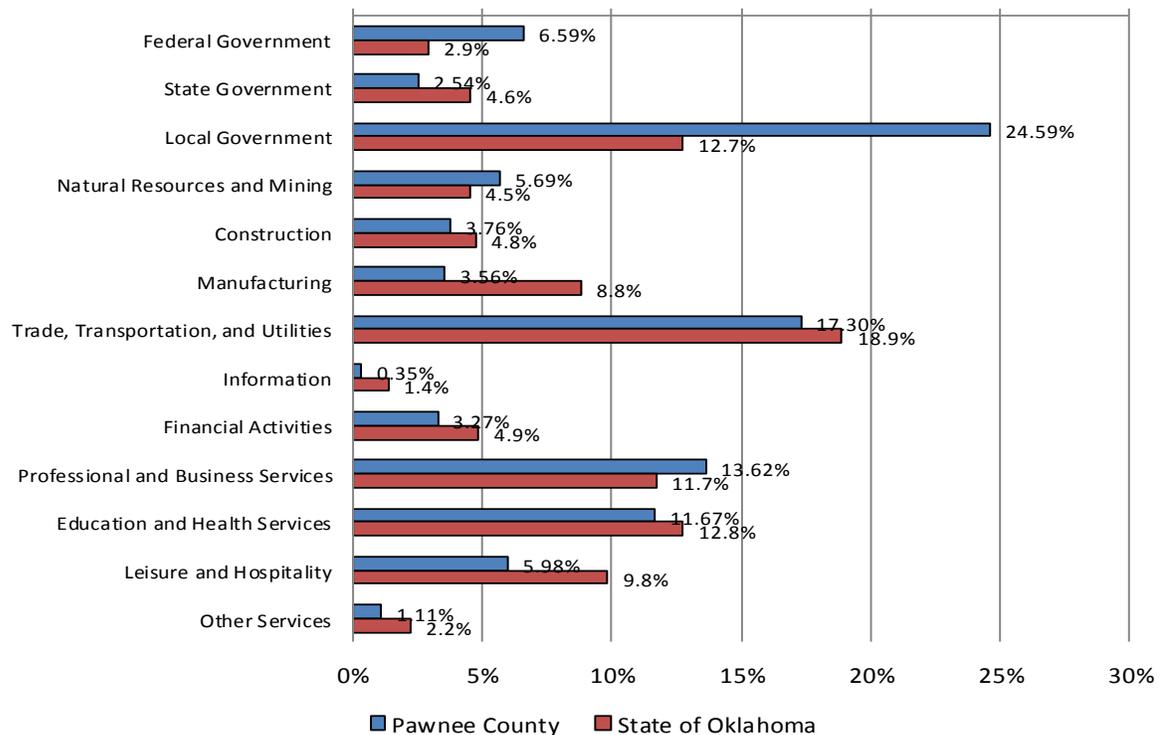


Employees and Wages by Supersector - 2014

Supersector	Establishments	Avg. No. of Employees	Percent of Total	Avg. Annual Pay	Location Quotient
Federal Government	13	226	6.59%	\$56,004	3.30
State Government	8	87	2.54%	\$40,516	0.76
Local Government	26	843	24.59%	\$29,639	2.44
Natural Resources and Mining	25	195	5.69%	\$45,935	3.75
Construction	23	129	3.76%	\$57,450	0.84
Manufacturing	16	122	3.56%	\$41,294	0.40
Trade, Transportation, and Utilities	57	593	17.30%	\$32,421	0.91
Information	4	12	0.35%	\$27,862	0.18
Financial Activities	22	112	3.27%	\$36,596	0.58
Professional and Business Services	42	467	13.62%	\$65,633	0.98
Education and Health Services	26	400	11.67%	\$29,266	0.77
Leisure and Hospitality	19	205	5.98%	\$10,498	0.56
Other Services	15	38	1.11%	\$24,437	0.36
Total	294	3,428		\$38,402	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 (17.30%) are employed in Trade, Transportation, and Utilities. The average annual pay in this sector is \$32,421 per year. The industry



with the highest annual pay is Professional and Business Services, with average annual pay of \$65,633 per year.

The rightmost column of the previous table provides location quotients for each industry for Pawnee 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 (Pawnee 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:

$$10\% (\text{county manufacturing } \%) / 5\% (\text{U.S. manufacturing } \%) = 2.0$$

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.

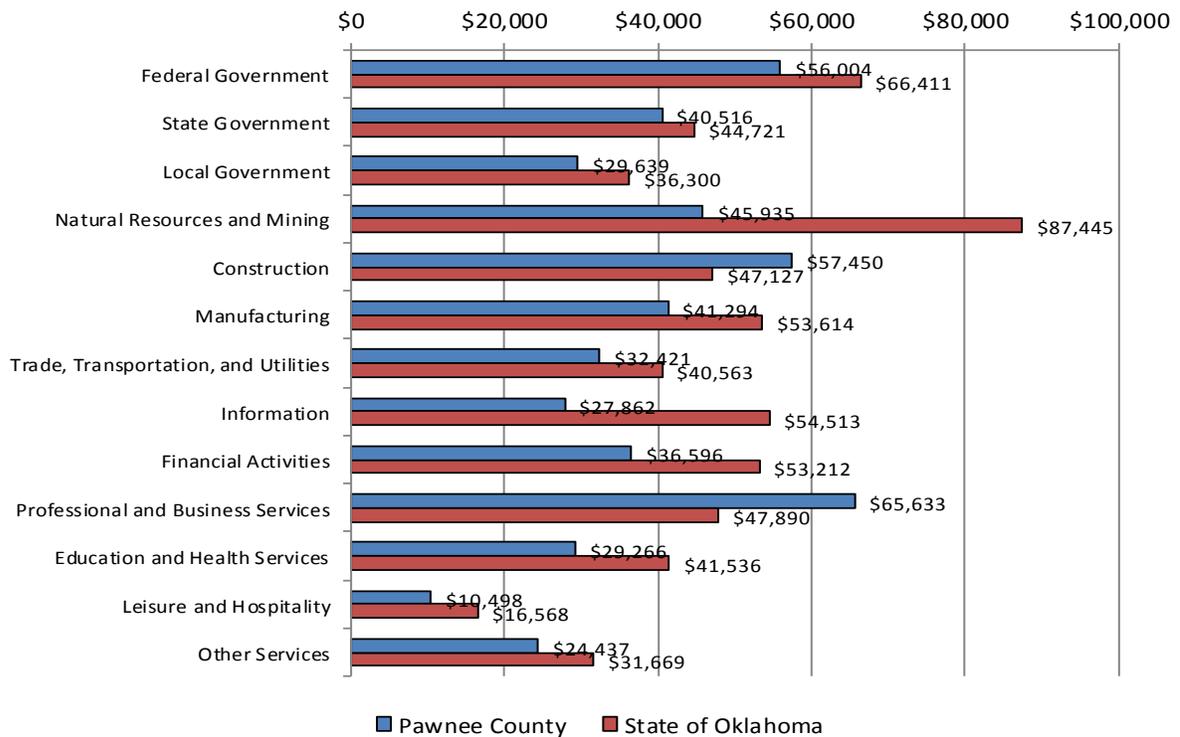
Within Pawnee County, among all industries the largest location quotient is in Natural Resources and Mining, with a quotient of 3.75. This sector includes employment in agriculture as well as the oil and gas industry.

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

Comparison of 2014 Average Annual Pay by Supersector					
Supersector	Pawnee County	State of Oklahoma	United States	Percent of State	Percent of Nation
Federal Government	\$56,004	\$66,411	\$75,784	84.3%	73.9%
State Government	\$40,516	\$44,721	\$54,184	90.6%	74.8%
Local Government	\$29,639	\$36,300	\$46,146	81.7%	64.2%
Natural Resources and Mining	\$45,935	\$87,445	\$59,666	52.5%	77.0%
Construction	\$57,450	\$47,127	\$55,041	121.9%	104.4%
Manufacturing	\$41,294	\$53,614	\$62,977	77.0%	65.6%
Trade, Transportation, and Utilities	\$32,421	\$40,563	\$42,988	79.9%	75.4%
Information	\$27,862	\$54,513	\$90,804	51.1%	30.7%
Financial Activities	\$36,596	\$53,212	\$85,261	68.8%	42.9%
Professional and Business Services	\$65,633	\$47,890	\$66,657	137.0%	98.5%
Education and Health Services	\$29,266	\$41,536	\$45,951	70.5%	63.7%
Leisure and Hospitality	\$10,498	\$16,568	\$20,993	63.4%	50.0%
Other Services	\$24,437	\$31,669	\$33,935	77.2%	72.0%
Total	\$38,402	\$43,774	\$51,361	87.7%	74.8%

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, Pawnee County has higher average wages in construction and professional services, and lower average wages in natural resources and mining, information, financial activities, and education and health services.

Working Families

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



Families by Employment Status and Presence of Children						
	Pawnee		Pawnee County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Families	498		4,443		961,468	
With Children <18 Years:	193	38.76%	1,753	39.46%	425,517	44.26%
Married Couple:	114	59.07%	1,180	67.31%	281,418	66.14%
Both Parents Employed	66	57.89%	706	59.83%	166,700	59.24%
One Parent Employed	48	42.11%	379	32.12%	104,817	37.25%
Neither Parent Employed	0	0.00%	95	8.05%	9,901	3.52%
Other Family:	79	40.93%	573	32.69%	144,099	33.86%
Male Householder:	8	10.13%	194	33.86%	36,996	25.67%
Employed	8	100.00%	157	80.93%	31,044	83.91%
Not Employed	0	0.00%	37	19.07%	5,952	16.09%
Female Householder:	71	89.87%	379	66.14%	107,103	74.33%
Employed	65	91.55%	269	70.98%	75,631	70.62%
Not Employed	6	8.45%	110	29.02%	31,472	29.38%
Without Children <18 Years:	305	61.24%	2,690	60.54%	535,951	55.74%
Married Couple:	194	63.61%	2,242	83.35%	431,868	80.58%
Both Spouses Employed	67	34.54%	728	32.47%	167,589	38.81%
One Spouse Employed	73	37.63%	791	35.28%	138,214	32.00%
Neither Spouse Employed	54	27.84%	723	32.25%	126,065	29.19%
Other Family:	111	36.39%	448	16.65%	104,083	19.42%
Male Householder:	38	70.37%	113	15.63%	32,243	25.58%
Employed	0	0.00%	28	24.78%	19,437	60.28%
Not Employed	38	100.00%	85	75.22%	12,806	39.72%
Female Householder:	73	65.77%	335	74.78%	71,840	69.02%
Employed	38	52.05%	177	52.84%	36,601	50.95%
Not Employed	35	47.95%	158	47.16%	35,239	49.05%
<i>Total Working Families:</i>	<i>365</i>	<i>73.29%</i>	<i>3,235</i>	<i>72.81%</i>	<i>740,033</i>	<i>76.97%</i>
<i>With Children <18 Years:</i>	<i>187</i>	<i>51.23%</i>	<i>1,511</i>	<i>46.71%</i>	<i>378,192</i>	<i>51.10%</i>
<i>Without Children <18 Years:</i>	<i>178</i>	<i>48.77%</i>	<i>1,724</i>	<i>53.29%</i>	<i>361,841</i>	<i>48.90%</i>

Source: 2009-2013 American Community Survey, Table B23007

Within Pawnee County, there are 3,235 working families, 46.71% 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 Pawnee County area include the Pawnee Nation, Pawnee Public Schools, United Community Action Program, and the Pawnee County government.

Commuting Patterns

Travel Time to Work

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

Workers 16 Years and Over by Commuting Time to Work

	Pawnee		Pawnee County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Commuting Workers:	886		6,636		1,613,364	
Less than 15 minutes	519	58.58%	2,033	30.64%	581,194	36.02%
15 to 30 minutes	75	8.47%	1,373	20.69%	625,885	38.79%
30 to 45 minutes	136	15.35%	1,586	23.90%	260,192	16.13%
45 to 60 minutes	99	11.17%	997	15.02%	74,625	4.63%
60 or more minutes	57	6.43%	647	9.75%	71,468	4.43%

Source: 2009-2013 American Community Survey, Table B08303

Within Pawnee County, the largest percentage of workers (30.64%) travel fewer than 15 minutes to work. Although Pawnee County has an active labor market, some of its residents commute to other labor markets in the region, such as Stillwater, Ponca City, and the Tulsa metro area.

Means of Transportation

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

Workers 16 Years and Over by Means of Transportation to Work

	Pawnee		Pawnee County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Workers Age 16+	903		6,852		1,673,026	
Car, Truck or Van:	821	90.92%	6,295	91.87%	1,551,461	92.73%
<i>Drove Alone</i>	727	88.55%	5,581	88.66%	1,373,407	88.52%
<i>Carpooled</i>	94	11.45%	714	11.34%	178,054	11.48%
Public Transportation	0	0.00%	0	0.00%	8,092	0.48%
Taxicab	0	0.00%	0	0.00%	984	0.06%
Motorcycle	7	0.78%	32	0.47%	3,757	0.22%
Bicycle	0	0.00%	0	0.00%	4,227	0.25%
Walked	58	6.42%	189	2.76%	30,401	1.82%
Other Means	0	0.00%	120	1.75%	14,442	0.86%
Worked at Home	17	1.88%	216	3.15%	59,662	3.57%

Source: 2009-2013 American Community Survey, Table B08301

As shown, the vast majority of persons in Pawnee 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 Pawnee 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
Pawnee	1,054	1,049	-0.05%	1,059	0.19%
Pawnee County	7,464	7,745	0.37%	7,814	0.18%
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 Pawnee County grew by 0.18% per year, to a total of 7,814 housing units in 2015. In terms of new housing unit construction, Pawnee County underperformed Oklahoma as a whole between 2010 and 2015.

Housing by Units in Structure

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

2013 Housing Units by Units in Structure						
	Pawnee		Pawnee County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Housing Units	1,095		7,720		1,669,828	
1 Unit, Detached	927	84.66%	5,584	72.33%	1,219,987	73.06%
1 Unit, Attached	5	0.46%	45	0.58%	34,434	2.06%
Duplex Units	39	3.56%	56	0.73%	34,207	2.05%
3-4 Units	17	1.55%	36	0.47%	42,069	2.52%
5-9 Units	16	1.46%	110	1.42%	59,977	3.59%
10-19 Units	0	0.00%	12	0.16%	57,594	3.45%
20-49 Units	0	0.00%	0	0.00%	29,602	1.77%
50 or More Units	0	0.00%	35	0.45%	30,240	1.81%
Mobile Homes	91	8.31%	1,809	23.43%	159,559	9.56%
Boat, RV, Van, etc.	0	0.00%	33	0.43%	2,159	0.13%
Total Multifamily Units	72	6.58%	249	3.23%	253,689	15.19%

Source: 2009-2013 American Community Survey, Table B25024

Within Pawnee County, 72.33% of housing units are single-family, detached. 3.23% of housing units are multifamily in structure (two or more units per building), while 23.86% of housing units comprise mobile homes, RVs, etc.

Within Pawnee, 84.66% of housing units are single-family, detached. 6.58% of housing units are multifamily in structure, while 8.31% of housing units comprise mobile homes, RVs, etc.

Housing Units Number of Bedrooms and Tenure

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

2013 Housing Units by Tenure and Number of Bedrooms

	Pawnee		Pawnee County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Occupied Housing Units	897		6,341		1,444,081	
Owner Occupied:	594	66.22%	4,854	76.55%	968,736	67.08%
No Bedroom	4	0.67%	45	0.93%	2,580	0.27%
1 Bedroom	0	0.00%	140	2.88%	16,837	1.74%
2 Bedrooms	115	19.36%	1,158	23.86%	166,446	17.18%
3 Bedrooms	355	59.76%	2,703	55.69%	579,135	59.78%
4 Bedrooms	98	16.50%	663	13.66%	177,151	18.29%
5 or More Bedrooms	22	3.70%	145	2.99%	26,587	2.74%
Renter Occupied:	303	33.78%	1,487	23.45%	475,345	32.92%
No Bedroom	16	5.28%	20	1.34%	13,948	2.93%
1 Bedroom	57	18.81%	209	14.06%	101,850	21.43%
2 Bedrooms	121	39.93%	530	35.64%	179,121	37.68%
3 Bedrooms	93	30.69%	672	45.19%	152,358	32.05%
4 Bedrooms	16	5.28%	56	3.77%	24,968	5.25%
5 or More Bedrooms	0	0.00%	0	0.00%	3,100	0.65%

Source: 2009-2013 American Community Survey, Table B25042

The overall homeownership rate in Pawnee County is 76.55%, while 23.45% of housing units are renter occupied. In Pawnee, the homeownership rate is 66.22%, while 33.78% of households are renters.

Housing Units Tenure and Household Income

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

Pawnee County Owner/Renter Percentages by Income Band in 2013

Household Income	Total Households	Total Owners	Total Renters	% Owners	% Renters
Total	6,341	4,854	1,487	76.55%	23.45%
Less than \$5,000	248	108	140	43.55%	56.45%
\$5,000 - \$9,999	268	166	102	61.94%	38.06%
\$10,000-\$14,999	429	273	156	63.64%	36.36%
\$15,000-\$19,999	377	243	134	64.46%	35.54%
\$20,000-\$24,999	472	320	152	67.80%	32.20%
\$25,000-\$34,999	762	527	235	69.16%	30.84%
\$35,000-\$49,999	957	730	227	76.28%	23.72%
\$50,000-\$74,999	1,316	1,094	222	83.13%	16.87%
\$75,000-\$99,999	716	641	75	89.53%	10.47%
\$100,000-\$149,999	547	522	25	95.43%	4.57%
\$150,000 or more	249	230	19	92.37%	7.63%
Income Less Than \$25,000	1,794	1,110	684	61.87%	38.13%

Source: 2009-2013 American Community Survey, Table B25118

Within Pawnee County as a whole, 38.13% of households with incomes less than \$25,000 are estimated to be renters, while 61.87% are estimated to be homeowners.

Pawnee Owner/Renter Percentages by Income Band in 2013

Household Income	Total Households	Total Owners	Total Renters	% Owners	% Renters
Total	897	594	303	66.22%	33.78%
Less than \$5,000	61	9	52	14.75%	85.25%
\$5,000 - \$9,999	65	29	36	44.62%	55.38%
\$10,000-\$14,999	77	40	37	51.95%	48.05%
\$15,000-\$19,999	85	41	44	48.24%	51.76%
\$20,000-\$24,999	81	67	14	82.72%	17.28%
\$25,000-\$34,999	70	48	22	68.57%	31.43%
\$35,000-\$49,999	140	103	37	73.57%	26.43%
\$50,000-\$74,999	165	135	30	81.82%	18.18%
\$75,000-\$99,999	50	38	12	76.00%	24.00%
\$100,000-\$149,999	78	65	13	83.33%	16.67%
\$150,000 or more	25	19	6	76.00%	24.00%
Income Less Than \$25,000	369	186	183	50.41%	49.59%

Source: 2009-2013 American Community Survey, Table B25118

Within Pawnee, 49.59% of households with incomes less than \$25,000 are estimated to be renters, while 50.41% 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

	Pawnee		Pawnee County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Occupied Housing Units	897		6,341		1,444,081	
Owner Occupied:	594	66.22%	4,854	76.55%	968,736	67.08%
Built 2010 or Later	0	0.00%	52	1.07%	10,443	1.08%
Built 2000 to 2009	40	6.73%	571	11.76%	153,492	15.84%
Built 1990 to 1999	59	9.93%	608	12.53%	125,431	12.95%
Built 1980 to 1989	63	10.61%	878	18.09%	148,643	15.34%
Built 1970 to 1979	143	24.07%	1,147	23.63%	184,378	19.03%
Built 1960 to 1969	46	7.74%	599	12.34%	114,425	11.81%
Built 1950 to 1959	72	12.12%	302	6.22%	106,544	11.00%
Built 1940 to 1949	13	2.19%	85	1.75%	50,143	5.18%
Built 1939 or Earlier	158	26.60%	612	12.61%	75,237	7.77%
Median Year Built:		1971		1977		1977
Renter Occupied:	303	33.78%	1,487	23.45%	475,345	32.92%
Built 2010 or Later	0	0.00%	0	0.00%	5,019	1.06%
Built 2000 to 2009	18	5.94%	114	7.67%	50,883	10.70%
Built 1990 to 1999	19	6.27%	175	11.77%	47,860	10.07%
Built 1980 to 1989	26	8.58%	199	13.38%	77,521	16.31%
Built 1970 to 1979	59	19.47%	260	17.48%	104,609	22.01%
Built 1960 to 1969	75	24.75%	196	13.18%	64,546	13.58%
Built 1950 to 1959	24	7.92%	192	12.91%	54,601	11.49%
Built 1940 to 1949	53	17.49%	159	10.69%	31,217	6.57%
Built 1939 or Earlier	29	9.57%	192	12.91%	39,089	8.22%
Median Year Built:		1966		1970		1975
Overall Median Year Built:		1971		1976		1976

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

Within Pawnee County, 11.62% of housing units were built after the year 2000. This compares with 15.22% statewide. Within Pawnee the percentage is 6.47%.

76.03% of housing units in Pawnee County were built prior to 1990, while in Pawnee the percentage is 84.84%. These figures compare with the statewide figure of 72.78%.

Substandard Housing

The next table presents data regarding substandard housing in Pawnee 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	Inadequate Plumbing		Inadequate Kitchen		Uses Wood for Fuel	
	Units	Number	Percent	Number	Percent	Number	Percent
Pawnee	897	7	0.78%	17	1.90%	9	1.00%
Pawnee County	6,341	21	0.33%	57	0.90%	500	7.89%
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 Pawnee County, 0.33% of occupied housing units have inadequate plumbing (compared with 0.49% at a statewide level), while 0.90% 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 Pawnee County by vacancy and type. This data is provided by the American Community Survey.

2013 Housing Units by Vacancy

	Pawnee		Pawnee County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Housing Units	1,095		7,720		1,669,828	
Total Vacant Units	198	18.08%	1,379	17.86%	225,747	13.52%
For rent	29	14.65%	159	11.53%	43,477	19.26%
Rented, not occupied	0	0.00%	6	0.44%	9,127	4.04%
For sale only	7	3.54%	133	9.64%	23,149	10.25%
Sold, not occupied	0	0.00%	24	1.74%	8,618	3.82%
For seasonal, recreational, or occasional use	19	9.60%	233	16.90%	39,475	17.49%
For migrant workers	0	0.00%	0	0.00%	746	0.33%
Other vacant	143	72.22%	824	59.75%	101,155	44.81%
Homeowner Vacancy Rate	1.16%		2.65%		2.31%	
Rental Vacancy Rate	8.73%		9.62%		8.24%	

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

Within Pawnee County, the overall housing vacancy rate is estimated to be 17.86%. The homeowner vacancy rate is estimated to be 2.65%, while the rental vacancy rate is estimated to be 9.62%.

In Pawnee, the overall housing vacancy rate is estimated to be 18.08%. The homeowner vacancy rate is estimated to be 1.16%, while the rental vacancy rate is estimated to be 8.73%.

Building Permits

The next table presents data regarding new residential building permits issued in Pawnee. 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.

Pawnee				
New Residential Building Permits Issued, 2004-2014				
Year	Single Family Units	Avg. Construction Cost	Multifamily Units	Avg. Multifamily Construction Cost
2004	2	\$68,000	0	N/A
2005	20	\$125,000	0	N/A
2006	8	\$118,625	0	N/A
2007	1	\$71,532	0	N/A
2008	1	\$150,000	0	N/A
2009	0	N/A	0	N/A
2010	0	N/A	0	N/A
2011	0	N/A	0	N/A
2012	0	N/A	0	N/A
2013	0	N/A	0	N/A
2014	0	N/A	0	N/A

Source: United States Census Bureau Building Permits Survey

In Pawnee, building permits for 32 housing units were issued between 2004 and 2014, for an average of 3 units per year. 100.00% of these housing units were single family homes.

New Construction Activity

For Ownership:

There has been new home construction in Pawnee County, though most has been on unplatted rural acreages, rural subdivisions, and in the area around Cleveland. Most construction has consisted of custom built homes, and much priced well above what could be afforded by low to moderate income households: the average sale price of homes constructed after 2005 in Pawnee County (and sold after January 2015) is estimated to be \$264,088 or \$134.72 per square foot.

For Rent:

The only notable new rental development in the last ten years in Pawnee was the construction of Pawnee Townhomes in 2006. It comprises 20 affordable rental units for families, with financing from the Affordable Housing Tax Credit program as well as the HOME Investment Partnership program.

Homeownership Market

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

Housing Units by Home Value

The following table presents housing units in Pawnee 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

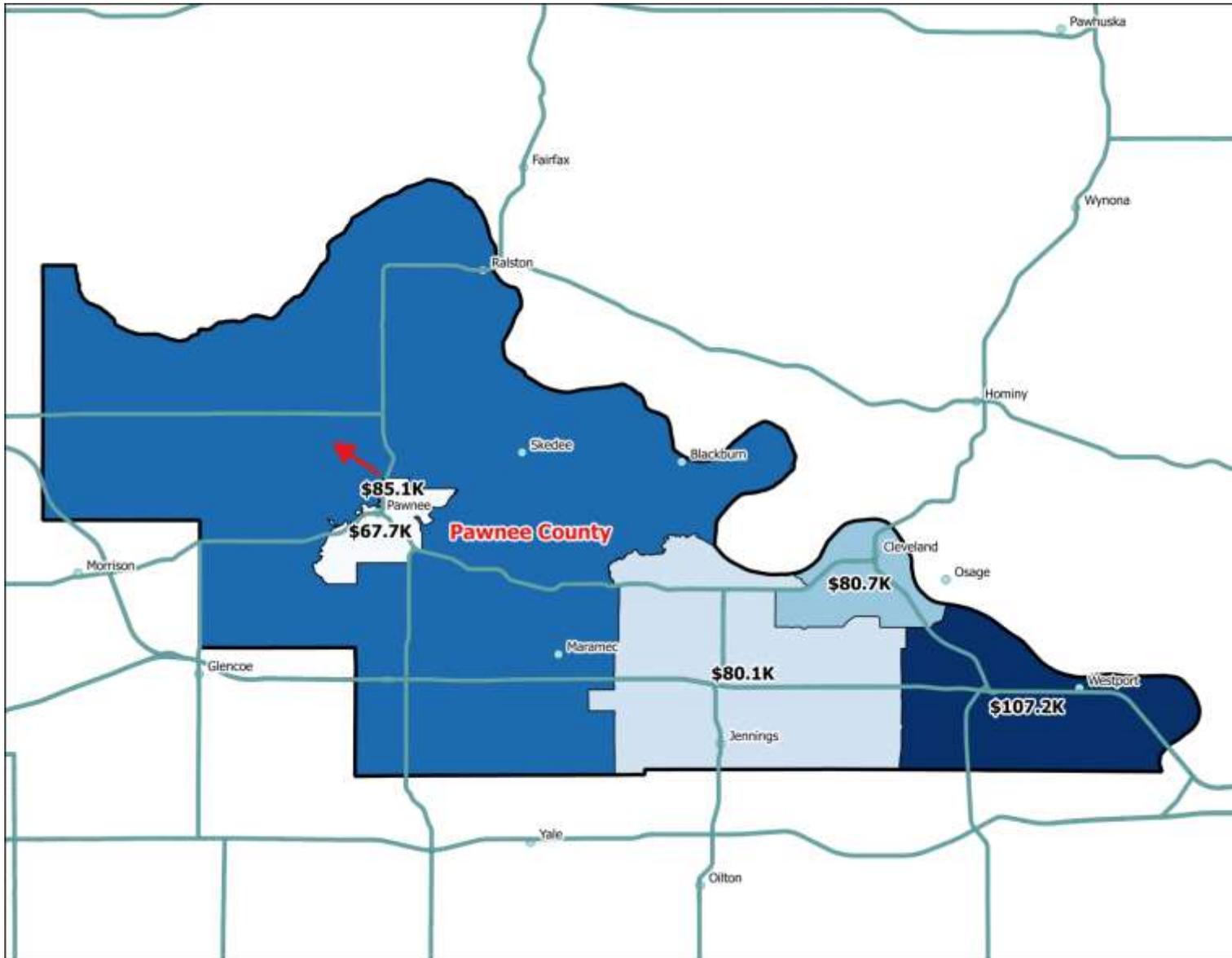
	Pawnee		Pawnee County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Owner-Occupied Units:	594		4,854		968,736	
Less than \$10,000	9	1.52%	254	5.23%	20,980	2.17%
\$10,000 to \$14,999	19	3.20%	145	2.99%	15,427	1.59%
\$15,000 to \$19,999	5	0.84%	99	2.04%	13,813	1.43%
\$20,000 to \$24,999	28	4.71%	170	3.50%	16,705	1.72%
\$25,000 to \$29,999	4	0.67%	95	1.96%	16,060	1.66%
\$30,000 to \$34,999	35	5.89%	134	2.76%	19,146	1.98%
\$35,000 to \$39,999	20	3.37%	102	2.10%	14,899	1.54%
\$40,000 to \$49,999	68	11.45%	340	7.00%	39,618	4.09%
\$50,000 to \$59,999	66	11.11%	320	6.59%	45,292	4.68%
\$60,000 to \$69,999	68	11.45%	291	6.00%	52,304	5.40%
\$70,000 to \$79,999	75	12.63%	334	6.88%	55,612	5.74%
\$80,000 to \$89,999	53	8.92%	406	8.36%	61,981	6.40%
\$90,000 to \$99,999	13	2.19%	273	5.62%	51,518	5.32%
\$100,000 to \$124,999	66	11.11%	492	10.14%	119,416	12.33%
\$125,000 to \$149,999	10	1.68%	310	6.39%	96,769	9.99%
\$150,000 to \$174,999	0	0.00%	348	7.17%	91,779	9.47%
\$175,000 to \$199,999	7	1.18%	132	2.72%	53,304	5.50%
\$200,000 to \$249,999	41	6.90%	226	4.66%	69,754	7.20%
\$250,000 to \$299,999	7	1.18%	156	3.21%	41,779	4.31%
\$300,000 to \$399,999	0	0.00%	127	2.62%	37,680	3.89%
\$400,000 to \$499,999	0	0.00%	38	0.78%	13,334	1.38%
\$500,000 to \$749,999	0	0.00%	36	0.74%	12,784	1.32%
\$750,000 to \$999,999	0	0.00%	0	0.00%	3,764	0.39%
\$1,000,000 or more	0	0.00%	26	0.54%	5,018	0.52%
Median Home Value:		\$66,300		\$83,500		\$112,800

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

The median value of owner-occupied homes in Pawnee County is \$83,500. This is -26.0% lower than the statewide median, which is \$112,800. The median home value in Pawnee is estimated to be \$66,300.

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

Pawnee County Median Home Values by Census Tract



Home Values by Year of Construction

The next table presents median home values in Pawnee 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

	Pawnee Median Value	Pawnee County Median Value	State of Oklahoma Median Value
Total Owner-Occupied Units:			
Built 2010 or Later	-	\$86,700	\$188,900
Built 2000 to 2009	\$78,000	\$111,300	\$178,000
Built 1990 to 1999	\$47,700	\$82,400	\$147,300
Built 1980 to 1989	\$83,100	\$82,400	\$118,300
Built 1970 to 1979	\$56,100	\$85,800	\$111,900
Built 1960 to 1969	\$68,600	\$87,900	\$97,100
Built 1950 to 1959	\$111,300	\$88,500	\$80,300
Built 1940 to 1949	-	\$46,700	\$67,900
Built 1939 or Earlier	\$66,300	\$66,300	\$74,400

Note: Dashes indicate the Census Bureau had insufficient data to estimate a median value.

Source: 2009-2013 American Community Survey, Table 25107

Pawnee Single Family Sales Activity

The next series of tables provides data regarding single family home sales activity in Pawnee. This data was furnished by County Records, Inc. from publicly available data. The data is separated by two, three and four bedroom homes, and then total data for all bedroom types.

Pawnee Single Family Sales Activity

Two Bedroom Units

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	12	9	3	4	5
Average Sale Price	\$31,949	\$52,286	\$20,667	\$39,625	\$43,400
Average Square Feet	1,023	1,043	969	1,430	1,392
Average Price/SF	\$31.23	\$50.13	\$21.33	\$27.71	\$31.18
Average Year Built	1923	1938	1935	1950	1925

Source: Pawnee County Assessor, via County Records, Inc.

**Pawnee Single Family Sales Activity
Three Bedroom Units**

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	13	6	10	7	8
Average Sale Price	\$62,636	\$67,500	\$49,611	\$55,250	\$52,375
Average Square Feet	1,504	1,366	1,447	1,456	1,365
Average Price/SF	\$41.65	\$49.41	\$34.29	\$37.95	\$38.37
Average Year Built	1955	1972	1955	1956	1957

Source: Pawnee County Assessor, via County Records, Inc.

**Pawnee Single Family Sales Activity
Four Bedroom Units**

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	1	0	2	0	2
Average Sale Price	\$29,000	N/A	\$133,500	N/A	\$87,500
Average Square Feet	1,636	N/A	2,014	N/A	2,079
Average Price/SF	\$17.73	N/A	\$66.29	N/A	\$42.09
Average Year Built	1907	N/A	1980	N/A	1950

Source: Pawnee County Assessor, via County Records, Inc.

**Pawnee Single Family Sales Activity
All Bedroom Types**

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	26	15	15	11	15
Average Sale Price	\$32,495	\$59,893	\$67,926	\$47,437	\$61,091
Average Square Feet	1,387	1,204	1,476	1,443	1,612
Average Price/SF	\$23.43	\$49.75	\$46.02	\$32.87	\$37.90
Average Year Built	1928	1955	1956	1953	1944

Source: Pawnee County Assessor, via County Records, Inc.

The average sale price of homes in Pawnee varied considerably over the last five years depending on the quality and condition of the homes sold in any given years. The average sale price in 2015 was \$61,091 for an average price per square foot of \$37.90. The average year of construction for homes sold in 2014 is estimated to be 1944.

Foreclosure Rates

The next table presents foreclosure rate data for Pawnee 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
Pawnee County	3.0%
State of Oklahoma	2.1%
United States	2.1%
Rank among Counties in Oklahoma*:	15

* 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 Pawnee County was 3.0% in May 2014. The county ranked 15 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 among the higher foreclosure rates in the state, it is likely that foreclosures have had some impact on the Pawnee County housing market. High rates of foreclosure can have a depressing effect on local real estate values, lengthening marketing times and making it more difficult for potential buyers to secure financing.

Rental Market

This section will discuss supply and demand factors for the rental market in Pawnee 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 Pawnee 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						
	Pawnee		Pawnee County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Rental Units:	303		1,487		475,345	
With cash rent:	268		1,087		432,109	
Less than \$100	0	0.00%	0	0.00%	2,025	0.43%
\$100 to \$149	0	0.00%	0	0.00%	2,109	0.44%
\$150 to \$199	0	0.00%	7	0.47%	4,268	0.90%
\$200 to \$249	22	7.26%	22	1.48%	8,784	1.85%
\$250 to \$299	8	2.64%	14	0.94%	8,413	1.77%
\$300 to \$349	10	3.30%	14	0.94%	9,107	1.92%
\$350 to \$399	12	3.96%	48	3.23%	10,932	2.30%
\$400 to \$449	50	16.50%	81	5.45%	15,636	3.29%
\$450 to \$499	17	5.61%	89	5.99%	24,055	5.06%
\$500 to \$549	26	8.58%	125	8.41%	31,527	6.63%
\$550 to \$599	21	6.93%	84	5.65%	33,032	6.95%
\$600 to \$649	20	6.60%	137	9.21%	34,832	7.33%
\$650 to \$699	39	12.87%	104	6.99%	32,267	6.79%
\$700 to \$749	8	2.64%	58	3.90%	30,340	6.38%
\$750 to \$799	16	5.28%	66	4.44%	27,956	5.88%
\$800 to \$899	6	1.98%	94	6.32%	45,824	9.64%
\$900 to \$999	0	0.00%	66	4.44%	34,153	7.18%
\$1,000 to \$1,249	7	2.31%	59	3.97%	46,884	9.86%
\$1,250 to \$1,499	0	0.00%	13	0.87%	14,699	3.09%
\$1,500 to \$1,999	6	1.98%	6	0.40%	10,145	2.13%
\$2,000 or more	0	0.00%	0	0.00%	5,121	1.08%
No cash rent	35	11.55%	400	26.90%	43,236	9.10%
Median Gross Rent		\$529		\$622		\$699

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

Median gross rent in Pawnee County is estimated to be \$622, which is -11.0% less than Oklahoma's median gross rent of \$699/month. Median gross rent in Pawnee is estimated to be \$529.

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

	Pawnee Median Rent	Pawnee County Median Rent	State of Oklahoma Median Rent
Total Rental Units:			
Built 2010 or Later	-	-	\$933
Built 2000 to 2009	-	\$620	\$841
Built 1990 to 1999	\$673	\$677	\$715
Built 1980 to 1989	\$571	\$623	\$693
Built 1970 to 1979	\$683	\$661	\$662
Built 1960 to 1969	\$432	\$668	\$689
Built 1950 to 1959	\$610	\$615	\$714
Built 1940 to 1949	\$473	\$550	\$673
Built 1939 or Earlier	\$538	\$506	\$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 Pawnee County is among housing units constructed in Pawnee between 1970 and 1979 (likely representing rental houses) which is \$683 per month. In order to be affordable, a household would need to earn at least \$27,320 per year to afford such a unit.

Pawnee Rental Survey Data

The next two tables show the results of our rental survey of Pawnee. Most of the multifamily rental property is subsidized in some form, either by the Pawnee Housing Authority or through Affordable Housing Tax Credits.

Pawnee Rental Properties - Affordable

Name	Type	Year Built	Bedrooms	Bathrooms	Size (SF)	Rate	Rate/SF
Pawnee Townhomes	LIHTC / HOME - Family	2006	2	1.5	1,042	\$360	\$0.345
Pawnee Townhomes	LIHTC / HOME - Family	2006	3	2	1,271	\$430	\$0.338

Pawnee Townhomes consists of 20 townhouses under the Affordable Housing Tax Credit program, for family occupancy. It was constructed by United Community Action Program and was reportedly well-received.

Rental Market Vacancy – Pawnee

The overall market vacancy of rental housing units was reported at 8.73% by the Census Bureau as of the most recent American Community Survey. This figure includes both single-family and multifamily rental properties in Pawnee. This figure generally agrees with data from HUD, which 93% occupancy among HUD-assisted rental units in Pawnee 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 Pawnee 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.

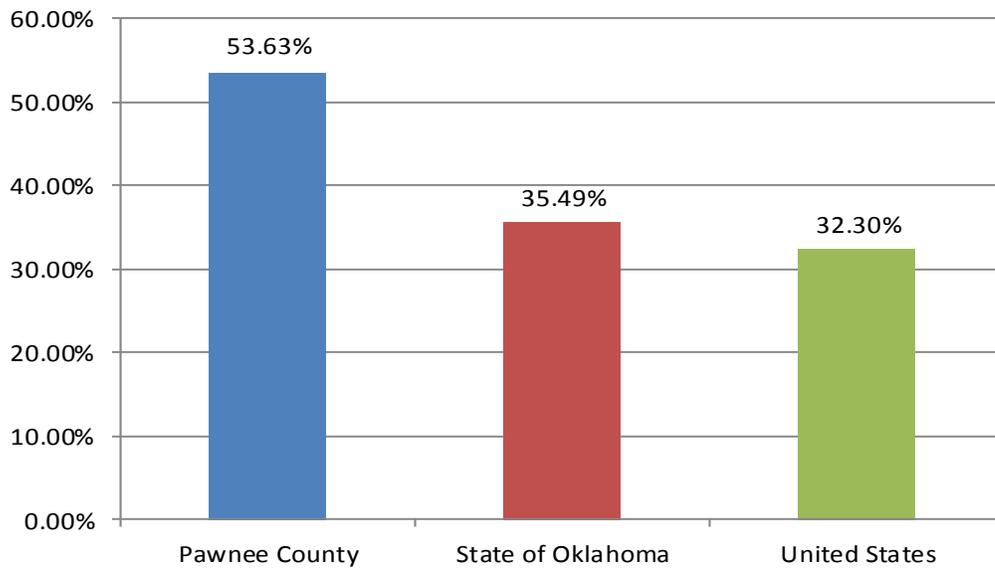
HUD Programs in Pawnee County

	# Units	Occupancy Rate	Avg. Household Income	Tenant Contribution	Federal Contribution	% of Total Rent
Pawnee County						
Public Housing	38	92%	\$12,926	\$235	\$261	47.34%
Housing Choice Vouchers	11	95%	\$11,202	\$271	\$327	45.32%
Mod Rehab	0	N/A	N/A	N/A	N/A	N/A
Section 8 NC/SR	0	N/A	N/A	N/A	N/A	N/A
Section 236	0	N/A	N/A	N/A	N/A	N/A
Multi-Family Other	18	94%	\$13,084	\$317	\$111	74.08%
Summary of All HUD Programs	67	93%	\$12,678	\$264	\$228	53.63%
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 67 housing units located within Pawnee County, with an overall occupancy rate of 93%. The average household income among households living in these units is \$12,678. Total monthly rent for these units averages \$492, with the federal contribution averaging \$228 (46.37%) and the tenant's contribution averaging \$264 (53.63%).

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.



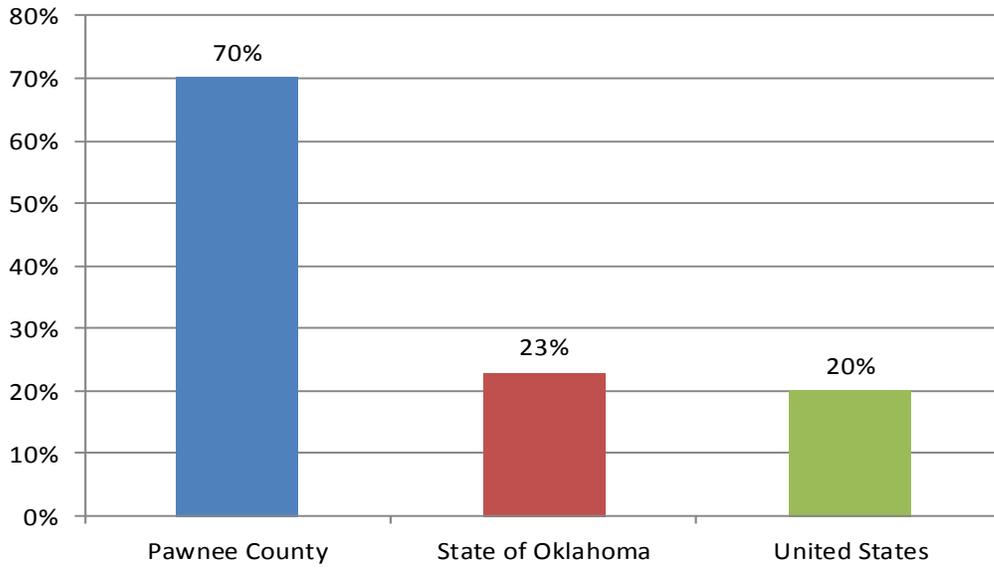
Demographics of Persons in HUD Programs in Pawnee County

Pawnee County	# Units	% Single Mothers	% w/ Disability	% Age 62+	% Age 62+ w/ Disability	% Minority
Public Housing	38	9%	61%	57%	80%	43%
Housing Choice Vouchers	11	9%	60%	27%	67%	18%
Mod Rehab	0	N/A	N/A	N/A	N/A	N/A
Section 8 NC/SR	0	N/A	N/A	N/A	N/A	N/A
Section 236	0	N/A	N/A	N/A	N/A	N/A
Multi-Family Other	18	0%	100%	0%	N/A	12%
Summary of All HUD Programs	67	6%	70%	36%	78%	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

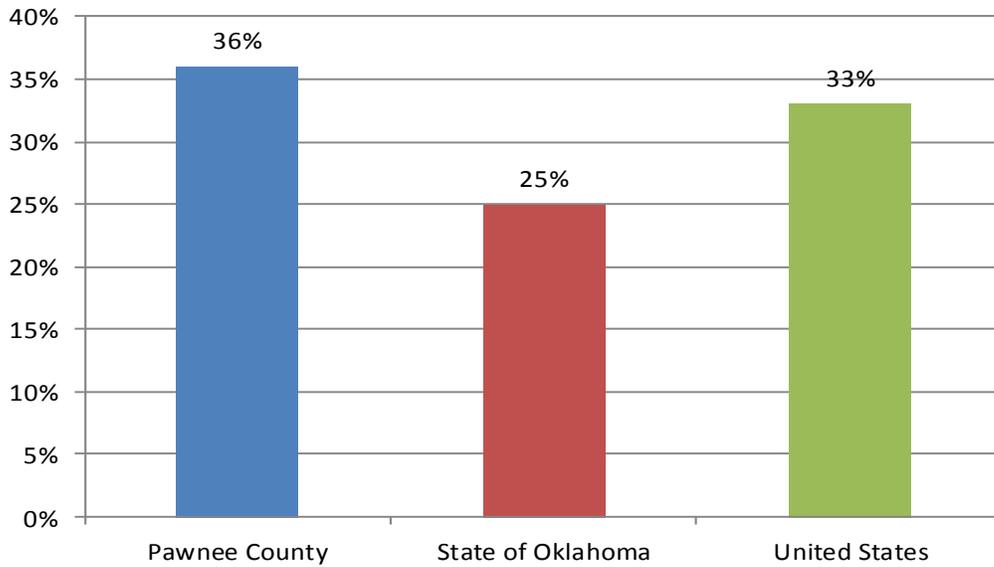
6% of housing units are occupied by single parents with female heads of household. 70% of households have at least one person with a disability. 36% of households have either a householder or spouse age 62 or above. Of the households age 62 or above, 78% have one or more disabilities. Finally, 30% of households are designated as racial or ethnic minorities.

Percentage of Households with Disabilities - HUD Subsidized Properties



Source: 2013 HUD Picture of Subsidized Households

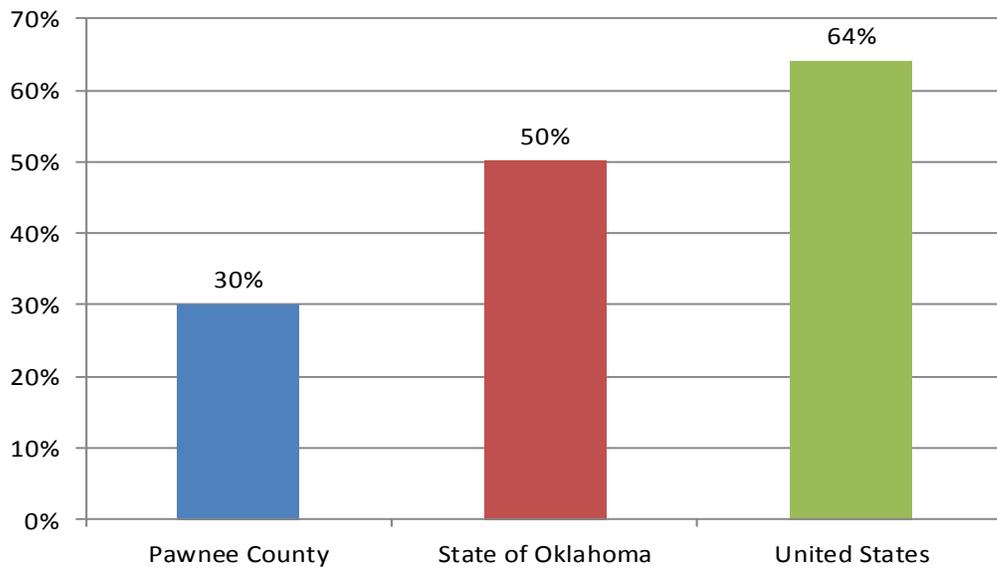
Percentage of Households Age 62+ - HUD Subsidized Properties



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 Pawnee 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 Pawnee 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.

Pawnee County : CHAS - Housing Cost Burden by HAMFI				
Household Income / Cost Burden	Owners		Renters	
	Number	Percent	Number	Percent
Income < 30% HAMFI	325		360	
Cost Burden Less Than 30%	75	23.08%	90	25.00%
Cost Burden Between 30%-50%	65	20.00%	30	8.33%
Cost Burden Greater Than 50%	155	47.69%	180	50.00%
Not Computed (no/negative income)	35	10.77%	60	16.67%
Income 30%-50% HAMFI	435		310	
Cost Burden Less Than 30%	250	57.47%	135	43.55%
Cost Burden Between 30%-50%	100	22.99%	120	38.71%
Cost Burden Greater Than 50%	85	19.54%	55	17.74%
Not Computed (no/negative income)	0	0.00%	0	0.00%
Income 50%-80% HAMFI	935		285	
Cost Burden Less Than 30%	730	78.07%	200	70.18%
Cost Burden Between 30%-50%	120	12.83%	85	29.82%
Cost Burden Greater Than 50%	85	9.09%	0	0.00%
Not Computed (no/negative income)	0	0.00%	0	0.00%
Income 80%-100% HAMFI	425		160	
Cost Burden Less Than 30%	385	90.59%	160	100.00%
Cost Burden Between 30%-50%	35	8.24%	0	0.00%
Cost Burden Greater Than 50%	10	2.35%	0	0.00%
Not Computed (no/negative income)	0	0.00%	0	0.00%
All Incomes	4,945		1,420	
Cost Burden Less Than 30%	4,185	84.63%	890	62.68%
Cost Burden Between 30%-50%	400	8.09%	235	16.55%
Cost Burden Greater Than 50%	335	6.77%	235	16.55%
Not Computed (no/negative income)	35	0.71%	60	4.23%

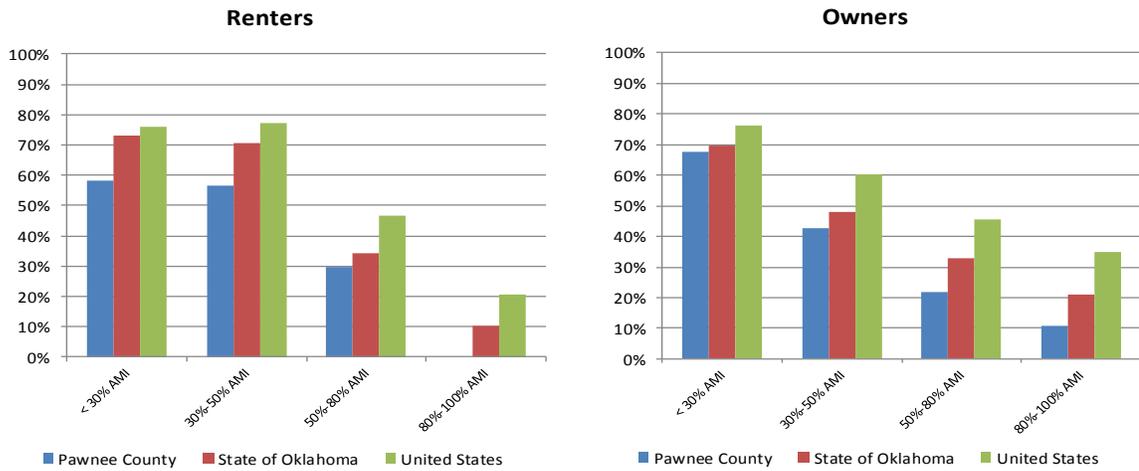
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 8

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 Pawnee County with the State of Oklahoma as a whole, and the United States.

Pawnee County : Households by Income by Cost Burden				
Household Income Threshold	Owners		Renters	
	Total	% w/ Cost > 30% Income	Total	% w/ Cost > 30% Income
Income < 30% HAMFI	325	67.69%	360	58.33%
Income 30%-50% HAMFI	435	42.53%	310	56.45%
Income 50%-80% HAMFI	935	21.93%	285	29.82%
Income 80%-100% HAMFI	425	10.59%	160	0.00%
All Incomes	4,945	14.86%	1,420	33.10%

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.



Pawnee County : CHAS - HAMFI by Substandard Conditions / Overcrowding				
Household Income / Housing Problem	Owners		Renters	
	Number	Percent	Number	Percent
Income < 30% HAMFI	325		360	
Between 1.0 and 1.5 Persons per Room	4	1.23%	10	2.78%
More than 1.5 Persons per Room	10	3.08%	0	0.00%
Lacks Complete Kitchen or Plumbing	15	4.62%	0	0.00%
Income 30%-50% HAMFI	435		310	
Between 1.0 and 1.5 Persons per Room	0	0.00%	10	3.23%
More than 1.5 Persons per Room	4	0.92%	4	1.29%
Lacks Complete Kitchen or Plumbing	4	0.92%	4	1.29%
Income 50%-80% HAMFI	935		285	
Between 1.0 and 1.5 Persons per Room	4	0.43%	40	14.04%
More than 1.5 Persons per Room	4	0.43%	0	0.00%
Lacks Complete Kitchen or Plumbing	15	1.60%	0	0.00%
Income 80%-100% HAMFI	425		160	
Between 1.0 and 1.5 Persons per Room	10	2.35%	0	0.00%
More than 1.5 Persons per Room	0	0.00%	0	0.00%
Lacks Complete Kitchen or Plumbing	15	3.53%	0	0.00%
All Incomes	4,945		1,420	
Between 1.0 and 1.5 Persons per Room	53	1.07%	75	5.28%
More than 1.5 Persons per Room	22	0.44%	4	0.28%
Lacks Complete Kitchen or Plumbing	44	0.89%	4	0.28%

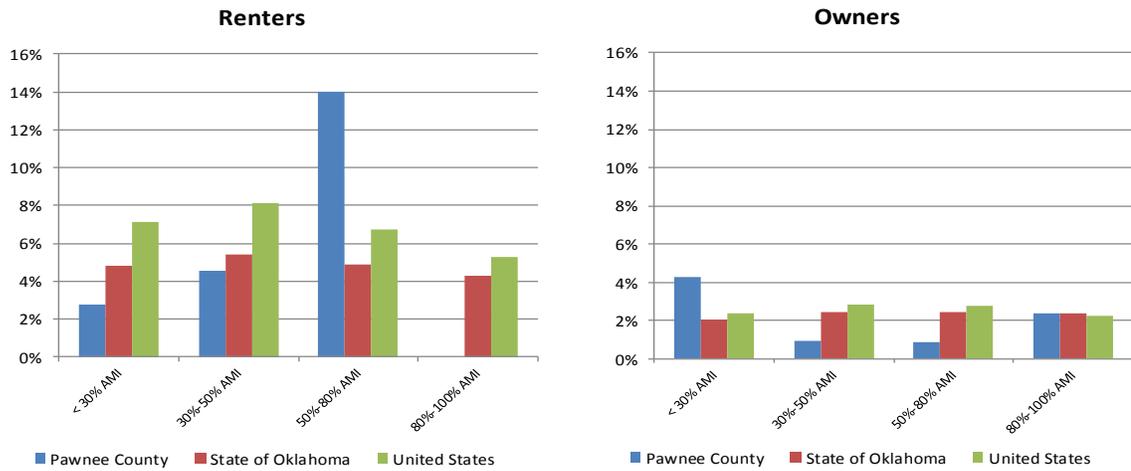
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 3

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 Pawnee County, Oklahoma and the nation.

Pawnee County : Households by Income by Overcrowding					
Household Income Threshold	Total	Owners		Renters	
		% > 1.0 Persons per Room	Total	% > 1.0 Persons per Room	Total
Income < 30% HAMFI	325	4.31%	360	2.78%	360
Income 30%-50% HAMFI	435	0.92%	310	4.52%	310
Income 50%-80% HAMFI	935	0.86%	285	14.04%	285
Income 80%-100% HAMFI	425	2.35%	160	0.00%	160
All Incomes	4,945	1.52%	1,420	5.56%	1,420

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 Pawnee County, the state and the nation.

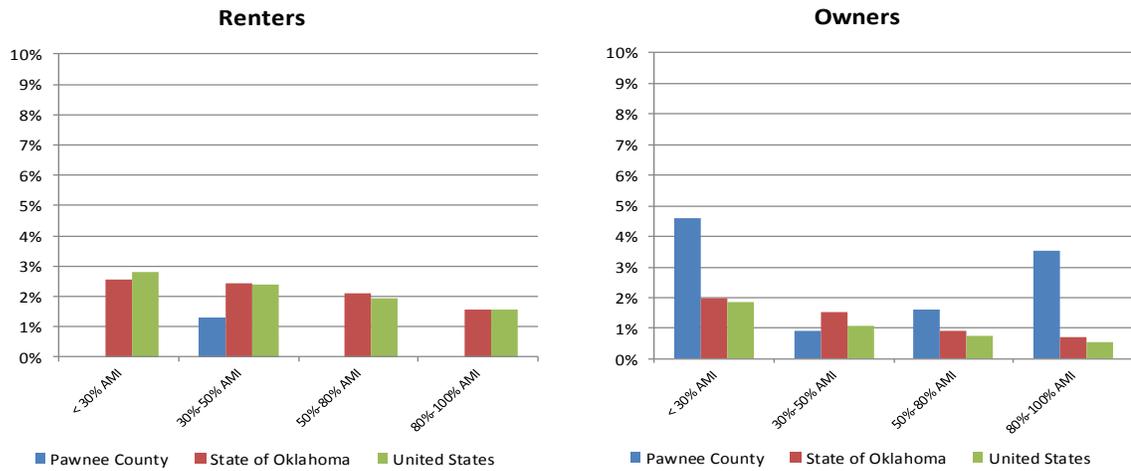
Pawnee County : Households by Income by Substandard Conditions

Household Size/Type	Total	Owners		Renters	
		% Lacking Kitchen or Plumbing	Total	% Lacking Kitchen or Plumbing	Total
Income < 30% HAMFI	325	4.62%	360	0.00%	
Income 30%-50% HAMFI	435	0.92%	310	1.29%	
Income 50%-80% HAMFI	935	1.60%	285	0.00%	
Income 80%-100% HAMFI	425	3.53%	160	0.00%	
All Incomes	4,945	0.89%	1,420	0.28%	

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.



Pawnee County : CHAS - Housing Cost Burden by Household Type / HAMFI						
Income, Household Size/Type	Total	Owners		Total	Renters	
		No. w/ Cost > 30% Income	Pct. w/ Cost > 30% Income		No. w/ Cost > 30% Income	Pct. w/ Cost > 30% Income
Income < 30% HAMFI	325	220	67.69%	360	210	58.33%
Elderly Family	25	20	80.00%	0	0	N/A
Small Family (2-4 persons)	55	40	72.73%	165	125	75.76%
Large Family (5 or more persons)	30	20	66.67%	30	15	50.00%
Elderly Non-Family	85	60	70.59%	50	25	50.00%
Non-Family, Non-Elderly	125	80	64.00%	120	45	37.50%
Income 30%-50% HAMFI	435	183	42.07%	310	175	56.45%
Elderly Family	100	35	35.00%	10	10	100.00%
Small Family (2-4 persons)	80	50	62.50%	90	40	44.44%
Large Family (5 or more persons)	10	4	40.00%	50	10	20.00%
Elderly Non-Family	170	70	41.18%	75	40	53.33%
Non-Family, Non-Elderly	80	24	30.00%	90	75	83.33%
Income 50%-80% HAMFI	935	199	21.28%	285	80	28.07%
Elderly Family	255	19	7.45%	25	15	60.00%
Small Family (2-4 persons)	270	85	31.48%	115	20	17.39%
Large Family (5 or more persons)	60	10	16.67%	35	15	42.86%
Elderly Non-Family	165	25	15.15%	70	20	28.57%
Non-Family, Non-Elderly	185	60	32.43%	45	10	22.22%
Income 80%-100% HAMFI	425	47	11.06%	160	0	0.00%
Elderly Family	95	8	8.42%	4	0	0.00%
Small Family (2-4 persons)	205	15	7.32%	80	0	0.00%
Large Family (5 or more persons)	45	4	8.89%	20	0	0.00%
Elderly Non-Family	25	0	0.00%	0	0	N/A
Non-Family, Non-Elderly	50	20	40.00%	55	0	0.00%
All Incomes	4,945	734	14.84%	1,420	465	32.75%
Elderly Family	1,085	107	9.86%	54	25	46.30%
Small Family (2-4 persons)	2,175	250	11.49%	620	185	29.84%
Large Family (5 or more persons)	325	38	11.69%	150	40	26.67%
Elderly Non-Family	650	155	23.85%	220	85	38.64%
Non-Family, Non-Elderly	705	184	26.10%	390	130	33.33%

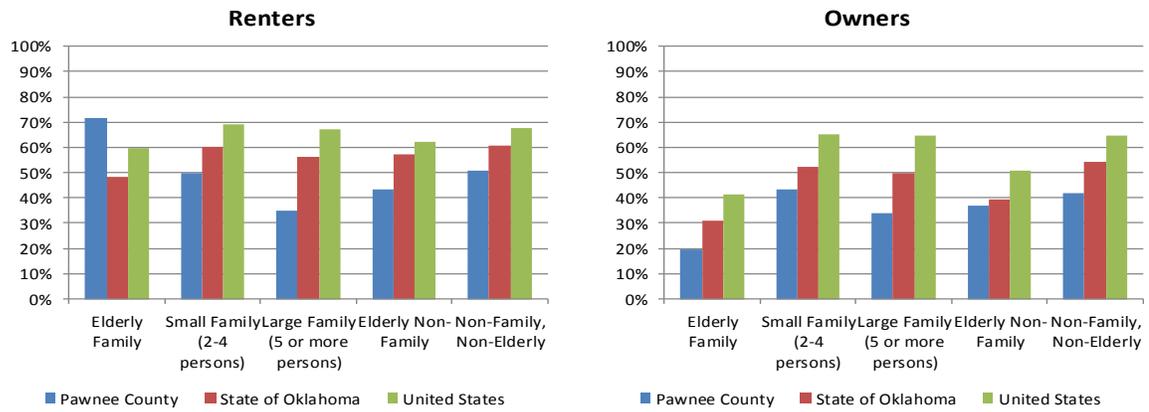
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 7

Pawnee County : Households under 80% AMI by Cost Burden

Household Size/Type	Total	Owners		Renters		
		No. w/ Cost > 30% Income	Pct. w/ Cost > 30% Income	Total	No. w/ Cost > 30% Income	Pct. w/ Cost > 30% Income
Income < 80% HAMFI	1,695	602	35.52%	955	465	48.69%
Elderly Family	380	74	19.47%	35	25	71.43%
Small Family (2-4 persons)	405	175	43.21%	370	185	50.00%
Large Family (5 or more persons)	100	34	34.00%	115	40	34.78%
Elderly Non-Family	420	155	36.90%	195	85	43.59%
Non-Family, Non-Elderly	390	164	42.05%	255	130	50.98%

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).



Pawnee County : CHAS - Housing Problems by Household Type and HAMFI						
Income, Household Size/Type	Total	Owners		Renters		
		No. w/ Housing Problems	Pct. w/ Housing Problems	Total	No. w/ Housing Problems	Pct. w/ Housing Problems
Income < 30% HAMFI	325	235	72.31%	360	210	58.33%
Elderly Family	25	20	80.00%	0	0	N/A
Small Family (2-4 persons)	55	40	72.73%	165	125	75.76%
Large Family (5 or more persons)	30	25	83.33%	30	15	50.00%
Elderly Non-Family	85	70	82.35%	50	25	50.00%
Non-Family, Non-Elderly	125	80	64.00%	120	45	37.50%
Income 30%-50% HAMFI	435	189	43.45%	310	190	61.29%
Elderly Family	100	35	35.00%	10	10	100.00%
Small Family (2-4 persons)	80	50	62.50%	90	45	50.00%
Large Family (5 or more persons)	10	4	40.00%	50	15	30.00%
Elderly Non-Family	170	75	44.12%	75	40	53.33%
Non-Family, Non-Elderly	80	25	31.25%	90	80	88.89%
Income 50%-80% HAMFI	935	225	24.06%	285	110	38.60%
Elderly Family	255	20	7.84%	25	15	60.00%
Small Family (2-4 persons)	270	100	37.04%	115	40	34.78%
Large Family (5 or more persons)	60	20	33.33%	35	25	71.43%
Elderly Non-Family	165	25	15.15%	70	20	28.57%
Non-Family, Non-Elderly	185	60	32.43%	45	10	22.22%
Income Greater than 80% of HAMFI	3,250	200	6.15%	465	15	3.23%
Elderly Family	705	35	4.96%	20	0	0.00%
Small Family (2-4 persons)	1,770	90	5.08%	250	0	0.00%
Large Family (5 or more persons)	225	40	17.78%	35	15	42.86%
Elderly Non-Family	230	0	0.00%	25	0	0.00%
Non-Family, Non-Elderly	315	35	11.11%	130	0	0.00%
All Incomes	4,945	849	17.17%	1,420	525	36.97%
Elderly Family	1,085	110	10.14%	55	25	45.45%
Small Family (2-4 persons)	2,175	280	12.87%	620	210	33.87%
Large Family (5 or more persons)	325	89	27.38%	150	70	46.67%
Elderly Non-Family	650	170	26.15%	220	85	38.64%
Non-Family, Non-Elderly	705	200	28.37%	385	135	35.06%

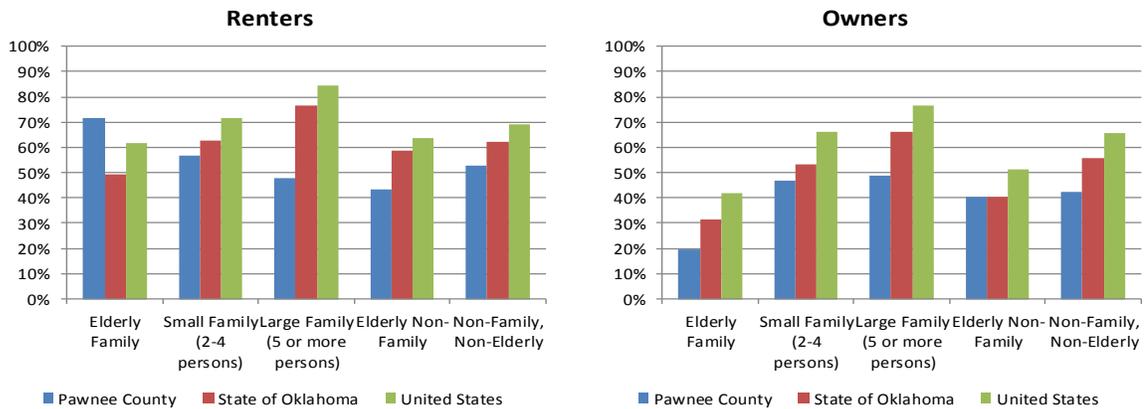
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 16

Pawnee County : Households under 80% AMI by Housing Problems

Household Size/Type	Total	Owners		Renters	
		No. w/ Housing Problems	Pct. w/ Housing Problems	No. w/ Housing Problems	Pct. w/ Housing Problems
Income < 80% HAMFI	1,695	649	38.29%	955	53.40%
Elderly Family	380	75	19.74%	35	71.43%
Small Family (2-4 persons)	405	190	46.91%	370	56.76%
Large Family (5 or more persons)	100	49	49.00%	115	47.83%
Elderly Non-Family	420	170	40.48%	195	43.59%
Non-Family, Non-Elderly	390	165	42.31%	255	52.94%

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 Pawnee 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.”



Pawnee County : CHAS - Housing Problems by Race / Ethnicity and HAMFI						
Income, Race / Ethnicity	Total	Owners		Renters		
		No. w/ Housing Problems	Pct. w/ Housing Problems	Total	No. w/ Housing Problems	Pct. w/ Housing Problems
Income < 30% HAMFI	325	235	72.3%	360	210	58.3%
White alone, non-Hispanic	275	200	72.7%	265	165	62.3%
Black or African-American alone	4	4	100.0%	4	0	0.0%
Asian alone	0	0	N/A	0	0	N/A
American Indian alone	8	4	50.0%	55	20	36.4%
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	0	0	N/A	15	15	100.0%
Other (including multiple races)	28	20	71.4%	25	15	60.0%
Income 30%-50% HAMFI	435	195	44.8%	310	185	59.7%
White alone, non-Hispanic	350	160	45.7%	245	150	61.2%
Black or African-American alone	30	0	0.0%	0	0	N/A
Asian alone	0	0	N/A	4	4	100.0%
American Indian alone	24	20	83.3%	25	15	60.0%
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	0	0	N/A	4	4	100.0%
Other (including multiple races)	35	15	42.9%	25	10	40.0%
Income 50%-80% HAMFI	935	230	24.6%	290	110	37.9%
White alone, non-Hispanic	805	200	24.8%	245	105	42.9%
Black or African-American alone	4	0	0.0%	0	0	N/A
Asian alone	0	0	N/A	0	0	N/A
American Indian alone	70	10	14.3%	19	4	21.1%
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	0	0	N/A	15	0	0.0%
Other (including multiple races)	50	20	40.0%	10	0	0.0%
Income 80%-100% HAMFI	425	65	15.3%	160	0	0.0%
White alone, non-Hispanic	385	65	16.9%	140	0	0.0%
Black or African-American alone	0	0	N/A	0	0	N/A
Asian alone	0	0	N/A	0	0	N/A
American Indian alone	29	4	13.8%	10	0	0.0%
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	4	0	0.0%	0	0	N/A
Other (including multiple races)	10	0	0.0%	10	0	0.0%
All Incomes	4,945	855	17.3%	1,425	520	36.5%
White alone, non-Hispanic	4,280	725	16.9%	1,135	435	38.3%
Black or African-American alone	38	4	10.5%	4	0	0.0%
Asian alone	0	0	N/A	4	4	100.0%
American Indian alone	306	53	17.3%	139	39	28.1%
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	19	0	0.0%	38	19	50.0%
Other (including multiple races)	293	70	23.9%	100	25	25.0%

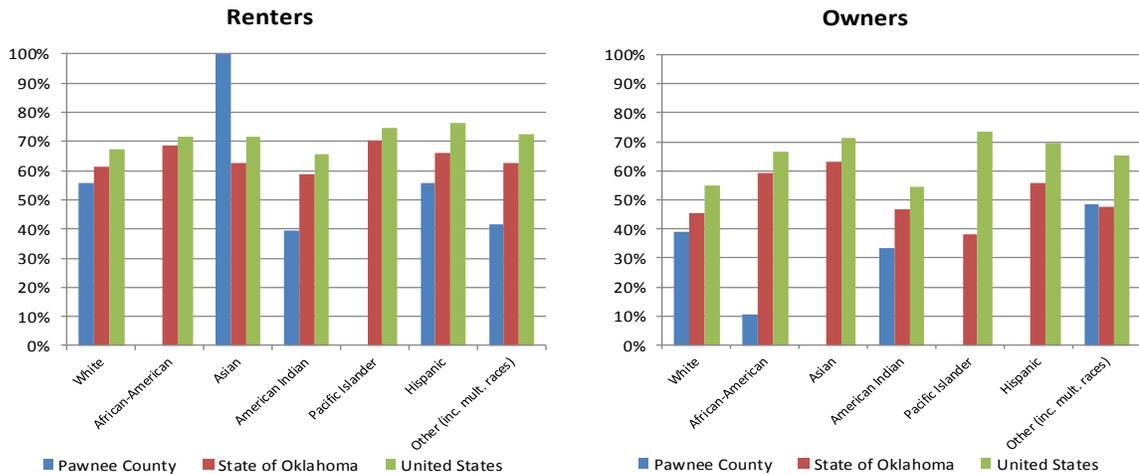
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 1

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

Household Size/Type	Total	Owners		Renters	
		No. w/ Housing Problems	Pct. w/ Housing Problems	No. w/ Housing Problems	Pct. w/ Housing Problems
Income < 80% HAMFI	1,695	660	38.94%	960	52.60%
White alone, non-Hispanic	1,430	560	39.16%	755	55.63%
Black or African-American alone	38	4	10.53%	4	0.00%
Asian alone	0	0	N/A	4	100.00%
American Indian alone	102	34	33.33%	99	39.39%
Pacific Islander alone	0	0	N/A	0	N/A
Hispanic, any race	0	0	N/A	34	55.88%
Other (including multiple races)	113	55	48.67%	60	41.67%

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 Pawnee County. The greatest needs are among households with incomes less than 30% of Area Median Income. Several other areas of note:

- Among households with incomes less than 50% of Area Median Income, there are 385 renter households that are cost overburdened, and 405 homeowners that are cost overburdened.
- Among **elderly** households with incomes less than 50% of Area Median Income, there are 75 renter households that are cost overburdened, and 185 homeowners that are cost overburdened.
- 100% of Asian renters with incomes less than 80% of Area Median Income have one or more housing problems.



Housing Demand – Population Subsets

This section will address 5-year forecasted needs and trends for population special population subsets for Pawnee 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 Pawnee 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.

Pawnee County: 2015-2020 Housing Needs by Income Threshold					
	Owner Subset %	Renter Subset %	Owners	Renters	Total
Total New Demand: 2015-2020	100.00%	100.00%	38	11	49
Less than 30% AMI	6.57%	25.35%	2	3	5
Less than 50% AMI	15.37%	47.18%	6	5	11
Less than 60% AMI	18.44%	56.62%	7	7	13
Less than 80% AMI	34.28%	67.25%	13	8	21

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.

Pawnee 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	35.09%	19.30%	13	2	15
Elderly less than 30% AMI	2.22%	3.52%	1	0	1
Elderly less than 50% AMI	7.68%	9.51%	3	1	4
Elderly less than 60% AMI	9.22%	11.41%	3	1	5
Elderly less than 80% AMI	16.18%	16.20%	6	2	8

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.



Pawnee 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)	39.74%	38.73%	15	4	19
Disabled less than 30% AMI	3.74%	12.68%	1	1	3
Disabled less than 50% AMI	8.59%	25.35%	3	3	6
Disabled less than 60% AMI	10.31%	30.42%	4	3	7
Disabled less than 80% AMI	17.39%	30.99%	7	4	10

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.

Pawnee 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%	38	11	49
Total Veteran Demand	12.28%	12.28%	5	1	6
Veterans with Disabilities	4.34%	4.34%	2	0	2
Veterans Below Poverty	0.70%	0.70%	0	0	0
Disabled Veterans Below Poverty	0.36%	0.36%	0	0	0

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).

Pawnee County: 2015-2020 Housing Needs for Working Families					
	Owner Subset %	Renter Subset %	Owners	Renters	Total
Total New Demand (2015-2020)	100.00%	100.00%	38	11	49
Total Working Families	51.02%	51.02%	19	6	25
Working Families with Children Present	23.83%	23.83%	9	3	12

Population Subset Conclusions

Based on population and household growth over the next five years, a total of 49 housing units will be needed in Pawnee County over the next five years. Of those units:

- 13 will be needed by households earning less than 60% of Area Median Income

- 5 will be needed by households age 62 and up, earning less than 60% of Area Median Income
- 7 will be needed by households with disabilities / special needs, earning less than 60% of Area Median Income
- Two will be needed by veterans with one or more disabilities
- 12 will be needed by working families with children present

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

Special Topics

Pawnee 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 6 key cities within the county (Pawnee, Cleveland, Terlton, Jennings, Ralston, Maramec).

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.

The other key plan for a city to manage, mitigate and plan for recovery related to disasters is a **Hazard Mitigation Plan** (or Emergency Management Plan). Often low density counties, the Hazard Mitigation Plan is done at the county level, though some cities may augment the county plan with a city plan.

Pawnee County does not have a current Hazard Mitigation Plan.

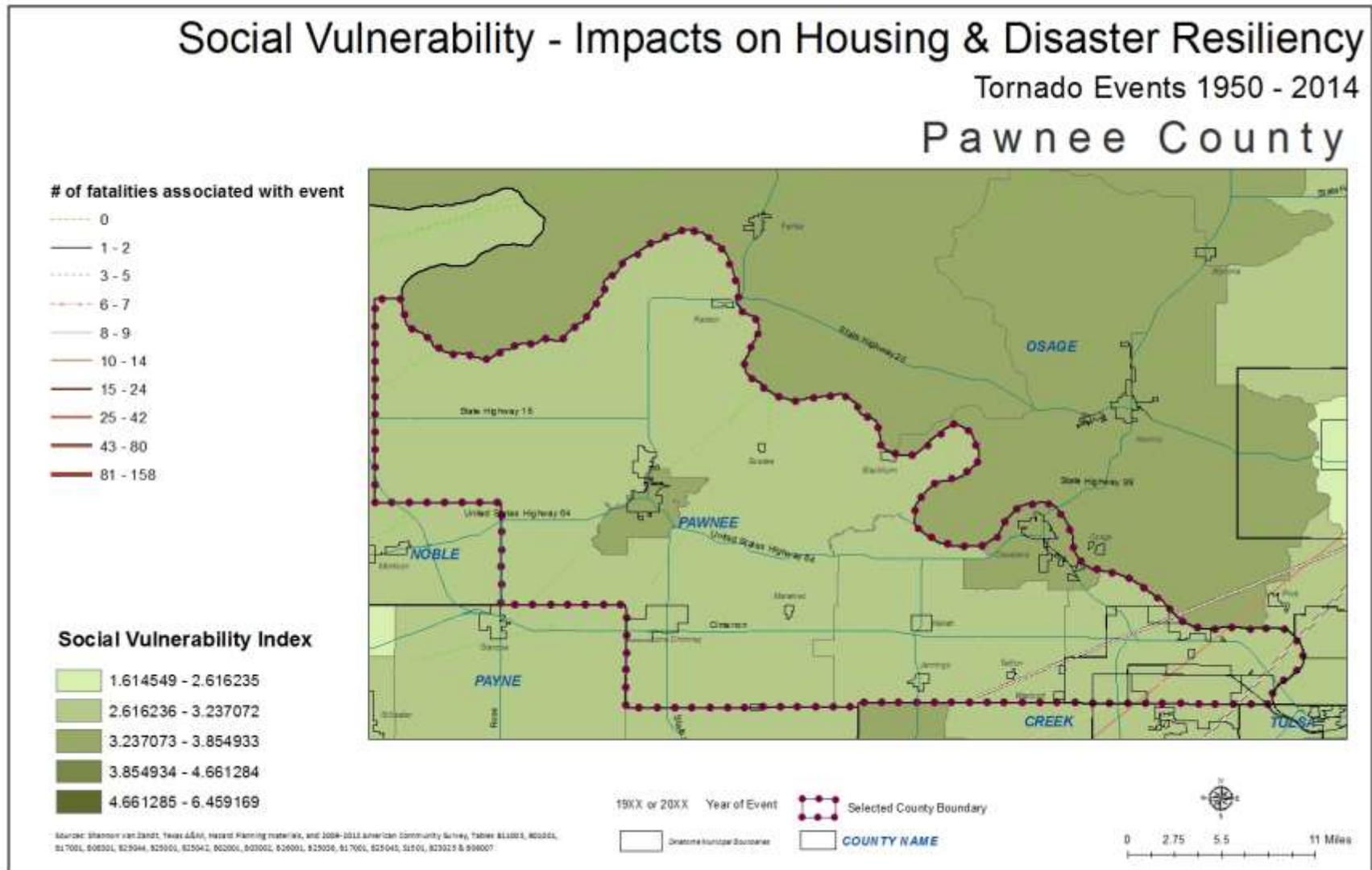
C.2.1.1. Historical Data on Natural Disasters and Other Hazards

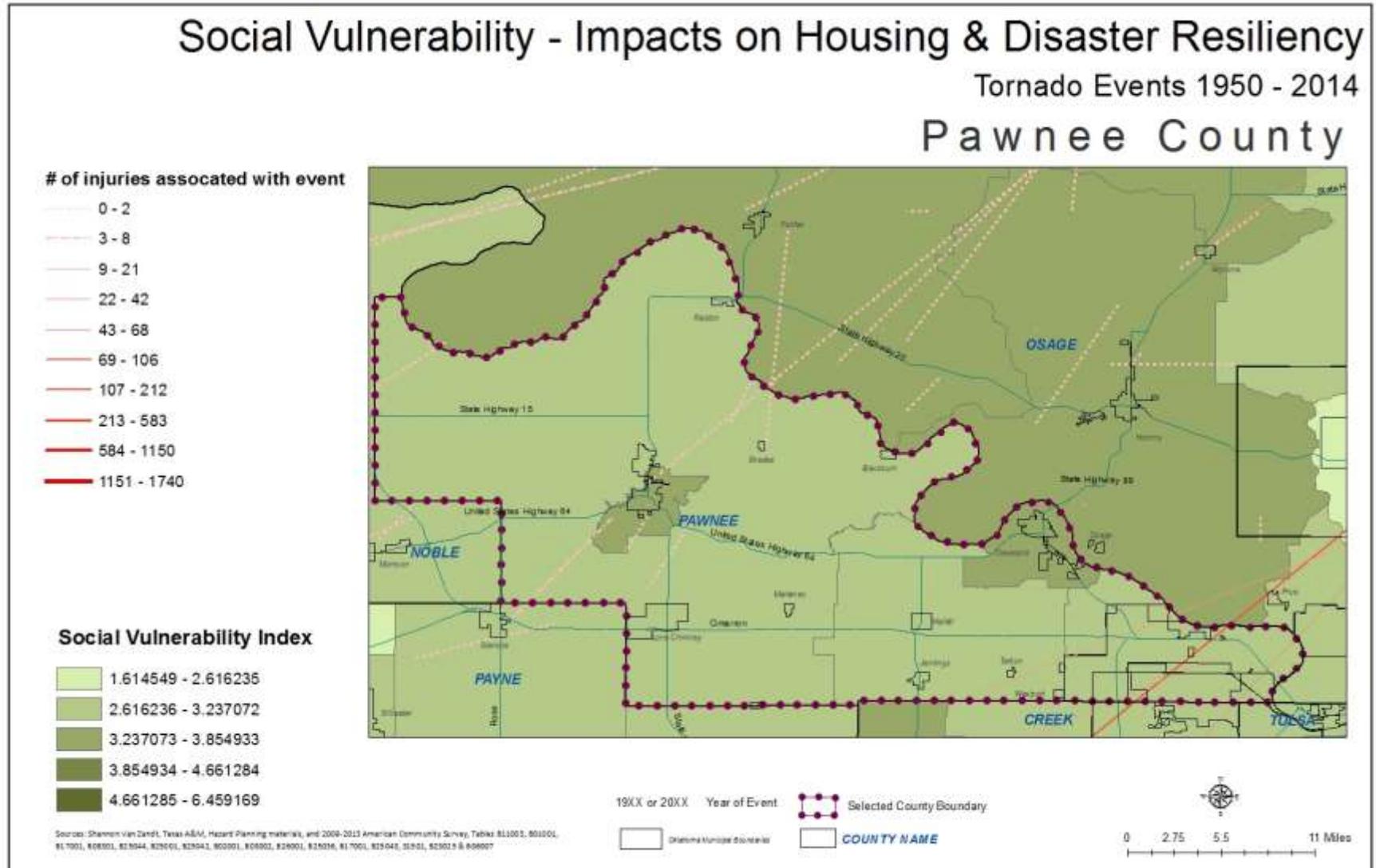
Data on historical damages and casualties is typically collected as part of a **Hazard Mitigation Plan** preparation to determine the appropriate planning measures and actions to take before and after an event.

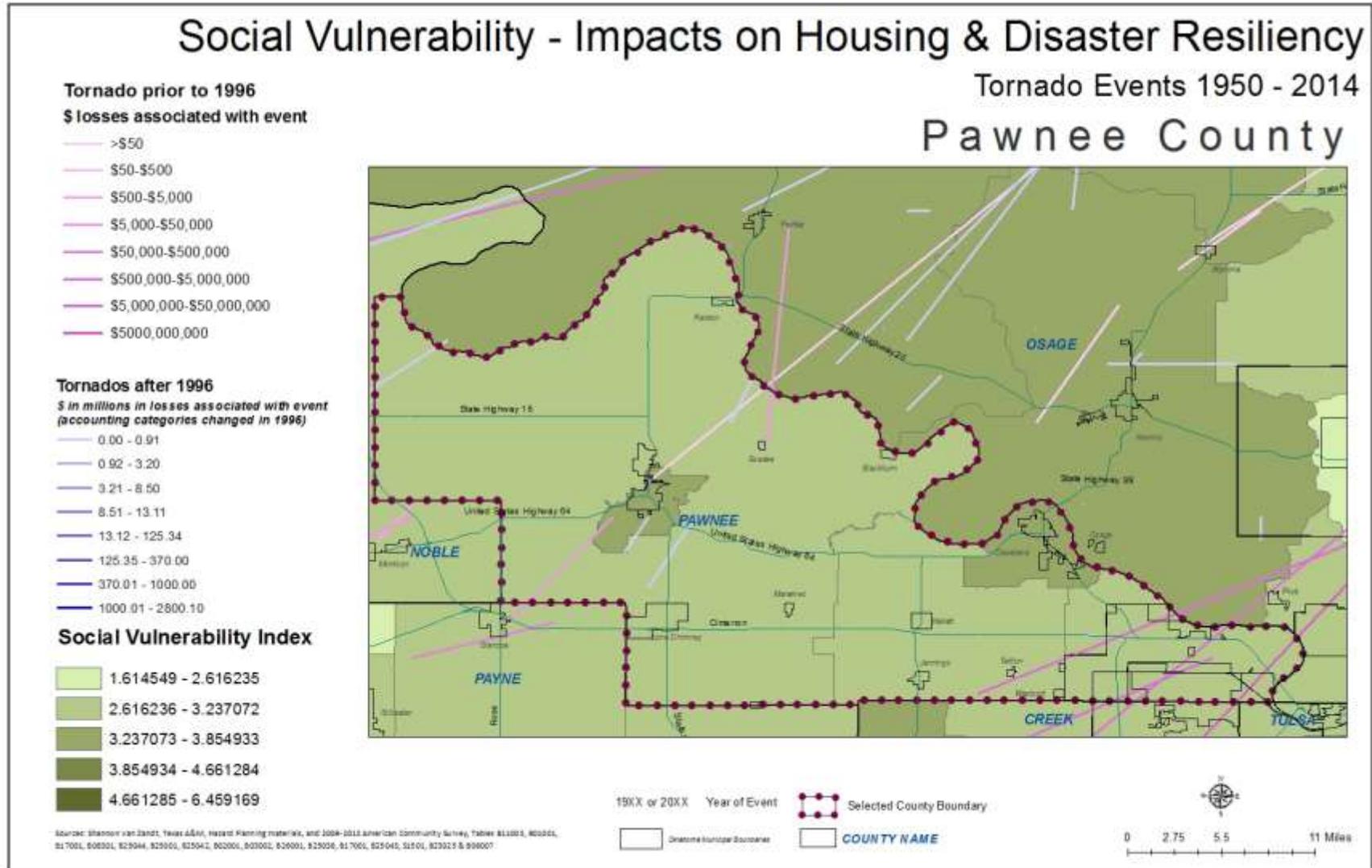
Flooding, based on FEMA FIRM maps, does not show floodplain areas in the county. The National Flood Hazard Layer (Official) is not available for this area. Flash flooding is a concern for all parts of the state after heavy precipitation.

NOAA data shows the following historic data on disaster events for the county:

Historic data on tornados between 1950-2014 there are 30 tornados documented. There were 282 injuries that occurred connected to these tornados, with 24 of those injuries happening in the 1991 tornado. There were 19 fatalities connected to tornadoes during this time period, 14 of which occurred in 1974. Property losses between 1950-1996 ranged from \$6,525,602.00 to \$65,256,100.00. (The accounting methods used for losses changed in 1996.) The losses estimated between 1996-2014 was \$1,010,000.00.







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

Pawnee voters approved to fund the \$1.6 million shelter in November 2012. The shelter is being built next to the elementary school. There's a very old underground facility over on the middle and high school campus where students can go during severe weather. It should be able to fit between 1,000 and 1,500 people inside (<http://www.newson6.com/story/25135834/pawnee-fast-tracks-building-of-domed-tornado-shelter>)

C.2.1.3 Public Policy and Governance to Build Disaster Resiliency

No information available.

C.2.1.4 Local Emergency Response Agency Structure

No information available.

C.2.1.5 Threat & Hazard Warning Systems

The identified Threat & Hazard Warning Systems for XXXXX County include:

- Sirens
- Phone notification
- Emergency Broadcast System
- Facebook page

Google Mapped sirens in Oklahoma:

<https://www.google.com/maps/d/u/0/viewer?mid=zkgp3PmLxLzg.kXQeGF45FpQg&hl=en>

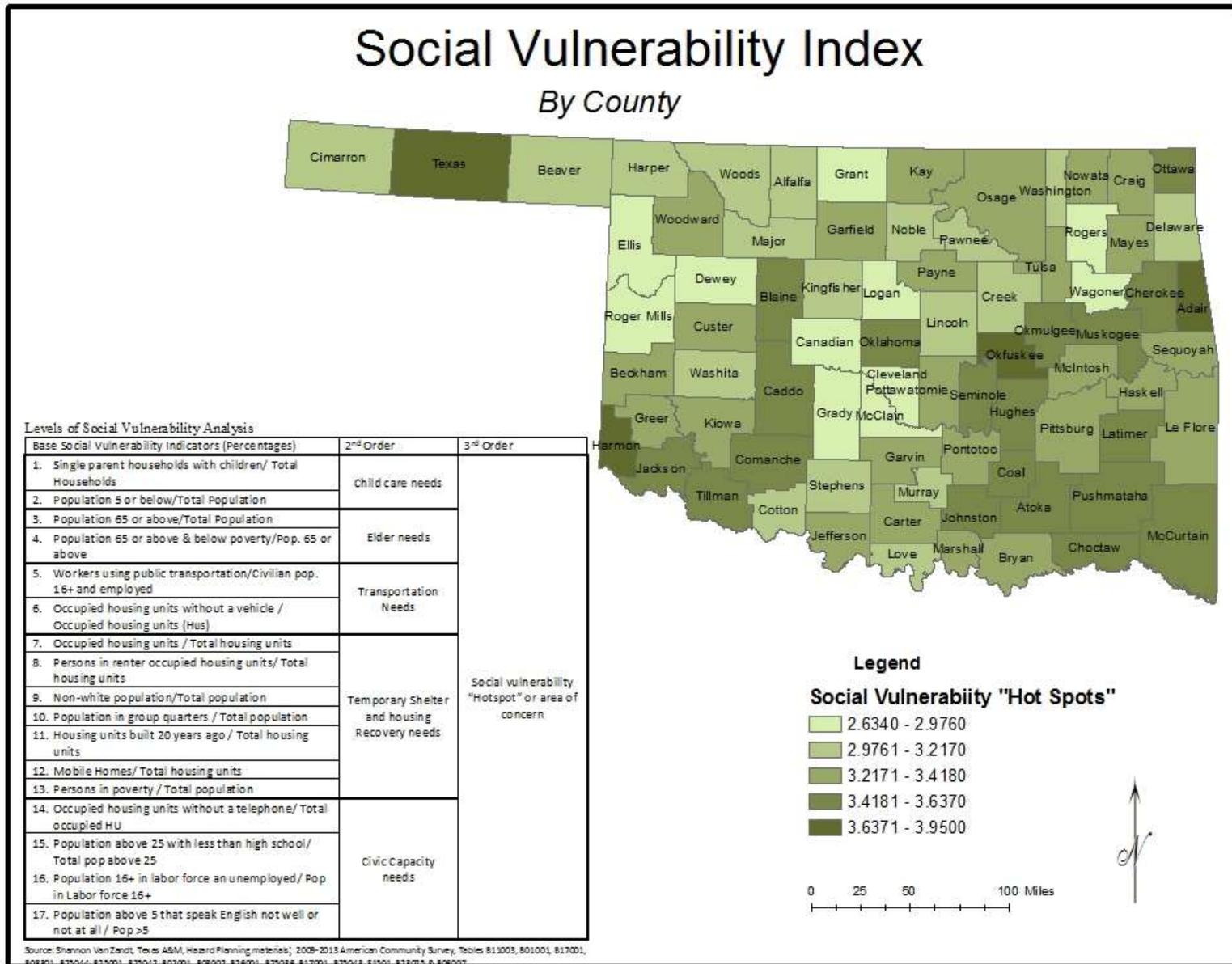


Social Vulnerability

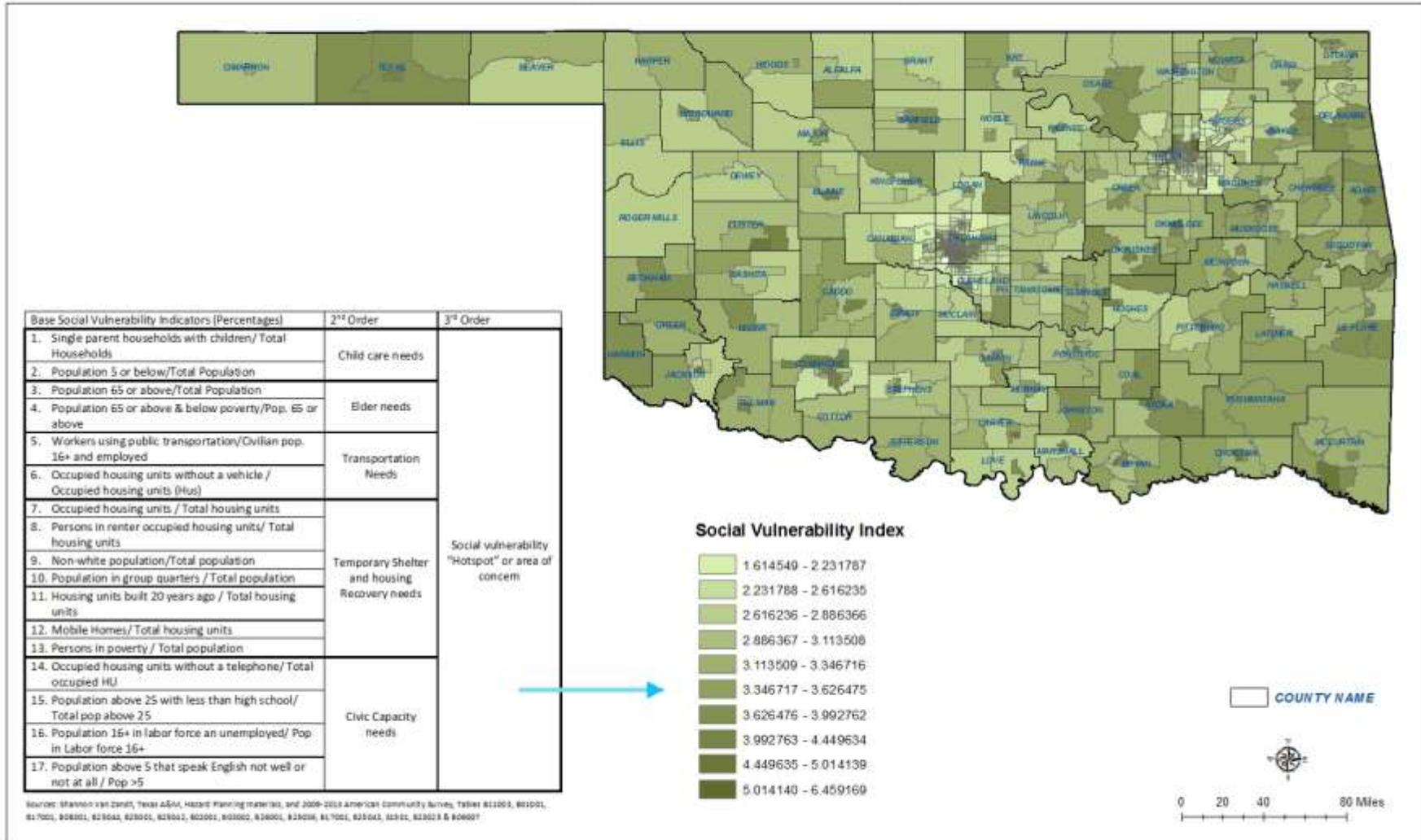
Based on the research work done by the Texas A&M University Hazard Reduction and Recovery Center, an added component is being included in this section. Social vulnerability can place households at a further disadvantage during and after a disaster. This analysis is assessing for the county the levels 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.

Social Vulnerability Analysis - Pawnee County			
Base Social Vulnerability Indicators (%)		2nd Order	3rd Order
1.) Single Parent Households	12.90%	0.193	3.158 Social Vulnerability 'Hotspot' or Area of Concern
2.) Population Under 5	6.38%	(Child Care Needs)	
3.) Population 65 or Above	16.98%	0.24	
4.) Population 65 or Above & Below Poverty Rate	6.99%	(Elder Needs)	
5.) Workers Using Public Transportation	0.00%	0.039	
6.) Occupied Housing Units w/o Vehicle	3.90%	(Transportation Needs)	
7.) Housing Unit Occupancy Rate	82.14%	2.417 (Temporary Shelter and Housing Recovery Needs)	
8.) Rental Occupancy Rate	23.45%		
9.) Non-White Population	20.99%		
10.) Population in Group Quarters	1.11%		
11.) Housing Units Built Prior to 1990	76.03%		
12.) Mobile Homes, RVs, Vans, etc.	23.86%	0.269 (Civic Capacity Needs)	
13.) Poverty Rate	14.15%		
14.) Housing Units Lacking Telephones	5.27%		
15.) Age 25+ With Less Than High School Diploma	12.50%		
16.) Unemployment Rate	8.14%		
17.) Age 5+ Which Cannot Speak English Well or Not At All	1.02%		

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 - Impacts on Housing & Disaster Resiliency



Social Vulnerability - Impacts on Housing & Disaster Resiliency

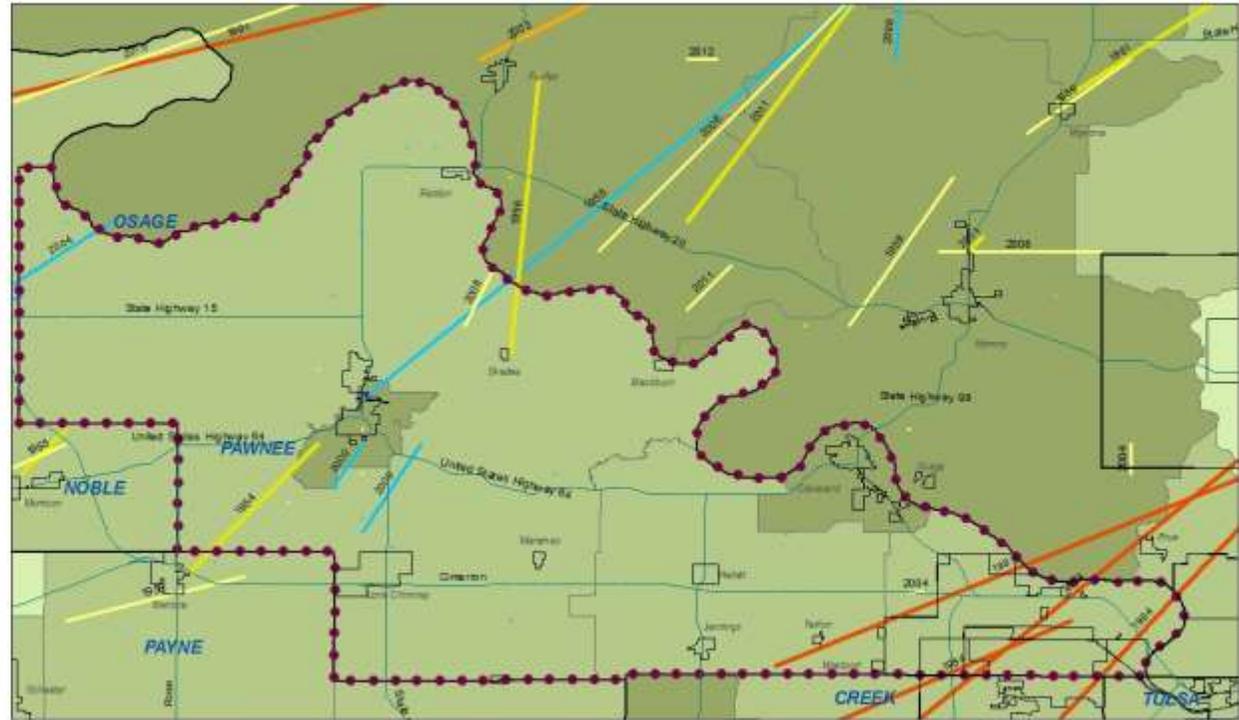
Tornado Events 1950 - 2014

Pawnee County

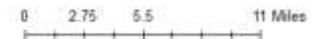
Tornado Magnitude



Social Vulnerability Index



19XX or 20XX Year of Event Selected County Boundary



Sources: Sharon Van Zandt, Texas A&M, Hazard Planning materials, and 2009-2013 American Community Survey, Tables B12003, B06005, B17001, B08001, B25044, B26001, B26042, B27001, B28001, B28058, B17001, B29041, B3101, B33029 & B08007

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 greater gap or disadvantage prior to the event (Shannon Van Zandt, Texas A&M, Hazard Planning).

This county falls below the state score per this index for social vulnerability when comparing as a county to other counties in the state. The area most vulnerable by census tract is in the populated area of Pawnee.

Recommendations for this county:

- 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.
- 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 Pawnee 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 500 North Central Oklahoma

OK 500 represents the north central region of Oklahoma, including Noble, Osage, Pawnee, Creek, Kay, Payne, Grant, Garfield counties and the City of Enid. There are approximately 136 homeless individuals in this area (100 of which are identified as sheltered). The majority of this population is over the age of 24. Most families with children are sheltered. There is no record of homeless youth and young adults in this region. The largest subpopulations of homeless in OK 500 include: the chronically homeless (29), chronic substance abusers (23), and domestic violence victims (24). The population of domestic violence victims in this area is disproportionately high, possibly because of the limited resources available in the region that address domestic violence.

There are a variety of shelter types available to the homeless in the North Central Oklahoma CoC. Eighty one of the beds are available for the sole purpose of emergency shelter to mixed populations. This CoC appears to have an ample supply of emergency shelter and transitional housing for homeless individuals and families. However, permanent housing options are significantly limited. More funds should be diverted to meet the long term housing needs of the mentally ill, substance abusers, and victims of domestic violence.

OK 500 North Central OK

OK 500 North Central OK	Emergency Shelter(sheltered)	Transitional Housing(sheltered)	Unsheltered	Total
Households without children	38	29	29	96
Households with at least 1 adult & 1 child	14	19	7	40
Households with only children	0	0	0	0
total homeless households	52	48	36	136
Persons in households without children	38	29	29	96
persons age 18-24	6	8	8	22
persons over age 24	32	21	21	74
Persons in households with at least 1 adult & 1 child	37	50	18	105
children under age 18	22	28	6	56
persons age 18-24	0	10	2	12
persons over 24	15	12	10	37
persons in households with only 1 children	0	0	0	0
Total homeless persons	75	79	47	201
Subpopulations	Sheltered		Unsheltered	Total
Chronically Homeless	24		5	29
Chronically Homeless Individuals	12		5	17
Chronically Homeless Persons in Families	12		0	12
Severely Mentally Ill	5		7	12
Chronic Substance Abuse	17		6	23
Veterans	7		4	11
HIV/AIDS	0		0	0
Victims of Domestic Violence	24		0	24

CoC Number: OK-500**CoC Name: North Central Oklahoma 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 ²	Youth Beds ²
Emergency, Safe Haven and Transitional Housing	50	138	97	0	235	0	26	n/a	0	7
Emergency Shelter	29	75	52	0	127	0	26	n/a	0	0
Transitional Housing	21	63	45	0	108	n/a	n/a	n/a	0	7
Permanent Housing	4	8	9	0	17	n/a	n/a	5	9	0
Permanent Supportive Housing*	1	3	7	0	10	n/a	n/a	5	6	0
Rapid Re-Housing	3	5	2	0	7	n/a	n/a	n/a	3	0
Grand Total	54	146	106	0	252	0	26	5	9	7

CoC beds reported by Program Type:**Emergency Shelter for Mixed Populations**

Provider Name	Facility Name	Family Units ¹	Family Beds ²	Adult-Only Beds	Child-Only Beds	Seasonal	Overflow / Voucher	Total Beds	Subset of Total Bed Inventory		
									Chronic Beds ²	Veteran Beds ²	Youth Beds ²
DVPNCO	Emergency Shelter	4	16	4	0	0	0	20	n/a	0	0
Peachtree Landing	Emergency Shelter	2	4	5	0	0	0	9	n/a	0	0
Stillwater DV Program	Emergency Shelter	8	16	2	0	0	0	18	n/a	0	0
YWCA of Enid	Emergency Shelter	8	24	10	0	0	0	34	n/a	0	0
Total		22	60	21	0	0	0	81	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 as 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 individuals likely classify as "couch homeless" and are in a continued state of being vulnerable to becoming homeless.

The PIT data indicates that there 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. PIT 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/AIDS 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		Unsheltered	Total
	Emergency Shelter	Transitional Housing*		
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 children¹	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 child²	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 children³	38	0	47	85
Total Homeless Persons	2,309	690	778	3,777

Demographic summary by ethnicity:

	Sheltered		Unsheltered	Total
	Emergency Shelter	Transitional Housing*		
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).

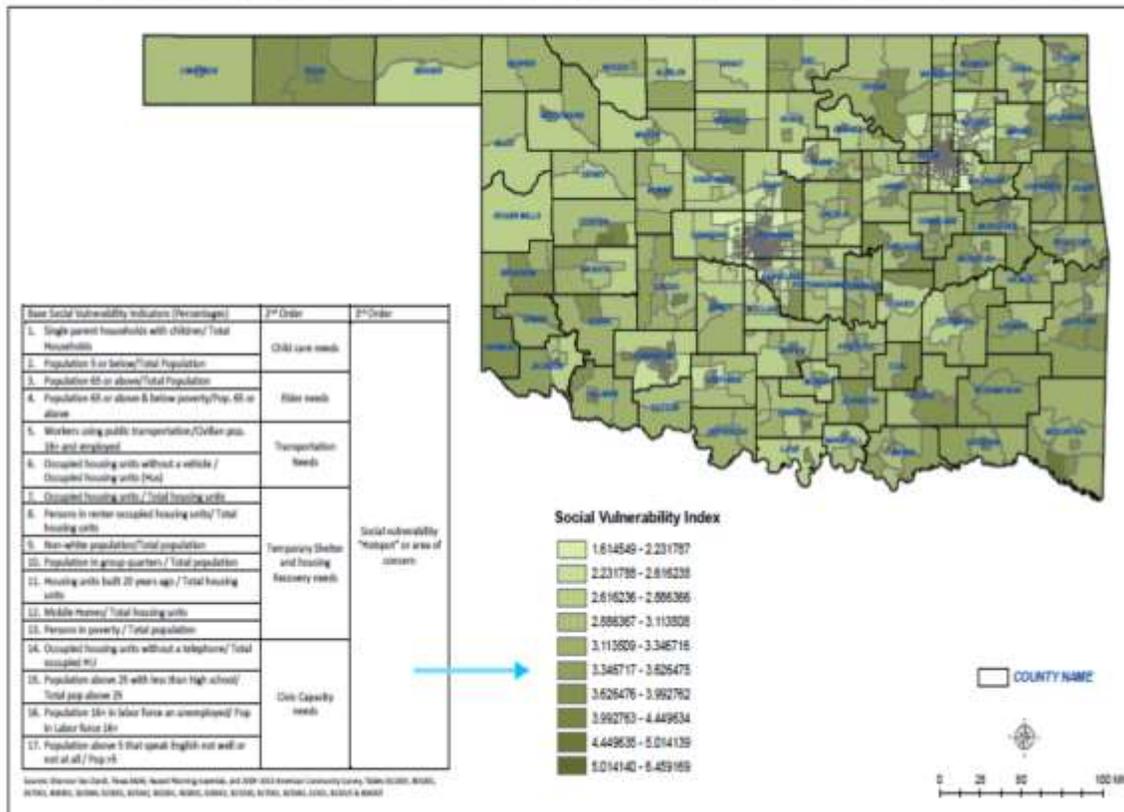
The absence of affordable housing in rural areas is a root cause of homelessness (Levinson, David, and Marcy Ross, 2007). In fact, it was noticed that many of the people were receiving monetary assistance or previously had some money saved up to spend on housing, but these measures were not enough to 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.

Social Vulnerability - Impacts on Housing & Disaster Resiliency



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

There remains a significant homeless population in the urban and rural areas of Oklahoma. This population is very likely significantly undercounted in the Point In Time data. Local homeless advocates and service providers are highly aware of this undercount and are using innovative tools to find and serve the homeless. One example of these extra efforts to identify homeless populations is the data being collected by schools about the number of youth who are homeless or “couch” homeless. In this study, the research team also considered those families living at the economic margins and makes the case for the need for funding to support the housing needs of those that live a pay check or two from being homeless.

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 accurately 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 housing and supportive services across the State. CoCs with high supportive services tend to better accommodate the housing needs of 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 providers, 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 PIT 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. This population must not be forgotten by policymakers.

The size of the homeless veteran population is decreasing as a result of national initiatives to end homelessness for veterans in Oklahoma. The needs of homeless veterans appear to be highest in areas of the State near VA facilities. 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 housing for the rural homeless must be developed to allow sheltering in place where possible.

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 construction of affordable 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.

Works Cited

Continuum of Care Network Pamphlet. 2015

Cummins, L. K., R. J. First, and B. G. Toomey. "Comparisons of Rural and Urban Homeless Women." *Affilia* 13.4 (1998): 435-53. Web. 24 Oct. 2015.

First, Richard J., John C. Rife, and Beverly G. Toomey. "Homelessness in Rural Areas: Causes, Patterns, and Trends." *Social Work* 39.1 (1994): 97-108. Web. 24 Oct. 2015.

Fitchen, Janet M. "Homelessness in Rural Places: Perspectives from Upstate New York." *Urban Anthropology and Studies of Cultural Systems and World Economic Development* 20.2 (1991): 177-210. Institute, Inc. Web. 23 Oct. 2015.

Levinson, David, and Marcy Ross. *Homelessness Handbook*. N.p.: Berkshire Group, 2007.

Milbourne, Paul, and Paul J. Cloke. *International Perspectives on Rural Homelessness*. London: Routledge, 2006.

Moore, Robert M. *The Hidden America: Social Problems in Rural America for the Twenty-first Century*. Selinsgrove: Susquehanna UP, 2001.

Rollinson, Paul A., and John T. Pardeck. *Homelessness in Rural America: Policy and Practice*. New York: Haworth, 2006.

Vissing, Yvonne Marie. *Out of Sight, out of Mind: Homeless Children and Families in Small-town America*. Lexington, KY: U of Kentucky, 1996.

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).

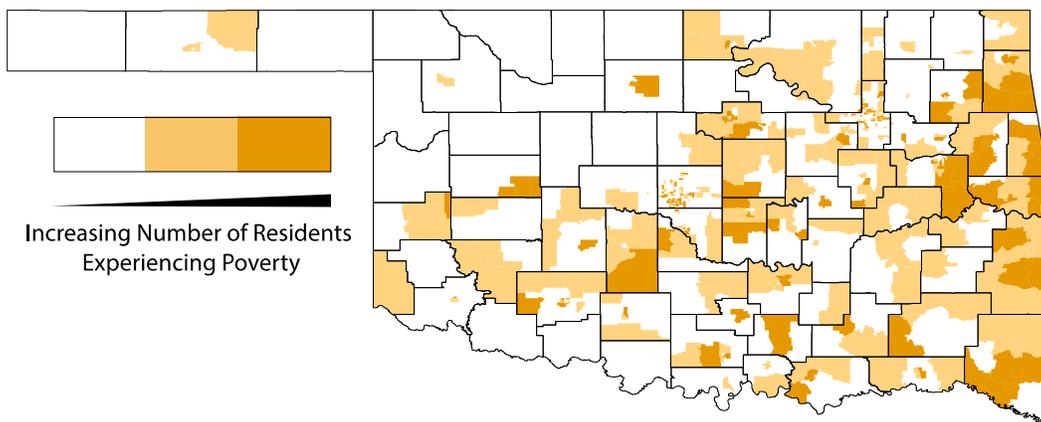
1. Urban/Rural

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

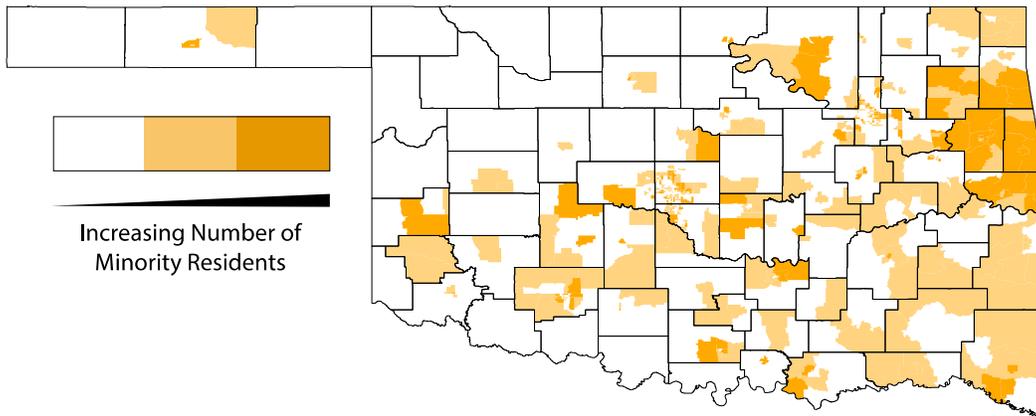
Approximately 70% of affordable housing units in Oklahoma are located in census tracts where the number of residents living in poverty is above the state average. About half of these units are located in areas of extreme poverty, where the number of individuals who are economically vulnerable exceeds 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

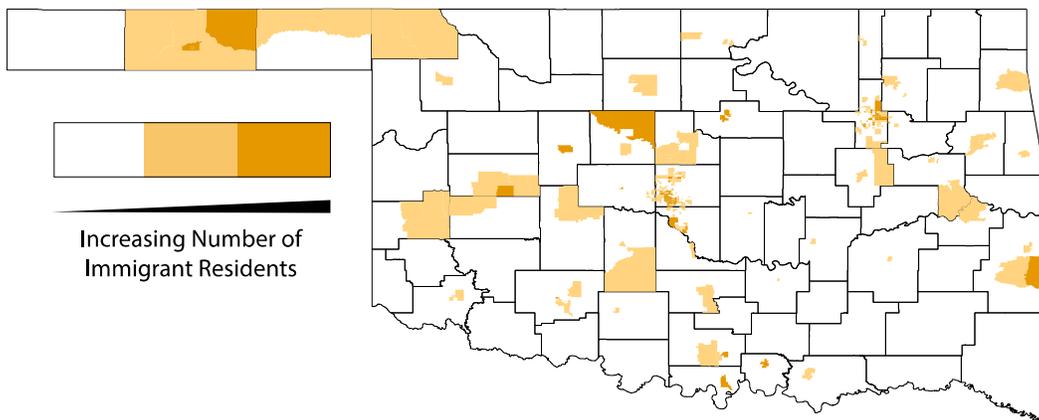
Just over 60% of affordable housing units in Oklahoma are located in census tracts where a majority of the residents are non-white. With just fewer than 24% of the total affordable housing units in census tracts heavily populated with residents who are not white – identified as census tracts where the 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

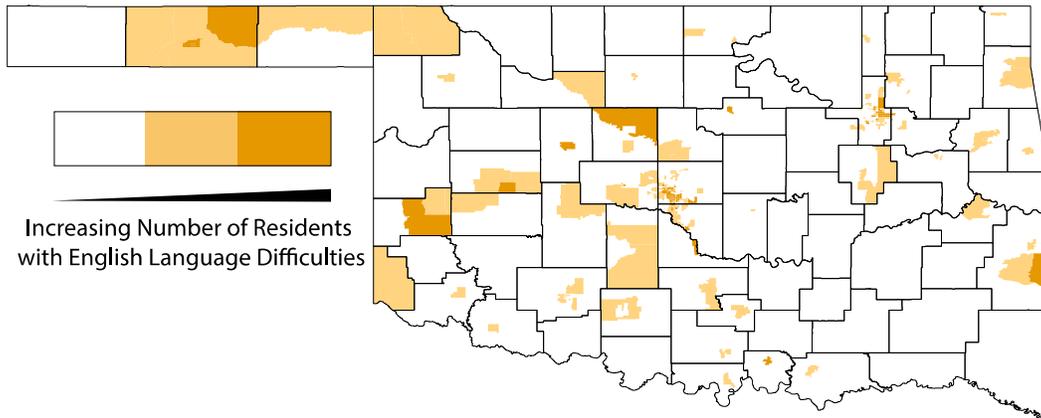
One-third of affordable housing units in Oklahoma are located in census tracts where more than the average number of residents are immigrants. About half of these units are located in areas dense with immigrants, where the number of individuals who are not citizen exceeds 349, more than one standard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

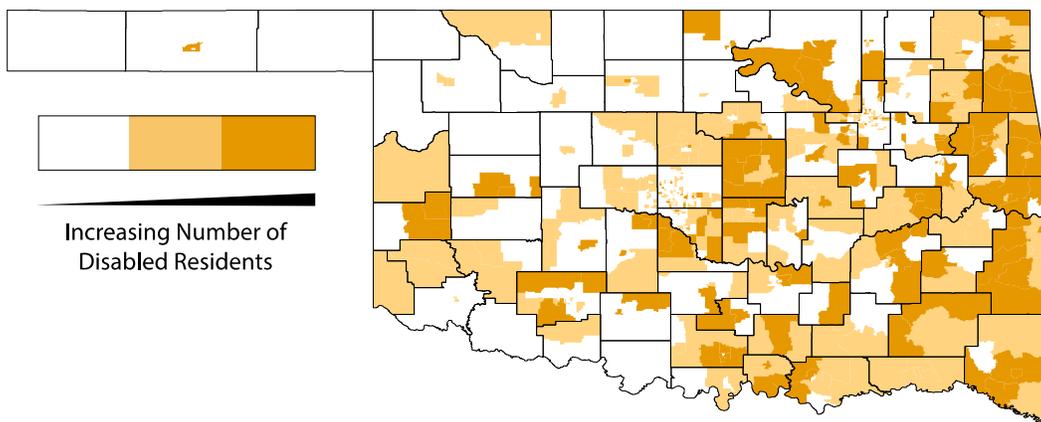
Almost 17,000 existing affordable housing units in Oklahoma are located in census tracts where more residents than average do not speak English very well. A little more than half of these units are located in areas dense with individuals with limited English proficiency, where the number of individuals 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

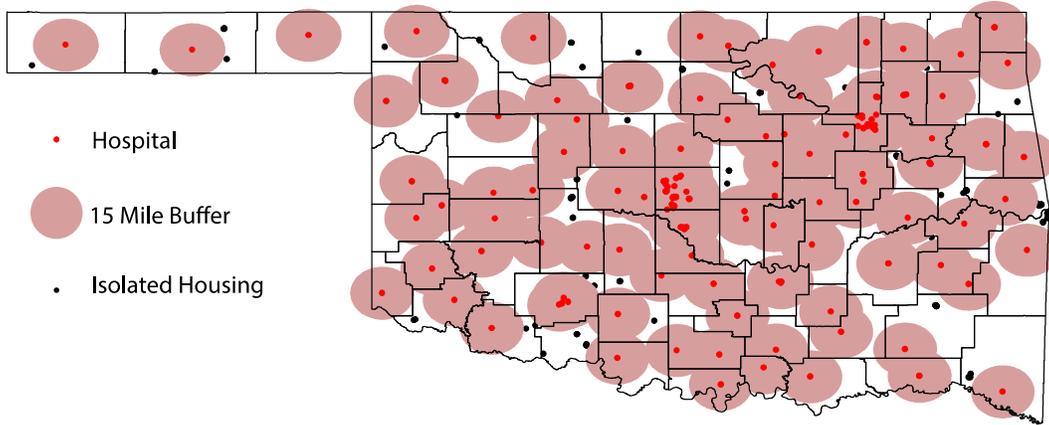
Almost 60% of existing affordable housing units in Oklahoma are located in census tracts where more residents than average have a disability. A little more than half of these units are located in areas dense with individuals with a disability, where the number of individuals who are disabled is greater 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

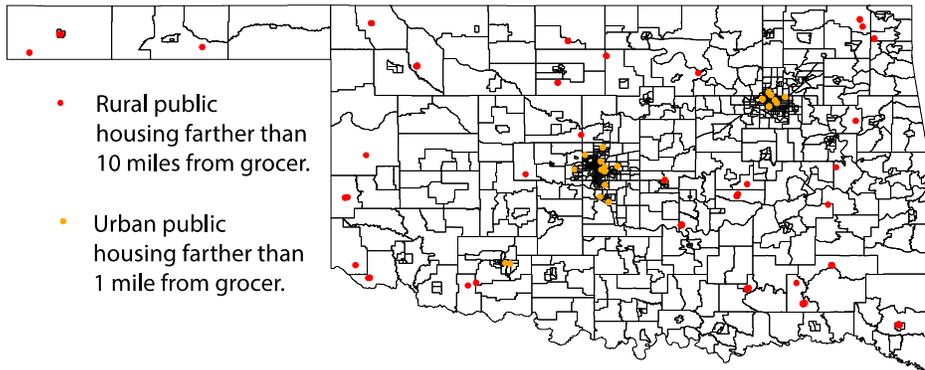
There are no affordable housing units more than 30 miles from a hospital. Approximately 2.6% of affordable housing units are farther than 15 miles from the nearest hospital. As indicated by the larger percentage of Rural Rental Housing Loan units, most of these are located in rural areas.



	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

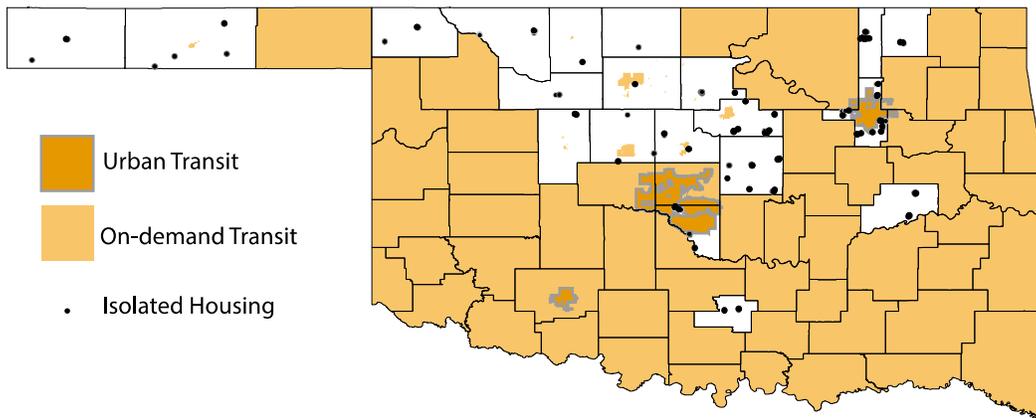
Approximately 7.8% of affordable housing units are in areas that are classified as food deserts. According to the United States Department of Agriculture, food deserts exist in urban environments further than 1 mile from a grocery store and in rural environments further than 10 miles from a grocery store (<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).

Bibliography

Bostic, R. 2015. A clear SCOTUS statement on disparate impact and AFFH. Rooflines: the Shelterforce blog, 15 July. Retrieved from

http://www.rooflines.org/4181/a_clear_scotus_statement_on_disparate_impact_and_affh/

Clarke P., Morenoff J., Debbink M., Golberstein E., Elliott M.R., Lantz P.M. 2014. Cumulative exposure to neighborhood context: consequences for health transitions over the adult life course. *Research on Aging*. 36(1):115-142.

Goetz, E.G. 2015. From Breaking Down barriers to Breaking Up Communities: the expanding spatial strategies of fair housing advocacy. *Urban Affairs Review* 51(6): 820-842.

Housing Authority of El Paso. 2015. Eastside Crossings. Retrieved from <http://www.hacep.org/about-us/eastside-crossings>

United States Department of Housing and Urban Development. 2015. Federal Register 80(136): 42272-42371. Retrieved from <https://www.gpo.gov/fdsys/pkg/FR-2015-07-16/pdf/2015-17032.pdf>

United States Department of Housing and Urban Development. 2014. Housing's and Neighborhoods' Role in Shaping Children's Future. Evidence Matters. Retrieved from <https://www.huduser.gov/portal/periodicals/em/fall14/highlight1.html>

Lens, M.C. 2015. Measuring the Geography of Opportunity. *Progress in Human Geography*. doi: 10.1177/0309132515618104

Theodos, B., S. Popkin, E. Guernsey, & L Getsinger. 2010. Inclusive Public Housing: Services for the Hard to House. Washington: Urban Institute. Retrieved from <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/412035-Inclusive-Public-Housing-Services-for-the-Hard-to-House.PDF>

Vellinga, M.L. 2015. This Week: Warehouse Artists Lofts gets Grand Opening Thursday. Sacramento Bee. April 5. Retrieved from <http://www.sacbee.com/news/local/article17467076.html>

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
Pottawatomie	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 & CHASTables 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.

Pawnee County Findings

The number of housing units in Pawnee 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 Pawnee 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 Pawnee 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 Pawnee County.

Total Housing Units in Pawnee 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	2,002	3.57%	71
1960-1977	1,634	11.18%	183
1940-1959	565	38.48%	217
1939 or Earlier	690	63.38%	437
Total	4,890	18.58%	909
Total Renter-Occupied Housing Units	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	518	3.57%	18
1960-1977	387	11.18%	43
1940-1959	420	38.48%	162
1939 or Earlier	175	63.38%	111
Total	1,500	22.28%	334
Total Housing Units	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	2,520	3.57%	90
1960-1977	2,021	11.18%	226
1940-1959	985	38.48%	379
1939 or Earlier	865	63.38%	548
Total	6,390	19.45%	1,243

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 Pawnee County with lead-based paint hazards, occupied by households with low-to-moderate incomes, by tenure:

**Housing Units in Pawnee 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	218	3.57%	8
1960-1977	252	11.18%	28
1940-1959	65	38.48%	25
1939 or Earlier	135	63.38%	86
Total	670	21.87%	147

Renter-Occupied Housing Units < 50% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	266	3.57%	9
1960-1977	144	11.18%	16
1940-1959	215	38.48%	83
1939 or Earlier	65	63.38%	41
Total	690	21.67%	150

Total Housing Units < 50% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	484	3.57%	17
1960-1977	396	11.18%	44
1940-1959	280	38.48%	108
1939 or Earlier	200	63.38%	127
Total	1,360	21.77%	296

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

**Housing Units in Pawnee 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	327	3.57%	12
1960-1977	333	11.18%	37
1940-1959	160	38.48%	62
1939 or Earlier	145	63.38%	92
Total	965	20.97%	202

Renter-Occupied Housing Units 50%-80% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	103	3.57%	4
1960-1977	113	11.18%	13
1940-1959	70	38.48%	27
1939 or Earlier	45	63.38%	29
Total	330	21.72%	72

Total Housing Units 50%-80% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	430	3.57%	15
1960-1977	446	11.18%	50
1940-1959	230	38.48%	88
1939 or Earlier	190	63.38%	120
Total	1,295	21.16%	274

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

To conclude, we estimate that there are a total of 1,243 homes in Pawnee County containing lead-based paint hazards, 909 owner-occupied and 334 renter-occupied. Of the 1,243 homes in the county estimated to have lead-based paint hazards, 296 are estimated to be occupied by households with low-incomes (incomes less than 50% of Area Median Income), and 274 are estimated to be occupied by households with moderate incomes (between 50% and 80% of Area Median Income), for a total of 570 housing units in Pawnee 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 Pawnee 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 Pawnee 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	110	3.57%	4
1940-1977	108	19.98%	22
1939 or Earlier	24	63.38%	15
Total	242	16.84%	41
Housing Units 50%-80% AMI w/ Children under 6 Present	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	101	3.57%	4
1940-1977	114	19.98%	23
1939 or Earlier	40	63.38%	25
Total	255	20.29%	52
Total LMI Housing Units w/ Children Present	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	211	3.57%	8
1940-1977	222	19.98%	44
1939 or Earlier	64	63.38%	41
Total	497	18.61%	92
Total Housing Units w/ Children Present	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	348	3.57%	12
1940-1977	450	19.98%	90
1939 or Earlier	149	63.38%	94
Total	947	20.78%	197

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

As shown, we estimate there are 197 housing units in Pawnee County with lead-based paint hazards and children under the age of six present, and that 92 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

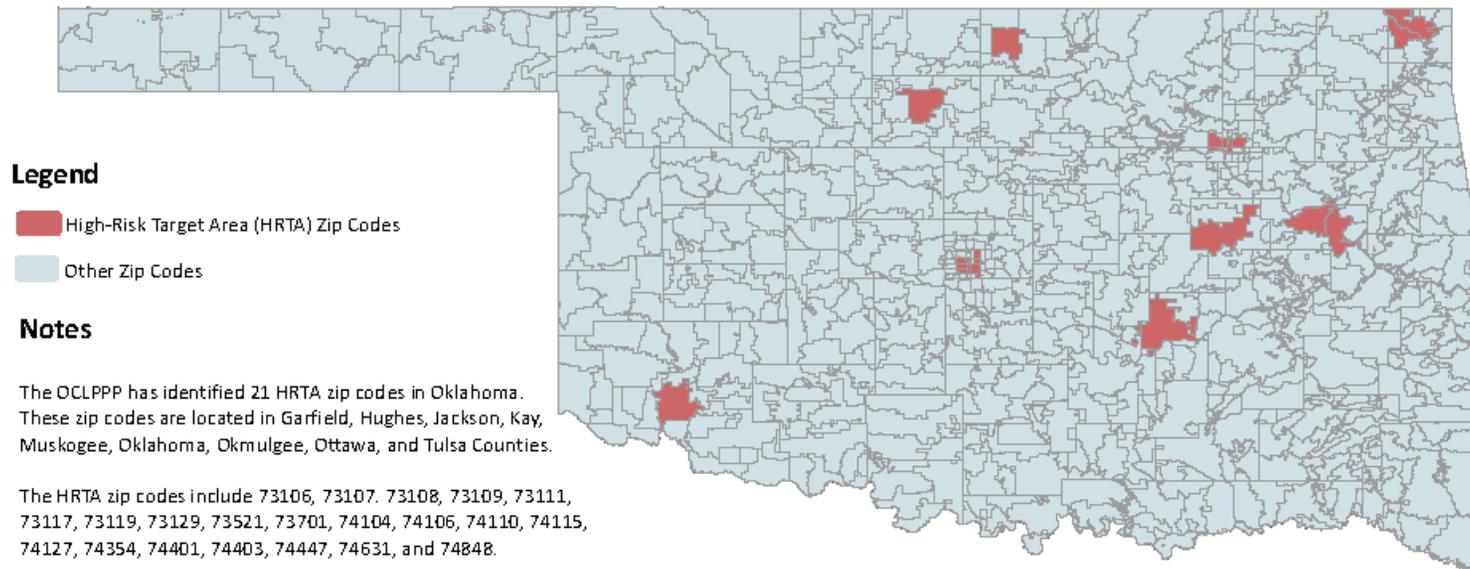
U.S. Department of Housing and Urban Development, Office of Healthy Homes and Lead Hazard Control, "American Healthy Homes Survey, Lead and Arsenic Findings", April 2011

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-Risk Target Areas (HRTA) Zip Codes for Childhood Lead Poisoning



Legend

- High-Risk Target Area (HRTA) Zip Codes
- Other Zip Codes

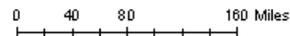
Notes

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) prevalence rate; and
- 4- Zip codes having the highest proportion of minority populations.



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

Conclusions

The previous analysis has attempted to describe the state of the residential housing market in Pawnee 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.

Pawnee County has undergone slow but steady growth over the last fifteen years, in terms of population, households and employment levels. Population and household growth forecasts through the year 2020 project positive net growth in Pawnee County as a whole, and some new housing will be necessary to meet this demand.

Pawnee County has a relatively moderate rate of renters with high rent costs (33.10%) as well as homeowners with high ownership costs (14.86%). The county's poverty rate is also below the state, at 14.15% compared with 16.85% statewide.

In terms of disaster resiliency we note that 30 tornadoes have impacted the county between 1959 and 2014, with 282 injuries and 19 fatalities combined. We recommend the creation of a hazard mitigation plan, and a registry for individual and business-based storm shelters.

Pawnee County is located within the North Central Oklahoma Continuum of Care (CoC), which provides services to the area's homeless populations among other functions. Throughout the entire North Central Oklahoma CoC, there are an estimated 201 homeless persons, 154 of which are estimated to be sheltered. This Continuum of Care has large subpopulations of the chronically homeless, chronic substance abusers, and victims of domestic violence, with little in the way of permanent housing options.

In terms of fair housing issues, we note that 37 affordable housing units are located more than 15 miles from a hospital, and 20 are considered to be in a food desert.

Due to the age of the county's housing stock, lead-based paint hazards are an issue, with an estimated 1,243 occupied housing units with such hazards, and 197 of those units occupied by low-to-moderate income households with children under the age of 6 present.

It is evident that some new housing is needed in Pawnee County. We project a need for 38 housing units for ownership and 11 housing units for rent over the next five years, with the greatest need in areas outside of the City of Pawnee. Due to the aging housing stock of the area, rehabilitation and preservation of existing housing stock is also needed, and particular need is noted among both the elderly and disabled, noting that the median age of Pawnee County (41.6) is notably higher than the

state as a whole, and that the percentage of persons with disabilities (18.36%) is elevated compared with the rest of the state.



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



Addenda

Pathways, Patrice Pratt

Women's Resource Center, Vanessa Morrison

AIDS Care Fund, Sunshine Schillings



Addendum B

Qualifications

Owen S. Ard, MAI

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

oard@irr.com - 918-492-4844

Integra Realty Resources Tulsa/OKC

1323 E. 71st. Street
Suite 105
Tulsa, OK 74136

T 918-492-4844
F 918-493-7155

irr.com



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

Integra Realty Resources

Tulsa/OKC

1323 E. 71st. Street
Suite 105
Tulsa, OK 74136

T 918-492-4844
F 918-493-7155

irr.com



David A. Puckett

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

Integra Realty Resources

Tulsa/OKC

1323 E. 71st St., Suite 105
Tulsa, OK 74136

T 918-492-4844

F 918-493-7155

irr.com



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
JACKSON, MS - John R. Praytor, MAI
JACKSONVILLE, FL - Robert Crenshaw, MAI, FRICS
KANSAS CITY, MO/KS - Kenneth Jagers, MAI, FRICS
LAS VEGAS, NV - Charles E. Jack IV, MAI
LOS ANGELES, CA - John G. Ellis, MAI, CRE, FRICS
LOS ANGELES, CA - Matthew J. Swanson, MAI
LOUISVILLE, KY - Stacey Nicholas, MAI, MRICS
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
NEW YORK, NY - Raymond T. Cirz, MAI, CRE, FRICS
ORANGE COUNTY, CA - Steve Calandra, MAI
ORLANDO, FL - Christopher Starkey, MAI, MRICS
PHILADELPHIA, PA - Joseph D. Pasquarella, MAI, CRE, FRICS
PHOENIX, AZ - Walter "Tres" Winus III, MAI, FRICS
PITTSBURGH, PA - Paul D. Griffith, MAI, CRE, FRICS
PORTLAND, OR - Brian A. Glanville, MAI, CRE, FRICS
PROVIDENCE, RI - Gerard H. McDonough, MAI, FRICS
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
SALT LAKE CITY, UT - Darrin W. Liddell, MAI, FRICS, CCIM
SAN DIEGO, CA - Jeff A. Greenwald, MAI, SRA, FRICS
SAN FRANCISCO, CA - Jan Kleczewski, MAI, FRICS
SARASOTA, FL - Carlton J. Lloyd, MAI, FRICS
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
WILMINGTON, DE - Douglas L. Nickel, MAI, FRICS
CARIBBEAN/CAYMAN ISLANDS - James Andrews, MAI, FRICS

Corporate Office

Eleven Times Square, 640 Eighth Avenue, 15th Floor, Suite A, New York, New York 10036
Telephone: (212) 255-7858; Fax: (646) 424-1869; E-mail info@irr.com
Website: www.irr.com



DAWN EVE JOURDAN, ESQ., PH.D.

Director and Associate Professor
Regional and City Planning
College of Architecture
830 Van Vleet Oval, Gould Hall, Room 180
Norman, OK 73019-4141
Phone: (405) 325-3502
Fax: (405) 325-7558
E-MAIL: Dawn.E.Jourdan-1@ou.edu

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 Bloustein 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 Shmaltzuyev, 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 5013 History and Theory of Urban Planning
RCPL 5513 Subdivision Planning	RCPL 5823 Rural and Regional Planning
RCPL 5493 Transportation and Land Use 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, WI; 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
<i>College of Architecture – Division of Regional and City Planning</i>	
<i>University of Oklahoma – Norman, OK</i>	

Education

Doctor of Philosophy – Policy, Planning, and Development	2014
<i>Sol Price School of Public Policy</i>	
<i>University of Southern California - Los Angeles, CA</i>	
<i>Dissertation: Social Construction of the Experience Economy: The spatial ecology of outdoor advertising in Los Angeles</i>	
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
<i>College of Environmental Design</i>	
<i>California State Polytechnic University - Pomona, CA</i>	
Master of Science – Environmental Policy and Behavior	2000
<i>School of Natural Resources and Environment</i>	
<i>University of Michigan - Ann Arbor, MI</i>	
Bachelor of Arts – Economics and Environmental Studies	1996
<i>Dornsife College of Letters, Arts, and Sciences</i>	
<i>University of Southern California - Los Angeles, CA</i>	

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
<i>Environment and Planning B: Planning and Design</i> 41(2): 251-271. Curtis, J.W., E. Shiao, 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
<i>American Journal of Public Health</i> 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**
University of Oklahoma – College of Architecture 2014-present
 Subdivision and Site Planning (graduate)
 Computer Mapping and GIS in Planning (graduate)
 Comprehensive Planning Studio (graduate)
- Lecturer**
University of California, Irvine – School of Social Ecology 2014
 Design and Planning Graphics (graduate)
- Teaching Assistant**
University of Southern California - Sol Price School of Public Policy 2008-2013
 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**
University of Michigan - School of Natural Resources and Environment 1999-2000
 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 <i>UCLA Labor, Occupational, Safety and Health Program</i>	2000
Research Coordinator <i>The Wild Thornberry's Television Series</i> <i>Klasky-Csupo Incorporated/Nickelodeon Studios</i>	1996 - 1998
<hr/> <i>Activities and Service</i> <hr/>	
Committee Member <i>University of Oklahoma</i> Anna Siprikova – Master of City and Regional Planning Thesis	2014 - present
Reviewer <i>American Journal of Public Health</i> <i>Council of Educators in Landscape Architecture</i>	
Member <i>American Planning Association</i> <i>American Public Health Association</i> <i>American Society of Landscape Architects</i> <i>Association of American Geographers</i> <i>Environmental Design Research Association</i>	
Member <i>Creating/Making Facilities Coordination Team</i> <i>University of Oklahoma – College of Architecture</i>	2014 - present
Member <i>Billboard and Visual Landscape Visioning Group</i> <i>City of Los Angeles</i>	2013
Area Chairperson <i>Hollywood Hills West Neighborhood Council – Area 2: Cahuenga Pass</i> <i>City of Los Angeles</i>	2010 - 2012
Vice-Chairperson	2010 - 2012
Appointee <i>Cahuenga/Ventura Corridor Specific Plan Review Board</i> <i>City of Los Angeles - Council District 4</i>	2008 - 2012
President	2011 - 2012
Member <i>Cahuenga Pass Property Owners' Association</i>	2000 - 2012

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