Integra Realty Resources
Tulsa/OKC

Housing Needs Assessment
Beaver 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:
October 19, 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.

Integra Realty Resources
Tulsa/OKC

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

T 918.492.4844
F 918.493.7155
www.irr.com

October 30, 2015

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

SUBJECT: Housing Needs Assessment
Beaver County
IRR - Tulsa/OKC File No. 140-2015-0017

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 Beaver County Residential Housing Market Analysis. Analyst Sarah Kin personally inspected the Beaver County area during the month of October 2015 to collect the data used in the preparation of the Beaver County Market Analysis. The University of Oklahoma College of Architecture Division of Regional and City Planning provided consultation, assemblage and analysis of the data for IRR-Tulsa/OKC.

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

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

Respectfully submitted,

Integra Realty Resources - Tulsa/OKC

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

Sarah Kin
Senior Analyst

Table of Contents

Table of Contents

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 Beaver County has been declining since the early 1980s. Beaver County population peaked in 1983 at 7,164, approximately 23% above the current population estimate of 5,472.
2. Housing demand is generated by a loss of housing units and the quality and condition of the existing housing stock.
3. Median Household Income in Beaver County is $54,915, approximately 16.7% above the statewide level. Poverty rates in Beaver County are also below statewide levels.
4. Home values and rental rates in Beaver County are below the state averages, making new residential construction not cost feasible; new residential construction in the area has been very limited over the previous decade.
5. For households with incomes below 50% HAMFI, Approximately 56.19% of renters and 42.86% of owners are housing cost overburdened. There are no affordable housing properties in Beaver County.

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 an online shelter registry for location of individual and business-based shelters.
4. Tornadoes (1959-2014): Number: 65 Injuries: 20 Fatalities: 2 Damages (1996-2014): $1,320,000.00
5. Social Vulnerability: Similar to overall state level
6. Floodplain: updated flood maps not available.

Homelessness Specific Findings

1. Beaver County is located in the Oklahoma Balance of State Continuum of Care.
2. There are an estimated 295 homeless individuals in this area, 154 of which are identified as sheltered.
3. Homeless children under the age of 18 are more likely to be unsheltered than sheltered.
4. Many homeless persons are victims of domestic violence, totaling 75 people.
5. Very few units are available for occupation by families with children (14), and there is a need to grow the number of units that are available for this group of homeless and the children in their care.

Fair Housing Specific Findings

1. None noted.

Lead-Based Paint Specific Findings

1. We estimate there are 520 occupied housing units in Beaver County with lead-based paint hazards.
2. 206 of those housing units are estimated to be occupied by low-to-moderate income households.
3. We estimate that 69 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 Beaver 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 Beaver 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 Beaver 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 Beaver County, Oklahoma. The analysis will consider existing supply and projected demand and overall market trends in the Beaver County area.

Effective Date of Consultation

The Beaver County area was inspected and research was performed during October, 2015. The effective date of this analysis is October 19, 2015. The date of this report is October 30, 2015. The market study is valid only as of the stated effective date or dates.

Scope of the Assignment

1. The Beaver County area was inspected during October, 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

Beaver County Analysis

Area Information

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

Beaver County is located in the panhandle of Oklahoma. The northern and southern borders of the county are also the northern and southern borders of the State of Oklahoma. Beaver, the county seat of Beaver County, is approximately 190 miles northwest of the Oklahoma City central business district. Amarillo, Texas is approximately 130 miles to the southwest, and Wichita, Kansas, is approximately 180 miles to the northeast.

Beaver County has a total area of 1,818 square miles (1,815 square miles of land, and 3 square miles of water), ranking 5th out of Oklahoma's 77 counties in terms of total area. The total population of Beaver County as of the 2010 Census was 5,636 persons, for a population density of 3 persons per square mile of land.

Access and Linkages

The county is served by the national highway system, but is removed from the interstate highway system. U.S. Highways 64 & 412 are the major east/west transportation corridors in Beaver County. US-64 connects the Beaver County communities of Turpin, Forgan, Knowles and Gate with the cities of Buffalo, Alva, and Cherokee before merging with Interstate 35 in central Oklahoma. US-412 does not pass through any of the incorporated towns in Beaver County, but connects the county with the City of Guymon to the west, and the cities of Fort Supply, Woodward, and Enid to the east.

Limited public transportation is provided on a demand-response basis by Beaver City Transit, with service in Beaver, Balko, Gate/Knowles, and Turpin. 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.

Beaver Municipal Airport is a city-owned, public-use airport located one mile southwest of Beaver. It has a single asphalt runway approximately 2,000 feet in length, and averages approximately 23 aircraft

operations per week. The nearest full-service commercial airport is Rick Husband Amarillo International Airport in Amarillo, Texas, approximately 140 miles to the southwest.

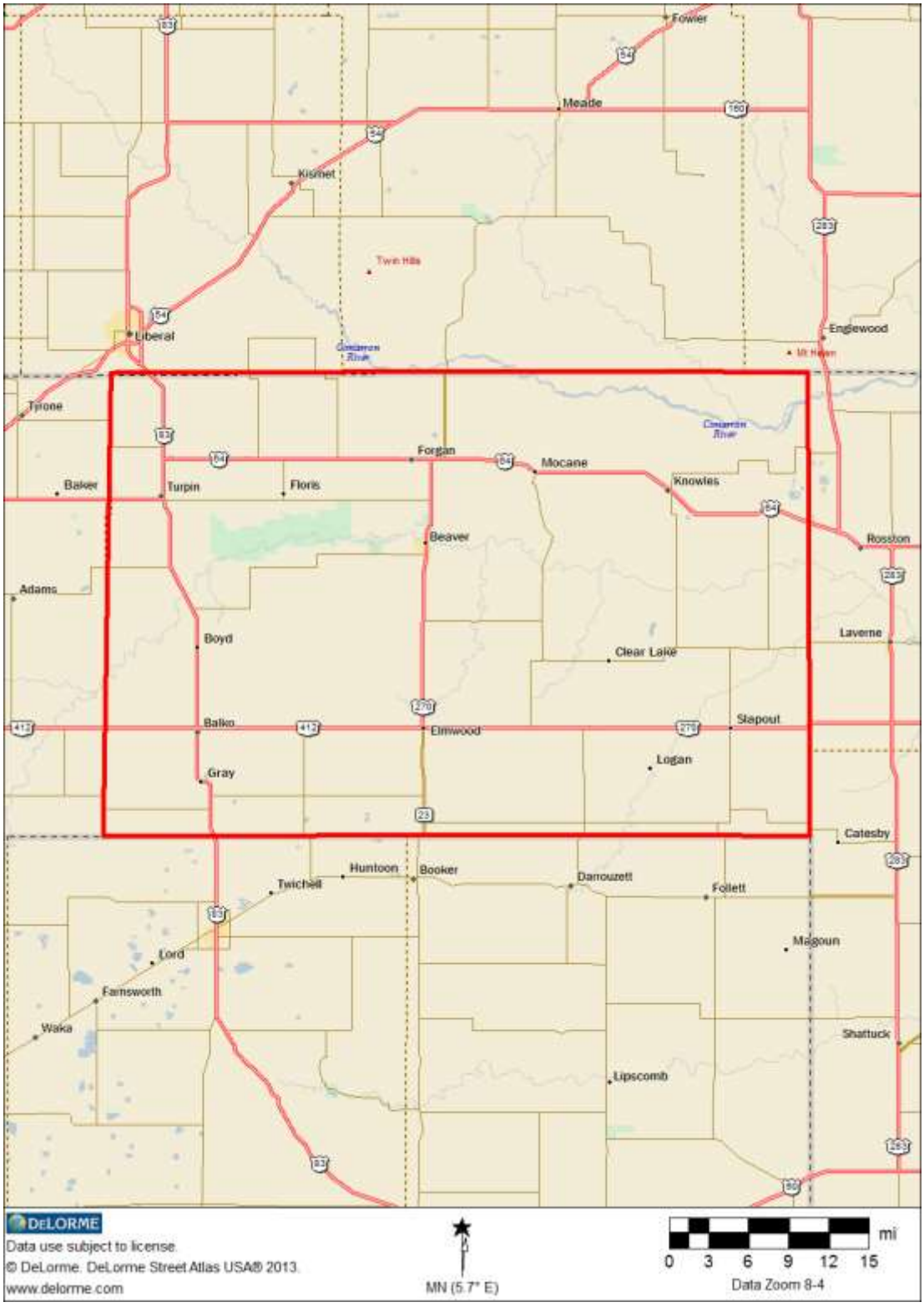
Educational Facilities

All of the county communities have public school facilities. There are no colleges or universities in Beaver County. The nearest colleges and universities are Oklahoma Panhandle State University, located approximately 70 miles west of Beaver in Goodwell, Oklahoma, and the Woodward campus of Northwest Oklahoma State University, located approximately 65 miles to the east in Woodward, Oklahoma. High Plains Technology Center, part of the Oklahoma Department of Career and Technology Education system, is also located in Woodward.

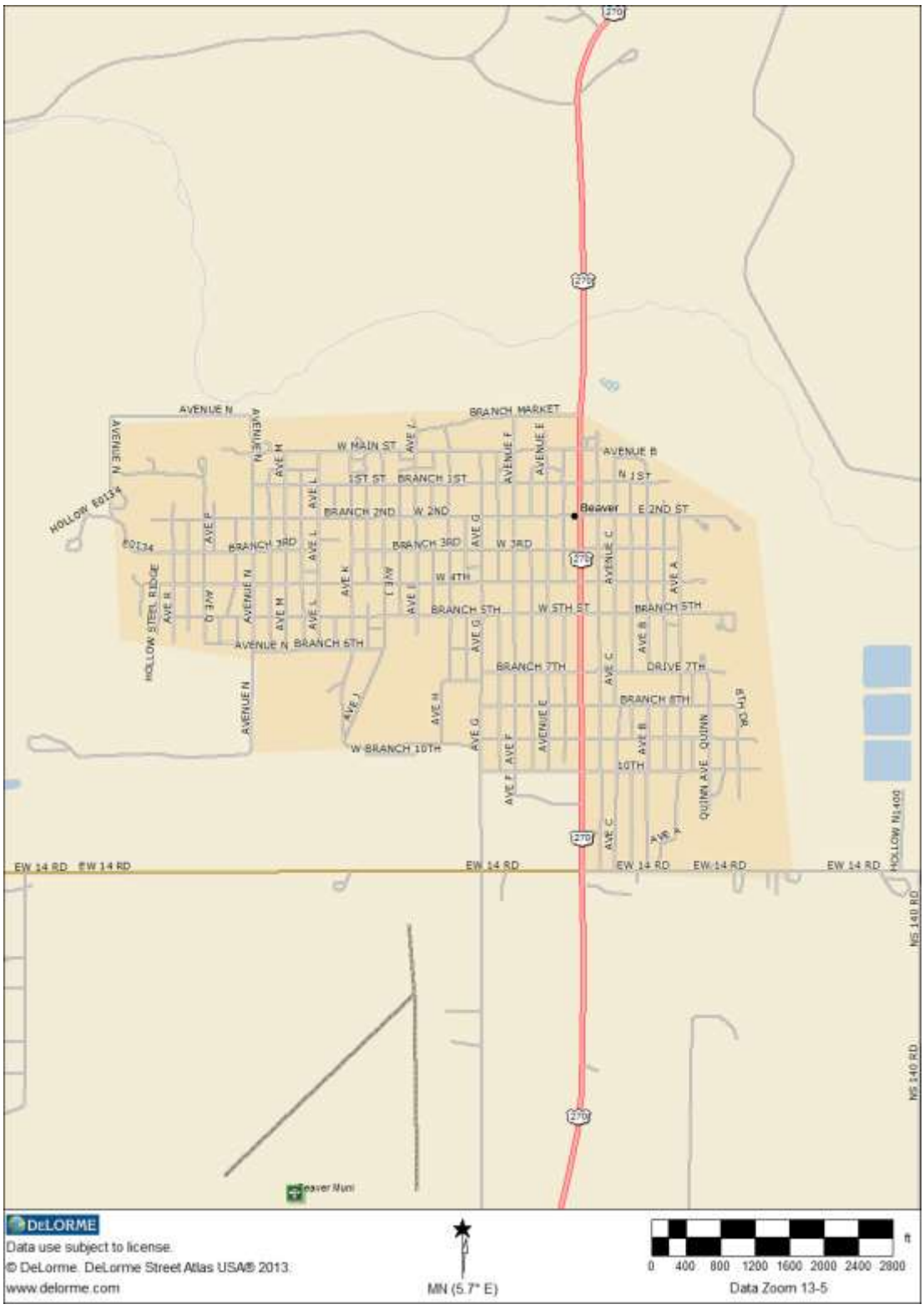
Medical Facilities

County medical services are provided by the Beaver County Memorial Hospital, a 38-bed hospital located in the community of Beaver. The Community Clinic of Beaver and the Community Clinic of Turpin are affiliated with Beaver County Memorial Hospital and provide general practice medical care.

Beaver County Area Map



Beaver Area Map



Demographic Analysis

Population and Households

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

Population Levels and Annual Changes

	2000 Census	2010 Census	Annual Change	2015 Estimate	Annual Change	2020 Forecast	Annual Change
Beaver	1,570	1,515	-0.36%	1,467	-0.64%	1,447	-0.27%
Beaver County	5,857	5,636	-0.38%	5,515	-0.43%	5,472	-0.16%
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 Beaver County was 5,636 persons as of the 2010 Census, a -0.38% annualized rate of change from the 2000 Census. As of 2015, Nielsen SiteReports estimates the population of Beaver County to be 5,515 persons, and projects that the population will show -0.16% annualized decline over the next five years.

The population of Beaver was 1,515 persons as of the 2010 Census, a -0.36% annualized rate of change from the 2000 Census. As of 2015, Nielsen SiteReports estimates the population of Beaver to be 1,467 persons, and projects that the population will show -0.27% annualized decline over the next five years.

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

Households Levels and Annual Changes

Total Households	2000 Census	2010 Census	Annual Change	2015 Estimate	Annual Change	2020 Forecast	Annual Change
Beaver	606	595	-0.18%	572	-0.79%	564	-0.28%
Beaver County	2,245	2,192	-0.24%	2,149	-0.40%	2,136	-0.12%
State of Oklahoma	1,342,293	1,460,450	0.85%	1,520,327	0.81%	1,585,130	0.84%
Family Households	2000 Census	2010 Census	Annual Change	2015 Estimate	Annual Change	2020 Forecast	Annual Change
Beaver	436	410	-0.61%	397	-0.64%	392	-0.25%
Beaver County	1,706	1,614	-0.55%	1,584	-0.37%	1,575	-0.11%
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, Beaver County had a total of 2,192 households, representing a -0.24% annualized rate of change since the 2000 Census. As of 2015, Nielsen SiteReports estimates Beaver County to have 2,149

households. This number is expected to experience a -0.12% annualized rate of decline over the next five years.

As of 2010, Beaver had a total of 595 households, representing a -0.18% annualized rate of change since the 2000 Census. As of 2015, Nielsen SiteReports estimates Beaver to have 572 households. This number is expected to experience a -0.28% 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 Beaver County based on the U.S. Census Bureau's American Community Survey.

2013 Population by Race and Ethnicity

Single-Classification Race	Beaver		Beaver County	
	No.	Percent	No.	Percent
Total Population	1,510		5,605	
White Alone	1,205	79.80%	4,864	86.78%
Black or African American Alone	25	1.66%	52	0.93%
Amer. Indian or Alaska Native Alone	5	0.33%	11	0.20%
Asian Alone	4	0.26%	17	0.30%
Native Hawaiian and Other Pac. Isl. Alone	0	0.00%	0	0.00%
Some Other Race Alone	238	15.76%	514	9.17%
Two or More Races	33	2.19%	147	2.62%
Population by Hispanic or Latino Origin	**Beaver**		**Beaver County**	
	No.	**Percent**	**No.**	**Percent**
Total Population	1,510		5,605	
Hispanic or Latino	376	24.90%	1,164	20.77%
Hispanic or Latino, White Alone	*131*	*34.84%*	*625*	*53.69%*
Hispanic or Latino, All Other Races	*245*	*65.16%*	*539*	*46.31%*
Not Hispanic or Latino	1,134	75.10%	4,441	79.23%
Not Hispanic or Latino, White Alone	*1,074*	*94.71%*	*4,239*	*95.45%*
Not Hispanic or Latino, All Other Races	*60*	*5.29%*	*202*	*4.55%*

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

In Beaver County, racial and ethnic minorities comprise 24.37% of the total population. Within Beaver, racial and ethnic minorities represent 28.87% of the population.

Population by Age

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

Beaver County Population By Age								
	2010 Census	Percent of Total	2015 Estimate	Percent of Total	2020 Forecast	Percent of Total	2000 - 2015 Ann. Chng.	2015 - 2020 Ann. Chng.
Population by Age	5,636		5,515		5,472			
Age 0 - 4	384	6.81%	321	5.82%	323	5.90%	-3.52%	0.12%
Age 5 - 9	432	7.67%	368	6.67%	314	5.74%	-3.16%	-3.12%
Age 10 - 14	394	6.99%	403	7.31%	362	6.62%	0.45%	-2.12%
Age 15 - 17	259	4.60%	235	4.26%	247	4.51%	-1.93%	1.00%
Age 18 - 20	188	3.34%	211	3.83%	227	4.15%	2.34%	1.47%
Age 21 - 24	192	3.41%	261	4.73%	294	5.37%	6.33%	2.41%
Age 25 - 34	626	11.11%	571	10.35%	591	10.80%	-1.82%	0.69%
Age 35 - 44	658	11.67%	641	11.62%	591	10.80%	-0.52%	-1.61%
Age 45 - 54	852	15.12%	741	13.44%	650	11.88%	-2.75%	-2.59%
Age 55 - 64	779	13.82%	781	14.16%	775	14.16%	0.05%	-0.15%
Age 65 - 74	467	8.29%	553	10.03%	650	11.88%	3.44%	3.29%
Age 75 - 84	292	5.18%	304	5.51%	311	5.68%	0.81%	0.46%
Age 85 and over	113	2.00%	125	2.27%	137	2.50%	2.04%	1.85%
Age 55 and over	*1,651*	29.29%	*1,763*	31.97%	*1,873*	34.23%	1.32%	1.22%
Age 62 and over	*993*	17.61%	*1,091*	19.79%	*1,194*	21.81%	1.91%	1.81%
Median Age	40.2		41.0		41.4		0.39%	0.19%

Source: Nielsen SiteReports

As of 2015, Nielsen estimates that the median age of Beaver County is 41.0 years. This compares with the statewide figure of 36.6 years. Approximately 5.82% of the population is below the age of 5, while 19.79% is over the age of 62. Over the next five years, the population age 62 and above is forecasted to grow by 1.81% per year.

Beaver Population By Age	2010 Census	Percent of Total	2015 Estimate	Percent of Total	2020 Forecast	Percent of Total	2000 - 2015 Ann. Chng.	2015 - 2020 Ann. Chng.
Population by Age	1,515		1,467		1,447			
Age 0 - 4	120	7.92%	98	6.68%	102	7.05%	-3.97%	0.80%
Age 5 - 9	124	8.18%	106	7.23%	91	6.29%	-3.09%	-3.01%
Age 10 - 14	109	7.19%	112	7.63%	105	7.26%	0.54%	-1.28%
Age 15 - 17	64	4.22%	65	4.43%	68	4.70%	0.31%	0.91%
Age 18 - 20	52	3.43%	56	3.82%	64	4.42%	1.49%	2.71%
Age 21 - 24	61	4.03%	69	4.70%	78	5.39%	2.50%	2.48%
Age 25 - 34	169	11.16%	163	11.11%	154	10.64%	-0.72%	-1.13%
Age 35 - 44	186	12.28%	168	11.45%	152	10.50%	-2.02%	-1.98%
Age 45 - 54	192	12.67%	188	12.82%	183	12.65%	-0.42%	-0.54%
Age 55 - 64	163	10.76%	156	10.63%	163	11.26%	-0.87%	0.88%
Age 65 - 74	146	9.64%	151	10.29%	142	9.81%	0.68%	-1.22%
Age 75 - 84	83	5.48%	88	6.00%	96	6.63%	1.18%	1.76%
Age 85 and over	46	3.04%	47	3.20%	49	3.39%	0.43%	0.84%
Age 55 and over	*438*	28.91%	*442*	30.13%	*450*	31.10%	0.18%	0.36%
Age 62 and over	*278*	18.34%	*286*	19.48%	*287*	19.83%	0.56%	0.08%
Median Age	38.1		38.8		39.0		0.36%	0.10%

Source: Nielsen SiteReports

As of 2015, Nielsen estimates that the median age of Beaver is 38.8 years. This compares with the statewide figure of 36.6 years. Approximately 6.68% of the population is below the age of 5, while 19.48% is over the age of 62. Over the next five years, the population age 62 and above is forecasted to grow by 0.08% per year.

Families by Presence of Children

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

2013 Family Type by Presence of Children Under 18 Years

	Beaver		Beaver County	
	No.	Percent	No.	Percent
Total Families:	420		1,541	
Married-Couple Family:	340	80.95%	1,343	87.15%
With Children Under 18 Years	107	25.48%	480	31.15%
No Children Under 18 Years	233	55.48%	863	56.00%
Other Family:	80	19.05%	198	12.85%
Male Householder, No Wife Present	43	10.24%	79	5.13%
With Children Under 18 Years	37	8.81%	47	3.05%
No Children Under 18 Years	6	1.43%	32	2.08%
Female Householder, No Husband Present	37	8.81%	119	7.72%
With Children Under 18 Years	24	5.71%	77	5.00%
No Children Under 18 Years	13	3.10%	42	2.73%
Total Single Parent Families	61		124	
Male Householder	37	60.66%	47	37.90%
Female Householder	24	39.34%	77	62.10%

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

As shown, within Beaver County, among all families 8.05% are single-parent families, while in Beaver, the percentage is 14.52%.

Population by Presence of Disabilities

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

2013 Age by Number of Disabilities

	Beaver		Beaver County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Civilian Non-Institutionalized Population:	1,446		5,538		3,702,515	
Under 18 Years:	341		1,429		933,738	
With One Type of Disability	0	0.00%	15	1.05%	33,744	3.61%
With Two or More Disabilities	0	0.00%	22	1.54%	11,082	1.19%
No Disabilities	341	100.00%	1,392	97.41%	888,912	95.20%
18 to 64 Years:	874		3,229		2,265,702	
With One Type of Disability	56	6.41%	152	4.71%	169,697	7.49%
With Two or More Disabilities	24	2.75%	115	3.56%	149,960	6.62%
No Disabilities	794	90.85%	2,962	91.73%	1,946,045	85.89%
65 Years and Over:	231		880		503,075	
With One Type of Disability	34	14.72%	128	14.55%	95,633	19.01%
With Two or More Disabilities	35	15.15%	149	16.93%	117,044	23.27%
No Disabilities	162	70.13%	603	68.52%	290,398	57.72%
Total Number of Persons with Disabilities:	149	10.30%	581	10.49%	577,160	15.59%

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

Within Beaver County, 10.49% of the civilian non-institutionalized population has one or more disabilities, compared with 15.59% of Oklahomans as a whole. In Beaver the percentage is 10.30%.

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

2013 Population by Veteran and Disability Status

	Beaver		Beaver County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Civilian Population Age 18+ For Whom Poverty Status is Determined	1,105		4,109		2,738,788	
Veteran:	91	8.24%	312	7.59%	305,899	11.17%
With a Disability	*24*	*26.37%*	*85*	*27.24%*	*100,518*	*32.86%*
No Disability	*67*	*73.63%*	*227*	*72.76%*	*205,381*	*67.14%*
Non-veteran:	1,014	91.76%	3,797	92.41%	2,432,889	88.83%
With a Disability	*125*	*12.33%*	*459*	*12.09%*	*430,610*	*17.70%*
No Disability	*889*	*87.67%*	*3,338*	*87.91%*	*2,002,279*	*82.30%*

Source: 2009-2013 American Community Survey, Table C21007

Within Beaver County, the Census Bureau estimates there are 312 veterans, 27.24% of which have one or more disabilities (compared with 32.86% at a statewide level). In Beaver, there are an estimated 91 veterans, 26.37% of which are estimated to have a disability.

Group Quarters Population

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

2010 Group Quarters Population

	Beaver		Beaver County	
	No.	Percent	No.	Percent
Total Population	1,515		5,636	
Group Quarters Population	43	2.84%	43	0.76%
Institutionalized Population	43	2.84%	43	0.76%
Correctional facilities for adults	12	0.79%	12	0.21%
Juvenile facilities	0	0.00%	0	0.00%
Nursing facilities/Skilled-nursing facilities	31	2.05%	31	0.55%
Other institutional facilities	0	0.00%	0	0.00%
Noninstitutionalized population	0	0.00%	0	0.00%
College/University student housing	0	0.00%	0	0.00%
Military quarters	0	0.00%	0	0.00%
Other noninstitutional facilities	0	0.00%	0	0.00%

Source: 2010 Decennial Census, Table P42

Household Income Levels

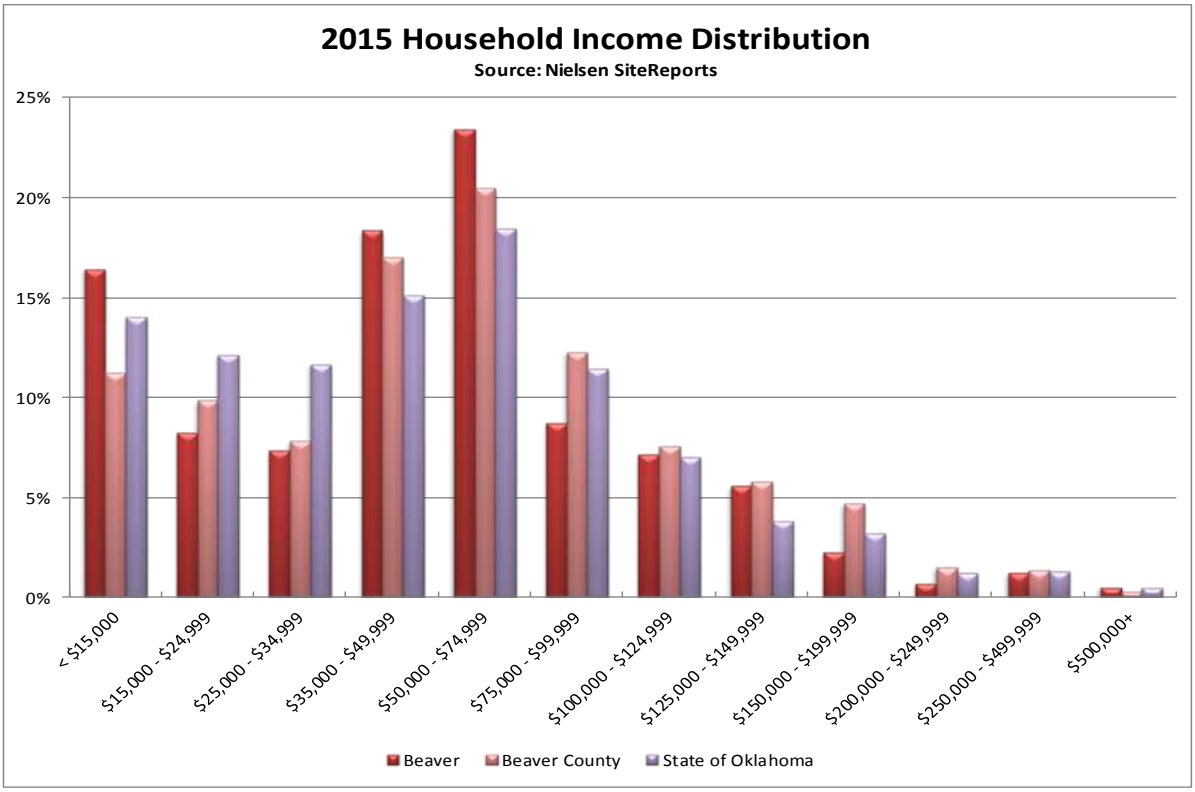
Data in the following chart shows the distribution of household income in Beaver County, as well as median and average household income. Data for Oklahoma is included as a basis of comparison. This data is provided by Nielsen SiteReports for 2015.

2015 Household Income Distribution

	Beaver		Beaver County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Households by HH Income	572		2,149		1,520,327	
< $15,000	94	16.43%	242	11.26%	213,623	14.05%
$15,000 - $24,999	47	8.22%	212	9.87%	184,613	12.14%
$25,000 - $34,999	42	7.34%	168	7.82%	177,481	11.67%
$35,000 - $49,999	105	18.36%	366	17.03%	229,628	15.10%
$50,000 - $74,999	134	23.43%	440	20.47%	280,845	18.47%
$75,000 - $99,999	50	8.74%	264	12.28%	173,963	11.44%
$100,000 - $124,999	41	7.17%	163	7.58%	106,912	7.03%
$125,000 - $149,999	32	5.59%	125	5.82%	57,804	3.80%
$150,000 - $199,999	13	2.27%	101	4.70%	48,856	3.21%
$200,000 - $249,999	4	0.70%	32	1.49%	18,661	1.23%
$250,000 - $499,999	7	1.22%	29	1.35%	20,487	1.35%
$500,000+	3	0.52%	7	0.33%	7,454	0.49%
Median Household Income	$49,714		$54,915		$47,049	
Average Household Income	$63,444		$70,370		$63,390	

Source: Nielsen SiteReports

As shown, median household income for Beaver County is estimated to be $54,915 in 2015. By way of comparison, the median household income of Oklahoma is estimated to be $47,049. For Beaver, median household income is estimated to be $49,714.



Household Income Trend

Next we examine the long-term growth of incomes in Beaver 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
Beaver	$37,560	$49,714	1.77%	2.40%	-0.63%
Beaver County	$36,715	$54,915	2.55%	2.40%	0.15%
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 the Town of Beaver 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, but rather is 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 Beaver 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
Beaver	10.18%	8.63%	-155	27.03%	25.00%
Beaver County	11.71%	9.95%	-176	25.53%	32.47%
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 Beaver County is estimated to be 9.95% by the American Community Survey. This is a decrease of -176 basis points since the 2000 Census. Within Beaver, the poverty rate is estimated to be 8.63%. It should be noted that the national trend is toward increasing poverty rates over this period of time: 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 Beaver 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)
Beaver County	2,825	3,233	2.73%	4.0%	2.6%	-140
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

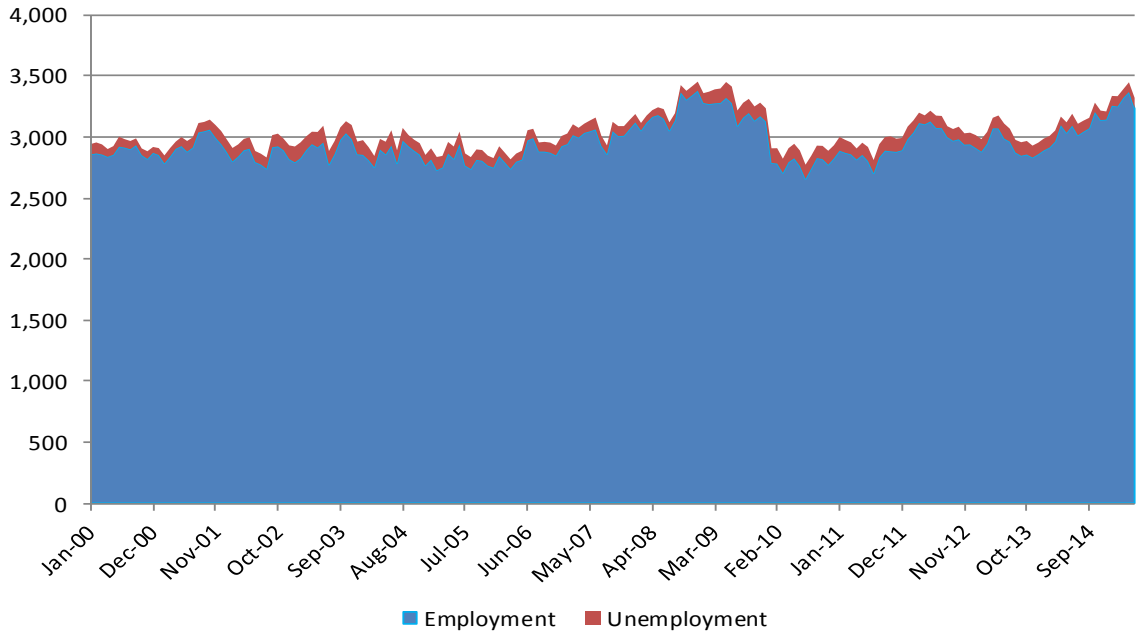
Sources: Bureau of Labor Statistics, Local Area Unemployment Statistics and Current Population Survey

As of May 2015, total employment in Beaver County was 3,233 persons. Compared with figures from May 2010, this represents annualized employment growth of 2.73% per year. The unemployment rate in May was 2.6%, a decrease of -140 basis points from May 2010, which was 4.0%. Over the last five years, both the statewide and national trends have been improving employment levels and declining unemployment rates, and Beaver County has outperformed both the state and nation in these statistics.

Employment Level Trends

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

Employment and Unemployment in Beaver County
January 2000 through May 2015



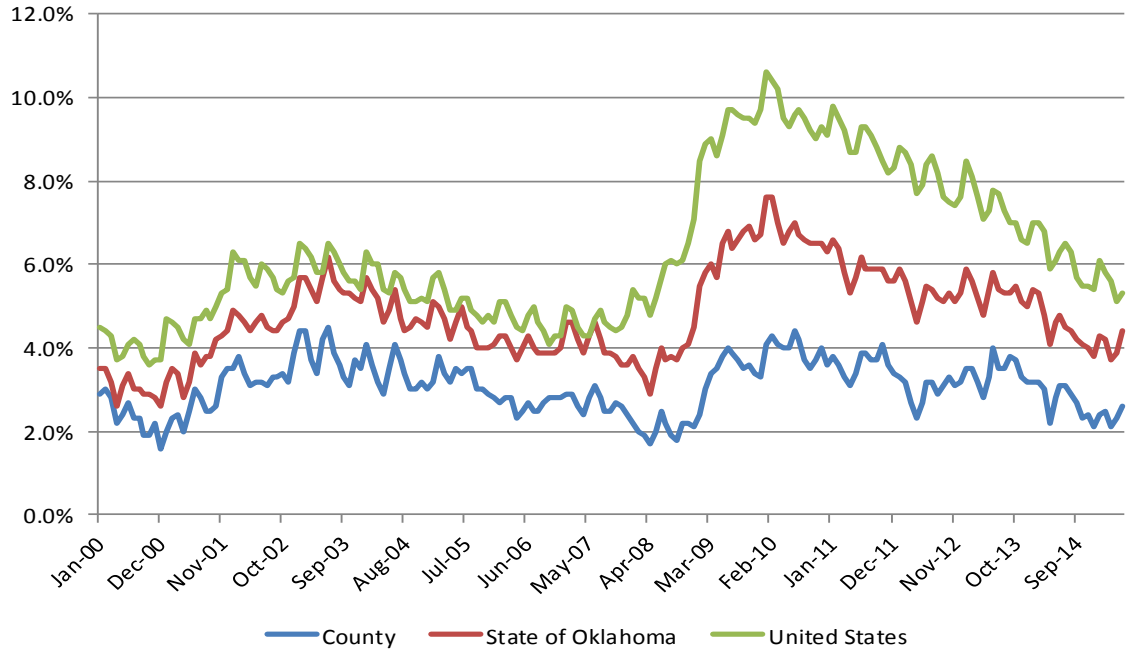
Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

As shown, total employment levels in Beaver County have remained relatively over the past fifteen years. The national economic recession of 2009-2010, which had a measurable impact on local economies throughout Oklahoma, had little demonstrable impact on either employment or the total labor force in Beaver County. It appears that a positive growth trend in employment is emerging from early 2014 through the present. May 2015 employment is 3,233 persons. The number of unemployed persons in May 2015 was 87, out of a total labor force of 3,320 persons.

Unemployment Rate Trends

The next chart shows historic unemployment rates for Beaver 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 Beaver County, Oklahoma and the United States
January 2000 through May 2015



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

Unemployment rates in Beaver County typically trend with statewide levels, although the Beaver County rate is generally 1-2 percentage points below the statewide level. Unemployment rates in Beaver County remained relatively stable from January 2000 through the end of 2008. Concurrent with the national economic recession, unemployment rates in Beaver County rose through 2009 into 2010, although the unemployment rate in Beaver County peaked at 4.4% in July 2010, while the national unemployment rate reached as high as 10.6% in January 2010.

Employment and Wages by Industrial Supersector

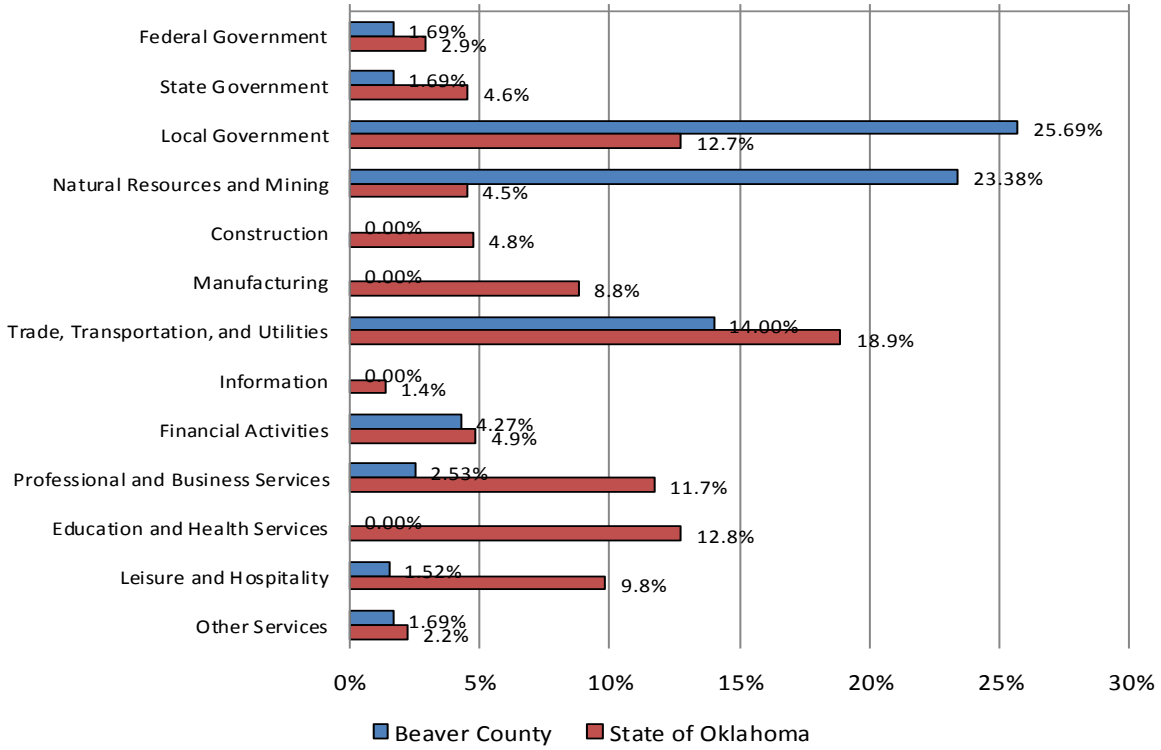
The next table presents data regarding employment in Beaver County by industry, including total number of establishments, average number of employees in 2014, average annual pay, and location quotients for each industry compared with the United States. This data is furnished by the Bureau of Labor Statistics, 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	7	30	1.69%	$36,985	0.84
State Government	8	30	1.69%	$36,985	0.51
Local Government	18	457	25.69%	$30,341	2.55
Natural Resources and Mining	42	416	23.38%	$47,099	15.42
Construction	21	N/A	N/A	N/A	N/A
Manufacturing	4	N/A	N/A	N/A	N/A
Trade, Transportation, and Utilities	29	249	14.00%	$45,299	0.73
Information	2	N/A	N/A	N/A	N/A
Financial Activities	12	76	4.27%	$42,779	0.76
Professional and Business Services	15	45	2.53%	$25,429	0.18
Education and Health Services	7	N/A	N/A	N/A	N/A
Leisure and Hospitality	9	27	1.52%	$11,112	0.14
Other Services	12	30	1.69%	$28,990	0.54
Total	**184**	**1,779**		**$39,380**	**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 (23.38%) are employed in Natural Resources and Mining. The average annual pay in this sector is $47,099 per year. The industry with the highest annual pay is Natural Resources and Mining, with average annual pay of $47,099 per year.

The rightmost column of the previous table provides location quotients for each industry for Beaver 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 (Beaver County in this instance), by the percentage of employment in the same industry in the United States. For example, if manufacturing in a certain county comprised 10% of total employment, while in the United States manufacturing comprised 5% of total employment, the location quotient would be 2.0:

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

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

Within Beaver County, among all industries the largest location quotient is in Natural Resources and Mining, with a quotient of 15.42.

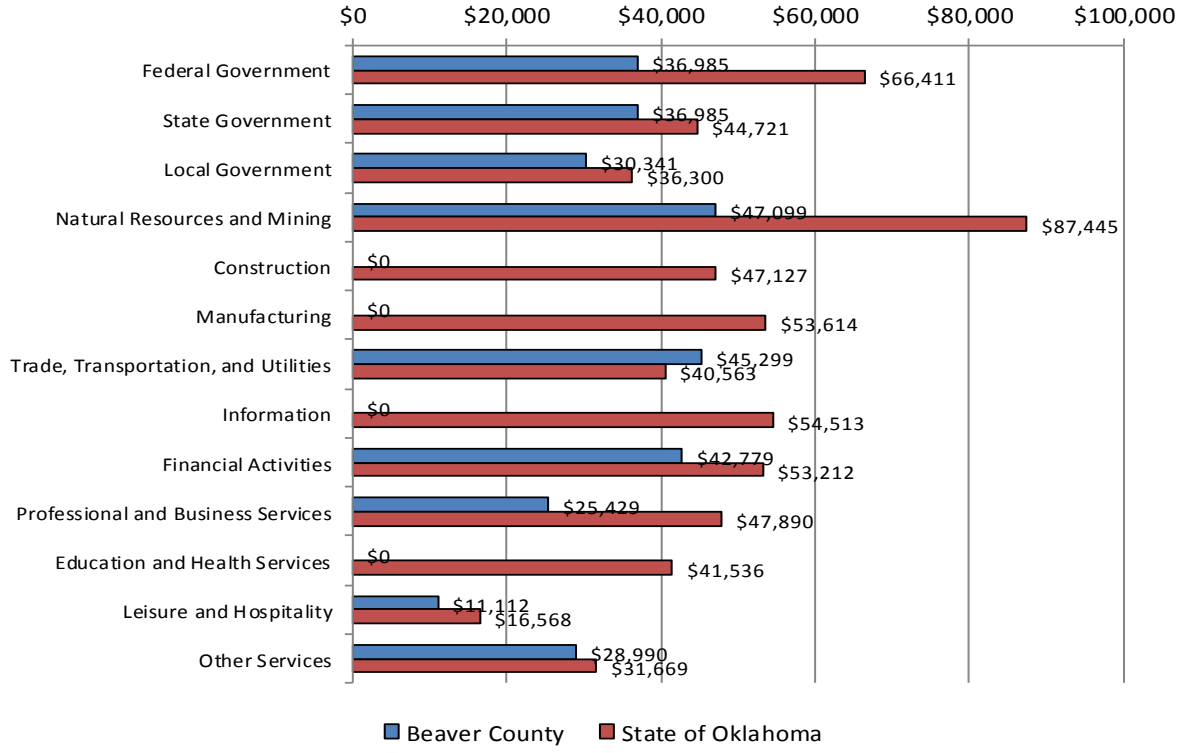
The next table presents average annual pay in Beaver County by industry, in comparison with Oklahoma as a whole and the United States.

Comparison of 2014 Average Annual Pay by Supersector

Supersector	Beaver County	State of Oklahoma	United States	Percent of State	Percent of Nation
Federal Government	$36,985	$66,411	$75,784	55.7%	48.8%
State Government	$36,985	$44,721	$54,184	82.7%	68.3%
Local Government	$30,341	$36,300	$46,146	83.6%	65.8%
Natural Resources and Mining	$47,099	$87,445	$59,666	53.9%	78.9%
Construction	N/A	$47,127	$55,041	N/A	N/A
Manufacturing	N/A	$53,614	$62,977	N/A	N/A
Trade, Transportation, and Utilities	$45,299	$40,563	$42,988	111.7%	105.4%
Information	N/A	$54,513	$90,804	N/A	N/A
Financial Activities	$42,779	$53,212	$85,261	80.4%	50.2%
Professional and Business Services	$25,429	$47,890	$66,657	53.1%	38.1%
Education and Health Services	N/A	$41,536	$45,951	N/A	N/A
Leisure and Hospitality	$11,112	$16,568	$20,993	67.1%	52.9%
Other Services	$28,990	$31,669	$33,935	91.5%	85.4%
Total	**$39,380**	**$43,774**	**$51,361**	**90.0%**	**76.7%**

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

Working Families

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

Families by Employment Status and Presence of Children						
	Beaver		Beaver County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Families	**420**		**1,541**		**961,468**	
With Children <18 Years:	168	40.00%	604	39.20%	425,517	44.26%
Married Couple:	107	63.69%	480	79.47%	281,418	66.14%
Both Parents Employed	67	62.62%	297	61.88%	166,700	59.24%
One Parent Employed	40	37.38%	183	38.13%	104,817	37.25%
Neither Parent Employed	0	0.00%	0	0.00%	9,901	3.52%
Other Family:	61	36.31%	124	20.53%	144,099	33.86%
Male Householder:	37	60.66%	47	37.90%	36,996	25.67%
Employed	37	100.00%	47	100.00%	31,044	83.91%
Not Employed	0	0.00%	0	0.00%	5,952	16.09%
Female Householder:	24	39.34%	77	62.10%	107,103	74.33%
Employed	24	100.00%	66	85.71%	75,631	70.62%
Not Employed	0	0.00%	11	14.29%	31,472	29.38%
Without Children <18 Years:	252	60.00%	937	60.80%	535,951	55.74%
Married Couple:	233	92.46%	863	92.10%	431,868	80.58%
Both Spouses Employed	152	65.24%	433	50.17%	167,589	38.81%
One Spouse Employed	42	18.03%	278	32.21%	138,214	32.00%
Neither Spouse Employed	39	16.74%	152	17.61%	126,065	29.19%
Other Family:	19	7.54%	74	7.90%	104,083	19.42%
Male Householder:	6	15.38%	32	21.05%	32,243	25.58%
Employed	0	0.00%	15	46.88%	19,437	60.28%
Not Employed	6	100.00%	17	53.13%	12,806	39.72%
Female Householder:	13	68.42%	42	56.76%	71,840	69.02%
Employed	3	23.08%	21	50.00%	36,601	50.95%
Not Employed	10	76.92%	21	50.00%	35,239	49.05%
Total Working Families:	*365*	*86.90%*	*1,340*	*86.96%*	*740,033*	*76.97%*
With Children <18 Years:	*168*	*46.03%*	*593*	*44.25%*	*378,192*	*51.10%*
Without Children <18 Years:	*197*	*53.97%*	*747*	*55.75%*	*361,841*	*48.90%*

Source: 2009-2013 American Community Survey, Table B23007

Within Beaver County, there are 1,340 working families, 44.25% 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 Beaver County area are presented in the following table, as reported by the Marc Davis, Town Administrator for the Town of Beaver.

Major Employers in Beaver County	
Company	**Industry / Description**
Howard Drilling	Oil & Gas Drilling
Hardberger & Smylie	Construction
Dollar General	Retail
Beaver Lumber	Lumber
Downing Supermarket	Grocery

Source: Marc Davis, Town Administrator for the Town of Beaver

The economy of Beaver County is largely dependent upon both the energy sector and agriculture. Not included in this list are the community school districts and county government.

Commuting Patterns

Travel Time to Work

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

Workers 16 Years and Over by Commuting Time to Work						
	Beaver		**Beaver County**		**State of Oklahoma**	
	No.	**Percent**	**No.**	**Percent**	**No.**	**Percent**
Commuting Workers:	**781**		**2,560**		**1,613,364**	
Less than 15 minutes	619	79.26%	1,262	49.30%	581,194	36.02%
15 to 30 minutes	45	5.76%	719	28.09%	625,885	38.79%
30 to 45 minutes	43	5.51%	367	14.34%	260,192	16.13%
45 to 60 minutes	19	2.43%	72	2.81%	74,625	4.63%
60 or more minutes	55	7.04%	140	5.47%	71,468	4.43%

Source: 2009-2013 American Community Survey, Table B08303

Within Beaver County, the largest percentage of workers (49.30%) travel Less than 15 minutes to work. Although most Beaver County residents are employed within the county, some commute to other employment centers, such as Guymon or Woodward, Oklahoma.

Means of Transportation

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

Workers 16 Years and Over by Means of Transportation to Work

	Beaver		Beaver County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Workers Age 16+	**814**		**2,682**		**1,673,026**	
Car, Truck or Van:	771	94.72%	2,483	92.58%	1,551,461	92.73%
Drove Alone	*736*	*95.46%*	*2,271*	*91.46%*	*1,373,407*	*88.52%*
Carpooled	*35*	*4.54%*	*212*	*8.54%*	*178,054*	*11.48%*
Public Transportation	0	0.00%	3	0.11%	8,092	0.48%
Taxicab	0	0.00%	0	0.00%	984	0.06%
Motorcycle	0	0.00%	5	0.19%	3,757	0.22%
Bicycle	0	0.00%	0	0.00%	4,227	0.25%
Walked	9	1.11%	49	1.83%	30,401	1.82%
Other Means	1	0.12%	20	0.75%	14,442	0.86%
Worked at Home	33	4.05%	122	4.55%	59,662	3.57%

Source: 2009-2013 American Community Survey, Table B08301

Housing Stock Analysis

Existing Housing Units

The following table presents data regarding the total number of housing units in Beaver 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
Beaver	725	702	-0.32%	693	-0.26%
Beaver County	2,719	2,670	-0.18%	2,658	-0.09%
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 Beaver County declined by -0.09% per year, to a total of 2,658 housing units in 2015. In terms of new housing unit construction, Beaver County underperformed Oklahoma as a whole between 2010 and 2015.

Housing by Units in Structure

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

2013 Housing Units by Units in Structure

	Beaver		Beaver County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Housing Units	**768**		**2,662**		**1,669,828**	
1 Unit, Detached	622	80.99%	2,037	76.52%	1,219,987	73.06%
1 Unit, Attached	0	0.00%	12	0.45%	34,434	2.06%
Duplex Units	0	0.00%	5	0.19%	34,207	2.05%
3-4 Units	0	0.00%	15	0.56%	42,069	2.52%
5-9 Units	0	0.00%	0	0.00%	59,977	3.59%
10-19 Units	31	4.04%	40	1.50%	57,594	3.45%
20-49 Units	22	2.86%	22	0.83%	29,602	1.77%
50 or More Units	0	0.00%	0	0.00%	30,240	1.81%
Mobile Homes	93	12.11%	531	19.95%	159,559	9.56%
Boat, RV, Van, etc.	0	0.00%	0	0.00%	2,159	0.13%
Total Multifamily Units	**53**	**6.90%**	**82**	**3.08%**	**253,689**	**15.19%**

Source: 2009-2013 American Community Survey, Table B25024

Within Beaver County, 76.52% of housing units are single-family, detached. 3.08% of housing units are multifamily in structure (two or more units per building), while 19.95% of housing units comprise mobile homes, RVs, etc.

Within Beaver, 80.99% of housing units are single-family, detached. 6.90% of housing units are multifamily in structure, while 12.11% of housing units comprise mobile homes, RVs, etc.

Housing Units Number of Bedrooms and Tenure

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

2013 Housing Units by Tenure and Number of Bedrooms

	Beaver		Beaver County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Occupied Housing Units	**637**		**2,108**		**1,444,081**	
Owner Occupied:	**411**	**64.52%**	**1,555**	**73.77%**	**968,736**	**67.08%**
No Bedroom	0	0.00%	0	0.00%	2,580	0.27%
1 Bedroom	3	0.73%	44	2.83%	16,837	1.74%
2 Bedrooms	128	31.14%	282	18.14%	166,446	17.18%
3 Bedrooms	183	44.53%	825	53.05%	579,135	59.78%
4 Bedrooms	87	21.17%	316	20.32%	177,151	18.29%
5 or More Bedrooms	10	2.43%	88	5.66%	26,587	2.74%
Renter Occupied:	**226**	**35.48%**	**553**	**26.23%**	**475,345**	**32.92%**
No Bedroom	0	0.00%	0	0.00%	13,948	2.93%
1 Bedroom	0	0.00%	5	0.90%	101,850	21.43%
2 Bedrooms	96	42.48%	154	27.85%	179,121	37.68%
3 Bedrooms	114	50.44%	328	59.31%	152,358	32.05%
4 Bedrooms	11	4.87%	61	11.03%	24,968	5.25%
5 or More Bedrooms	5	2.21%	5	0.90%	3,100	0.65%

Source: 2009-2013 American Community Survey, Table B25042

The overall homeownership rate in Beaver County is 73.77%, while 26.23% of housing units are renter occupied. In Beaver, the homeownership rate is 64.52%, while 35.48% of households are renters.

Housing Units Tenure and Household Income

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

Beaver County Owner/Renter Percentages by Income Band in 2013					
Household Income	**Total Households**	**Total Owners**	**Total Renters**	**% Owners**	**% Renters**
Total	**2,108**	**1,555**	**553**	**73.77%**	**26.23%**
Less than $5,000	74	36	38	48.65%	51.35%
$5,000 - $9,999	42	40	2	95.24%	4.76%
$10,000-$14,999	117	80	37	68.38%	31.62%
$15,000-$19,999	75	70	5	93.33%	6.67%
$20,000-$24,999	107	89	18	83.18%	16.82%
$25,000-$34,999	222	110	112	49.55%	50.45%
$35,000-$49,999	384	275	109	71.61%	28.39%
$50,000-$74,999	413	303	110	73.37%	26.63%
$75,000-$99,999	260	211	49	81.15%	18.85%
$100,000-$149,999	255	206	49	80.78%	19.22%
$150,000 or more	159	135	24	84.91%	15.09%
Income Less Than $25,000	**415**	**315**	**100**	**75.90%**	**24.10%**

Source: 2009-2013 American Community Survey, Table B25118

Within Beaver County as a whole, 24.10% of households with incomes less than $25,000 are estimated to be renters, while 75.90% are estimated to be homeowners.

Beaver Owner/Renter Percentages by Income Band in 2013					
Household Income	**Total Households**	**Total Owners**	**Total Renters**	**% Owners**	**% Renters**
Total	**637**	**411**	**226**	**64.52%**	**35.48%**
Less than $5,000	42	11	31	26.19%	73.81%
$5,000 - $9,999	13	13	0	100.00%	0.00%
$10,000-$14,999	32	23	9	71.88%	28.13%
$15,000-$19,999	12	12	0	100.00%	0.00%
$20,000-$24,999	31	13	18	41.94%	58.06%
$25,000-$34,999	63	24	39	38.10%	61.90%
$35,000-$49,999	148	94	54	63.51%	36.49%
$50,000-$74,999	131	83	48	63.36%	36.64%
$75,000-$99,999	58	48	10	82.76%	17.24%
$100,000-$149,999	76	59	17	77.63%	22.37%
$150,000 or more	31	31	0	100.00%	0.00%
Income Less Than $25,000	**130**	**72**	**58**	**55.38%**	**44.62%**

Source: 2009-2013 American Community Survey, Table B25118

Within Beaver, 44.62% of households with incomes less than $25,000 are estimated to be renters, while 55.38% 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

	Beaver		Beaver County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Occupied Housing Units	**637**		**2,108**		**1,444,081**	
Owner Occupied:	**411**	**64.52%**	**1,555**	**73.77%**	**968,736**	**67.08%**
Built 2010 or Later	10	2.43%	21	1.35%	10,443	1.08%
Built 2000 to 2009	7	1.70%	89	5.72%	153,492	15.84%
Built 1990 to 1999	4	0.97%	97	6.24%	125,431	12.95%
Built 1980 to 1989	57	13.87%	277	17.81%	148,643	15.34%
Built 1970 to 1979	72	17.52%	297	19.10%	184,378	19.03%
Built 1960 to 1969	75	18.25%	195	12.54%	114,425	11.81%
Built 1950 to 1959	157	38.20%	241	15.50%	106,544	11.00%
Built 1940 to 1949	8	1.95%	73	4.69%	50,143	5.18%
Built 1939 or Earlier	21	5.11%	265	17.04%	75,237	7.77%
Median Year Built:		1963		1970		1977
Renter Occupied:	**226**	**35.48%**	**553**	**26.23%**	**475,345**	**32.92%**
Built 2010 or Later	11	4.87%	13	2.35%	5,019	1.06%
Built 2000 to 2009	11	4.87%	19	3.44%	50,883	10.70%
Built 1990 to 1999	22	9.73%	59	10.67%	47,860	10.07%
Built 1980 to 1989	38	16.81%	85	15.37%	77,521	16.31%
Built 1970 to 1979	18	7.96%	83	15.01%	104,609	22.01%
Built 1960 to 1969	62	27.43%	110	19.89%	64,546	13.58%
Built 1950 to 1959	14	6.19%	72	13.02%	54,601	11.49%
Built 1940 to 1949	0	0.00%	22	3.98%	31,217	6.57%
Built 1939 or Earlier	50	22.12%	90	16.27%	39,089	8.22%
Median Year Built:		1968		1968		1975
Overall Median Year Built:		**1963**		**1970**		**1976**

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

Within Beaver County, 6.74% of housing units were built after the year 2000. This compares with 15.22% statewide. Within Beaver the percentage is 6.12%.

85.86% of housing units in Beaver County were built prior to 1990, while in Beaver the percentage is 89.80%. These figures compare with the statewide figure of 72.78%.

Substandard Housing

The next table presents data regarding substandard housing in Beaver 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
Beaver	637	0	0.00%	0	0.00%	7	1.10%
Beaver County	2,108	0	0.00%	0	0.00%	49	2.32%
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 Beaver County, none of the housing units were identified as having inadequate plumbing or inadequate kitchen facilities.

Vacancy Rates

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

2013 Housing Units by Vacancy

	Beaver		Beaver County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Housing Units	768		2,662		1,669,828	
Total Vacant Units	131	17.06%	554	20.81%	225,747	13.52%
For rent	33	25.19%	62	11.19%	43,477	19.26%
Rented, not occupied	5	3.82%	22	3.97%	9,127	4.04%
For sale only	14	10.69%	30	5.42%	23,149	10.25%
Sold, not occupied	32	24.43%	35	6.32%	8,618	3.82%
For seasonal, recreational, or occasional use	5	3.82%	30	5.42%	39,475	17.49%
For migrant workers	0	0.00%	0	0.00%	746	0.33%
Other vacant	42	32.06%	375	67.69%	101,155	44.81%
Homeowner Vacancy Rate	3.06%		1.85%		2.31%	
Rental Vacancy Rate	12.50%		9.73%		8.24%	

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

Within Beaver County, the overall housing vacancy rate is estimated to be 20.81%. The homeowner vacancy rate is estimated to be 1.85%, while the rental vacancy rate is estimated to be 9.73%.

In Beaver, the overall housing vacancy rate is estimated to be 17.06%. The homeowner vacancy rate is estimated to be 3.06%, while the rental vacancy rate is estimated to be 12.50%.

Building Permits

The U.S. Census Bureau Residential Construction Branch, Manufacturing and Construction Division publishes a report of residential building permits issued for single family and multifamily units. The Town of Beaver reported zero residential building permits issued over the 2004-2014 period. A search of the Beaver County records indicated that there are three single family residences in the Town of Beaver that were built after 2004. No multifamily structures built after 2004 were identified. This data is consistent with our interviews with local officials, all of whom indicated very little new residential construction over the previous decade.

Homeownership Market

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

Housing Units by Home Value

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

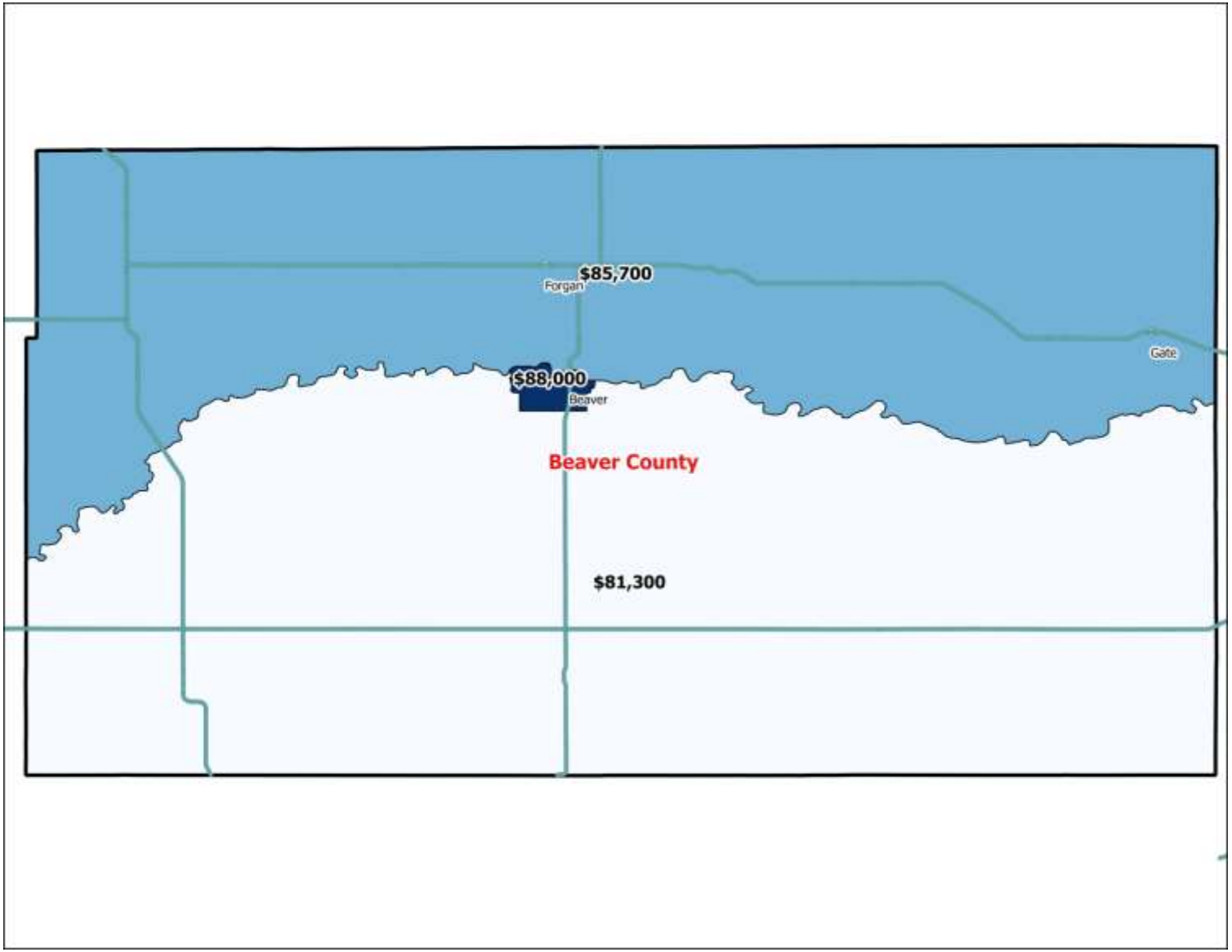
2013 Housing Units by Home Value

	Beaver		Beaver County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Owner-Occupied Units:	**411**		**1,555**		**968,736**	
Less than $10,000	29	7.06%	118	7.59%	20,980	2.17%
$10,000 to $14,999	11	2.68%	42	2.70%	15,427	1.59%
$15,000 to $19,999	8	1.95%	20	1.29%	13,813	1.43%
$20,000 to $24,999	7	1.70%	54	3.47%	16,705	1.72%
$25,000 to $29,999	9	2.19%	29	1.86%	16,060	1.66%
$30,000 to $34,999	14	3.41%	50	3.22%	19,146	1.98%
$35,000 to $39,999	13	3.16%	53	3.41%	14,899	1.54%
$40,000 to $49,999	32	7.79%	108	6.95%	39,618	4.09%
$50,000 to $59,999	6	1.46%	81	5.21%	45,292	4.68%
$60,000 to $69,999	30	7.30%	88	5.66%	52,304	5.40%
$70,000 to $79,999	19	4.62%	82	5.27%	55,612	5.74%
$80,000 to $89,999	43	10.46%	90	5.79%	61,981	6.40%
$90,000 to $99,999	16	3.89%	57	3.67%	51,518	5.32%
$100,000 to $124,999	79	19.22%	188	12.09%	119,416	12.33%
$125,000 to $149,999	17	4.14%	69	4.44%	96,769	9.99%
$150,000 to $174,999	52	12.65%	161	10.35%	91,779	9.47%
$175,000 to $199,999	8	1.95%	50	3.22%	53,304	5.50%
$200,000 to $249,999	10	2.43%	95	6.11%	69,754	7.20%
$250,000 to $299,999	2	0.49%	38	2.44%	41,779	4.31%
$300,000 to $399,999	3	0.73%	27	1.74%	37,680	3.89%
$400,000 to $499,999	3	0.73%	13	0.84%	13,334	1.38%
$500,000 to $749,999	0	0.00%	24	1.54%	12,784	1.32%
$750,000 to $999,999	0	0.00%	8	0.51%	3,764	0.39%
$1,000,000 or more	0	0.00%	10	0.64%	5,018	0.52%
Median Home Value:	**$87,200**		**$86,200**		**$112,800**	

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

The median value of owner-occupied homes in Beaver County is $86,200. This is -23.6% lower than the statewide median, which is $112,800. The median home value in Beaver is estimated to be $87,200. The geographic distribution of home values in Beaver County can be visualized by the following map.

Beaver County Median Home Values by Census Tract



Home Values by Year of Construction

The next table presents median home values in Beaver 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

	Beaver Median Value	Beaver County Median Value	State of Oklahoma Median Value
Total Owner-Occupied Units:			
Built 2010 or Later	-	$73,500	$188,900
Built 2000 to 2009	-	$114,200	$178,000
Built 1990 to 1999	-	$75,600	$147,300
Built 1980 to 1989	$101,800	$106,000	$118,300
Built 1970 to 1979	$43,800	$57,700	$111,900
Built 1960 to 1969	$105,600	$95,800	$97,100
Built 1950 to 1959	$102,800	$104,500	$80,300
Built 1940 to 1949	$86,700	$56,900	$67,900
Built 1939 or Earlier	$83,600	$85,400	$74,400

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

Beaver Single Family Sales Activity

Beaver Single Family Sales Activity
All Bedroom Types

Year	2011	2012	2013	2014	YTD 2015
# of Units Sold	31	45	41	24	17
Average Sale Price	$63,963	$87,381	$73,295	$59,771	$92,744
Average Square Feet	1,316	1,579	1,519	1,325	1,509
Average Price/SF	$45.74	$51.31	$47.76	$42.72	$57.68
Average Year Built	1960	1963	1960	1962	1967

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

Between 2011 and 2014, the average sale price declined by -1.68% per year. The average sale price in 2015 was $92,744 for an average price per square foot of $57.68/SF.

Foreclosure Rates

Due to the small size of Beaver County, reliable foreclosure rate data was unavailable to us. Discussions with local real estate professionals indicate that foreclosures in the area have not had a measurable impact on the local housing market.

Rental Market

This section will discuss supply and demand factors for the rental market in Beaver 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 Beaver 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

	Beaver		Beaver County		State of Oklahoma	
	No.	Percent	No.	Percent	No.	Percent
Total Rental Units:	**226**		**553**		**475,345**	
With cash rent:	200		421		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	19	8.41%	19	3.44%	4,268	0.90%
$200 to $249	0	0.00%	0	0.00%	8,784	1.85%
$250 to $299	17	7.52%	24	4.34%	8,413	1.77%
$300 to $349	0	0.00%	13	2.35%	9,107	1.92%
$350 to $399	0	0.00%	10	1.81%	10,932	2.30%
$400 to $449	9	3.98%	22	3.98%	15,636	3.29%
$450 to $499	30	13.27%	39	7.05%	24,055	5.06%
$500 to $549	19	8.41%	34	6.15%	31,527	6.63%
$550 to $599	33	14.60%	49	8.86%	33,032	6.95%
$600 to $649	36	15.93%	65	11.75%	34,832	7.33%
$650 to $699	21	9.29%	44	7.96%	32,267	6.79%
$700 to $749	7	3.10%	17	3.07%	30,340	6.38%
$750 to $799	3	1.33%	13	2.35%	27,956	5.88%
$800 to $899	6	2.65%	17	3.07%	45,824	9.64%
$900 to $999	0	0.00%	18	3.25%	34,153	7.18%
$1,000 to $1,249	0	0.00%	11	1.99%	46,884	9.86%
$1,250 to $1,499	0	0.00%	17	3.07%	14,699	3.09%
$1,500 to $1,999	0	0.00%	9	1.63%	10,145	2.13%
$2,000 or more	0	0.00%	0	0.00%	5,121	1.08%
No cash rent	26	11.50%	132	23.87%	43,236	9.10%
Median Gross Rent	**$559**		**$600**		**$699**	

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

Median gross rent in Beaver County is estimated to be $600, which is -14.2% less than Oklahoma's median gross rent of $699/month. Median gross rent in Beaver is estimated to be $559..

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

	Beaver Median Rent	Beaver County Median Rent	State of Oklahoma Median Rent
Total Rental Units:			
Built 2010 or Later	-	-	$933
Built 2000 to 2009	-	-	$841
Built 1990 to 1999	-	$624	$715
Built 1980 to 1989	$325	$480	$693
Built 1970 to 1979	$414	$538	$662
Built 1960 to 1969	$612	$607	$689
Built 1950 to 1959	-	$544	$714
Built 1940 to 1949	-	$678	$673
Built 1939 or Earlier	$584	$580	$651

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

Beaver Rental Survey Data

The next two tables show the results of our rental survey of Beaver. There is one multifamily development known to exist in Beaver—a 24-unit market rate apartment complex known as Beaver Valley Apartments. This property was constructed under the USDA Section 515 program, but currently operates as a market rate property. The vacancy rate at this property is currently 50%. As per local real estate professionals, the asking rent levels are above market levels.

Beaver Rental Properties - Market Rate

Name	Year Built	Bedrooms	Bathrooms	Size (SF)	Rate	Rate/SF	Vacancy
Beaver Valley Apartments	1984	1	1	750	$425	$0.567	50.00%
Beaver Valley Apartments	1984	2	1	850	$525	$0.618	50.00%
Beaver Valley Apartments	1984	3	2	1,000	$625	$0.625	50.00%

Based on the number of units identified as rentals by the 2010 Census, it is reasonable to assume that a significant number of single family residences are rentals. Single family rental rates typically range from $350 to $400 for a two bedroom unit and $500 to $600 for a three bedroom unit. To achieve a market rent of $600 per month, a unit would need to have three or four bedrooms, two bathrooms, an attached garage, and central air. Good quality rental housing is reportedly in demand.

Rental Market Vacancy – Beaver

The single multifamily property in Beaver is experiencing high levels of vacancy. Good quality single family rental housing is reportedly in high demand, however, there is a large number of housing units in poor to fair quality that remain vacant. The overall market vacancy of rental housing units was reported at 12.50% by the Census Bureau as of the most recent American Community Survey. This vacancy level is inclusive of all housing units not fit for occupancy. It is notable that there are no affordable housing properties in Beaver.

Rent Survey 1
Beaver Valley Apartments

Summary of HUD Subsidized Properties

There are no HUD subsidized properties in Beaver County. The HUD “Picture of Subsidized Households” does not identify any housing choice vouchers in Beaver County.

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 Beaver 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 Beaver 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.

Beaver County : CHAS - Housing Cost Burden by HAMFI

	Owners		Renters	
Household Income / Cost Burden	Number	Percent	Number	Percent
Income < 30% HAMFI	**130**		**95**	
Cost Burden Less Than 30%	20	15.38%	20	21.05%
Cost Burden Between 30%-50%	30	23.08%	0	0.00%
Cost Burden Greater Than 50%	55	42.31%	55	57.89%
Not Computed (no/negative income)	25	19.23%	15	15.79%
Income 30%-50% HAMFI	**185**		**10**	
Cost Burden Less Than 30%	135	72.97%	4	40.00%
Cost Burden Between 30%-50%	35	18.92%	0	0.00%
Cost Burden Greater Than 50%	15	8.11%	4	40.00%
Not Computed (no/negative income)	0	0.00%	0	0.00%
Income 50%-80% HAMFI	**245**		**115**	
Cost Burden Less Than 30%	200	81.63%	115	100.00%
Cost Burden Between 30%-50%	30	12.24%	4	3.48%
Cost Burden Greater Than 50%	10	4.08%	0	0.00%
Not Computed (no/negative income)	0	0.00%	0	0.00%
Income 80%-100% HAMFI	**155**		**80**	
Cost Burden Less Than 30%	125	80.65%	80	100.00%
Cost Burden Between 30%-50%	25	16.13%	0	0.00%
Cost Burden Greater Than 50%	4	2.58%	0	0.00%
Not Computed (no/negative income)	0	0.00%	0	0.00%
All Incomes	**1,495**		**575**	
Cost Burden Less Than 30%	1,250	83.61%	494	85.91%
Cost Burden Between 30%-50%	130	8.70%	4	0.70%
Cost Burden Greater Than 50%	84	5.62%	59	10.26%
Not Computed (no/negative income)	25	1.67%	15	2.61%

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

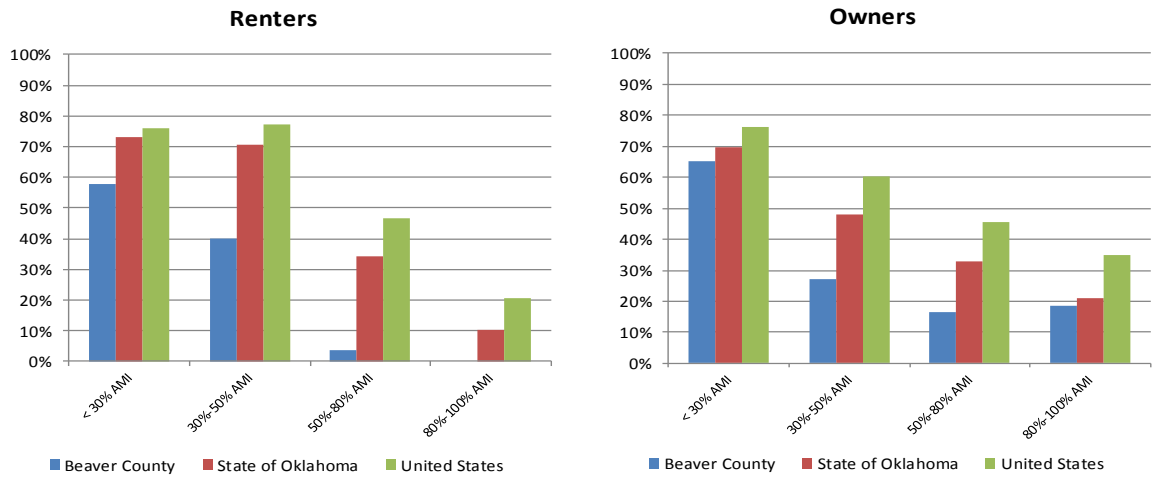
The next table summarizes the data from the previous table for households with cost burden greater than 30% of gross income, followed by a chart comparing these figures for Beaver County with the State of Oklahoma as a whole, and the United States.

Beaver County : Households by Income by Cost Burden

	Owners		Renters	
Household Income Threshold	Total	% w/ Cost > 30% Income	Total	% w/ Cost > 30% Income
Income < 30% HAMFI	130	65.38%	95	57.89%
Income 30%-50% HAMFI	185	27.03%	10	40.00%
Income 50%-80% HAMFI	245	16.33%	115	3.48%
Income 80%-100% HAMFI	155	18.71%	80	0.00%
All Incomes	1,495	14.31%	575	10.96%

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.

Beaver County : CHAS - HAMFI by Substandard Conditions / Overcrowding

	Owners		Renters	
Household Income / Housing Problem	Number	Percent	Number	Percent
Income < 30% HAMFI	**130**		**95**	
Between 1.0 and 1.5 Persons per Room	0	0.00%	0	0.00%
More than 1.5 Persons per Room	0	0.00%	0	0.00%
Lacks Complete Kitchen or Plumbing	0	0.00%	0	0.00%
Income 30%-50% HAMFI	**185**		**10**	
Between 1.0 and 1.5 Persons per Room	0	0.00%	0	0.00%
More than 1.5 Persons per Room	0	0.00%	0	0.00%
Lacks Complete Kitchen or Plumbing	0	0.00%	0	0.00%
Income 50%-80% HAMFI	**245**		**115**	
Between 1.0 and 1.5 Persons per Room	0	0.00%	10	8.70%
More than 1.5 Persons per Room	0	0.00%	0	0.00%
Lacks Complete Kitchen or Plumbing	0	0.00%	0	0.00%
Income 80%-100% HAMFI	**155**		**80**	
Between 1.0 and 1.5 Persons per Room	0	0.00%	10	12.50%
More than 1.5 Persons per Room	0	0.00%	0	0.00%
Lacks Complete Kitchen or Plumbing	0	0.00%	0	0.00%
All Incomes	**1,495**		**575**	
Between 1.0 and 1.5 Persons per Room	0	0.00%	20	3.48%
More than 1.5 Persons per Room	0	0.00%	0	0.00%
Lacks Complete Kitchen or Plumbing	0	0.00%	0	0.00%

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

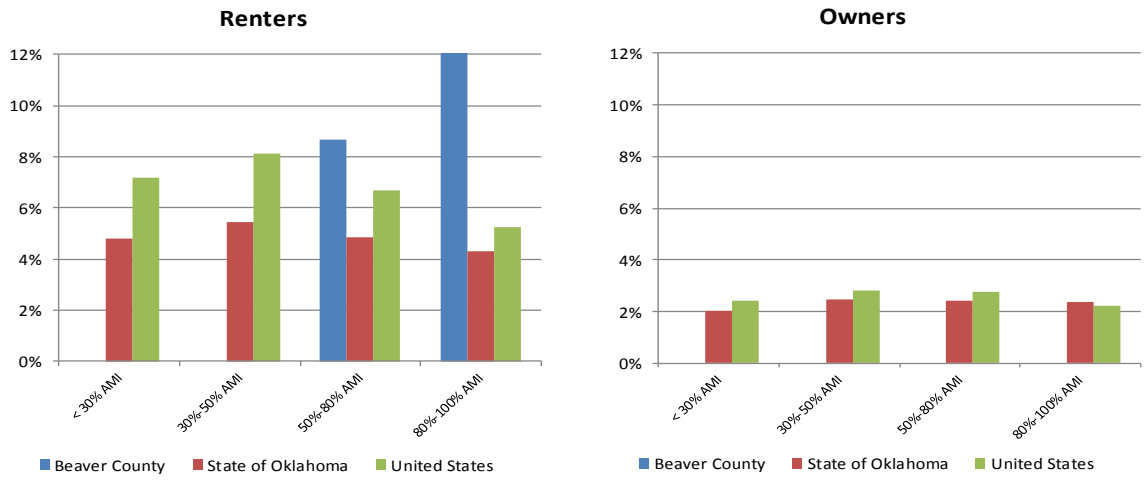
The next table summarizes this data for overcrowding (i.e. all households with greater than 1.0 persons per room), with a chart comparing this data between Beaver County, Oklahoma and the nation.

Beaver County : Households by Income by Overcrowding

	Owners		Renters	
Household Income Threshold	Total	% > 1.0 Persons per Room	Total	% > 1.0 Persons per Room
Income < 30% HAMFI	130	0.00%	95	0.00%
Income 30%-50% HAMFI	185	0.00%	10	0.00%
Income 50%-80% HAMFI	245	0.00%	115	8.70%
Income 80%-100% HAMFI	155	0.00%	80	12.50%
All Incomes	1,495	0.00%	575	3.48%

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

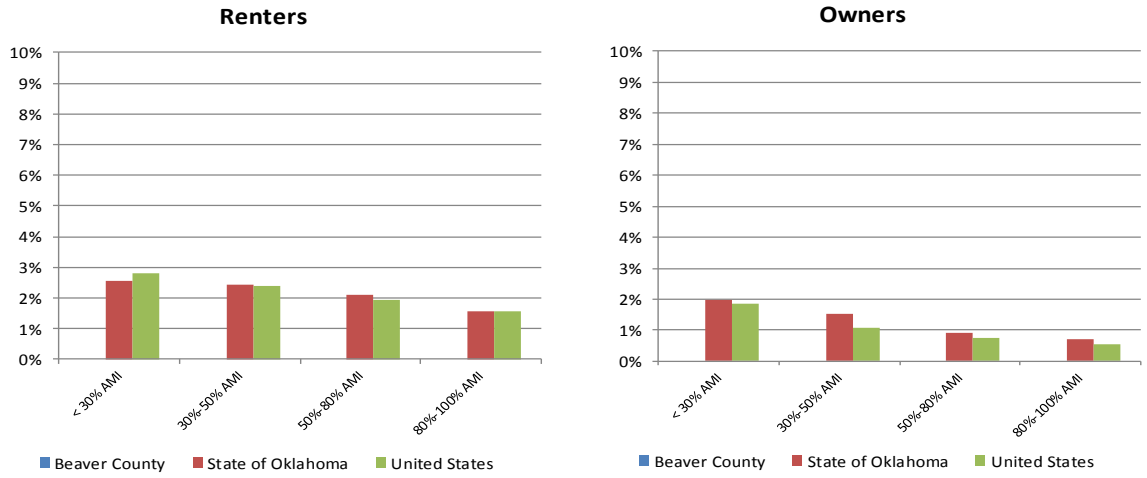
The table following summarizes this data for substandard housing conditions, with a comparison chart between Beaver County, the state and the nation.

Beaver County : Households by Income by Substandard Conditions

	Owners		Renters	
Household Size/Type	Total	% Lacking Kitchen or Plumbing	Total	% Lacking Kitchen or Plumbing
Income < 30% HAMFI	130	0.00%	95	0.00%
Income 30%-50% HAMFI	185	0.00%	10	0.00%
Income 50%-80% HAMFI	245	0.00%	115	0.00%
Income 80%-100% HAMFI	155	0.00%	80	0.00%
All Incomes	1,495	0.00%	575	0.00%

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.

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

	Owners			Renters		
Income, Household Size/Type	Total	No. w/ Cost > 30% Income	Pct. w/ Cost > 30% Income	Total	No. w/ Cost > 30% Income	Pct. w/ Cost > 30% Income
Income < 30% HAMFI	**130**	**89**	**68.46%**	**95**	**53**	**55.79%**
Elderly Family	15	10	66.67%	4	0	0.00%
Small Family (2-4 persons)	20	10	50.00%	35	20	57.14%
Large Family (5 or more persons)	4	4	100.00%	20	4	20.00%
Elderly Non-Family	60	50	83.33%	4	4	100.00%
Non-Family, Non-Elderly	30	15	50.00%	25	25	100.00%
Income 30%-50% HAMFI	**185**	**53**	**28.65%**	**10**	**4**	**40.00%**
Elderly Family	30	0	0.00%	0	0	N/A
Small Family (2-4 persons)	60	34	56.67%	4	0	0.00%
Large Family (5 or more persons)	0	0	N/A	0	0	N/A
Elderly Non-Family	95	19	20.00%	4	4	100.00%
Non-Family, Non-Elderly	4	0	0.00%	4	0	0.00%
Income 50%-80% HAMFI	**245**	**46**	**18.78%**	**115**	**4**	**3.48%**
Elderly Family	50	8	16.00%	4	0	0.00%
Small Family (2-4 persons)	90	20	22.22%	50	4	8.00%
Large Family (5 or more persons)	45	14	31.11%	15	0	0.00%
Elderly Non-Family	50	4	8.00%	10	0	0.00%
Non-Family, Non-Elderly	10	0	0.00%	35	0	0.00%
Income 80%-100% HAMFI	**155**	**28**	**18.06%**	**80**	**0**	**0.00%**
Elderly Family	65	10	15.38%	4	0	0.00%
Small Family (2-4 persons)	55	14	25.45%	45	0	0.00%
Large Family (5 or more persons)	10	0	0.00%	10	0	0.00%
Elderly Non-Family	10	0	0.00%	4	0	0.00%
Non-Family, Non-Elderly	10	4	40.00%	20	0	0.00%
All Incomes	**1,495**	**226**	**15.12%**	**575**	**61**	**10.61%**
Elderly Family	400	38	9.50%	37	0	0.00%
Small Family (2-4 persons)	590	78	13.22%	319	24	7.52%
Large Family (5 or more persons)	114	18	15.79%	55	4	7.27%
Elderly Non-Family	270	73	27.04%	22	8	36.36%
Non-Family, Non-Elderly	119	19	15.97%	144	25	17.36%

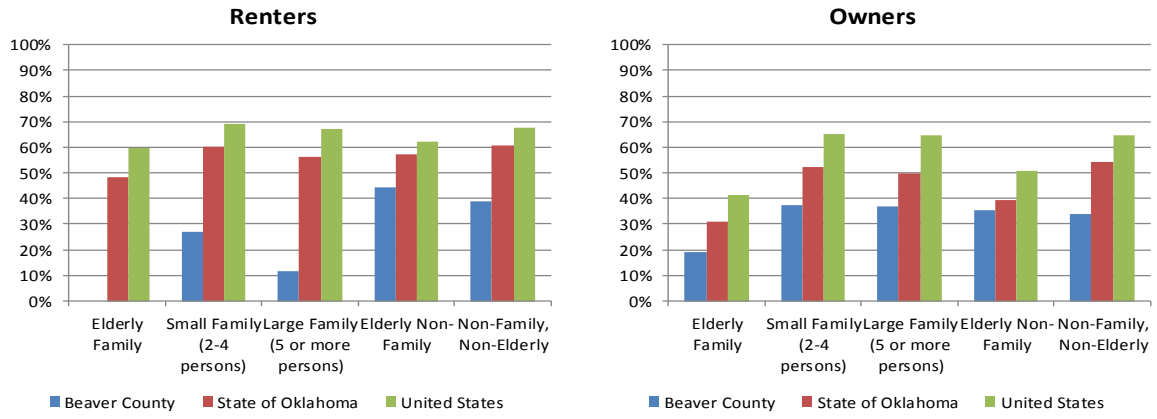
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 7

Beaver County : Households under 80% AMI by Cost Burden

		Owners			Renters	
Household Size/Type	Total	No. w/ Cost > 30% Income	Pct. w/ Cost > 30% Income	Total	No. w/ Cost > 30% Income	Pct. w/ Cost > 30% Income
Income < 80% HAMFI	**560**	**188**	**33.57%**	**220**	**61**	**27.73%**
Elderly Family	95	18	18.95%	8	0	0.00%
Small Family (2-4 persons)	170	64	37.65%	89	24	26.97%
Large Family (5 or more persons)	49	18	36.73%	35	4	11.43%
Elderly Non-Family	205	73	35.61%	18	8	44.44%
Non-Family, Non-Elderly	44	15	34.09%	64	25	39.06%

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).

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

	Owners			Renters		
Income, Household Size/Type	Total	No. w/ Housing Problems	Pct. w/ Housing Problems	Total	No. w/ Housing Problems	Pct. w/ Housing Problems
Income < 30% HAMFI	**130**	**84**	**64.62%**	**95**	**53**	**55.79%**
Elderly Family	15	10	66.67%	4	0	0.00%
Small Family (2-4 persons)	20	10	50.00%	35	20	57.14%
Large Family (5 or more persons)	4	4	100.00%	20	4	20.00%
Elderly Non-Family	60	45	75.00%	4	4	100.00%
Non-Family, Non-Elderly	30	15	50.00%	25	25	100.00%
Income 30%-50% HAMFI	**185**	**50**	**27.03%**	**10**	**4**	**40.00%**
Elderly Family	30	0	0.00%	0	0	N/A
Small Family (2-4 persons)	60	30	50.00%	4	0	0.00%
Large Family (5 or more persons)	0	0	N/A	0	0	N/A
Elderly Non-Family	95	20	21.05%	4	4	100.00%
Non-Family, Non-Elderly	4	0	0.00%	4	0	0.00%
Income 50%-80% HAMFI	**245**	**43**	**17.55%**	**115**	**14**	**12.17%**
Elderly Family	50	4	8.00%	4	0	0.00%
Small Family (2-4 persons)	90	20	22.22%	50	4	8.00%
Large Family (5 or more persons)	45	15	33.33%	15	10	66.67%
Elderly Non-Family	50	4	8.00%	10	0	0.00%
Non-Family, Non-Elderly	10	0	0.00%	35	0	0.00%
Income Greater than 80% of HAMFI	**935**	**39**	**4.17%**	**355**	**10**	**2.82%**
Elderly Family	305	20	6.56%	25	0	0.00%
Small Family (2-4 persons)	420	15	3.57%	230	0	0.00%
Large Family (5 or more persons)	65	0	0.00%	15	10	66.67%
Elderly Non-Family	70	0	0.00%	4	0	0.00%
Non-Family, Non-Elderly	75	4	5.33%	80	0	0.00%
All Incomes	**1,495**	**216**	**14.45%**	**575**	**81**	**14.09%**
Elderly Family	400	34	8.50%	33	0	0.00%
Small Family (2-4 persons)	590	75	12.71%	319	24	7.52%
Large Family (5 or more persons)	114	19	16.67%	50	24	48.00%
Elderly Non-Family	275	69	25.09%	22	8	36.36%
Non-Family, Non-Elderly	119	19	15.97%	144	25	17.36%

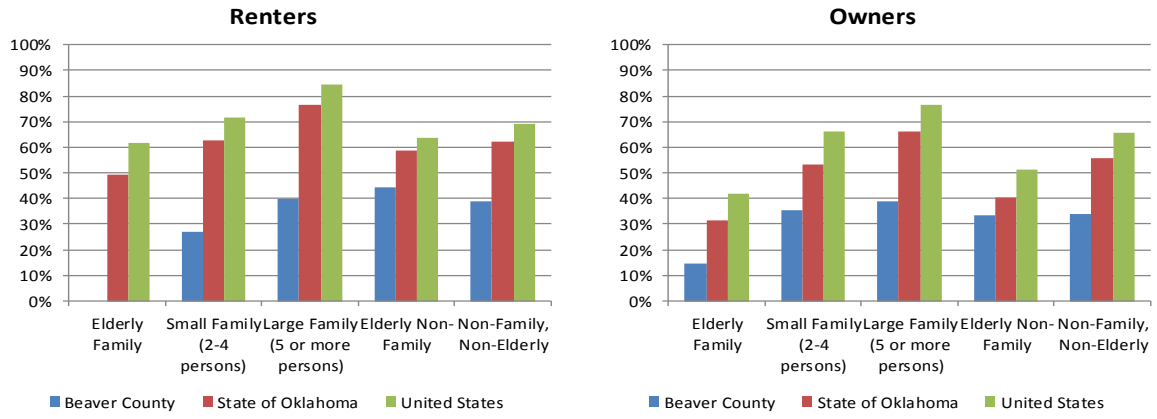
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 16

Beaver County : Households under 80% AMI by Housing Problems

	Owners			Renters		
Household Size/Type	Total	No. w/ Housing Problems	Pct. w/ Housing Problems	Total	No. w/ Housing Problems	Pct. w/ Housing Problems
Income < 80% HAMFI	**560**	**177**	**31.61%**	**220**	**71**	**32.27%**
Elderly Family	95	14	14.74%	8	0	0.00%
Small Family (2-4 persons)	170	60	35.29%	89	24	26.97%
Large Family (5 or more persons)	49	19	38.78%	35	14	40.00%
Elderly Non-Family	205	69	33.66%	18	8	44.44%
Non-Family, Non-Elderly	44	15	34.09%	64	25	39.06%

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 Beaver 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.”

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

	Owners			Renters		
Income, Race / Ethnicity	Total	No. w/ Housing Problems	Pct. w/ Housing Problems	Total	No. w/ Housing Problems	Pct. w/ Housing Problems
Income < 30% HAMFI	**130**	**85**	**65.4%**	**90**	**55**	**61.1%**
White alone, non-Hispanic	104	85	81.7%	34	15	44.1%
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	0	0	N/A	0	0	N/A
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	20	0	0.0%	60	45	75.0%
Other (including multiple races)	4	0	0.0%	0	0	N/A
Income 30%-50% HAMFI	**185**	**50**	**27.0%**	**8**	**4**	**50.0%**
White alone, non-Hispanic	160	40	25.0%	8	4	50.0%
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	0	0	N/A	0	0	N/A
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	20	10	50.0%	0	0	N/A
Other (including multiple races)	4	0	0.0%	0	0	N/A
Income 50%-80% HAMFI	**245**	**45**	**18.4%**	**115**	**10**	**8.7%**
White alone, non-Hispanic	160	25	15.6%	104	4	3.8%
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	0	0	N/A	0	0	N/A
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	80	15	18.8%	14	10	71.4%
Other (including multiple races)	4	4	100.0%	0	0	N/A
Income 80%-100% HAMFI	**155**	**30**	**19.4%**	**80**	**10**	**12.5%**
White alone, non-Hispanic	150	30	20.0%	70	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	0	0	N/A	0	0	N/A
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	4	0	0.0%	14	10	71.4%
Other (including multiple races)	4	0	0.0%	0	0	N/A
All Incomes	**1,495**	**220**	**14.7%**	**568**	**79**	**13.9%**
White alone, non-Hispanic	1,304	190	14.6%	441	23	5.2%
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	4	0	0.0%	0	0	N/A
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	164	25	15.2%	133	65	48.9%
Other (including multiple races)	20	4	20.0%	4	0	0.0%

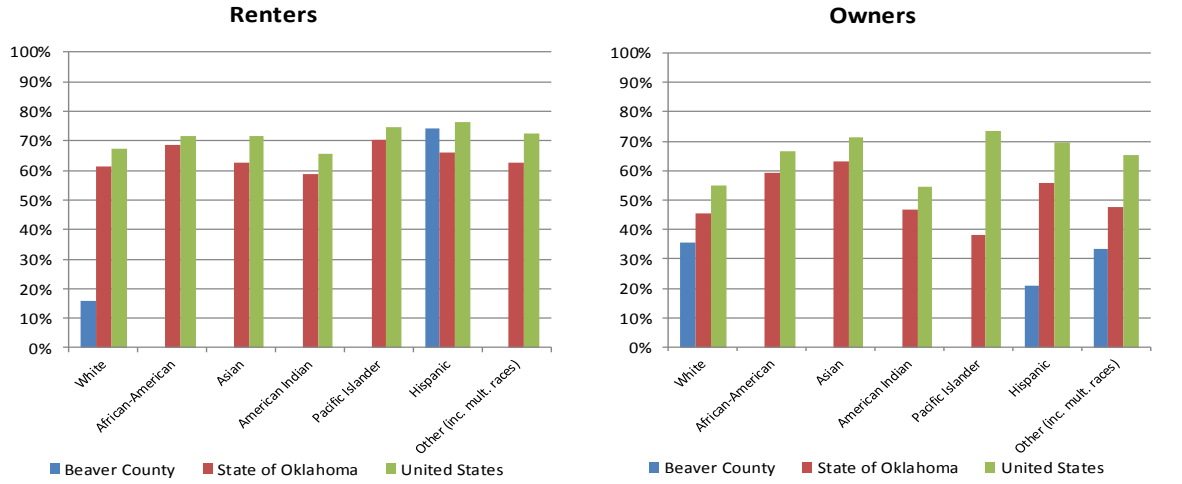
Source: 2008-2012 HUD Comprehensive Housing Affordability Strategy, Table 1

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

	Owners			Renters		
Household Size/Type	Total	No. w/ Housing Problems	Pct. w/ Housing Problems	Total	No. w/ Housing Problems	Pct. w/ Housing Problems
Income < 80% HAMFI	**560**	**180**	**32.14%**	**213**	**69**	**32.39%**
White alone, non-Hispanic	424	150	35.38%	146	23	15.75%
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	0	0	N/A	0	0	N/A
Pacific Islander alone	0	0	N/A	0	0	N/A
Hispanic, any race	120	25	20.83%	74	55	74.32%
Other (including multiple races)	12	4	33.33%	0	0	N/A

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

Overall Anticipated Housing Demand

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

Beaver Anticipated Demand

As indicated throughout the report, the population, households and number of housing units have decreased over the last fifteen years. The following table summarizes population, household, and housing unit changes.

Beaver Historical Population and Housing Changes

	2000 Census	2010 Census	% Change	2015 Estimate	% Change
Population	1,570	1,515	-0.36%	1,467	-0.64%
Households	606	595	-0.18%	572	-0.79%
Housing Units	725	702	-0.32%	693	-0.26%

Sources: 2000 and 2010 Decennial Censuses, Nielsen SiteReports

As shown, the number of housing units and the population declined at almost identical rates from 2000 to 2010. It is the opinion of this analyst that population decline will not be as rapid in the next several years but that the deterioration of the housing stock will continue at current rates. This will lead to reduced availability of housing units in the city of Beaver.

According to local officials, there is demand for good quality rental units that is not currently satisfied in the market. A lack of new residential construction reduces options for potential residents of Beaver and may lead people who are employed in Beaver to live outside the city limits. There also appears to be high demand for affordable owner-occupied property. There has been limited single-family development in the past decade. There is an adequate supply of housing units that are valued below $60,000. Sporadic development of custom-built housing units priced above $150,000 has also occurred. Households that prefer housing units valued between $60,000 and $80,000 have a limited product available in the city of Beaver. In general, there appears to be unsatisfied demand for median-income rental and owner-occupied property.

Beaver County Anticipated Demand

As indicated throughout the report, the population, households and number of housing units have decreased over the last fifteen years. The following table summarizes population, household, and housing unit changes.

Beaver County Historical Population and Housing Changes

	2000 Census	2010 Census	% Change	2015 Estimate	% Change
Population	5,857	5,636	-0.38%	5,515	-0.43%
Households	2,245	2,192	-0.24%	2,149	-0.40%
Housing Units	2,719	2,670	-0.18%	2,658	-0.09%

Sources: 2000 and 2010 Decennial Censuses, Nielsen SiteReports

As in the Town of Beaver, the population and household levels are declining at similar rates in Beaver County. The loss of housing units is attributed to demolitions outpacing new construction. The percentage loss of households was not as high as the percentage population loss due to declining average household size. It is unlikely that the average household size will significantly decrease in the future.

Demand for new housing units is created by a lack of new housing construction coupled with the demolition of aging and dilapidated housing stock. Although there are approximately 509 more housing units than there are households in Beaver County, a large percentage of these vacant units are not in habitable condition. Additionally, there are no affordable housing properties in Beaver County. A small amount of affordable new housing would improve the county's housing infrastructure and give more housing options to current residents of Beaver County.

Housing Demand – Population Subsets

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

Beaver County: 2015-2020 Housing Needs by Income Threshold

	Owner Subset %	Renter Subset %	Owners	Renters	**Total**
Total New Demand: 2015-2020	100.00%	100.00%	-10	-3	-13
Less than 30% AMI	8.70%	16.52%	-1	-1	**-1**
Less than 50% AMI	21.07%	18.26%	-2	-1	**-3**
Less than 60% AMI	25.28%	21.91%	-2	-1	**-3**
Less than 80% AMI	37.46%	38.26%	-4	-1	**-5**

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.

Beaver 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	44.82%	10.26%	-4	0	**-5**
Elderly less than 30% AMI	5.02%	1.39%	0	0	**-1**
Elderly less than 50% AMI	13.38%	2.09%	-1	0	**-1**
Elderly less than 60% AMI	16.05%	2.50%	-2	0	**-2**
Elderly less than 80% AMI	20.07%	4.52%	-2	0	**-2**

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.

Beaver 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)	30.37%	13.22%	-3	0	**-3**
Elderly less than 30% AMI	4.01%	5.22%	0	0	**-1**
Elderly less than 50% AMI	10.30%	6.26%	-1	0	**-1**
Elderly less than 60% AMI	12.36%	7.51%	-1	0	**-1**
Elderly less than 80% AMI	15.32%	8.00%	-1	0	**-2**

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.

Beaver County: 2015-2020 Housing Needs for Veterans					
	Owner Subset %	Renter Subset %	Veteran Owners	Veteran Renters	**Veteral Total**
Total New Demand (2015-2020)	100.00%	100.00%	-10	-3	-13
Total Veteran Demand	7.59%	7.59%	-1	0	**-1**
Veterans with Disabilities	2.07%	2.07%	0	0	**0**
Veterans Below Poverty	0.05%	0.05%	0	0	**0**
Disabled Veterans Below Poverty	0.00%	0.00%	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).

Beaver County: 2015-2020 Housing Needs for Working Families					
	Owner Subset %	Renter Subset %	Owners	Renters	**Total**
Total New Demand (2015-2020)	100.00%	100.00%	-10	-3	-13
Total Working Families	63.57%	63.57%	-6	-2	**-8**
Working Families with Children Present	28.13%	28.13%	-3	-1	**-4**

Special Topics

Beaver 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 approximately 10 towns or cities within the county. The main city, Town of Beaver, does not have a comprehensive plan. With a population under 2,000, it is not expected to have a comprehensive plan. Beaver does have a zoning ordinance and regulations that are consistent with most towns and cities to attempt to prevent development in hazardous or risk-prone areas.

> ***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.*

As the towns grow, the larger urbanized areas should consider creating a comprehensive plan to guide the way they want to encourage growth and preservation of culture. Additionally, this would be an opportunity to include objectives to manage risks related to disasters

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.

> Beaver County does not have a Hazard Mitigation Plan. The Beaver County HMP has expired. An attempt to get assistance to work on the plan with Oklahoma Economic Development Authority (OEDA) did occur in 2008 but OEDA discontinued doing this type of work in 2015.

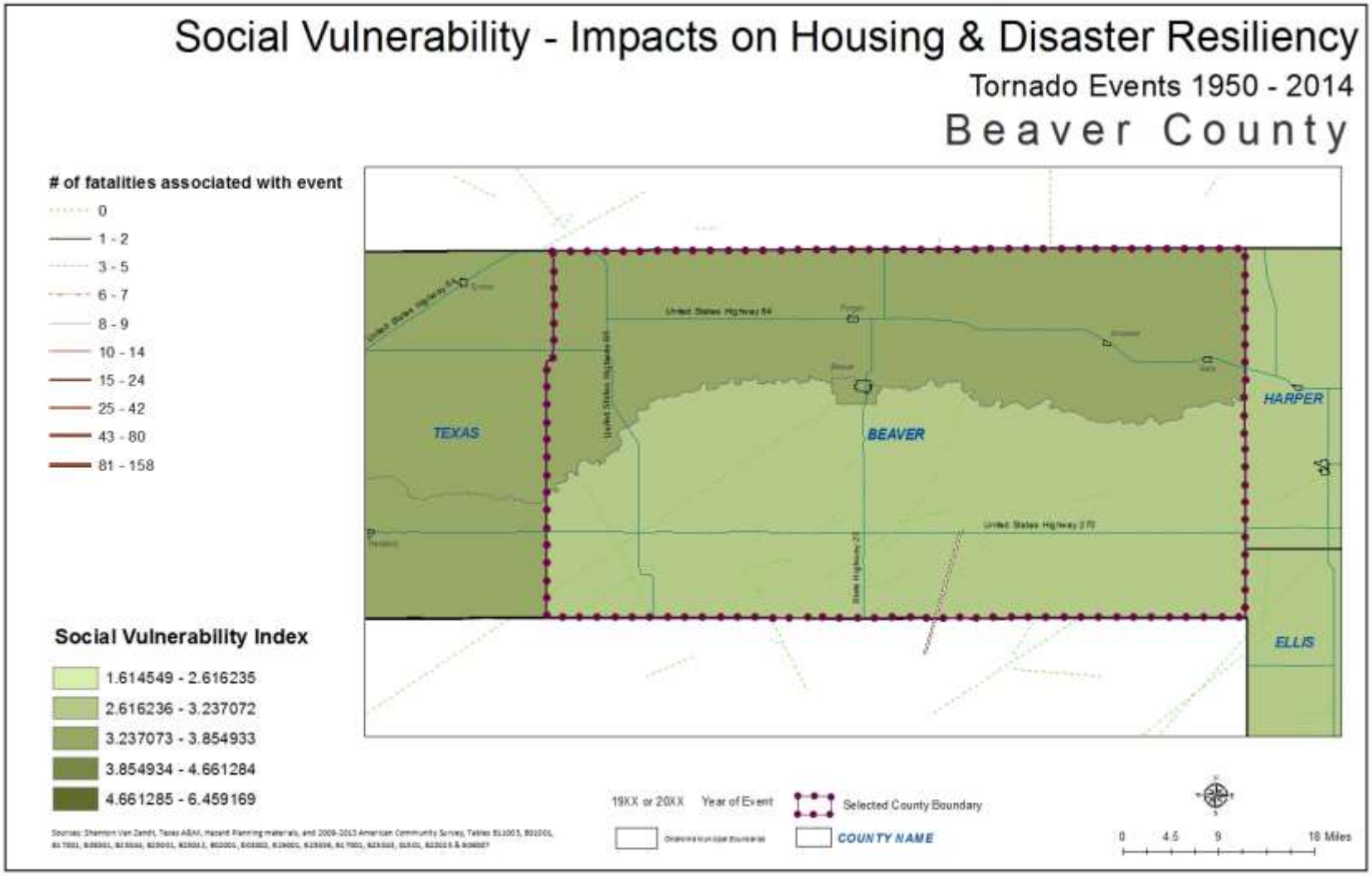
C.2.1.1. Historical Data on Natural Disasters and Other Hazards

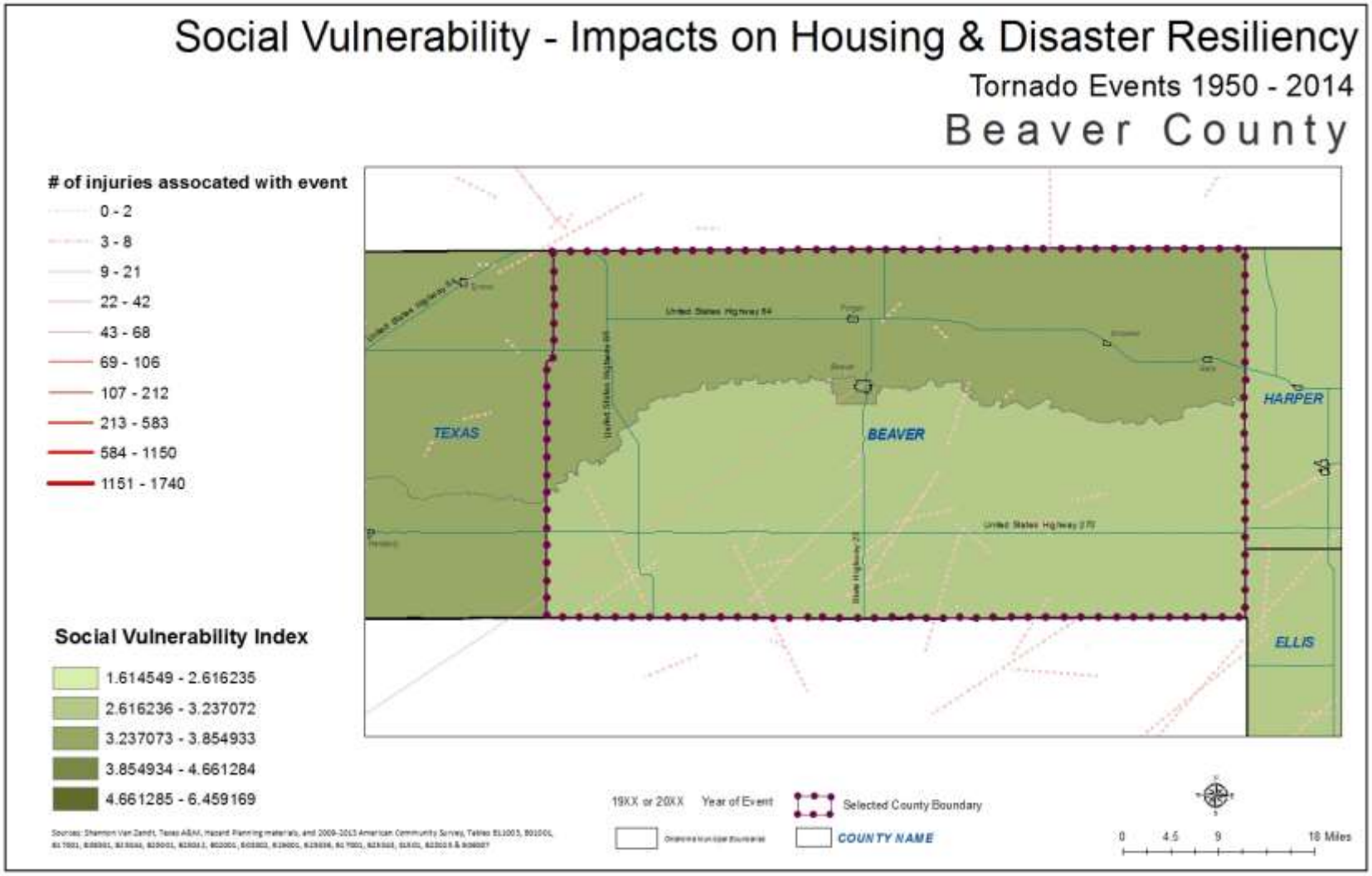
Data on historical damages and casualties is typically collected as part of a **Hazard Mitigation Plan** preparation to determine the appropriate planning measures and actions to take before and after an event. However, given no HMP is available, use of NOAA data on tornados (shapefile) will provide some insight on one risks to the area.

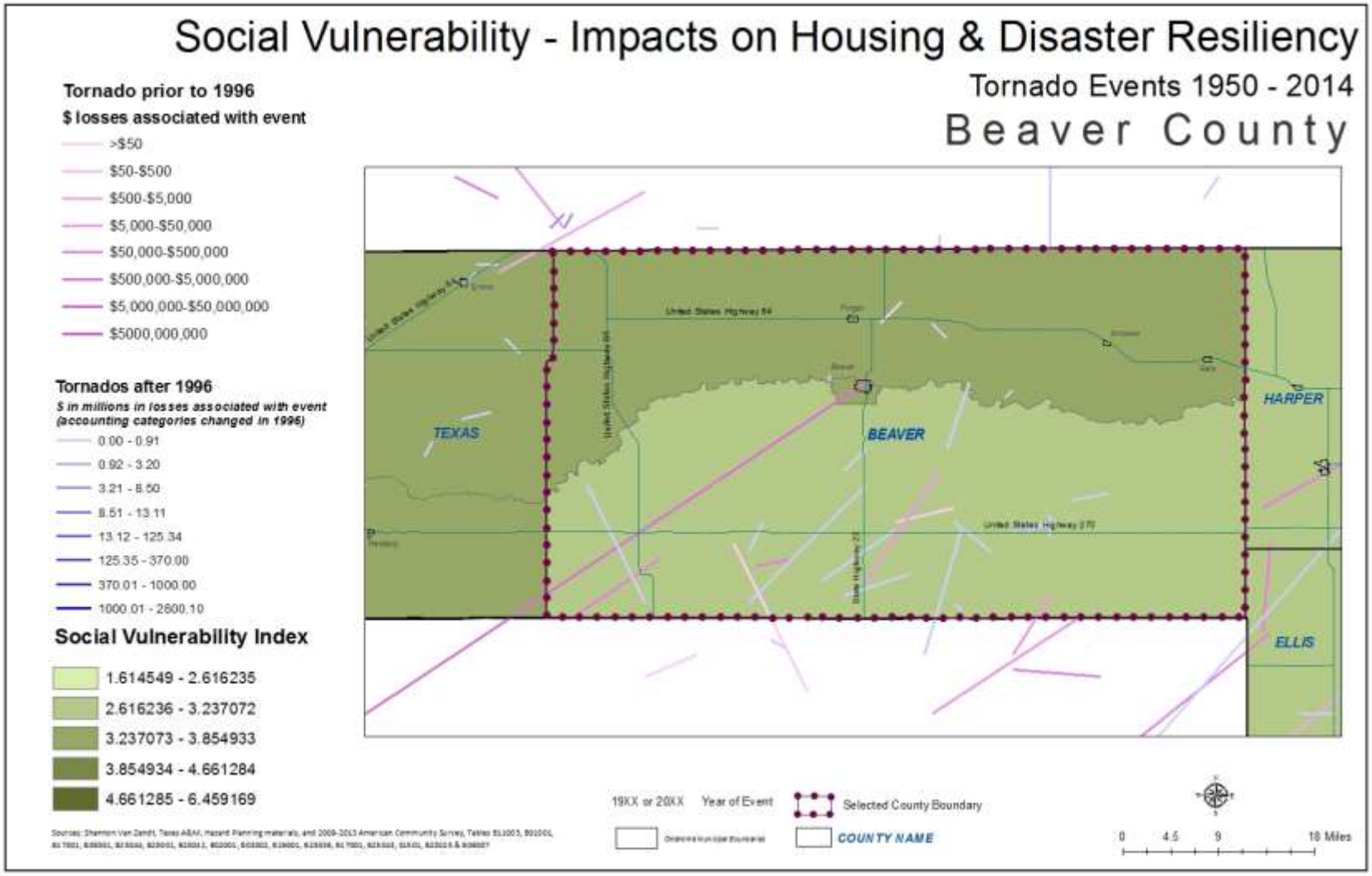
Flooding, based on FEMA FIRM maps, does not show floodplain areas in the county. The National Flood Hazard Layer (Official) is not available for this area. Flash flooding are a concern for all parts of the state after heavy precipitation. However, OEDA has invested in wetland mapping and mitigation in the county (http://www.oeda.org/wp-content/uploads/2014/10/August-11-2015.pdf).

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

Historic data on tornados between 1950-2014 there are 65 tornados documented. There were 20 injuries that occurred connected to these tornados, with 12 of those injuries happening in the 1982 tornado. There were 2 fatalities connected to tornadoes during this time period, both of which occurred in 2007. Property losses between 1961-1996 ranged from $187.254 and $1,872,700. (The accounting methods used for losses changed in 1996.) The losses estimated between 1996-2014 was $1,320,000.


Social Vulnerability - Impacts on Housing & Disaster Resiliency
Tornado Events 1950 - 2014
Beaver County
# of fatalities associated with event
0
1 - 2
3 - 5
6 - 7
8 - 9
10 - 14
15 - 24
25 - 42
43 - 80
81 - 158
TEXAS
BEAVER
HARPER
ELLIS
United States Highway 64
United States Highway 270
Social Vulnerability Index
1.614549 - 2.616235
2.616236 - 3.237072
3.237073 - 3.854933
3.854934 - 4.661284
4.661285 - 6.459169
19XX or 20XX Year of Event
Selected County Boundary
COUNTY NAME
0 4.5 9 18 Miles


Social Vulnerability - Impacts on Housing & Disaster Resiliency
Tornado Events 1950 - 2014
Beaver County
# of injuries assocated with event
0 - 2
3 - 8
9 - 21
22 - 42
43 - 68
69 - 106
107 - 212
213 - 583
584 - 1150
1151 - 1740
TEXAS
BEAVER
HARPER
ELLIS
United States Highway 54
United States Highway 270
Social Vulnerability Index
1.614549 - 2.616235
2.616236 - 3.237072
3.237073 - 3.854933
3.854934 - 4.661284
4.661285 - 6.459169
19XX or 20XX Year of Event
Selected County Boundary
COUNTY NAME
0 4.5 9 18 Miles


Social Vulnerability - Impacts on Housing & Disaster Resiliency
Tornado Events 1950 - 2014
Beaver County
Tornado prior to 1996
$ losses associated with event
>$50
$50-$500
$500-$5,000
$5,000-$50,000
$50,000-$500,000
$500,000-$5,000,000
$5,000,000-$50,000,000
$5000,000,000
Tornados after 1996
$ in millions in losses associated with event (accounting categories changed in 1996)
0.00 - 0.91
0.92 - 3.20
3.21 - 8.50
8.51 - 13.11
13.12 - 125.34
125.35 - 370.00
370.01 - 1000.00
1000.01 - 2600.10
Social Vulnerability Index
1.614549 - 2.616235
2.616236 - 3.237072
3.237073 - 3.854933
3.854934 - 4.661284
4.661285 - 6.459169
TEXAS
BEAVER
HARPER
ELLIS
19XX or 20XX Year of Event
Selected County Boundary
COUNTY NAME
0 4.5 9 18 Miles

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

Information not available.

C.2.1.3 Public Policy and Governance to Build Disaster Resiliency

Information not available.

C.2.1.4 Local Emergency Response Agency Structure

Information not available.

C.2.1.5 Threat & Hazard Warning Systems

Beaver County has 5 outdoor warning sirens in five of the rural communities; a local pager system through the fire departments and emergency management system; a telephone tree to critical facilities; and an area-wide radio network to communicate warnings to people, and a facebook page (http://amarillo.com/stories/2002/11/13/new_beaveris.shtml#.Vly36XarS70). Beaver County was awarded National Weather Service StormReady County in 2002.

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.

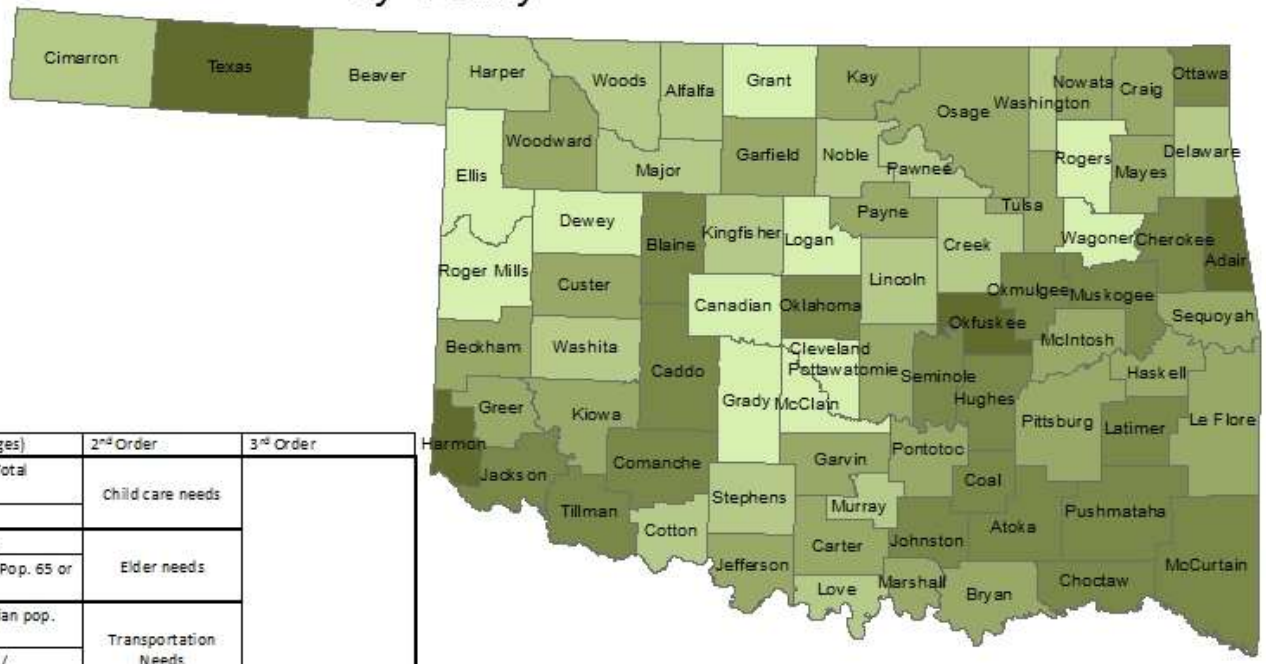
Social Vulnerability Analysis - Beaver County

Base Social Vulnerability Indicators (%)		2nd Order	3rd Order
1.) Single Parent Households	8.05%	0.144 (Child Care Needs)	**3.211 Social Vulnerability 'Hotspot' or Area of Concern**
2.) Population Under 5	6.37%		
3.) Population 65 or Above	15.91%	0.233 (Elder Needs)	
4.) Population 65 or Above & Below Poverty Rate	7.39%		
5.) Workers Using Public Transportation	0.11%	0.015 (Transportation Needs)	
6.) Occupied Housing Units w/o Vehicle	1.38%		
7.) Housing Unit Occupancy Rate	79.19%	2.469 (Temporary Shelter and Housing Recovery Needs)	
8.) Rental Occupancy Rate	26.23%		
9.) Non-White Population	24.37%		
10.) Population in Group Quarters	1.32%		
11.) Housing Units Built Prior to 1990	85.86%		
12.) Mobile Homes, RVs, Vans, etc.	19.95%		
13.) Poverty Rate	9.95%		
14.) Housing Units Lacking Telephones	5.69%	0.351 (Civic Capacity Needs)	
15.) Age 25+ With Less Than High School Diploma	16.20%		
16.) Unemployment Rate	4.49%		
17.) Age 5+ Which Cannot Speak English Well or Not At All	8.67%		

Sources: Shannon Van Zandt, Texas A&M, Hazard Planning materials, and 2009-2013 American Community Survey, Tables B11003, B01001, B17001, B08301, B25044, B25001, B25042, B02001, B03002, B26001, B25036, B17001, B25043, S1501, B23025 & B06007

Social Vulnerability Index

By County



Levels of Social Vulnerability Analysis

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

Source: Shannon VanZandt, Texas A&M, Hazard Planning materials; 2008-2013 American Community Survey, Tables B13003, B01001, B17001,

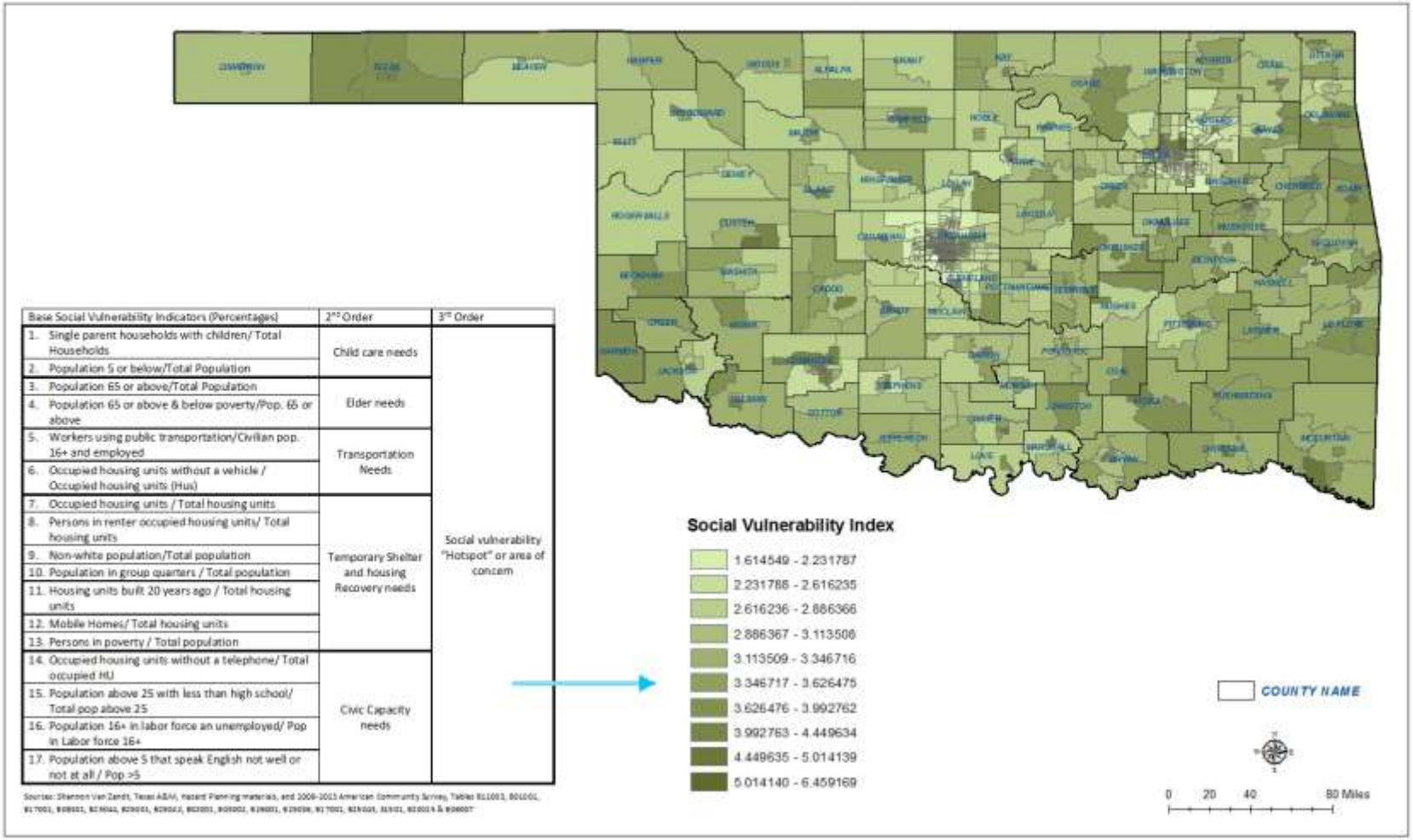
Legend

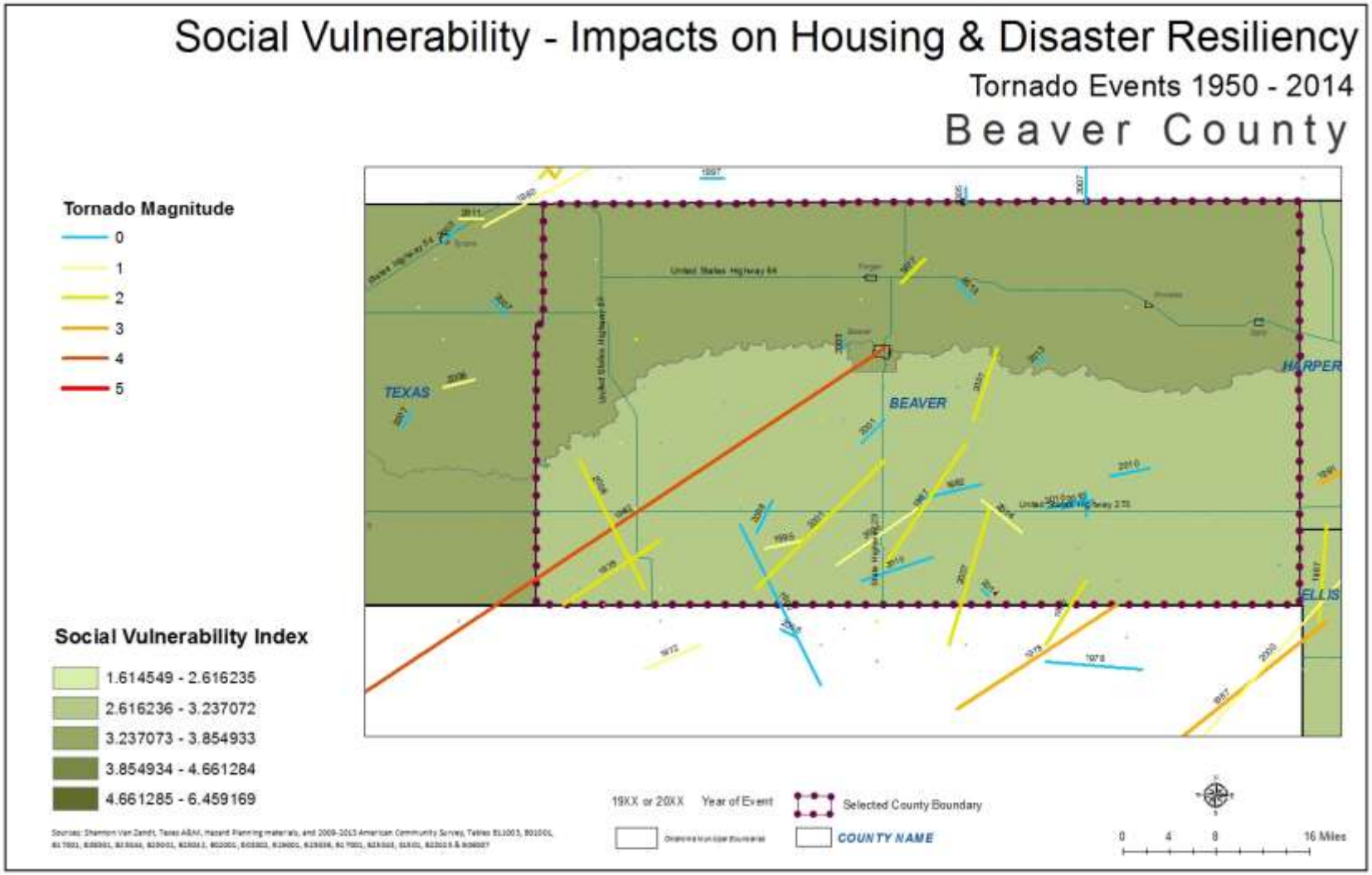
Social Vulnerabiity "Hot Spots"

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

0 25 50 100 Miles

Social Vulnerability - Impacts on Housing & Disaster Resiliency




Social Vulnerability - Impacts on Housing & Disaster Resiliency
Tornado Events 1950 - 2014
Beaver County
Tornado Magnitude
0
1
2
3
4
5
TEXAS
BEAVER
HARPER
ELLIS
United States Highway 64
Social Vulnerability Index
1.614549 - 2.616235
2.616236 - 3.237072
3.237073 - 3.854933
3.854934 - 4.661284
4.661285 - 6.459169
19XX or 20XX Year of Event
Selected County Boundary
COUNTY NAME
0 4 8 16 Miles

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

This county falls about average per this index for social vulnerability when comparing as a county to other counties in the state. The populated areas of Beaver, Forgan, Knowles, Gate fall into the census tract will increased social vulnerability for the county.

Recommendations for this county:

- Create an online shelter registry for location of individual and business-based shelters.
- 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 Beaver 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 503 Oklahoma Balance of State

OK 503 represents the regions of Oklahoma that are not included in a regional or local COC's. Essentially, this COC accounts for the "rest" of the state. Most homeless people are sheltered in this data set, but not in statistically significant way. Out of the 198 total homeless households, 112 are sheltered to 86 unsheltered. Similar to that of the Tulsa region, "persons in households without children," above the age of 24 are significantly more homeless (127 to 10 persons age 18 to 24). Of note, "persons in households with at least one adult and one child," children under the age of 18 are more homeless than persons 18 and up. There are 87 homeless children under the age of 18 compared to the 71 combined total of persons above the age of 18. Also, these children are more unsheltered than sheltered. Lastly about this COC data set is that most homeless persons are victims of domestic violence, totaling 75 people. Since this COC accounts for all of the "leftovers" of the state in rural areas that are not included in the other COC's, possessing such a high number of homeless domestic violence victims is not unusual. There is the tendency in these rural areas to have a high amount of domestic violence issues, and homelessness is usually a step away for victims. The next most homeless subpopulation is the chronically homeless coming in at 40 people.

The majority of housing options available in this region are emergency shelters and transitional housing. These units are all open year around. Very few units are available for occupation by families with children (14). Given the prevalence of victims of domestic violence in this area, there is a need to grow the number of units that are available for this group of homeless and the children in their care.

OK 503 Oklahoma Balance of State	Emergency Shelter(sheltered)	Transitional Housing(sheltered)	Unsheltered	Total
Households without children	85	4	47	136
Households with at least 1 adult & 1 child	19	4	39	62
Households with only children	0	0	0	0
total homeless households	104	8	86	198
Persons in households without children	85	4	48	137
persons age 18-24	3	0	7	10
persons over age 24	82	4	41	127
Persons in households with at least 1 adult & 1 child	55	10	93	158
children under age 18	35	5	47	87
persons age 18-24	2	4	6	12
persons over 24	18	1	40	59
persons in households with only 1 children	0	0	0	0
Total homeless persons	140	14	141	295
Subpopulations	**Sheltered**		**Unsheltered**	**Total**
Chronically Homeless	8		32	40
Chronically Homeless Individuals	8		16	24
Chronically Homeless Persons in Families	0		16	16
Severely Mentally Ill	7		5	12
Chronic Substance Abuse	9		12	21
Veterans	2		0	2
HIV/AIDS	0		0	0
Victims of Domestic Violence	72		3	75

CoC Number: OK-503

CoC Name: Oklahoma Balance of State CoC

Summary of all beds reported by Continuum of Care:

	Family Units[1]	Family Beds[1]	Adult-Only Beds	Child-Only Beds	Total Yr-Round Beds	Seasonal	Overflow / Voucher	Subset of Total Bed Inventory: Chronic Beds[2]	Veteran Beds[3]	Youth Beds[3]
Emergency, Safe Haven and Transitional Housing	35	140	39	0	179	0	0	n/a	0	14
Emergency Shelter	16	95	39	0	134	0	0	n/a	0	0
Transitional Housing	19	45	0	0	45	n/a	n/a	n/a	0	14
Permanent Housing	17	34	0	0	34	n/a	n/a	0	0	0
Permanent Supportive Housing*	17	34	0	0	34	n/a	n/a	0	0	0
Grand Total	52	174	39	0	213	0	0	0	0	14

CoC beds reported by Program Type:

Emergency Shelter for Families[1]

Provider Name	Facility Name	Family Units[1]	Family Beds[1]	Adult-Only Beds	Child-Only Beds	Seasonal	Overflow / Voucher	Total Beds	Subset of Total Bed Inventory: Chronic Beds[2]	Veteran Beds[3]	Youth Beds[3]
Family Promise of Shawnee, Inc.	Family Promise	6	13	1	0	0	0	14	n/a	0	0
Total		6	13	1	0	0	0	14	n/a	0	0

COC Conclusion

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

A Snap Shot of Homelessness in the State

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

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

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

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

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

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

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

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

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

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

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

State Name: Oklahoma

Point-in Time Date: 1/29/2015

Summary by household type reported:

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

Summary of persons in each household type:

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

Demographic summary by ethnicity:

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

Demographic summary by gender:

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

Rural Areas

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

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

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

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

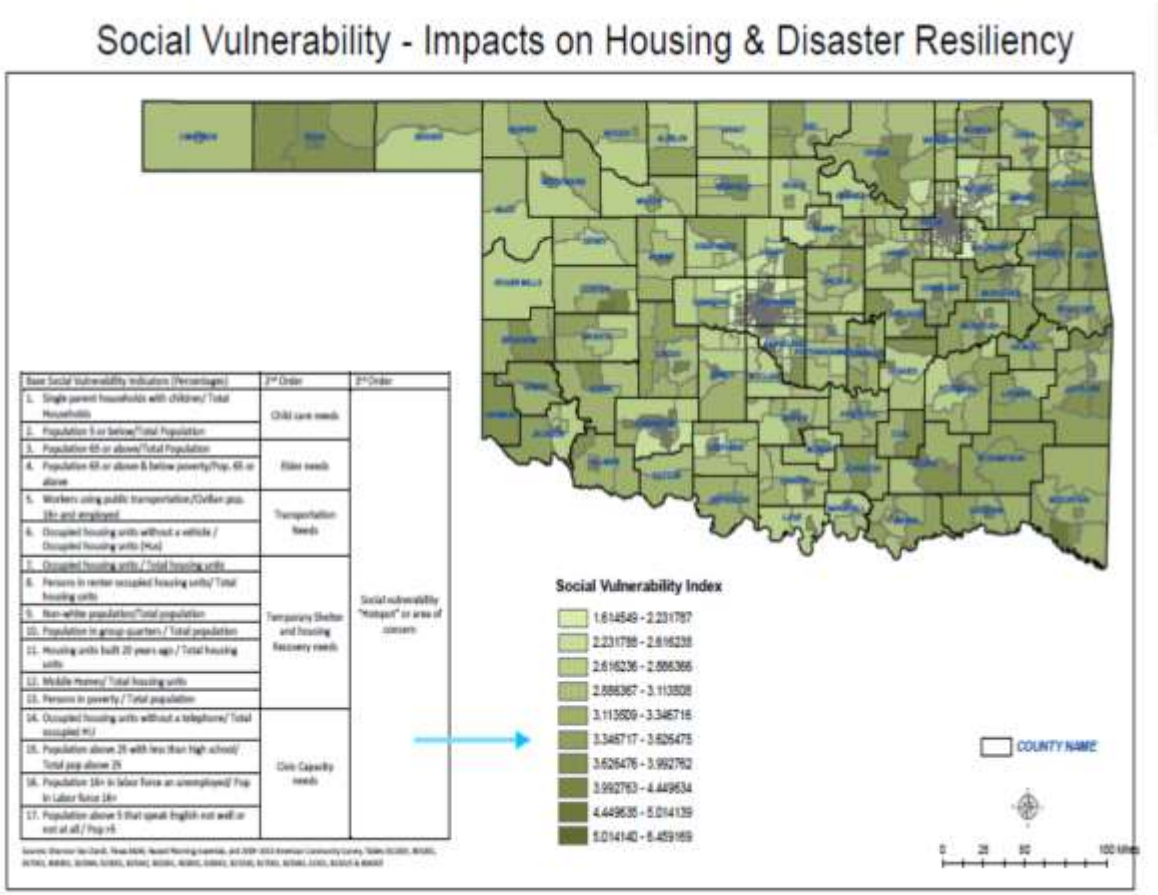
It is not surprising that rural areas typically lack both emergency shelters and temporary housing options. Services that provide temporary housing and provide relief and support services for those who cannot find food are virtually nonexistent in rural communities across the United States (Moore, 2001).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

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

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

At Risk For Homelessness

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



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

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

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

Findings and Recommendations

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

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

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

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

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

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

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

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

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

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).

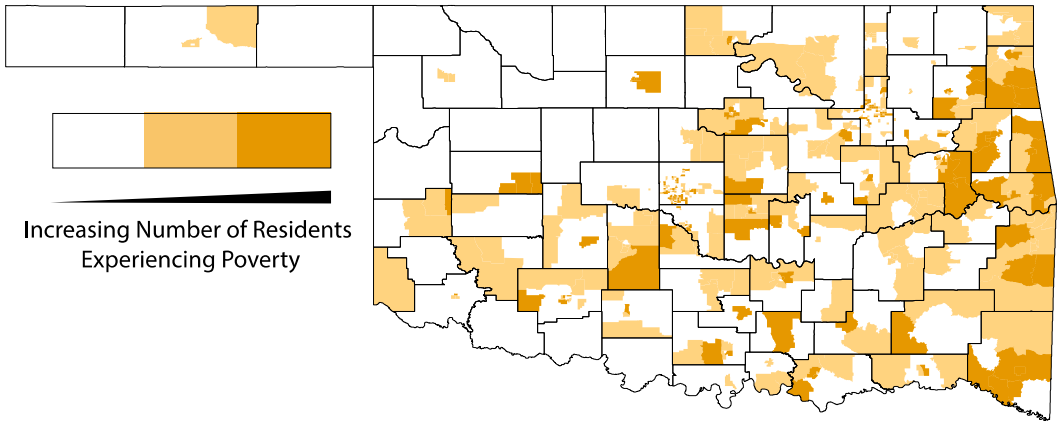
1. Urban/Rural

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

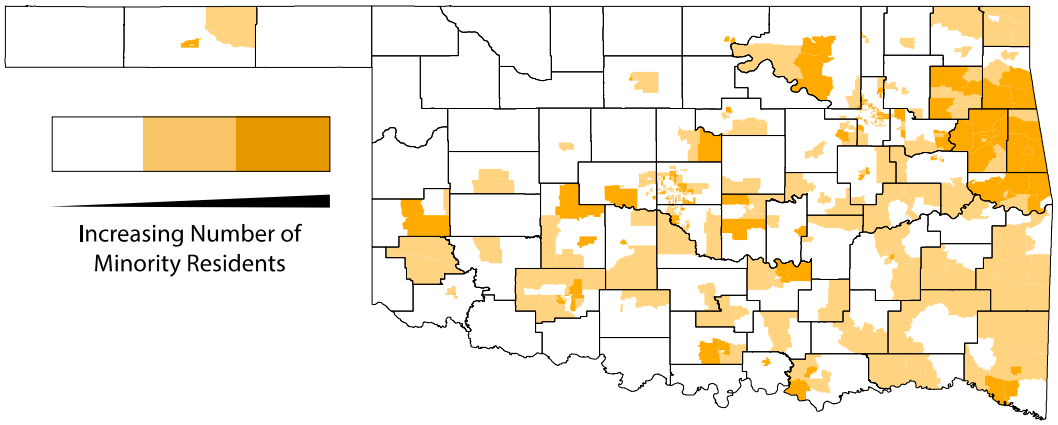
Approximately 70% of affordable housing units in Oklahoma are located in census tracts where the number of residents living in poverty is above the state average. About half of these units are located in areas of extreme poverty, where the number of individuals who are economically vulnerable exceeds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

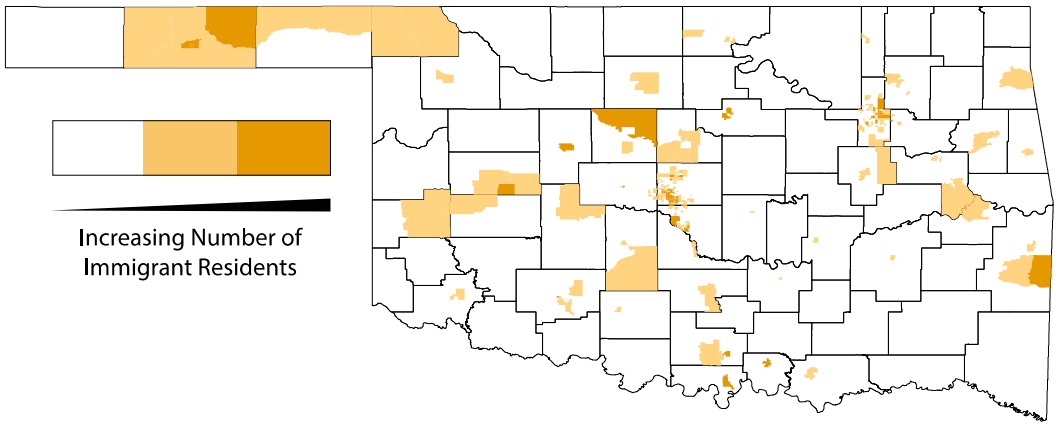
Just over 60% of affordable housing units in Oklahoma are located in census tracts where a majority of the residents are non-white. With just fewer than 24% of the total affordable housing units in census tracts heavily populated with residents who are not white – identified as census tracts where the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

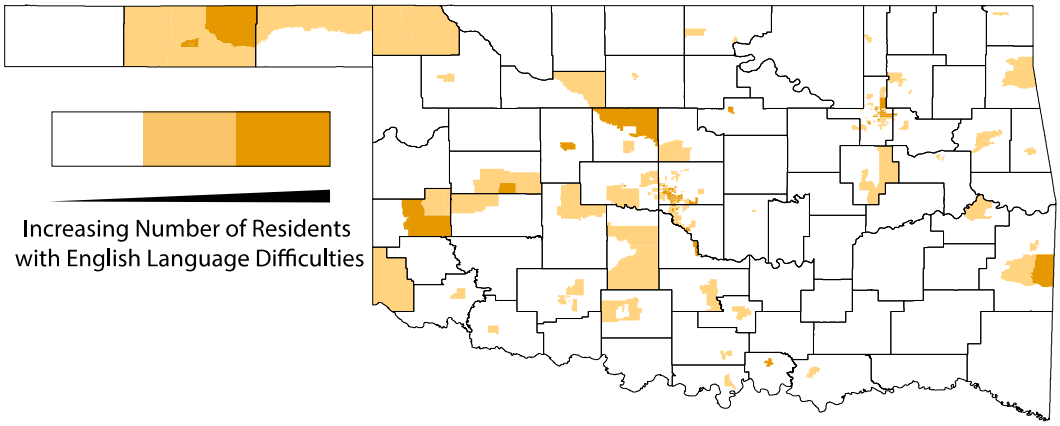
One-third of affordable housing units in Oklahoma are located in census tracts where more than the average number of residents are immigrants. About half of these units are located in areas dense with immigrants, where the number of individuals who are not citizen exceeds 349, more than one standard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

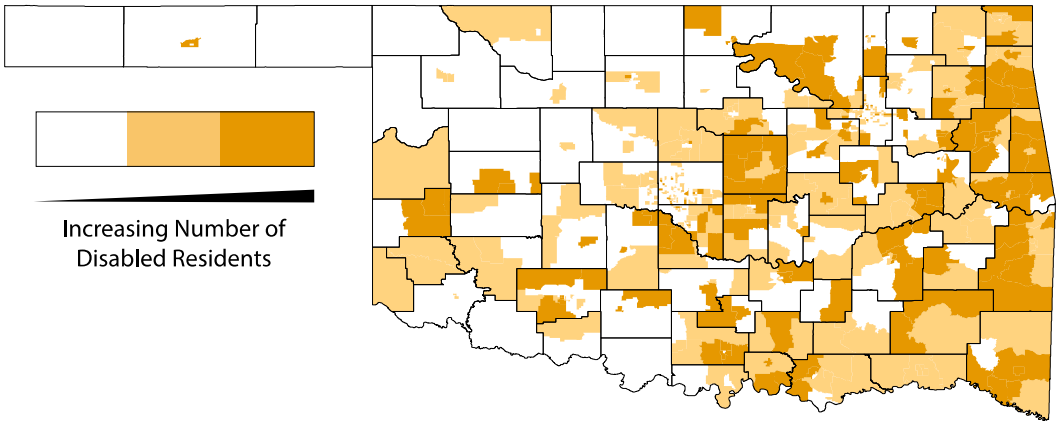
Almost 17,000 existing affordable housing units in Oklahoma are located in census tracts where more residents than average do not speak English very well. A little more than half of these units are located in areas dense with individuals with limited English proficiency, where the number of individuals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

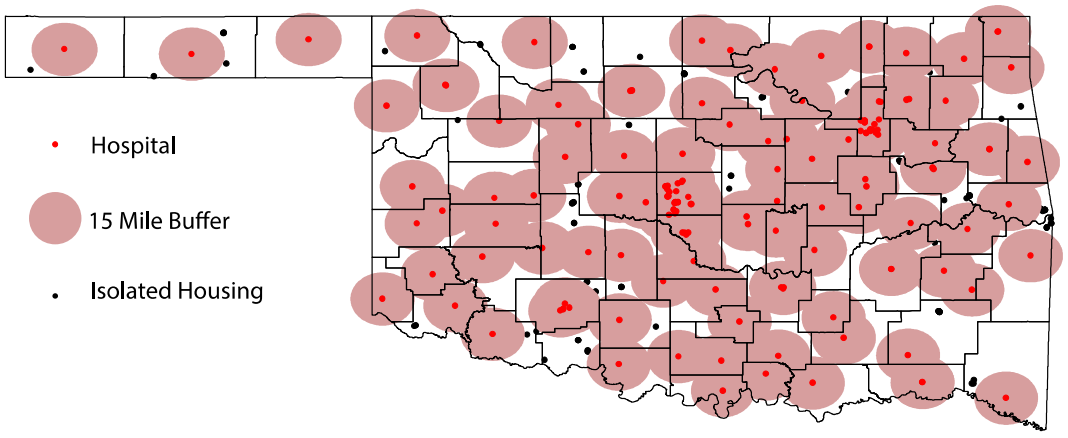
Almost 60% of existing affordable housing units in Oklahoma are located in census tracts where more residents than average have a disability. A little more than half of these units are located in areas dense with individuals with a disability, where the number of individuals who are disabled is greater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

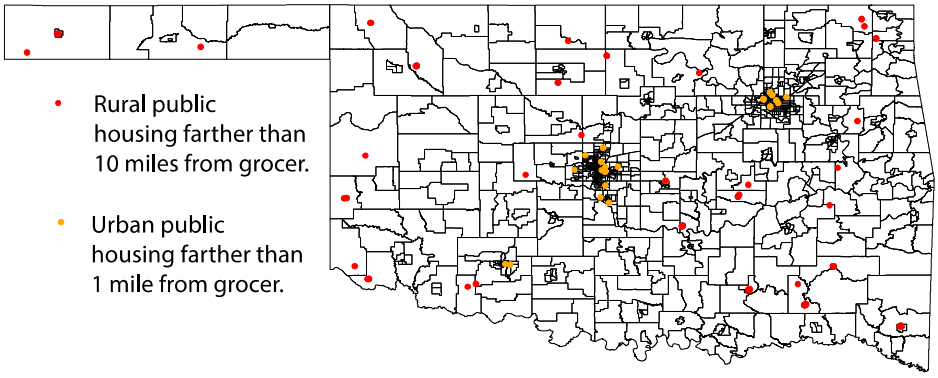
There are no affordable housing units more than 30 miles from a hospital. Approximately 2.6% of affordable housing units are farther than 15 miles from the nearest hospital. As indicated by the larger percentage of Rural Rental Housing Loan units, most of these are located in rural areas.



	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

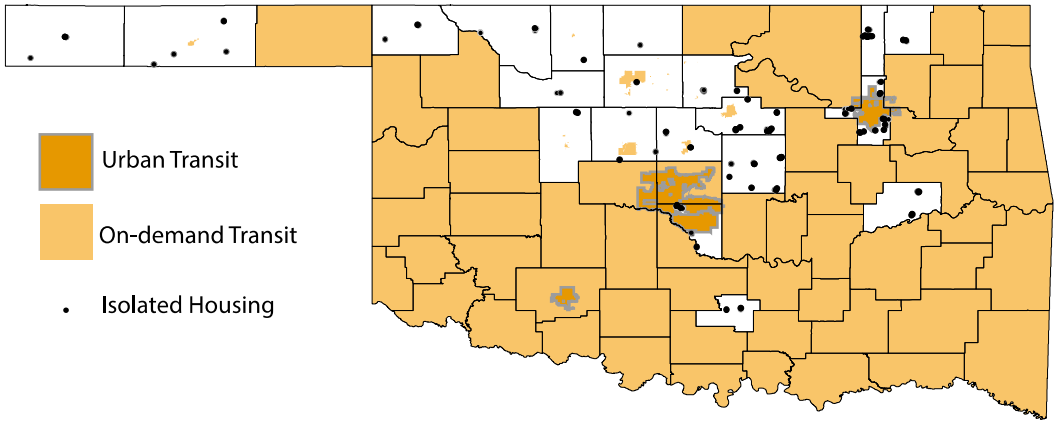
Approximately 7.8% of affordable housing units are in areas that are classified as food deserts. According to the United States Department of Agriculture, food deserts exist in urban environments further than 1 mile from a grocery store and in rural environments further than 10 miles from a grocery store (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
Pottawatomi	1,715	1,009	587	0	0	954	0	284	0
Pushmataha	381	234	0	0	0	381	147	381	0
Roger Mills	14	0	0	0	0	0	0	14	0
Rogers	973	0	0	0	0	0	36	0	0
Seminole	426	76	75	0	0	75	0	123	0
Sequoyah	1,449	922	922	0	0	726	243	0	0
Stephens	841	0	0	0	0	310	12	0	0
Texas	816	0	372	782	782	372	60	6	75
Tillman	114	0	0	0	0	0	0	0	0
Tulsa	9,868	4,750	1,807	2,281	2,109	1,419	0	1,441	2,220
Wagoner	1,094	691	461	0	0	701	0	0	0
Washington	1,262	0	108	0	0	108	0	0	1,262
Washita	189	0	0	0	0	0	0	0	0

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

Lead-Based Paint Hazards

Findings / Health and Well-being

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

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

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

Statewide Findings

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

Lead-Based Paint Hazards in Oklahoma

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

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

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

Disaster Resiliency/ Economy and Society, Infrastructure and Environment

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

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

Leadership and Strategy

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

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

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

Survey of Previous Lead-based Paint Studies

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

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

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

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

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

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

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

Beaver County Findings

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

Total Housing Units in Beaver 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	504	3.57%	18
1960-1977	441	11.18%	49
1940-1959	290	38.48%	112
1939 or Earlier	310	63.38%	196
Total	**1,545**	**24.29%**	**375**
Total Renter-Occupied Housing Units	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	172	3.57%	6
1960-1977	198	11.18%	22
1940-1959	130	38.48%	50
1939 or Earlier	105	63.38%	67
Total	**605**	**23.94%**	**145**
Total Housing Units	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	676	3.57%	24
1960-1977	639	11.18%	71
1940-1959	420	38.48%	162
1939 or Earlier	415	63.38%	263
Total	**2,150**	**24.19%**	**520**

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

Housing Units in Beaver 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	76	3.57%	3
1960-1977	99	11.18%	11
1940-1959	70	38.48%	27
1939 or Earlier	95	63.38%	60
Total	**340**	**29.68%**	**101**

Renter-Occupied Housing Units < 50% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	47	3.57%	2
1960-1977	59	11.18%	7
1940-1959	4	38.48%	2
1939 or Earlier	25	63.38%	16
Total	**134**	**19.09%**	**26**

Total Housing Units < 50% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	123	3.57%	4
1960-1977	158	11.18%	18
1940-1959	74	38.48%	28
1939 or Earlier	120	63.38%	76
Total	**474**	**26.69%**	**127**

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

Housing Units in Beaver 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	66	3.57%	2
1960-1977	95	11.18%	11
1940-1959	25	38.48%	10
1939 or Earlier	50	63.38%	32
Total	**235**	**23.07%**	**54**
Renter-Occupied Housing Units 50%-80% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	33	3.57%	1
1960-1977	23	11.18%	3
1940-1959	40	38.48%	15
1939 or Earlier	10	63.38%	6
Total	**105**	**24.19%**	**25**
Total Housing Units 50%-80% AMI	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	98	3.57%	3
1960-1977	117	11.18%	13
1940-1959	65	38.48%	25
1939 or Earlier	60	63.38%	38
Total	**340**	**23.42%**	**80**

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

To conclude, we estimate that there are a total of 520 homes in Beaver County containing lead-based paint hazards, 375 owner-occupied and 145 renter-occupied. Of the 520 homes in the county estimated to have lead-based paint hazards, 127 are estimated to be occupied by households with low-incomes (incomes less than 50% of Area Median Income), and 80 are estimated to be occupied by households with moderate incomes (between 50% and 80% of Area Median Income), for a total of 206 housing units in Beaver 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 Beaver 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 Beaver 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	14	3.57%	0
1940-1977	75	19.98%	15
1939 or Earlier	0	63.38%	0
Total	**89**	**17.41%**	**15**
Housing Units 50%-80% AMI w/ Children under 6 Present	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	42	3.57%	1
1940-1977	38	19.98%	8
1939 or Earlier	10	63.38%	6
Total	**90**	**17.14%**	**15**
Total LMI Housing Units w/ Children Present	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	56	3.57%	2
1940-1977	113	19.98%	23
1939 or Earlier	10	63.38%	6
Total	**179**	**17.27%**	**31**
Total Housing Units w/ Children Present	Total Housing Units	Percent w/LBP Hazards	Number w/LBP Hazards
1978 or Later	112	3.57%	4
1940-1977	169	19.98%	34
1939 or Earlier	49	63.38%	31
Total	**330**	**20.86%**	**69**

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

As shown, we estimate there are 69 housing units in Beaver County with lead-based paint hazards and children under the age of six present, and that 31 of those housing units are occupied by families with low to moderate incomes.

Research Footnotes/Sources

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

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

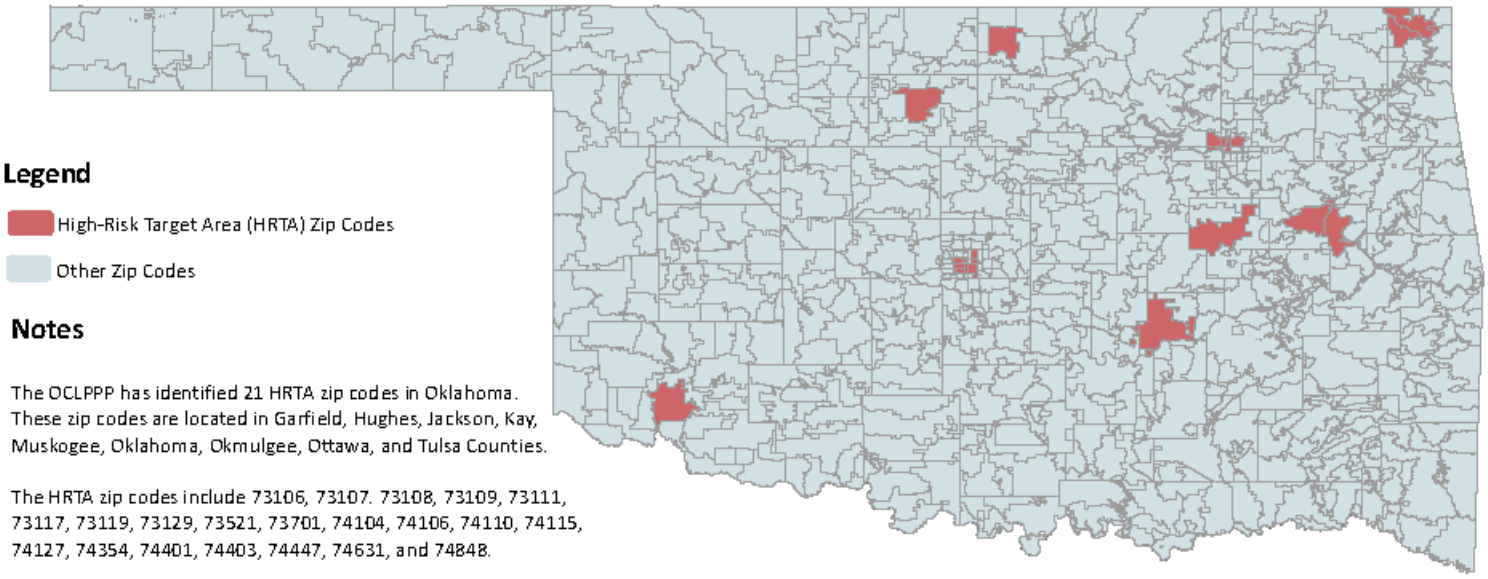
U.S. Department of Housing and Urban Development, Office of Healthy Homes and Lead Hazard Control, "American Healthy Homes Survey, Lead and Arsenic Findings", April 2011

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

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

Exhibit #1

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



Legend

High-Risk Target Area (HRTA) Zip Codes

Other Zip Codes

Notes

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

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

The HRTA zip codes are identified using the following criteria:

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

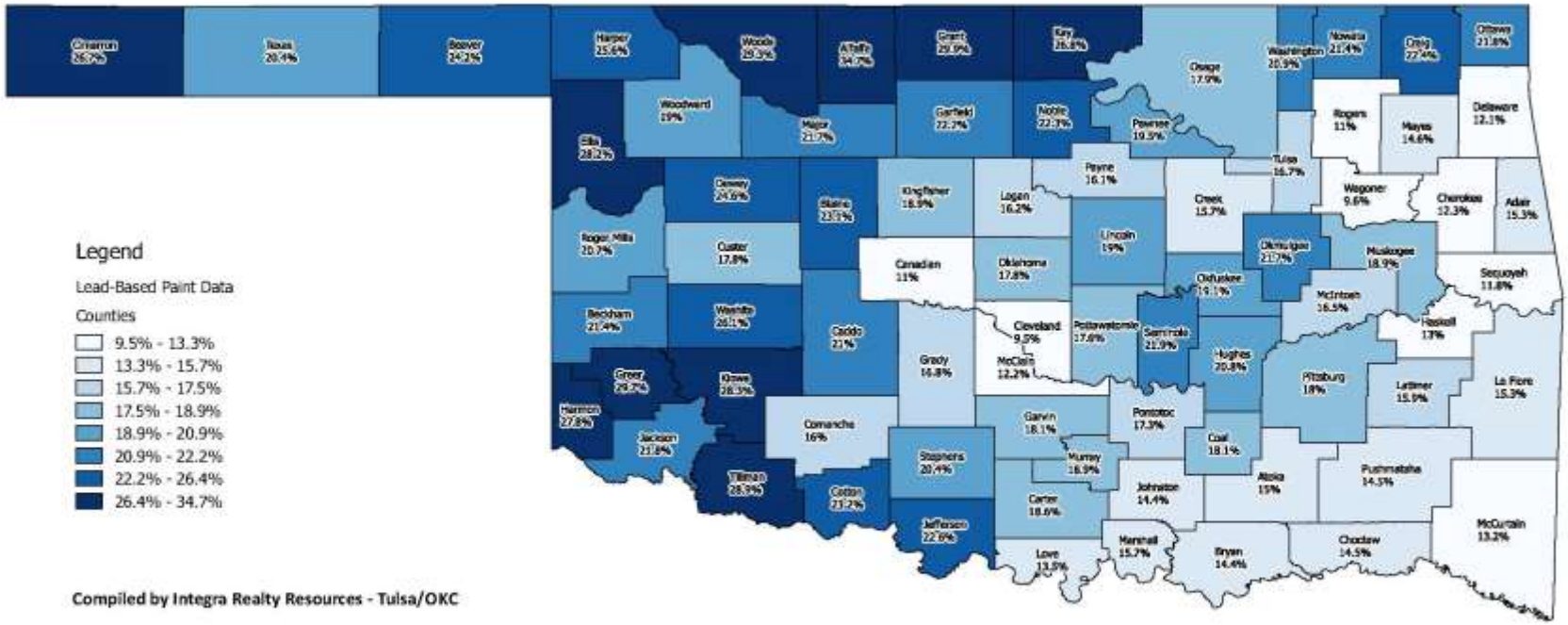
0 40 80 160 Miles

N W E S

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

Exhibit #2

Percentage of Housing Units Containing Lead-Based Paint Hazards

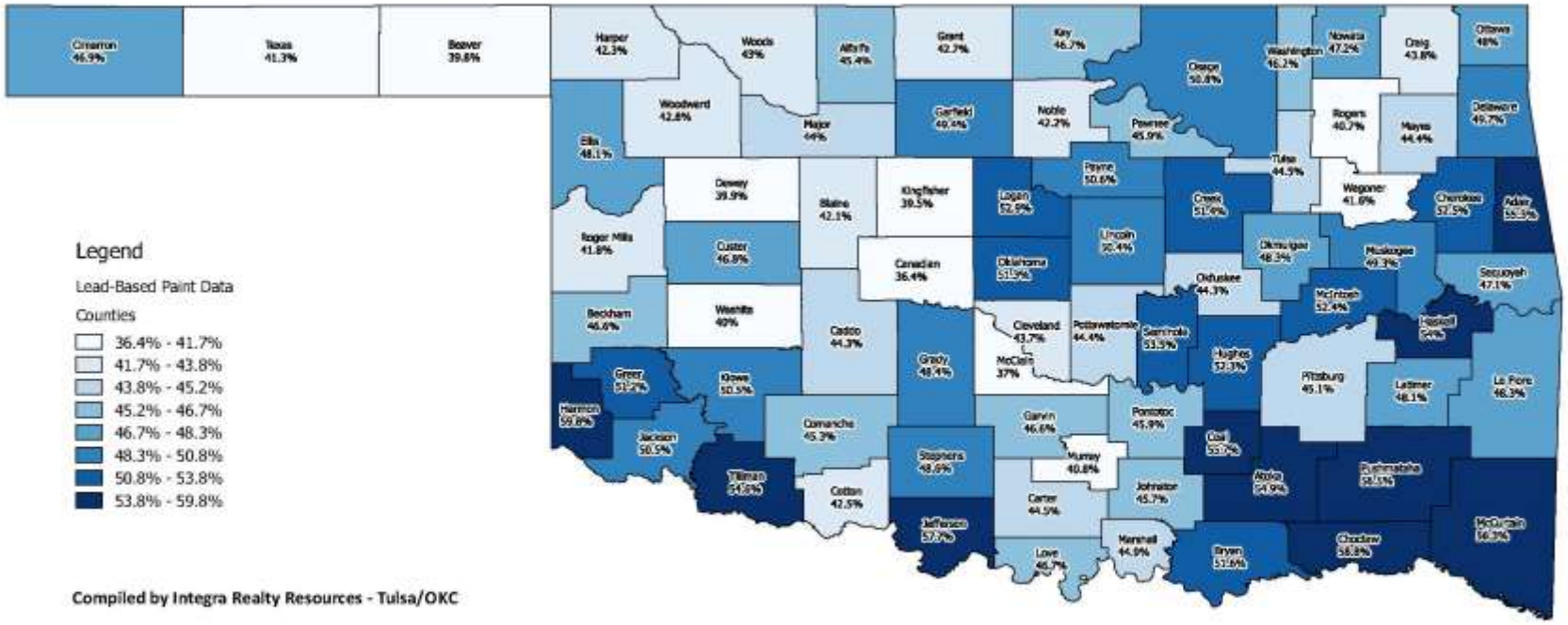


Compiled by Integra Realty Resources - Tulsa/OKC

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

Exhibit #3

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

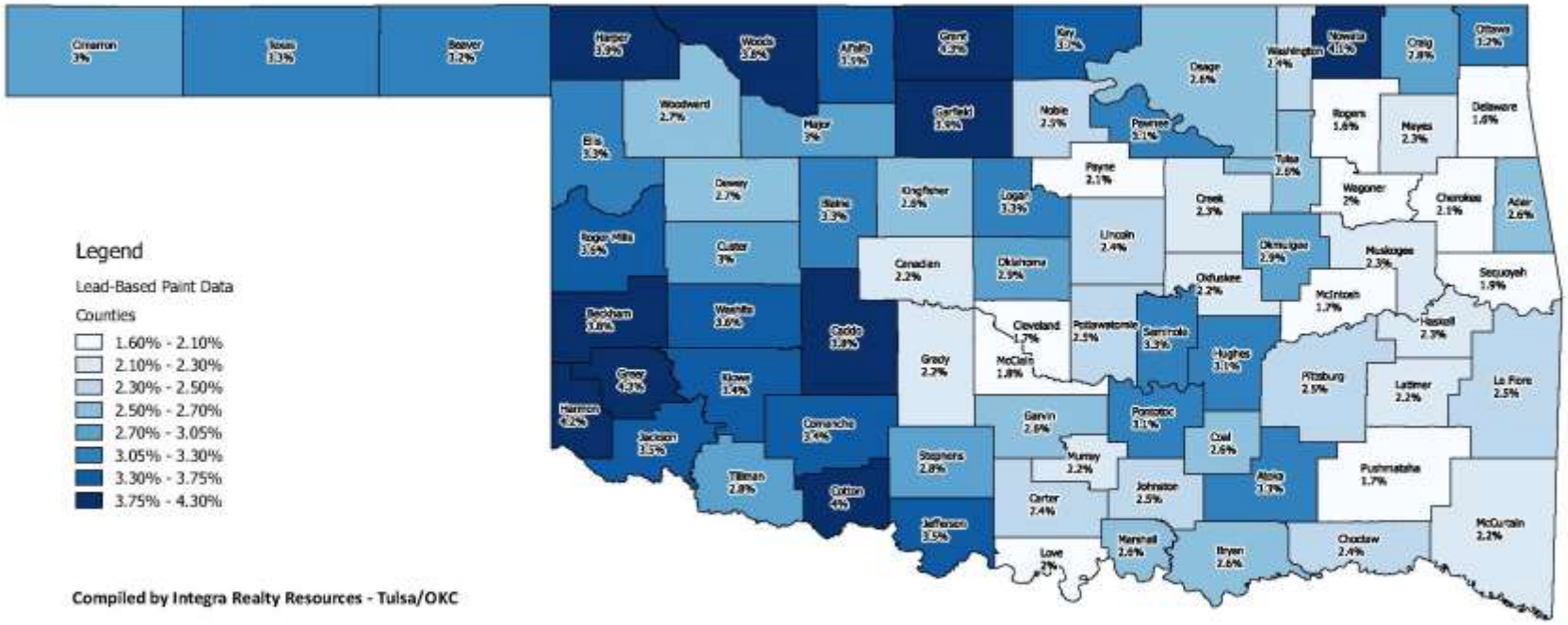


Compiled by Integra Realty Resources - Tulsa/OKC

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

Exhibit #4

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

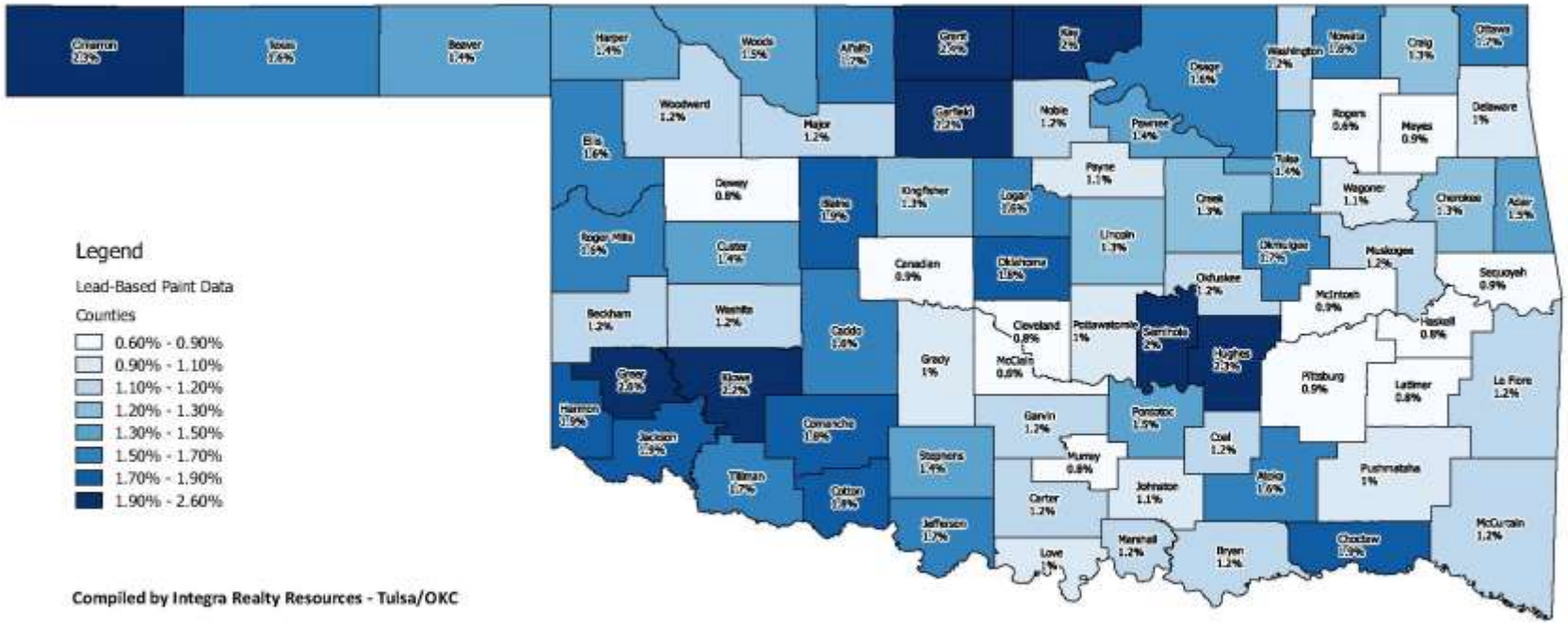


Compiled by Integra Realty Resources - Tulsa/OKC

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

Exhibit #5

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

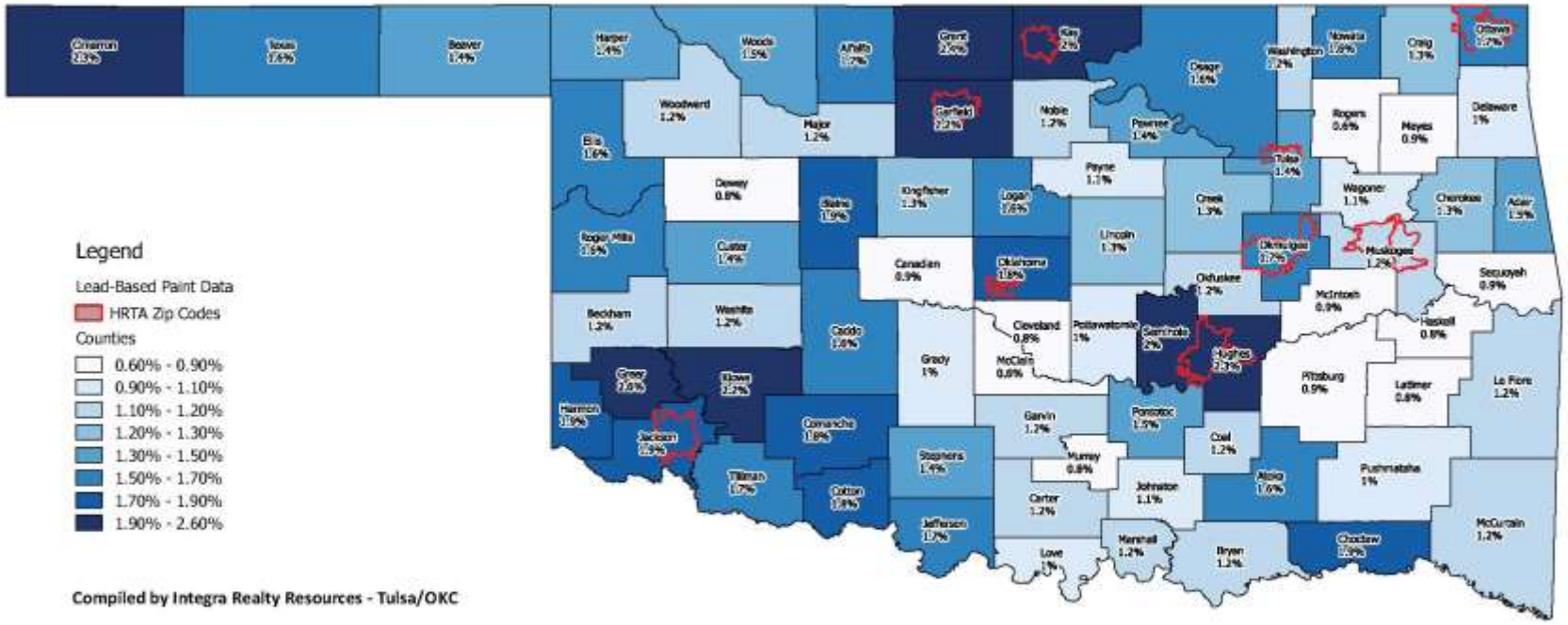


Compiled by Integra Realty Resources - Tulsa/OKC

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

Exhibit #6

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



Compiled by Integra Realty Resources - Tulsa/OKC

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

Conclusions

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

Beaver County has declined in population and households since the early 1980s. This trend is projected to continue over the next five years. Although some employment growth has occurred in recent years, this trend may not continue as energy prices remain low. Household income in Beaver County is unusually high, with a median household income of $54,915 which is 16.7% higher than Oklahoma as a whole. Poverty rates are likewise much lower than the rest of the state; the Beaver County poverty rate is estimated to be 9.95%, compared with the state figure of 16.85%. Nonetheless, there remains some need for housing: the housing stock of Beaver County is significantly older than the rest of the state. In addition, housing costs for lower-income households are relatively high: 51.19% of renters with incomes less than 50% of Area Median Income are rent-overburdened, and 42.86% of homeowners with incomes less than 50% of Area Median Income are cost-overburdened. Finally, there are no affordable housing units of any type to meet these needs.

In terms of disaster resiliency we note that 65 tornadoes have impacted the county between 1959 and 2014, with 20 injuries and two fatalities combined.

Beaver County is located within the Oklahoma Balance of State Continuum of Care (CoC), which provides services to the area's homeless populations among other functions. Throughout the entire Balance of State CoC, there are an estimated 295 homeless persons, 154 of which are estimated to be sheltered. Homeless children under the age of 18 are more likely to be unsheltered than sheltered.

In terms of fair housing issues, many affordable housing units are located in areas at risk for poverty, in primarily non-white enclaves, and in areas with high numbers of persons with one or more disabilities.

Due to the age of the county's housing stock, lead-based paint hazards are an issue, with an estimated 520 occupied housing units with such hazards, and 69 of those units occupied by low-to-moderate income households with children under the age of 6 present.

In summary, though Beaver County is expected to experience continued declines in population and households, need still exists in the county, in order to either replace or rehabilitate existing housing stock, and in order to meet the needs of rent and cost-overburdened households in the county which currently lack any affordable housing options.

Addendum A

Acknowledgments

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

University of Oklahoma Intern Team

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

Federal Agencies

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

US Federal Emergency Management Agency, Harold Latham

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

Oklahoma State Agencies

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

Department of Human Services, Connie Schlittler

Department of Emergency Management Dara Hayes

Department of Commerce, Rebekah Zahn-Pittser

Local Organizations

Regional Council of Governments and Oklahoma Association of Regional Councils

Continuums of Care Network

Hazard Mitigation Plan personnel/administrators

Community economic development professionals

City Managers and Planners

Community Action Agencies

Chambers of Commerce

Affordable housing developers, owners and investors

Homeless Alliance, Dan Straughan, Sunshine Hernandez

Pathways, Patrice Pratt

Women's Resource Center, Vanessa Morrison

AIDS Care Fund, Sunshine Schillings

Addendum B

Qualifications

Owen S. Ard, MAI

Integra Realty Resources
Tulsa/OKC

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

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

irr.com

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

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

Integra Realty Resources
Tulsa/OKC

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

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

irr.com

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

dpuckett@irr.com - 918-492-4844 x104

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 Jaggers, 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' Winius 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 Blounstein Institute (01/06-present)

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

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

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

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

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

AWARDS:

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

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

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

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

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

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

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

COURSES TAUGHT:

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

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

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

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

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

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

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

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

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

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

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

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

Legal Communications (undergraduate level, at Florida State University)

Environmental Law (continuing education, at Rutgers University)

Historic Preservation Law (continuing education, at Rutgers University)

Ordinance Drafting (continuing education, at Rutgers University)

PUBLICATIONS:

Refereed Journal Articles

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

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

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

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

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

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

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

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

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

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

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

Legal Communications (undergraduate level, at Florida State University)

Environmental Law (continuing education, at Rutgers University)

Historic Preservation Law (continuing education, at Rutgers University)

Ordinance Drafting (continuing education, at Rutgers University)

PUBLICATIONS:

Refereed Journal Articles

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

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

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

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

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

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

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

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

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

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

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

Books

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

Book Chapters and Entries

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

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

Non-Refereed Publications

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

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

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

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

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

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

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

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

Books

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

Book Chapters and Entries

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

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

Non-Refereed Publications

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

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

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

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

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

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

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

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

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

SPONSORED RESEARCH:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

PROFESSIONAL SERVICE AND AFFILIATIONS:

Professional Services

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

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

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

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

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

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

Member of the ICCHP Committee (2009-2010)

Member of DCP Faculty Council (2009-2012)

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

UF Commencement Marshall (2008-2010)

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

Professional Affiliations

American Planning Association

Oklahoma Chapter of the APA

Association of Collegiate Schools of Planning

Member of the Illinois Bar

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

CONFERENCE PRESENTATIONS:

International Conferences-Refereed Presentations

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

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

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

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

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

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

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

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

National Conferences

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

National Conferences – Invited Discussant and/or Moderator

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

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

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

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

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

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

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

State Conferences –Presentations by Invitation

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

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

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

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

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

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

REFERENCES AVAILABLE UPON REQUEST

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

EDUCATION

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

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

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

TEACHING

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

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

PREVIOUS RESEARCH POSITIONS & PRACTICE

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

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

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

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

PUBLICATIONS & REPORTS

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

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

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

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

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

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

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

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

CONFERENCE & INVITED PRESENTATIONS

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

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

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

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

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

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

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

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

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

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

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

INVITED LECTURES

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

Kansas State University – Big 12 Fellowship

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

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

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

GRANT FUNDING

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

SERVICE

University-Level Service

- Advisory Committee Course Management Systems (ACCMS) Spring 2013

College-Level Service

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

SERVICE

State-level / City-Level Service

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

National-Level Service

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

Bryce C. Lowery, PhD

Contact

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

Academic Experience

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

Education

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

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

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

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

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

Bachelor of Arts – Economics and Environmental Studies 1996
Dornsife College of Letters, Arts, and Sciences
University of Southern California - Los Angeles, CA

Publications

The Prospects and Problems of Integrating Sketch Maps with Geographic Information Systems (GIS) to Understand Environmental Perception: A case study of mapping youth fear in Los Angeles gang neighborhoods 2014
Environment and Planning B: Planning and Design 41(2): 251-271.
Curtis, J.W., E. Shiau, B. Lowery, D. Sloane, K. Hennigan and A. Curtis

The Prevalence of Harmful Content on Outdoor Advertising in Los Angeles: Land use, community characteristics, and the spatial inequality of a public health nuisance 2014
American Journal of Public Health 104(4): 658–664.
Lowery, B.C. and D.C. Sloane

Presentations

From Regional Center to Sign District: Regulating outdoor advertising in Los Angeles, 1881-2012
Association of Collegiate Schools of Planning – Philadelphia, PA – November 1, 2014
with David Sloane

Do Farmers' Markets Improve the Availability of Healthy Foods for All Communities?
A case study of 19 markets in Los Angeles.
Association of Collegiate Schools of Planning – Philadelphia, PA – October 30, 2014
with Denise Payan, LaVonna Blair Lewis and David Sloane

If You See Something, Say Something:
Community response (and non-response) to outdoor advertising regulation in Los Angeles
Council of Educators in Landscape Architecture – Austin, TX – March 29, 2013

The Spatial Ecology of Outdoor Advertising in Los Angeles:
The unjust impact of the commercial landscape
Association of Collegiate Schools of Planning – Cincinnati, OH – November 3, 2012
with David Sloane

Employing Social Network Analysis to Understand the Formation of Sustainable Social Capital
Council of Educators in Landscape Architecture - Tucson, AZ – January 15, 2009

Teaching Experience

Assistant Professor 2014-present
University of Oklahoma – College of Architecture
Subdivision and Site Planning (graduate)
Computer Mapping and GIS in Planning (graduate)
Comprehensive Planning Studio (graduate)

Lecturer 2014
University of California, Irvine – School of Social Ecology
Design and Planning Graphics (graduate)

Teaching Assistant 2008-2013
University of Southern California - Sol Price School of Public Policy
Citizenship and Public Ethics (undergraduate)
History of Planning and Development (undergraduate)
Planning History and Urban Form (graduate)
Smart Growth and Urban Sprawl (graduate)
Urban Context for Policy and Planning (undergraduate)
Urban Planning and Development (undergraduate)
Urban Planning and Social Policy (graduate - online)

Graduate Student Instructor 1999-2000
University of Michigan - School of Natural Resources and Environment
Introduction to Environmental Policy (undergraduate)
Introduction to Natural Resource Management (undergraduate)

Other Experience

Research Assistant 2009 - 2014
Sol Price School of Public Policy - University of Southern California

Editorial Assistant – Terry L. Cooper 2011 - 2012
The Responsible Administrator:
An Approach to Ethics for the Administrative Role, 6th Edition. 2012.

Research Associate 2005 - 2006
Lodestar Management/Research Inc. (now Harder+Company)

Project Coordinator 2004 - 2005
Perinatal Advisory Council of Los Angeles County

Community Researcher 2002 - 2004
Children's Planning Council - Los Angeles County Board of Supervisors

Assistant Director 2000 - 2002
Health DATA Program - UCLA Center for Health Policy Research

Curriculum Coordinator 2000
UCLA Labor, Occupational, Safety and Health Program

Research Coordinator 1996 - 1998
The Wild Thornberry's Television Series
Klasky-Csupo Incorporated/Nickelodeon Studios

Activities and Service

Committee Member
University of Oklahoma
Anna Siprikova – Master of City and Regional Planning Thesis 2014 - present

Reviewer
American Journal of Public Health
Council of Educators in Landscape Architecture

Member
American Planning Association
American Public Health Association
American Society of Landscape Architects
Association of American Geographers
Environmental Design Research Association

Member 2014 - present
Creating/Making Facilities Coordination Team
University of Oklahoma – College of Architecture

Member 2013
Billboard and Visual Landscape Visioning Group
City of Los Angeles

Area Chairperson 2010 - 2012
Hollywood Hills West Neighborhood Council – Area 2: Cahuenga Pass
City of Los Angeles

Vice-Chairperson 2010 - 2012
Appointee 2008 - 2012
Cahuenga/Ventura Corridor Specific Plan Review Board
City of Los Angeles - Council District 4

President 2011 - 2012
Member 2000 - 2012
Cahuenga Pass Property Owners' Association

Byron DeBruler
DeBruler, Inc.
8200 NE 139th Street
Edmond, OK 73103
United States of America
Phone: 405/396-2032 Cell Phone: 405/202-1610

BACKGROUND SUMMARY

Executive Manager with extensive experience in public sector resource design, management and evaluation. Knowledge and skills include: structuring and design of state and local service programs and initiatives, developing written proposals for project financing, identifying community economic development resources and training.

EXPERIENCE

DeBruler, Inc.

Vice President, Oklahoma City, August 2001 to Present

Provide services including:

- ✓ Researching public and private resources and preparing applications for financial assistance in response to client requests for economic and community development projects.
- ✓ Technical assistance to nonprofits and units of local government regarding federal and state resources and structuring project-beneficial partnerships; preparing strategic and business plans for public and private sector entities.
- ✓ Group facilitation services.
- ✓ Technical training for nonprofits and units of local government regarding federal and state financial assistance programs. Conducting organizational assessments and developing capacity building curriculums.

Oklahoma Housing Finance Agency

Team Leader, Housing Development Team, Oklahoma City, July 1998 to July 2001

Provided direct supervision and oversight of sixteen staff engaged in the administration of multiple federal and state affordable housing program resources.

While employed by the agency:

- ✓ Reorganized state's Single Family Mortgage Revenue Bond, Low-income Housing Tax Credit, HOME Investment Partnerships and Housing Trust Fund Programs into a single work unit.
- ✓ Streamlined Low-income Housing Tax Credit Program administrative rules to provide for market responsive design flexibility.
- ✓ Streamlined affordable housing resources by developing a singular application package and process for the agency's affordable housing development resources and established e-information network.
- ✓ Facilitated the development of working partnerships between the state's nonprofit and for-profit housing development organizations and agency's mortgage revenue bond lenders.
- ✓ Financed the development of affordable housing by leveraging public sector development funds with private investments.

- ✓ Facilitated legislative task force on rural affordable housing issues and devised legislative and programmatic actions to spur rural development.
- ✓ Developed, financed and implemented the state's first statewide affordable housing market analysis in partnership with a major university center.
- ✓ Drafted enabling legislation, capitalized and implemented state's Housing Trust Fund.

Oklahoma Department of Commerce
Program Manager/Department Head, Oklahoma City, March 1988 to July 1998

- ✓ In response to market-based demand, directed a team of professional agency staff with diverse skills, in the redesign of the state's HOME Investment Partnerships Program from primarily rehabilitation services to the production of rural affordable housing units.
- ✓ Led HOME Program administrative team in the relocation of the Program from its state agency environment to the Oklahoma Housing Finance Agency, a public trust.
- ✓ Leveraged HOME Program development resources with other public and private debt capital to finance the development of rural affordable housing statewide.
- ✓ Formulated and implemented a legislative agenda to enact and capitalizing the state's Housing Trust Fund.
- ✓ Provided daily oversight and administration for several state administered federal programs including: U.S. Department of Energy State Energy Program, Community Development Block Grant, Home Investment Partnerships, Rental Rehabilitation, Solar Energy and Energy Conservation Bank, and State Appropriated Funds for regional councils of government.

City of Oklahoma City January 1984 to February 1988
Division Head, Code Inspections Division/Department of Environmental Services
Assistant Superintendent, Utility Services Division/Water Department
Administrative Assistant, Street Maintenance Division, Public Works Department
Management Intern, Personnel Department

EDUCATION
Masters of Public Administration, University of Oklahoma 1983
Bachelor of Arts Political Science, University of Oklahoma, 1979