

W. Frank Barton School of Business

Center for Economic Development and Business Research

Kansas Rural Housing

An assessment of potential housing needs in rural areas based on workers' commuting patterns



WICHITA STATE
UNIVERSITY

1845 Fairmount St.
Wichita KS 67260-0121
316-978-3225
www.CEDBR.org
cedbr@wichita.edu

Contents

Summary 2

Introduction 3

 Literature Review 3

 Methodology 7

Northeast 11

 Northeast Job Creation 11

 Northeast Housing Indicators 15

 Northeast Potential Housing Needs 16

Southeast 19

 Southeast Job Creation 19

 Southeast Housing Indicators 21

 Southeast Potential Housing Needs 23

Northwest 25

 Northwest Job Creation 25

 Northwest Housing Indicators 28

 Northwest Potential Housing Needs 30

Southwest 32

 Southwest Job Creation 32

 Southwest Housing Indicators 34

 Southwest Potential Housing Needs 36

Conclusion 38

Summary

The Center for Economic Development and Business Research, W. Frank Barton School of Business, Wichita State University (CEDBR) conducted this study on behalf of the Kansas Housing Resources Corporation to evaluate the housing situation through the flow of workers and job creation by industry in rural areas. Additionally, CEDBR conducted a review of existing literature on the effect of housing availability on communities.

The available information on rural housing shows an important connection between adequate and available housing and the vitality of a community. Housing can be an important decision point for new residents and, to a certain extent, for businesses, also.

However, in many rural areas the quality and quantity of housing stock has been negatively impacted by demographic and employment changes. Population loss in some rural communities has led to a deterioration of the quality of the housing stock. An increase in low wage jobs in rural areas has made housing unaffordable for some rural residents. Although rural home values were low, rural wages were still insufficient. Also, technological changes in the oil and gas industry have brought a significant inflow of workers into some rural areas where the supply of housing cannot meet the increased demand.

To develop a better understanding of how these national trends may have impacted rural areas in Kansas, an analysis of data from the U.S. Census Bureau and the Bureau of Economic Analysis was completed. This data was used to show the relationship between the location of Kansas workers' homes and their places of work.

The net inward commute of workers into an area can be an indication of a shortage of housing in that area. It is only an indication, one factor out of many different variables that shape individual housing markets. However, it does provide a clue to potential housing needs in various counties in Kansas relative to the workforce needs in those counties.

The dynamics of commuter patterns vary greatly across the state and within regions of the state. The relative expansions and contractions of industries within the state can shift the demand for housing as jobs move from one industry and location to another. These shifting workers were a combination of homeowners and renters across income ranges.

Using commuting patterns as an indication of the need for housing, there were a number of counties in Kansas appearing to have a need for additional housing. In the Northeast the commuting patterns indicated the highest need for additional housing in Geary and Mitchell Counties. There was also an indication of a moderate level of need in Saline and Marshall Counties. In the Southeast there was an indication of a moderate level of need in Montgomery and Coffey Counties. In the Northwest there was an indication of a high level of need in Gove County and a moderate level of need in Norton, Logan and Ness Counties. In the Southwest there was an indication of a high level of needed housing in Pawnee, Grant and Seward Counties and a moderate level of need in Kiowa County.

Introduction

Housing can be one of the largest forms of private investment in a rural community. Common housing issues in some rural communities include mismatches between residents' housing preferences and existing housing stock, older housing units in need of maintenance and remodeling, limited access to mortgage credit, low housing values, lack of homebuilders or those with remodeling expertise, community population losses, and perceptions that the market will not readily adjust to changes in housing demand.¹

Literature Review

The current state of housing in rural areas has been fairly well documented at the national level by the Housing Assistance Council (HAC). Additionally, there were a few studies specifically focused on housing in the rural areas of the Midwest.

- A 2009 study of nine north central states found that adequate and available housing plays an important role in the economic strength and social well-being of a community.² This study found that housing supply was one of the fundamental ingredients in community growth strategies. Community leadership was the most powerful indicator of community vitality, followed by businesses and housing inventory change. Change in housing inventory was found to minimize the effect of population change on community vitality, thus showing the importance of changes in housing inventory to enhance rural development efforts. This study states that, "Families settle into a community through housing. Increasing housing inventory and location both directly influenced community vitality. "
- A 2007 survey of 52 community development practitioners in Nebraska ranked housing availability as the most important factor in recruitment of new residents to their community. Housing availability was given an average score of 4.45 on a scale of one to five, with five being the most important. In the same survey housing affordability was the fourth most important factor, with a score of 4.18. The community development practitioners were of the opinion that good and affordable housing was key to all potential new residents.³
- Additionally, a 2006 study of 134 rural communities attempted to understand the available housing stock, perceptions of the need for housing, and perceived barriers to housing development. In this study it states that in order to thrive, communities need to be able to

¹ Kudlowitz, Mark, and Lance George. Turning Challenges Into Opportunities: Housing and Community Development Strategies in Rural Population Loss Counties. Rep. Housing Assistance Council, n.d. Web. 16 Oct. 2013.

² Cook, Christine C., Marilyn J. Bruin, Becky L. Yust, Sue R. Crull, Mack C. Shelley, Sharon Laux, Jean Memken, Shirley Miemeyer, and B. J. White. "Evidence of a Housing Decision Chain in Rural Community Vitality." *Rural Sociology* 74.1 (2009): 113-37. ProQuest. Web. 15 Oct. 2013.

³ Nene, Gibson, Bruce Johnson, Cheryl Burkhart-Kriesel, Randolph Cantrell, Charlotte Narjes, and Rebecca Vogt. —Community Recruitment and Retention of New Residents: A Study Using a Market Assessment Process. *The Online Journal of Rural Research and Policy* 4.1 (2009): 1-27.

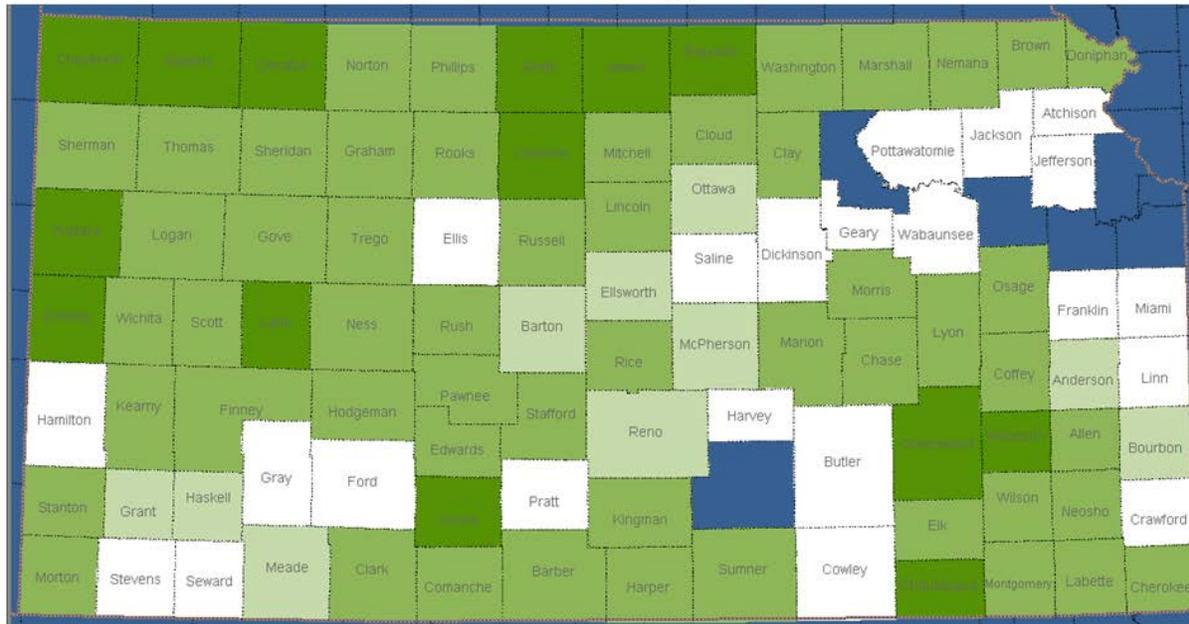
attract and retain residents and provide housing choices appropriate for those individuals and families.⁴

There were many potential causes for housing inadequacies in rural areas, and the specific cause of a housing issue could vary greatly from area to area. However, at a high level there were three changes in rural economies that may have contributed to these inadequacies in the housing stock, population loss, long-term changes in rural employment, and short-term changes in rural employment.

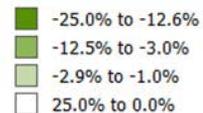
In their fourth decennial *Taking Stock* report, the Housing Assistance Council states that, "Population loss had significant effects on an area's housing stock. As populations decline, homes become vacant and fall into disrepair. Absentee homeownership becomes commonplace, and older residents are unable to maintain their homes. House values also decline, making mortgages and home rehabilitation loans more difficult to obtain. Meeting housing needs in this context was made all the more difficult by low population densities spread out over large expanses of territory."⁵

Of the 98 rural Kansas counties included in this report, 76 experienced population loss between the 2000 census and 2010 census.

Population Change 2000-2010



Source: U.S. Census Bureau Decadal Census



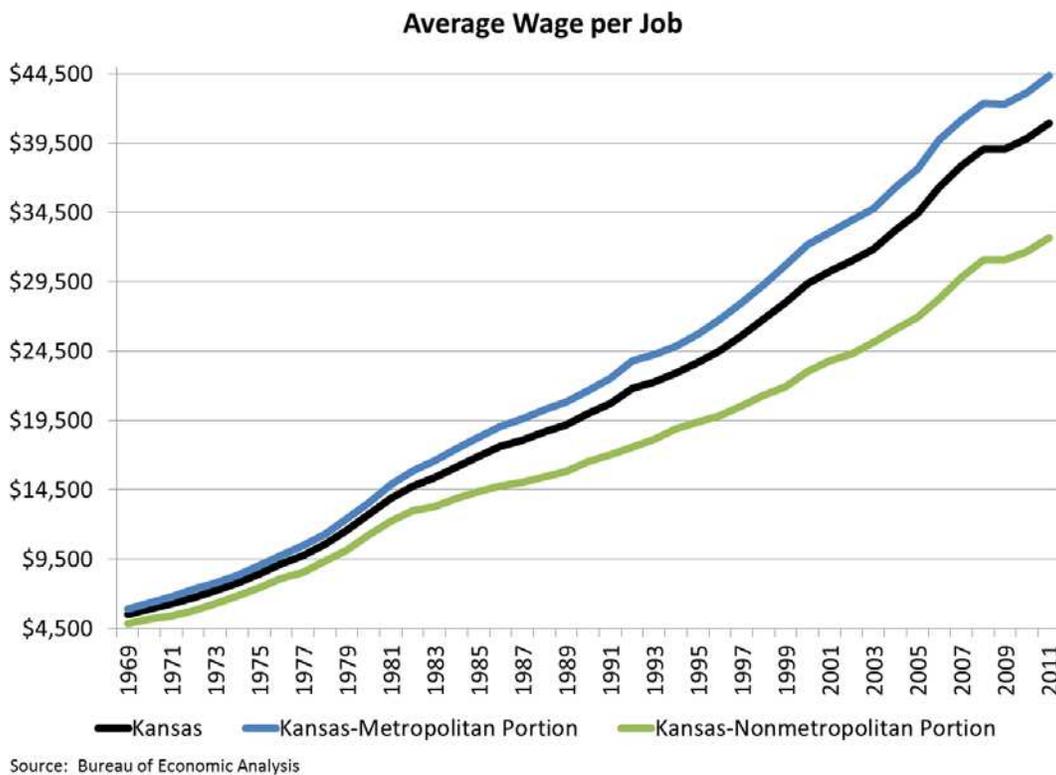
⁴ Yust, Becky L., Sharon C. Laux, Marilyn J. Bruin, and Sue R. Crull. "Housing Needs in Rural Communities." *Journal of Family and Consumer Sciences* 98.4.November (2006): 15-19. ProQuest. Web. 12 Oct. 2013

⁵ *Taking Stock: Rural People, Poverty, and Housing in the 21st Century*. Rep. Housing Assistance Council, 2012. Web. 17 Oct. 2013

The consequences of population loss extend beyond housing, including decreased tax bases which reduce or eliminate schools, health care, and other public services in counties least able to bear the losses. These effects had disparate impacts on remaining populations in these counties.⁶

In addition to the impact of population loss on the housing stock of rural communities, rural housing stock has also been affected by an evolution in employment in rural communities. Over the long term, employment in rural communities has shifted from an agricultural based work force to a service and industry based work force. In the more recent short term, the housing stock of rural communities has been impacted by technology changes in the oil and gas industry.

Historically, much of rural employment was in the agriculture industry. However, nationally, in 2010 agriculture accounted for less than 6 percent of all nonmetropolitan area jobs. In Kansas, farm employment accounted for only 8.2 percent of nonmetropolitan area jobs in 2010, down from 10 percent in 2001.⁷ Employment in rural areas has shifted to service and industry based employment. Companies seeking non-union and lower wage workers, as well as favorable business climates, placed factories in many rural communities and small towns in the 1990s.⁸



⁶ Housing Assistance Council 2007. “Turning Challenges into Opportunities: Housing and Community Development Strategies in Rural Population Loss Counties.

⁷ Bureau of Economic Analysis

⁸ Taking Stock: Rural People, Poverty, and Housing in the 21st Century. Rep. Housing Assistance Council, 2012. Web. 17 Oct. 2013

This national trend in the development of lower wage jobs in rural areas is evident in Kansas. In 2011, the average wage per job in nonmetropolitan areas of Kansas was 26 percent lower than the average wage per job of metropolitan areas. These low wage jobs, although overall beneficial to rural economies, have contributed to a housing affordability problem in many rural areas. While housing costs are relatively low in rural areas, incomes are also lower so that many residents still cannot afford housing.⁹

In addition to the longer term evolution from agriculture to other industries, there have been short term changes in rural employment due to the increased use of hydraulic fracturing in the oil and gas industry. The fracking process typically involves a rapid influx of a large number of workers into communities which are often small and rural, with limited resources. The new workers and work-related activities easily overwhelm community infrastructure. Housing is of particular concern, since fracking creates a high demand for housing in areas where rental units are limited. This increased demand drives up rents for the rental housing units that exist. Local residents, who often have limited means, simply cannot afford the inflated rents.¹⁰

The combination of population loss and changes in employment structures has led to housing inadequacies and affordability problems in some rural areas. The population loss leads to a deterioration of the tax base that can have negative impacts on community services such as schools and health care. Fewer community services then becomes one more problem added to inadequate housing. It seems logical that the solution to these problems would be to recruit new residents to these rural areas. However, the availability of adequate housing can be an important component of the recruitment process.

In a 2007 survey of 1,050 households that were new to the Nebraska Panhandle region in the past five years, researchers found that what motivated the new residents to move to the area was most often employment, with 46 percent of the new residents having moved to the area for employment reasons. However, that was closely followed by location/housing, which accounted for 35 percent of the new residents' relocation reasons.¹¹

Housing can be an important part of the decision to move to an area by new residents. It may also be a component of the decision to expand or relocate by a business owner. In the 27th Annual Corporate Survey, 200 businesses cited labor costs and availability of skilled labor as the number one and number three most important factors in selecting a site for business expansion.

These businesses also considered housing availability and housing costs for workers, but these factors were not considered to be as important in the decision process. This survey found that quality of life

⁹ Taking Stock: Rural People, Poverty, and Housing in the 21st Century. Rep. Housing Assistance Council, 2012. Web. 17 Oct. 2013

¹⁰ Taking Stock: Rural People, Poverty, and Housing in the 21st Century. Rep. Housing Assistance Council, 2012. Web. 17 Oct. 2013

¹¹ Nene, Gibson, Bruce Johnson, Cheryl Burkhart-Kriesel, Randolph Cantrell, Charlotte Narjes, and Rebecca Vogt. —Community Recruitment and Retention of New Residents: A Study Using a Market Assessment Process. The Online Journal of Rural Research and Policy 4.1 (2009): 1-27.

factors, of which housing availability was considered a quality of life factor, were less important to businesses in regard to site selection than business related factors. The quality of life factors should be considered tiebreakers when all other site requirements have been satisfied; therefore, these factors were ranked separately in the survey. In this separate ranking, low crime was the most important quality of life factor. Healthcare facilities and housing availability tied for second place, followed by housing costs.¹²

The available information on rural housing shows an important connection between adequate and available housing and the vitality of a community. Housing can be an important decision point for new residents and, to a certain extent, for businesses, also. However, in many rural areas the quality and quantity of housing stock has been negatively impacted by demographic and employment changes.

To develop a better understanding of how these national trends may be impacting rural areas in Kansas, an analysis of data from the U.S. Census Bureau and the Bureau of Economic Analysis was completed. This data was used to show the relationship between the location of workers' homes and their places of work.

Methodology

There were 98 rural counties included in the analysis. The seven largest Kansas counties, with labor forces numbering more than 35,000 workers, were not included; these were Shawnee, Sedgwick, Wyandotte, Johnson, Riley, Douglas and Leavenworth.

The movement of workers from where they live to where they work was used to establish the potential level of housing needs relative to the available jobs in the area.¹³ In any given county there were workers who live and work in the county, and workers who commute in and out. If the overall net number of commuters relative to the size of the labor force in the area was small, it was an indication of a balance between the number of jobs and the housing available to workers. If there were a significant number of outward bound commuters from a county, relative to the size of the labor force, this would indicate a shortage of jobs, and/or a more than adequate level of housing available to workers. If there was a significant inward commute, relative to the size of the labor force, this would indicate a surplus of jobs and/or an inadequate level of housing available to workers.

The excess of inward or outward bound commuters should not be interpreted as a strictly positive or negative event. For example, it is good to have higher income earners, which generally pay more in local taxes, living in an area. In this light an outflow of high income earners may be interpreted positively. However, an outflow of higher income earners may also indicate that local industries are not providing higher wage jobs. Similarly, an inflow of low income workers may indicate the area does not have affordable housing available, or it may indicate a particularly high level of low wage jobs available in the area. The commuter data provides insights as to the level of jobs relative to housing,

¹² Gambale, Gerri. The 27th Annual Corporate Survey. Rep. Winter 2013 ed. Vol. 48.1. N.p.: Area Development Site and Facility Planning, n.d. ProQuest. Web. 18 Oct. 2013.

¹³ County level data was used in this analysis; therefore the flow of workers between municipalities within counties is not captured in the results.

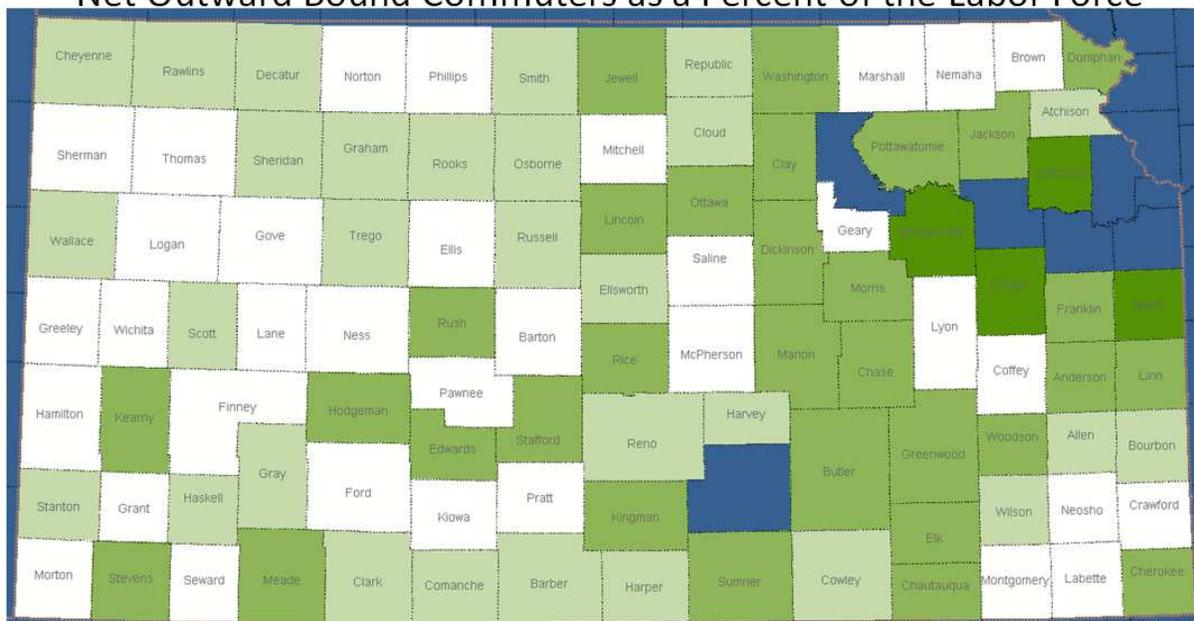
but further analysis would be needed to understand the reasons for the commuter flow in a specific area.

Of the 98 counties included in the study, 64 had a net outward commute of workers. The rural counties with the highest level of outward bound commuters were those located close to the larger Kansas counties, which generally have a high concentration of jobs. However, there were counties with a net outward commute of workers across the state although with a much lower level of commuting relative to the size of the labor force.

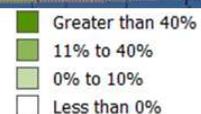
A net outward bound level of commuting does not eliminate the possibility that there are housing issues in an area. When there are more workers traveling out of the area to work, than traveling in, it is less likely there is a significant housing shortage relative to jobs. However, it is possible that even though residents are traveling out of an area to work, more people would still like to live in the area if more housing was available. The reasons for this may include, but are not limited to, the relative quality of housing, differences in wage levels, and differences in home values.

These types of housing shortages based more on consumer preference and less on the demands of the job market were not analyzed in this report. Those types of housing shortages may be relevant, but it is not appropriate to use commuting data to understand a shortage of supply relative to consumer preferences. The remainder of this report will focus on the counties with a net inward commute of workers.

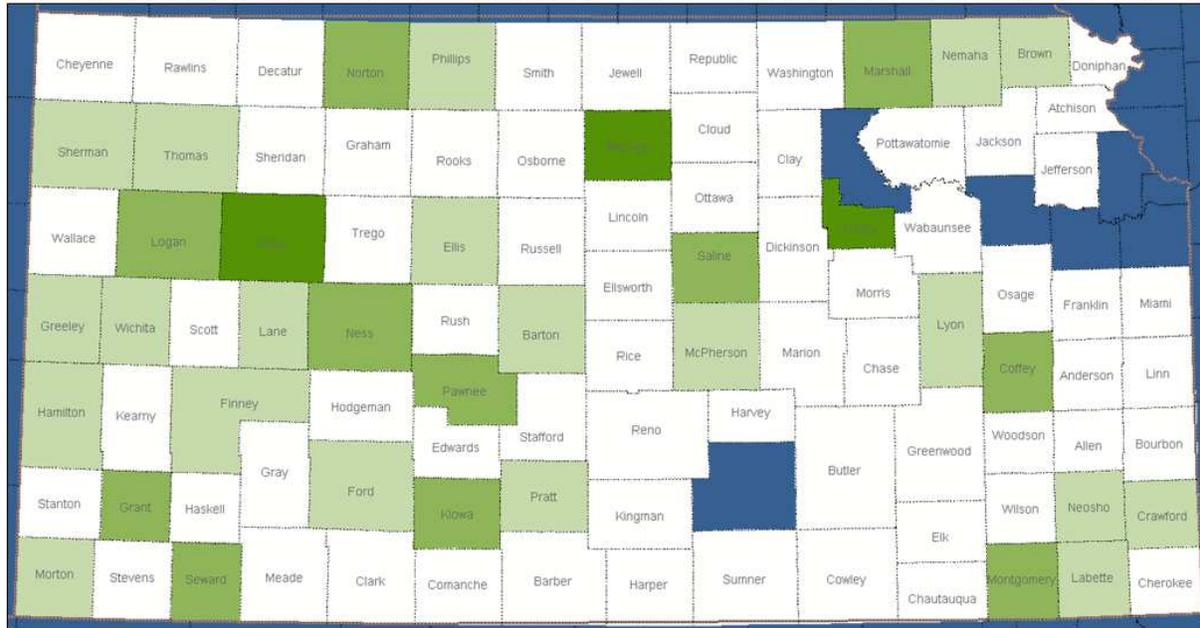
Net Outward Bound Commuters as a Percent of the Labor Force



Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates



Net Inward Bound Commuters as a Percent of the Labor Force



Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates



Of the 98 counties included in the study, 34 had a net inward commute of workers. Of the 34 counties having worker inflows, there were 17 in which the inflow of workers was between 1 percent and 5 percent of the labor force. Eleven counties had inward commuters between 6 percent and 15 percent of the labor force. There were three Kansas counties with inflows of more than 15 percent: Mitchell County at 15.9 percent, Gove County at 16.8 percent and Geary County at 27.8 percent.¹⁴

The dynamics of changing employment and the resulting potential impact on housing vary greatly across the state. To look more closely at the counties that had a high level of inward commuters relative to the labor force, the state has been divided into four quadrants, Northeast, Southeast, Northwest and Southwest.

Within each of these quadrants, employment data from the Bureau of Economic Analysis (BEA) was used to show how employment growth and contraction in different industries can lead to a change in commuting patterns and, therefore, a change in the housing needs of workers within a region.¹⁵

¹⁴ U.S. Census Bureau, American Community Survey 5-Year Estimates. Data is based on a sample and were subject to sampling variability and non-sampling errors. The effect of sampling variability and non-sampling errors was not represented in these calculations.

¹⁵ This analysis was completed based on the available data. There was not an adjustment for suppressed data. Data suppression in each region was as follows: Northeast 1.7 percent, Southeast 0.6 percent, Southwest 18.7 percent, Northwest 14.9 percent. Although there was a significant amount of suppressed data in the western areas of the state, the Bureau of Economic Analysis provides the most comprehensive data available.

To develop a deeper understanding of the potential shortage of housing that was indicated by a high level of inward commuters, the data was further analyzed by income and type of occupancy. The income data shows the number of workers 16 years and older, with income that traveled into a county for work. The type of occupancy, or tenure, shows the number of householders that traveled into a county for work. A householder's tenure indicates whether they were homeowners or renters.

The most common type of inward commuter was then used as an indication of the value of housing that may be needed in that county. This was determined based on the value of housing occupied by homeowners with a similar level of household income in that county. For each level of household income, the percentage of homeowners living in a range of home values was calculated and then compared to the average for that region.

In general, it would be expected that the higher the level of household income, the higher the value of home that would be occupied. However, in micropolitan areas and the Northeast region, fewer low income households live in lower valued housing. In rural areas more middle income households live in lower valued housing and fewer higher income households live in higher valued housing.

Average Values of Owner-occupied Housing Units by Household Income

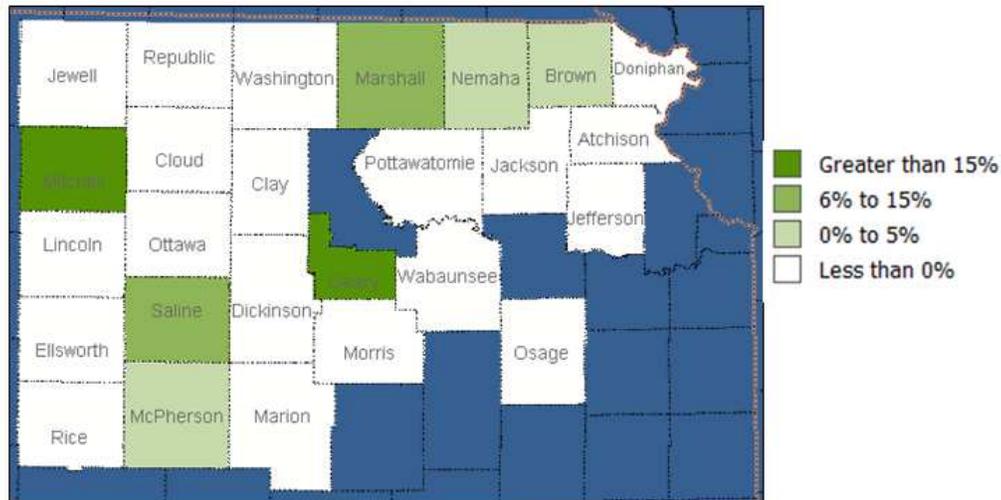
	Less than \$40,000	\$40,000 to \$69,999	\$70,000 to \$99,999	\$100,000 to \$249,999	\$250,000 or more
Household Income \$10,000 to \$34,999					
Kansas Micropolitan	27.3%	25.1%	20.8%	23.9%	2.9%
Kansas Rural	39.7%	28.1%	15.6%	14.3%	2.3%
Northeast Region	27.9%	24.1%	18.9%	25.0%	4.1%
Southeast Region	30.8%	26.3%	19.1%	20.9%	2.9%
Northwest Region	39.5%	26.7%	16.0%	15.4%	2.4%
Southwest Region	33.1%	25.5%	20.7%	18.7%	2.1%
Household Income \$35,000 to \$49,999					
Kansas Micropolitan	17.5%	23.1%	26.9%	29.3%	3.3%
Kansas Rural	27.1%	29.0%	21.4%	20.0%	2.4%
Northeast Region	19.1%	21.1%	24.2%	32.7%	2.9%
Southeast Region	20.1%	25.2%	23.1%	27.7%	3.8%
Northwest Region	24.3%	28.7%	23.4%	20.7%	2.8%
Southwest Region	21.7%	26.5%	24.8%	24.9%	2.1%
Household Income \$50,000 to \$74,999					
Kansas Micropolitan	11.8%	17.6%	24.2%	42.7%	3.7%
Kansas Rural	17.8%	25.6%	23.0%	29.3%	4.4%
Northeast Region	10.6%	16.8%	22.5%	44.1%	6.0%
Southeast Region	11.6%	20.3%	22.2%	41.2%	4.7%
Northwest Region	16.5%	24.4%	23.4%	31.8%	3.9%
Southwest Region	18.5%	19.0%	26.1%	33.2%	3.2%

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

Northeast

The Northeast region of the state consists of 26 counties, seven of which had a net inward commute of workers. The area includes Geary County which had the highest level of inward commuters at 27.8 percent of the labor force. Mitchell County had the third highest level of inward commuters at 15.9 percent of the labor force. Saline County and Marshall County also had relatively high levels of inward commuters at 9.2 percent and 6.8 percent of their labor forces, respectively.

Net Inward Bound Commuters as a
Percent of the Labor Force



Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

Northeast Job Creation

A high level of inward commuters, relative to the size of the labor force, in particular counties in the Northeast region, can be the result of changes in employment in those counties relative to employment changes in the region as a whole. Between 2007 and 2011 there was an increase in employment of 0.5 percent, or 1,242 jobs. However, this overall increase was a combination of significant increases in some industries and significant decreases in other industries.

Mining and military employment saw the largest level increases of 1,143 and 4,348 jobs, respectively. These increases offset significant losses in other industries in the region. Health care and social Assistance employment was down 2,251 jobs between 2007 and 2011. There were also large decreases in employment in retail trade, construction and manufacturing.

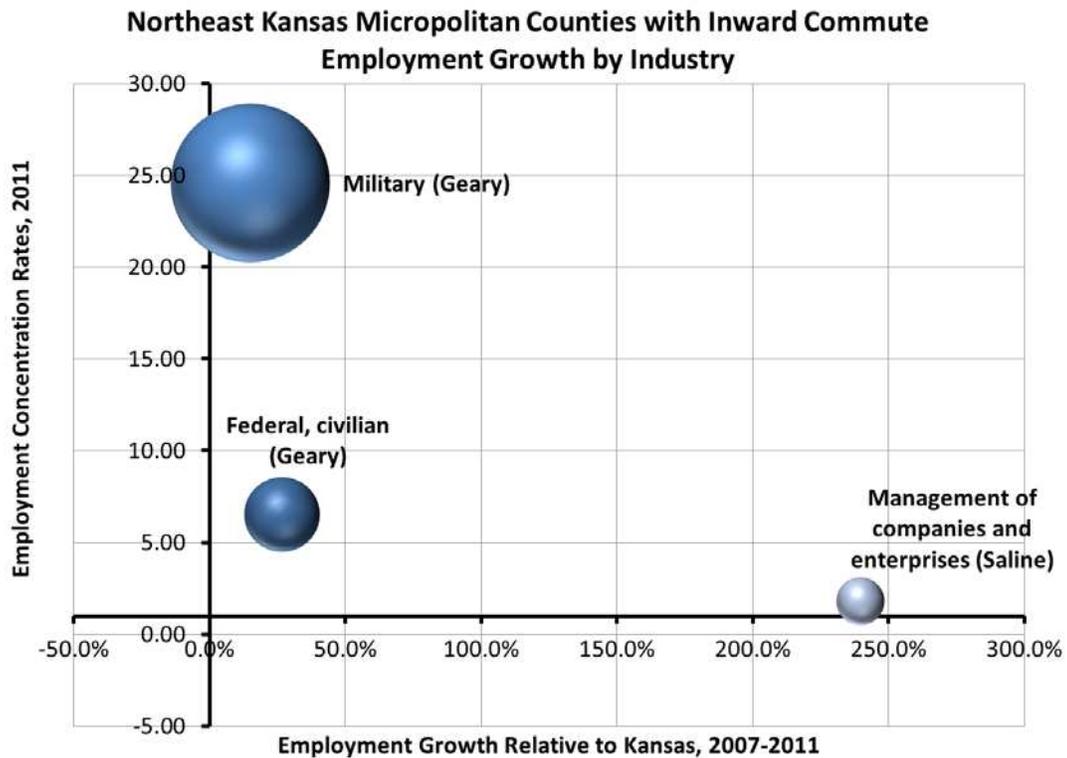
Northeast Job Growth	Employment		Change in Employment	
	2007	2011	#	%
Total employment	228,381	229,623	▲ 1,242	0.5%
Farm employment	18,085	18,212	▲ 127	0.7%
Forestry, fishing, and related activities	166	264	▲ 98	59.0%
Mining	911	2,054	▲ 1,143	125.5%
Utilities	59	69	▲ 10	16.9%
Construction	12,736	11,122	▼ -1,614	-12.7%
Manufacturing	23,926	22,797	▼ -1,129	-4.7%
Wholesale trade	4,120	4,376	▲ 256	6.2%
Retail trade	22,961	20,791	▼ -2,170	-9.5%
Transportation and warehousing	3,966	3,179	▼ -787	-19.8%
Information	2,356	2,040	▼ -316	-13.4%
Finance and insurance	6,772	7,379	▲ 607	9.0%
Real estate and rental and leasing	4,820	4,982	▲ 162	3.4%
Professional, scientific, and technical services	5,416	5,464	▲ 48	0.9%
Management of companies and enterprises	470	986	▲ 516	109.8%
Administrative and waste management services	5,917	6,595	▲ 678	11.5%
Educational services	1,574	1,670	▲ 96	6.1%
Health care and social assistance	13,458	11,207	▼ -2,251	-16.7%
Arts, entertainment, and recreation	1,904	2,110	▲ 206	10.8%
Accommodation and food services	8,957	8,261	▼ -696	-7.8%
Other services, except public administration	10,916	9,515	▼ -1,401	-12.8%
Federal, civilian	4,251	5,154	▲ 903	21.2%
Military	16,200	20,548	▲ 4,348	26.8%
State government	2,625	1,937	▼ -688	-26.2%
Local government	27,841	27,035	▼ -806	-2.9%
Wage and salary employment	168,314	166,992	▼ -1,322	-0.8%
Farm proprietors employment	16,023	15,913	▼ -110	-0.7%
Nonfarm proprietors employment	44,044	46,718	▲ 2,674	6.1%

Source: Bureau of Economic Analysis - Numbers may not sum to total due to data suppression and rounding. - Does not include Shawnee, Wyandotte, Johnson, Riley, Douglas and Leavenworth Counties

The micropolitan counties in the Northeast that had a high level of inward commuting relative to the size of the labor force also had large employment increases in specific industries.

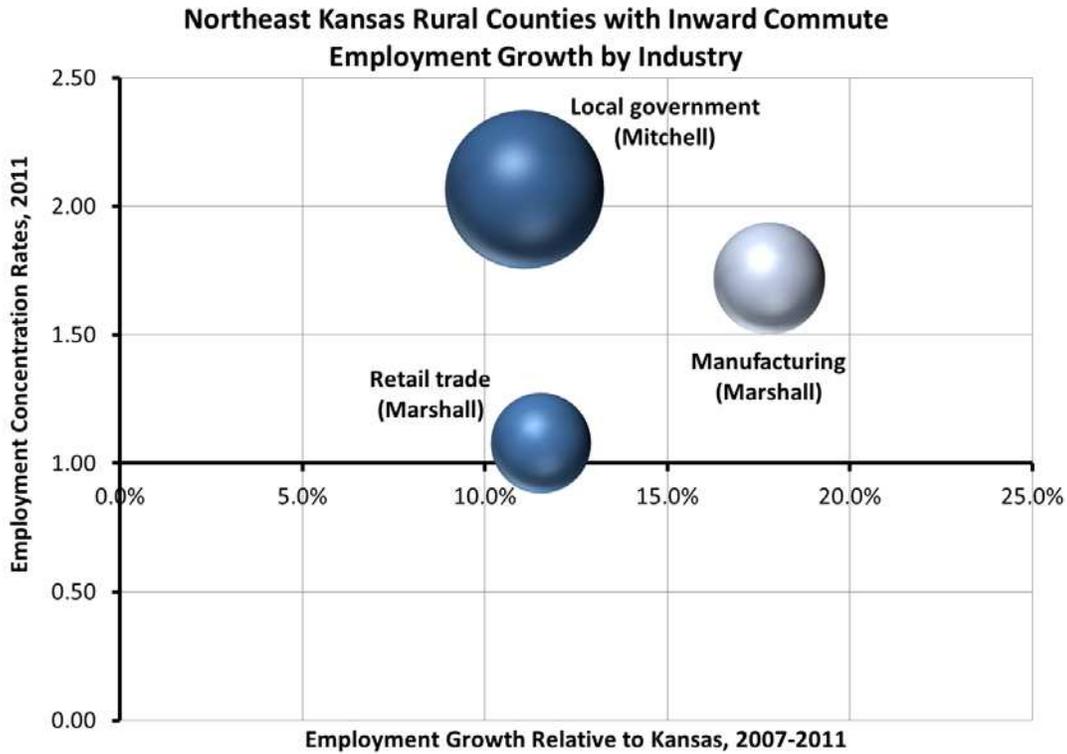
- Military and federal civilian employment at Fort Riley, in Geary County, accounted for all of the growth in those industries in the region. The majority of the growth in military employment in Geary County happened between 2008 and 2010, growing at an average annual rate of 8.3 percent between those years. The growth rate in military employment in Geary County dropped to 2.4 percent in 2011.

- The growth in the management of companies and enterprises industry in Saline County accounted for 78 percent of the growth in this industry in the region. The majority of the growth in this industry in Saline County happened between 2007 and 2008, growing by 149 percent. The growth rate slowed in 2009 to 40 percent and was below 3 percent in 2010 and 2011.



Although not on the scale of employment changes in the micropolitan areas, or the region as a whole, rural counties in the Northeast, with a high level of inward commuters relative to the size of the labor force, also experienced changes in specific industries.

- Local government employment in Mitchell County increased by 105 employees between 2007 and 2011, when local government employment decreased by 2.9 percent over the same time period in the region. Most of the growth in local government employment in Mitchell County happened between 2008 and 2009 when it grew by 7 percent.
- Employment growth in Marshall County can be attributed to growth in both manufacturing and retail trade, industries that were shrinking in the region in general. The majority of the growth in manufacturing employment happened between 2010 and 2011, growing at 20 percent. The majority of the growth in retail trade happened between 2009 and 2010, growing at 7 percent.



**Northeast High Growth Industries
in Counties with a High Level of Inward Commuters**

	Industry	Employment		Change in Employment	
		2007	2011	#	%
Micropolitan Counties					
Geary	Federal, civilian	2,681	3,664	983	36.7%
Geary	Military	14,743	19,173	4,430	30.0%
Saline	Management of companies and enterprises	159	563	404	254.1%
Rural Counties					
Mitchell	Local government	929	1,034	105	11.3%
Marshall	Manufacturing	1,174	1,226	52	4.4%
Marshall	Retail trade	783	825	42	5.4%

Source: Bureau of Economic Analysis - Numbers may not sum to total due to data suppression and rounding.

Northeast Housing Indicators

The job growth in Northeast counties with a high level of inward commuting relative to the size of the labor force provides insights into the potential increased demand for housing in these areas. Further insights into the housing market in these areas can be gained from looking at the household income and tenure of the inward commuters.

As was consistent throughout the state, the Census data indicated that in the Northeast region there was generally a higher level of inward commuting for workers with income from \$10,000 to \$34,000. Almost 30 percent of householders in the region commuted from renter-occupied housing units, the highest level of inward commuters among renters of the four regions. However, there were some significant variances between counties in the area, both in the level of commuting and in the income ranges of those workers traveling into the counties to work.

Worker Commute by Income

Geary County had the highest level of inward commuters relative to the labor force; this was true across all income categories. However, there were particularly high levels of inward commuters in the \$10,000 to \$34,999 income and \$50,000 to \$74,999 income ranges. Saline and McPherson Counties had the highest level of inward commuting of workers who had earnings from \$10,000 to \$34,999.

Rural areas in the Northeast had the highest level of inward commute from workers with incomes of \$10,000 to \$34,999, indicating housing for workers in this income category may be of the highest need in those areas. Additionally, Mitchell County had a high level of inward commute from workers with incomes less than \$10,000, indicating the potential need for housing for this level of income in that area.

Net Inward Commute as a Percentage of the Labor Force by Earnings

	Total	Less than \$10,000	\$10,000 to \$34,999	\$35,000 to \$49,999	\$50,000 to \$74,999	\$75,000 or more
Micropolitan Counties						
Geary	27.8%	2.3%	6.3%	5.9%	8.6%	4.8%
Saline	9.2%	0.6%	3.1%	2.5%	2.2%	0.8%
McPherson	3.6%	0.2%	1.6%	0.5%	1.0%	0.3%
Rural Counties						
Mitchell	15.9%	4.3%	7.3%	2.1%	2.0%	0.1%
Marshall	6.8%	0.1%	4.6%	0.6%	0.9%	0.8%
Brown	2.4%	-0.4%	1.8%	1.5%	-0.3%	-0.2%
Nemaha	1.8%	-0.4%	1.8%	-0.7%	1.7%	-0.5%

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates - Workers 16 and over with earnings.

All other counties in the Northeast region, which had a net outward commute of workers, did not have a significant inward commute of workers in any income category. The exception was Ellsworth County, which had an inward commute of workers with incomes less than \$10,000 of 1.1 percent of the labor force.

Householder Commute by Tenure

The majority of commuters into the micropolitan counties in the Northeast were householders from owner-occupied housing units. There were commuters from renter-occupied housing units; however, they accounted for less than 45 percent of the inward commuters in these areas. This was also true for the two rural counties with the highest level of commuters, Mitchell and Marshall. This indicates that although some rental housing may be needed in these areas, most of the need was for owner-occupied housing units.

Brown County had an outward commute of householders from renter-occupied housing units of 129 householders, indicating that any housing shortage in the area would be in owner-occupied housing and not rental housing. In Nemaha County the inward commute of householders was entirely from householders in renter-occupied housing units, indicating that any housing shortage in the area would be in rental housing and not owner-occupied.

Net Inward Commute from Householders

	Total Inward Commuters	Owner-occupied housing units	Renter-occupied housing units
Micropolitan Counties			
Geary	4,453	2,615	1,838
Saline	2,751	2,460	291
McPherson	594	387	207
Rural Counties			
Mitchell	460	354	106
Marshall	371	331	40
Brown	117	246	-129
Nemaha	88	-9	97

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

All other counties in the Northeast region had an outward commute of both owner-occupied and renter-occupied householders with the exception of Pottawatomie County. Pottawatomie County had a net outward commute of 1,657 householders; however there were 2,185 householders commuting from owner-occupied housing units that masked an inward commute from 528 householders from renter-occupied housing units. This indicates that there may be a shortage of rental units in Pottawatomie County.

Northeast Potential Housing Needs

The high level of inward commute by a specific class of worker in each county can be used to estimate the potential housing needs in that county, based on the value of home currently owned by people with a similar income level in the county.

Northeast Micropolitan

Both micropolitan counties in the Northeast, with a significant net inward commute of workers, had high housing values relative to household income. With the exception of Geary County, regardless of household income, the majority of homeowners live in homes with a value of \$100,000 to \$249,000. This may indicate that the inward commute may be partially attributed to housing prices in the area.

Geary County had a high level of commuters, from owner-occupied housing units, with incomes from \$10,000 to \$34,999 and from \$50,000 to \$74,999. Many of these workers were military and federal civilian employees at Fort Riley. In Geary County, 28.5 percent of homeowners with household incomes in the range of \$10,000 to \$34,999 live in housing units valued at less than \$40,000; 28.4 percent of homeowners with household incomes in that range live in housing units valued from \$100,000 to \$249,000. These high levels at both ends of the value spectrum may be an indication of a prolonged housing shortage in the area.

Saline County had a high level of commuters, from owner-occupied housing units, with income from \$10,000 to \$34,999. Many of these workers may be in the management of companies and enterprises industry and may have been commuting since around 2007 when the majority of job growth happened in the area. In Saline County 36.3 percent of homeowners with household incomes in the range of \$10,000 to \$34,999 live in housing units valued from \$100,000 to \$249,000.

Northeast Micropolitan
Value of Owner-occupied Housing Units by Household Income

	Less than \$40,000	\$40,000 to \$69,999	\$70,000 to \$99,999	\$100,000 to \$249,999	\$250,000 or more
Household Income \$10,000 to \$34,999					
Geary	28.5%	14.1%	20.9%	28.4%	8.2%
Saline	11.9%	22.6%	24.2%	36.3%	5.0%
NE Regional Average	27.9%	24.1%	18.9%	25.0%	4.1%
Household Income \$35,000 to \$49,999					
Geary	18.8%	15.3%	24.1%	39.2%	2.6%
Saline	12.2%	15.6%	29.2%	41.0%	2.0%
NE Regional Average	19.1%	21.1%	24.2%	32.7%	2.9%
Household Income \$50,000 to \$74,999					
Geary	7.4%	14.0%	18.5%	56.6%	3.5%
Saline	4.9%	9.7%	28.3%	50.9%	6.3%
NE Regional Average	10.6%	16.8%	22.5%	44.1%	6.0%

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

In addition to owner-occupied housing, Geary County and McPherson County had a high level of inward commuters from renter-occupied housing units, 41.3 percent and 34.8 percent of total inward commuters, respectively. This indicates the potential need for additional rental units in each of these areas.

Northeast Rural

In all the rural counties in the Northeast with a net inward commute of workers, the value of housing relative to household income was closer to what would be expected, generally increasing as household income increased. However, there was a significant percent of homeowners with household incomes from \$50,000 to \$74,999 living in homes valued from \$40,000 to \$69,999. This may indicate that there was potentially a lack of higher valued homes available. This could prevent higher income earners from moving to more expensive housing, thereby freeing up lower valued housing for lower income earners.

In rural counties in the Northeast, the highest level of need was potentially in Mitchell and Marshall Counties. Both of these counties had experienced job growth in industries that had contracted in other parts of the region. The majority of these commuters earn from \$10,000 to \$34,999. In both counties the majority of homeowners with household income in this range live in homes valued at less than \$69,999.

Northeast Rural
Value of Owner-occupied Housing Units by Household Income

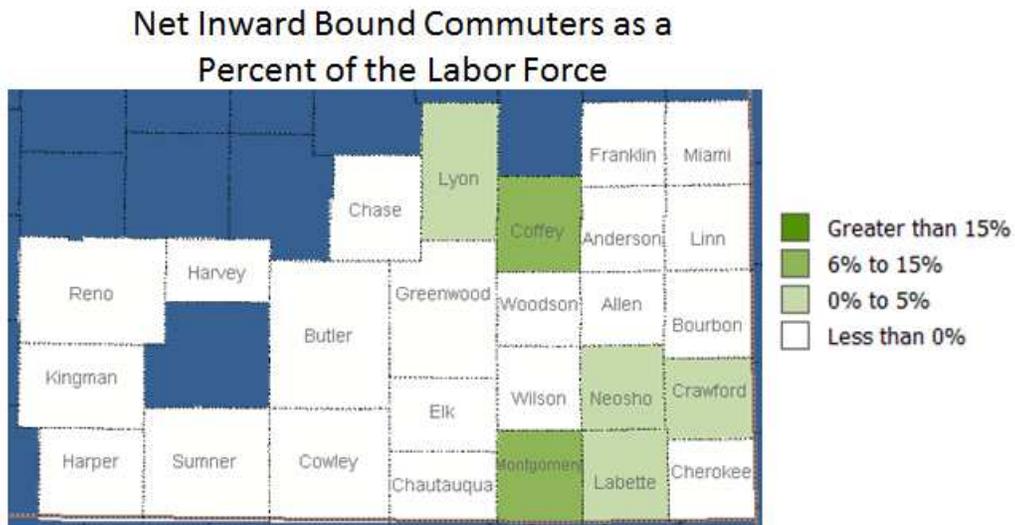
	Less than \$40,000	\$40,000 to \$69,999	\$70,000 to \$99,999	\$100,000 to \$249,999	\$250,000 or more
Household Income \$10,000 to \$34,999					
Mitchell	35.6%	34.2%	15.8%	13.6%	0.8%
Marshall	40.1%	24.3%	14.0%	16.8%	4.8%
NE Regional Average	27.9%	24.1%	18.9%	25.0%	4.1%
Household Income \$35,000 to \$49,999					
Mitchell	18.7%	18.7%	40.0%	21.6%	1.0%
Marshall	20.6%	29.8%	22.5%	23.9%	3.2%
NE Regional Average	19.1%	21.1%	24.2%	32.7%	2.9%
Household Income \$50,000 to \$74,999					
Mitchell	19.9%	35.5%	19.5%	23.6%	1.6%
Marshall	11.2%	26.4%	21.8%	34.1%	6.5%
NE Regional Average	10.6%	16.8%	22.5%	44.1%	6.0%

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

In addition to the potential housing needs indicated by the commuter patterns of workers in Mitchell and Marshall Counties, population loss in both counties indicates a potential decline in the quality of the housing stock. Between the 2000 census and the 2010 census Mitchell and Marshall Counties' population declined by 8.1 percent and 7.7 percent, respectively.

Southeast

The Southeast region of the state consists of 26 counties, six of which had a net inward commute of workers. However, only Montgomery and Coffey Counties had a high level of inward commuters relative to the size of their labor force, at 10.3 percent and 10.1 percent, respectively.



Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

Southeast Job Creation

Housing shortages in particular counties in the Southeast region can be the result of changes in employment in those counties relative to employment changes in the region as a whole. Between 2007 and 2011 there was a decrease in employment of 3.2 percent, or 9,918 jobs in the Southeast region. However, this overall decrease was a combination of significant increases in some industries and significant decreases in other industries.

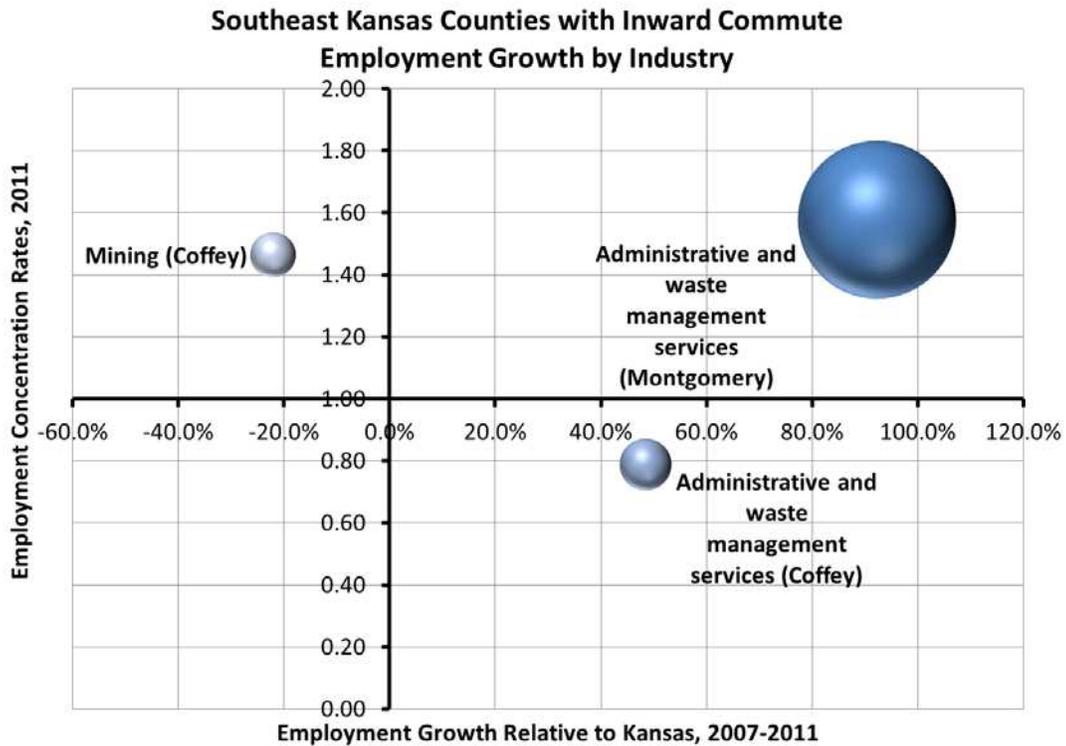
Mining and health care and social assistance employment saw the largest level increases of 3,909 and 4,395 jobs, respectively. These increases offset significant losses in other industries in the region. Manufacturing employment was down 8,083 jobs between 2007 and 2011. There were also large decreases in employment in construction and retail trade.

Southeast Job Growth	Employment		Change in Employment	
	2007	2011	#	%
Total employment	312,257	302,339	▼ -9,918	-3.2%
Farm employment	20,812	20,875	▲ 63	0.3%
Forestry, fishing, and related activities	421	541	▲ 120	28.5%
Mining	3,877	7,786	▲ 3,909	100.8%
Utilities	63	60	▼ -3	-4.8%
Construction	17,291	14,149	▼ -3,142	-18.2%
Manufacturing	40,889	32,806	▼ -8,083	-19.8%
Wholesale trade	6,327	6,496	▲ 169	2.7%
Retail trade	32,080	29,215	▼ -2,865	-8.9%
Transportation and warehousing	5,871	5,124	▼ -747	-12.7%
Information	3,092	2,724	▼ -368	-11.9%
Finance and insurance	9,949	10,869	▲ 920	9.2%
Real estate and rental and leasing	7,700	7,893	▲ 193	2.5%
Professional, scientific, and technical services	6,761	7,330	▲ 569	8.4%
Management of companies and enterprises	1,470	1,533	▲ 63	4.3%
Administrative and waste management services	9,801	10,642	▲ 841	8.6%
Educational services	903	1,043	▲ 140	15.5%
Health care and social assistance	14,640	19,035	▲ 4,395	30.0%
Arts, entertainment, and recreation	3,374	3,017	▼ -357	-10.6%
Accommodation and food services	16,156	15,124	▼ -1,032	-6.4%
Other services, except public administration	16,775	15,170	▼ -1,605	-9.6%
Federal, civilian	1,934	1,733	▼ -201	-10.4%
Military	2,516	2,362	▼ -154	-6.1%
State government	7,486	7,036	▼ -450	-6.0%
Local government	40,540	40,175	▼ -365	-0.9%
Wage and salary employment	228,863	215,742	▼ -13,121	-5.7%
Farm proprietors employment	18,832	18,683	▼ -149	-0.8%
Nonfarm proprietors employment	64,562	67,914	▲ 3,352	5.2%

Source: Bureau of Economic Analysis - Numbers may not sum to total due to data suppression and rounding. Does not include Sedgwick county.

There were two counties in the Southeast that had a high level of inward commuters and large employment increases in specific industries.

- Administrative and waste management services employment in Montgomery County grew at an average annual rate of 18.6 percent between 2007 and 2011, adding a total of 872 jobs. A significant portion of this growth happened between 2007 and 2008.
- Total employment in Coffey County was down 40 jobs between 2007 and 2011. However, there were 70 jobs created in mining and 92 jobs created in administrative and waste management services over the same time period.



**Southeast High Growth Industries
in Counties with a High Level of Inward Commuters**

County	Industry	Employment		Change in Employment	
		2007	2011	#	%
Micropolitan					
Montgomery	Administrative and waste mgt. services	940	1,812	872	92.8%
Rural					
Coffey	Mining	141	211	70	49.6%
Coffey	Administrative and waste mgt. services	188	280	92	48.9%

Source: Bureau of Economic Analysis - Numbers may not sum to total due to data suppression and rounding.

Southeast Housing Indicators

The job growth in Southeast counties with a high level of inward commuting relative to the size of the labor force provides insights into the potential increased demand for housing in these areas. Further insights into the housing market in these areas can be gained from looking at the household income and tenure of the inward commuters.

The Census data indicated that in the Southeast region of the state there was generally a higher level of inward commuting for workers with income from \$10,000 to \$34,999, and in those with incomes of \$75,000 or more. Almost 90 percent of householders in the region currently commute from owner-occupied housing units. However, there were some significant variances between counties in the area, both in the level of commuting and in the income ranges of those workers traveling into the counties to work.

Worker Commute by Income

Montgomery County had the highest level of inward commuting in the Southeast region. These commuters were from all income categories. However, they were most concentrated in workers with incomes from \$10,000 to \$34,999, indicating that in Montgomery County the highest housing need may be for workers with income in this range.

The other micropolitan counties in the area with a net inward commute of workers had a mixed inward and outward commute across income categories. Inward commuters in Crawford County generally had incomes from \$10,000 to \$49,999. Labette County had inward commuters concentrated in the income range from \$10,000 to \$34,999. Lyon County had a high number of commuters in the income range from \$35,000 to \$49,999. These income ranges may indicate the areas of highest housing need in these counties.

The high level of inward commuting in Coffey County was entirely accounted for by workers with incomes of \$75,000 or more. The majority of inward commuters in Neosho County were also of higher incomes, \$50,000 to \$74,999. This indicates that higher income housing may be needed in the rural counties in the Southeast.

Net Inward Commute as a Percentage of the Labor Force by Earnings

	Total	Less than \$10,000	\$10,000 to \$34,999	\$35,000 to \$49,999	\$50,000 to \$74,999	\$75,000 or more
Micropolitan Counties						
Montgomery	10.3%	1.7%	5.9%	1.3%	0.6%	0.8%
Crawford	3.1%	-0.1%	1.3%	1.2%	0.5%	0.2%
Labette	2.0%	-0.6%	2.1%	1.4%	-1.1%	0.3%
Lyon	0.1%	-0.1%	-0.8%	1.2%	0.1%	-0.4%
Rural Counties						
Coffey	10.1%	0.9%	-1.5%	-1.5%	1.3%	11.0%
Neosho	4.7%	0.4%	1.1%	0.6%	2.8%	-0.2%

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates - Workers 16 and over with earnings.

All other counties in the Southeast region, which had a net outward commute of workers, did not have a significant inward commute of workers in any income category, with the exception of Linn and Bourbon Counties. Linn County had a net inward commute of workers with incomes less than \$10,000 of 2.2 percent of the labor force. Bourbon County had a net inward commute of workers with incomes from \$10,000 to \$34,999 of 2.7 percent of the labor force.

Householder Commute by Tenure

Montgomery County had the highest level of net inward commute of householders in the Southeast region. The majority, 75 percent, of these commuters were from owner-occupied housing units, indicating that although there may be a need for both owner-occupied and renter-occupied housing the need may be greater for owner-occupied. The other micropolitan counties in the Southeast with a net inward commute of workers, Crawford, Labette, and Lyon, all had a small number of outward commuters from renter-occupied households. This indicates a possible surplus of rental housing and a shortage of owner-occupied housing in these counties.

In the rural Southeast counties, with a net inward commute of householders, commuters predominately come from owner-occupied housing units. In Coffey County owner-occupied householders account for 90 percent of inward commuters, and they account for 82 percent of commuters in Neosho County.

Net Inward Commute from Householders

	Total Inward Commuters	Owner-occupied housing units	Renter-occupied housing units
Micropolitan Counties			
Montgomery	1,827	1,371	456
Crawford	750	805	-55
Labette	221	226	-5
Lyon	59	189	-130
Rural Counties			
Coffey	443	401	42
Neosho	408	336	72

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

In the Southeast region, the counties with a net outward commute of workers had outward commutes by both owner-occupied and renter-occupied householders, with the exception of Wilson, Reno and Allen Counties. Reno and Wilson counties had an inward commute of renter-occupied householders of 32 and 161, respectively, indicating a potential shortage of rental housing. Allen County had an inward commute of 33 owner-occupied householders.

Southeast Potential Housing Needs

The high level of inward commute by a specific class of worker in each county can be used to estimate the potential housing needs in that county based on the value of homes currently owned by householders of a similar income level in the county.

Montgomery County had the highest level of inward commute from workers with income from \$10,000 to \$34,999. These workers typically live in housing valued at less than \$69,999. However, there were an unusually large number of higher income earners living in housing valued at that level. This may indicate a lack of higher valued homes. This could prevent higher income earners from moving and making lower valued housing available to lower income earners.

Coffey County had an unusually large number of households with income of \$35,000 to \$49,999 living in housing valued at \$100,000 to \$250,000. Coffey County also had a large number of inward commuters with high incomes, potentially from the mining or administrative and waste management services industries. This may indicate a possible shortage of housing valued at \$70,000 to \$249,999.

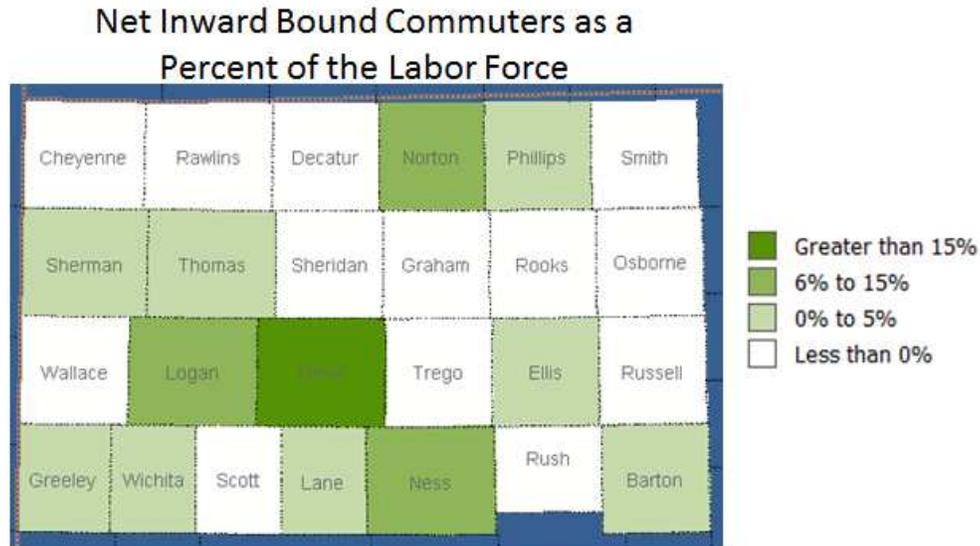
Southeast Value of Owner-occupied Housing Units by Household Income

	Less than \$40,000	\$40,000 to \$69,999	\$70,000 to \$99,999	\$100,000 to \$249,999	\$250,000 or more
Household Income \$10,000 to \$34,999					
Montgomery	43.7%	26.3%	12.1%	14.0%	3.9%
Coffey	36.1%	21.8%	16.3%	20.7%	5.1%
SE Regional Average	30.8%	26.3%	19.1%	20.9%	2.9%
Household Income \$35,000 to \$49,999					
Montgomery	27.0%	28.4%	26.7%	14.1%	3.8%
Coffey	15.1%	25.8%	19.8%	34.1%	5.1%
SE Regional Average	20.1%	25.2%	23.1%	27.7%	3.8%
Household Income \$50,000 to \$74,999					
Montgomery	17.4%	30.0%	23.4%	27.0%	2.3%
Coffey	7.8%	21.7%	25.2%	34.9%	10.5%
SE Regional Average	11.6%	20.3%	22.2%	41.2%	4.7%

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

Northwest

The Northwest region of the state consists of 25 counties, 12 of which had a net inward commute of workers. However, six of the counties had a net inward commute of 5 percent or less of the labor force. The area also includes Gove County, which had the second highest inward commute of workers relative to the labor force in the state, at 16.8 percent.



Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

Northwest Job Creation

Housing shortages in particular counties in the Northwest region can be the result of changes in employment in those counties relative to employment changes in the region as a whole. Between 2007 and 2011 there was an increase in employment of 6.8 percent, 6,958 jobs. However, this overall increase was a combination of significant increases in some industries and significant decreases in other industries.

Mining and health care and social assistance employment saw the largest level increases of 3,110 and 2,120 jobs, respectively. These increases offset significant losses in other industries in the region. Retail trade employment was down 826 jobs between 2007 and 2011. There were also large decreases in employment in other services, manufacturing, and transportation and warehousing.

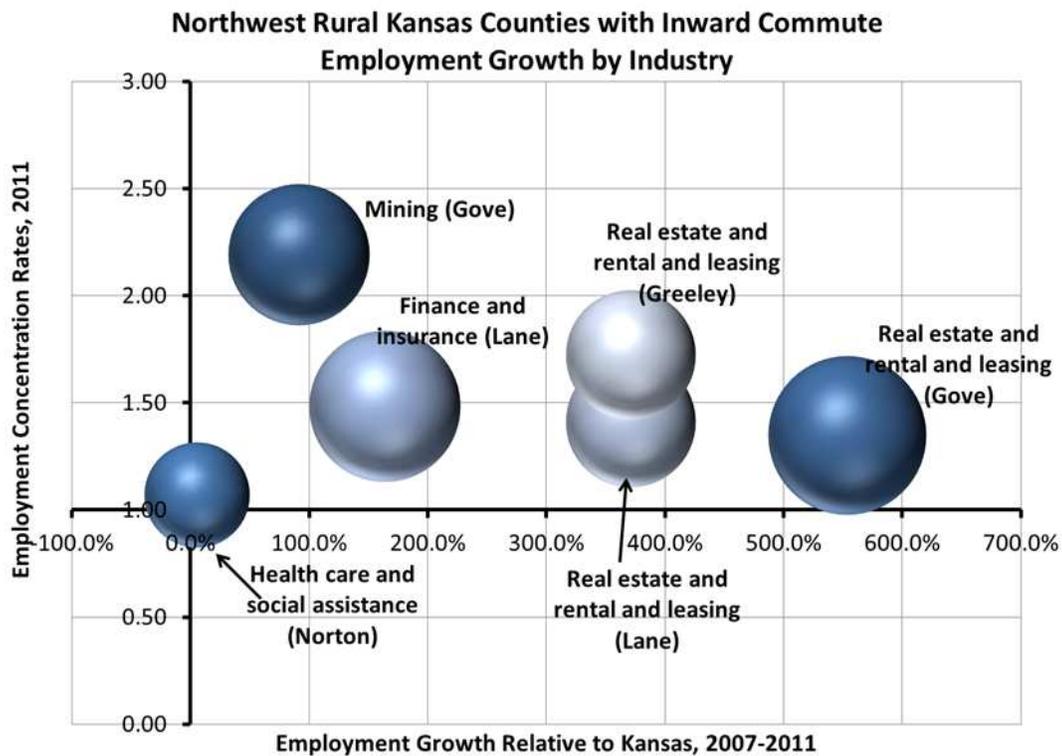
Northwest Job Growth	Employment		Change in Employment	
	2007	2011	#	%
Total employment	102,986	109,944	▲ 6,958	6.8%
Farm employment	10,856	11,082	▲ 226	2.1%
Forestry, fishing, and related activities	454	237	▼ -217	-47.8%
Mining	5,213	8,323	▲ 3,110	59.7%
Utilities	222	227	▲ 5	2.3%
Construction	4,337	4,370	▲ 33	0.8%
Manufacturing	4,852	4,358	▼ -494	-10.2%
Wholesale trade	3,878	4,127	▲ 249	6.4%
Retail trade	11,627	10,801	▼ -826	-7.1%
Transportation and warehousing	2,052	1,569	▼ -483	-23.5%
Information	874	1,067	▲ 193	22.1%
Finance and insurance	3,714	4,443	▲ 729	19.6%
Real estate and rental and leasing	1,466	1,974	▲ 508	34.7%
Professional, scientific, and technical services	2,412	2,572	▲ 160	6.6%
Management of companies and enterprises	303	368	▲ 65	21.5%
Administrative and waste management services	1,622	1,162	▼ -460	-28.4%
Educational services	70	613	▲ 543	775.7%
Health care and social assistance	6,605	8,725	▲ 2,120	32.1%
Arts, entertainment, and recreation	640	798	▲ 158	24.7%
Accommodation and food services	4,343	4,449	▲ 106	2.4%
Other services, except public administration	5,686	5,055	▼ -631	-11.1%
Federal, civilian	895	811	▼ -84	-9.4%
Military	618	591	▼ -27	-4.4%
State government	2,823	2,697	▼ -126	-4.5%
Local government	13,234	13,097	▼ -137	-1.0%
Wage and salary employment	69,256	69,255	▼ -1	0.0%
Farm proprietors employment	8,486	8,457	▼ -29	-0.3%
Nonfarm proprietors employment	25,244	32,232	▲ 6,988	27.7%

Source: Bureau of Economic Analysis - Numbers may not sum to total due to data suppression and rounding.

Although not on the scale of employment changes in the micropolitan areas or the region as a whole, rural counties in the Northwest, with a high level of inward commuters relative to the size of the labor force, had also experienced changes in specific industries.

- In Norton County health care and social assistance employment increased by 42 jobs between 2007 and 2011. The majority of this increase happened between 2010 and 2011.

- Mining employment in Gove County increased by 75 jobs between 2007 and 2011, growing at an average annual rate of 32.6 percent. Real estate rental and leasing employment in Gove County increased by 95 jobs between 2010 and 2011, with the majority of the growth in 2008 and 2010.
- In Lane County between 2007 and 2011, the majority of jobs were created in finance and insurance (86 jobs) and real estate and rental and leasing (64 jobs). Finance and insurance experienced the highest level of growth in 2008. Real estate and rental and leasing had strong growth in both 2008 and 2010.
- Real estate and rental and leasing also had considerable growth in Greeley County of 64 jobs, with the majority of growth happening in 2008.



Northwest High Growth Industries in Counties with a High Level of Inward Commuters

County	Industry	Employment		Change in Employment	
		2007	2011	#	%
Gove	Mining	46	121	75	163.0%
Gove	Real estate and rental and leasing	17	112	95	558.8%
Norton	Health care and social assistance	399	441	42	10.5%
Lane	Finance and insurance	49	135	86	175.5%
Lane	Real estate and rental and leasing	17	81	64	376.5%
Greeley	Real estate and rental and leasing	17	81	64	376.5%

Source: Bureau of Economic Analysis - Numbers may not sum to total due to data suppression and rounding.

In addition, Logan County and Ness County each experienced significant increases in employment. However, the detailed employment data by industry in these counties was not available. Total employment in Logan County increased by 127 jobs, 5.8 percent, between 2007 and 2011. Total employment in Ness County increased by 301 jobs, 11.4 percent over the same time period.

Northwest Housing Indicators

The job growth in Northwest counties with a high level of inward commuting relative to the size of the labor force provides insights into the potential increased demand for housing in these areas. Further insights into the housing market in these areas can be gained from looking at the household income and tenure of the inward commuters.

The Census data indicates that in the Northwest region of the state there was generally a higher level of inward commuting for workers with income of \$10,000 to \$34,999. However, there was also a high level of inward commuting for workers with household incomes from \$35,000 to \$49,999. Almost 90 percent of householders in the region commute from owner-occupied housing units. However, there were some significant variances between counties in the area, both in the level of commuting and in the income ranges of those workers traveling into the counties to work.

Worker Commute by Income

Relative to the size of the labor force the micropolitan counties in the Northwest region of the state had a low level of inward commuters. However, there was a high level of inward commuters in many of the rural counties in the region.

At 16.8 percent Gove County had the second highest level of inward commuters relative to the labor force, in the state. The majority of these inward commuters were workers with earnings from \$10,000 to \$34,999. However, there was also a significant inward commute from workers with incomes from \$50,000 to \$74,999.

Across the remaining counties in the region with a net inward commute of workers, the majority of the workers commuting in had income between \$10,000 and \$34,999. Lane County also had a large number of commuters with income from \$50,000 to \$74,999.

Net Inward Commute as a Percentage of the Labor Force by Earnings

	Total	Less than \$10,000	\$10,000 to \$34,999	\$35,000 to \$49,999	\$50,000 to \$74,999	\$75,000 or more
Micropolitan Counties						
Ellis	3.7%	0.1%	1.9%	0.9%	0.5%	0.4%
Barton	0.7%	-0.5%	1.0%	0.5%	-0.6%	0.2%
Rural Counties						
Gove	16.8%	-1.2%	11.9%	0.1%	6.0%	0.1%
Norton	10.1%	1.9%	1.9%	3.7%	0.7%	1.9%
Logan	8.4%	0.8%	5.3%	3.4%	-3.4%	2.3%
Ness	7.6%	1.7%	4.1%	1.3%	0.4%	0.1%
Lane	5.6%	-1.7%	-0.7%	0.7%	7.7%	-0.4%
Greeley	5.0%	1.3%	6.3%	-1.2%	-0.6%	-0.9%
Wichita	3.8%	1.4%	1.6%	2.3%	-2.1%	0.6%
Phillips	2.0%	-0.7%	1.1%	-0.5%	2.3%	-0.2%
Thomas	1.9%	1.3%	2.5%	-1.3%	-0.8%	0.2%
Sherman	0.5%	-1.6%	1.2%	0.3%	-0.1%	0.7%

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates - Workers 16 and over with earnings.

All other counties in the Northwest region, which had a net outward commute of workers, did not have a significant inward commute of workers in any income category, with the exception of Cheyenne, Rawlins and Rush. Cheyenne County had a net inward commute of workers with incomes less than \$10,000 of 3.8 percent of the labor force. Rawlins and Rush Counties had a net inward commute of workers with incomes of \$75,000 or more, 2.6 percent and 2.7 percent of the labor force, respectively.

Householder Commute by Tenure

Ellis County had the highest level of net inward commute of householders in the Northwest region; however, it was not a significant percentage of the labor force. The majority, 85 percent, of these commuters were from owner-occupied housing units, indicating that although there may be a need for both owner-occupied and renter-occupied housing, the need may be greater for owner-occupied. This was also true for the remainder of the counties in the Northwest with a net inward commute, except Barton and Thomas Counties.

Barton County and Thomas County had a net inward commute of workers, but a small outward commute from renter-occupied householders. This indicates a possible surplus of rental housing and a shortage of owner-occupied housing in these counties.

Net Inward Commute from Householders

	Total Inward Commuters	Owner-occupied housing units	Renter-occupied housing units
Micropolitan Counties			
Ellis	651	554	97
Barton	105	145	-40
Rural Counties			
Norton	274	254	20
Gove	230	175	55
Logan	132	90	42
Thomas	127	191	-64
Ness	120	108	12
Phillips	53	30	23
Lane	40	18	22
Greeley	34	10	24

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

There were three counties in the Northwest region of the state that had a small net outward commute of householders. Sherman, Trego and Scott counties had an outward commute of owner-occupied householders that was nearly matched by an inward commute of renter-occupied householders. This indicates there may be a shortage of rental housing in those counties. Additionally, Sherman and Wichita counties had a net inward commute of workers, but a small net outward commute of householders.

Northwest Potential Housing Needs

The high level of inward commuters by a specific class of worker in each county can be used to estimate the potential housing needs in that county based on the value of homes currently owned by householders of a similar income level in the county. In general, housing values in the Northwest rural areas of Kansas were lower than housing values in other parts of the state. More people in all income categories live in homes with a lower value than in other areas.

In Gove County the value of housing relative to income was typical at lower income levels. However, there were a higher percentage of homeowners with income from \$50,000 to \$74,999 living in housing valued at \$40,000 to \$69,999 than what would be expected. This may indicate a shortage of higher valued housing that would allow higher income earners to move up and make more moderate income housing available to lower income workers. Gove County had a very high inward commute from workers with incomes from \$10,000 to \$34,999 who would generally live in housing valued below \$69,999.

In addition to Gove County in the Northwest rural areas, Norton, Ness and Lane Counties had a large number of higher income earners living in lower valued housing. In Lane County there was also a significant inward commute of higher income workers. Norton and Ness Counties had a high inward commute of workers with incomes from \$10,000 to \$49,999. This indicates there may be a shortage of higher valued housing in these areas.

In Logan and Greeley Counties home values increased as income increased. There was a net inward commute of workers with income from \$10,000 to \$34,999, who would generally live in housing valued at less than \$70,000 in both of those counties.

Northwest Rural
Value of Owner-occupied Housing Units by Household Income

	Less than \$40,000	\$40,000 to \$69,999	\$70,000 to \$99,999	\$100,000 to \$249,999	\$250,000 or more
Household Income \$10,000 to \$34,999					
Gove	32.6%	35.8%	12.5%	18.4%	0.7%
Norton	65.3%	17.3%	9.3%	5.4%	2.7%
Logan	47.5%	30.3%	11.1%	9.2%	1.9%
Ness	48.7%	21.1%	19.5%	10.7%	0.0%
Lane	59.2%	20.0%	18.3%	2.5%	0.0%
Greeley	43.5%	29.3%	22.8%	4.3%	0.0%
NW Regional Average	39.5%	26.7%	16.0%	15.4%	2.4%
Household Income \$35,000 to \$49,999					
Gove	22.0%	20.4%	28.3%	28.3%	1.0%
Norton	34.6%	39.1%	9.5%	15.1%	1.7%
Logan	22.6%	31.0%	33.5%	12.9%	0.0%
Ness	51.1%	22.5%	17.6%	6.6%	2.2%
Lane	36.0%	19.1%	19.1%	16.9%	9.0%
Greeley	17.3%	26.7%	30.7%	25.3%	0.0%
NW Regional Average	24.3%	28.7%	23.4%	20.7%	2.8%
Household Income \$50,000 to \$74,999					
Gove	24.8%	34.8%	20.4%	20.0%	0.0%
Norton	25.8%	22.1%	27.9%	18.2%	6.0%
Logan	16.8%	26.5%	11.9%	40.7%	4.0%
Ness	47.7%	15.0%	20.7%	14.7%	1.9%
Lane	32.7%	33.6%	17.3%	16.4%	0.0%
Greeley	4.5%	38.8%	10.4%	46.3%	0.0%
NW Regional Average	16.5%	24.4%	23.4%	31.8%	3.9%

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

In addition to owner-occupied housing, Lane and Greeley Counties had a high level of inward commute from renter-occupied housing units, 55.0 percent and 70.6 percent of total inward commuters, respectively. This indicates the potential need for additional rental units in each of these areas.

In addition to the potential housing needs indicated by the commuter patterns of workers, population loss in Gove, Ness and Logan Counties indicates a potential decline in the quality of the housing stock. Between the 2000 census and the 2010 census these counties all experienced significant population decline: Gove County, 12.2 percent; Ness County, 10.0 percent; and Logan County, 9.5 percent.

Southwest

The Southwest region of the state consists of 21 counties, nine of which had a net inward commute of workers. Pawnee County had the highest level of inward commuters relative to the labor force at 13.1 percent. The next three highest in the area were Grant County at 12.3 percent of the labor force, and Seward and Kiowa counties at 11.4 percent and 9.9 percent, respectively.



Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

Southwest Job Creation

Housing shortages in particular counties in the Southwest region can be the result of changes in employment in those counties relative to employment changes in the region as a whole. Between 2007 and 2011 there was an increase in employment of 4.7 percent, 5,175 jobs. However, this overall increase was a combination of significant increases in some industries and significant decreases in other industries.

Mining employment and wholesale trade employment saw the largest level increases of 630 and 615 jobs, respectively. These increases offset significant losses in other industries in the region. Retail trade employment was down 1,071 jobs between 2007 and 2011. There had also been large decreases in employment in other services and construction.

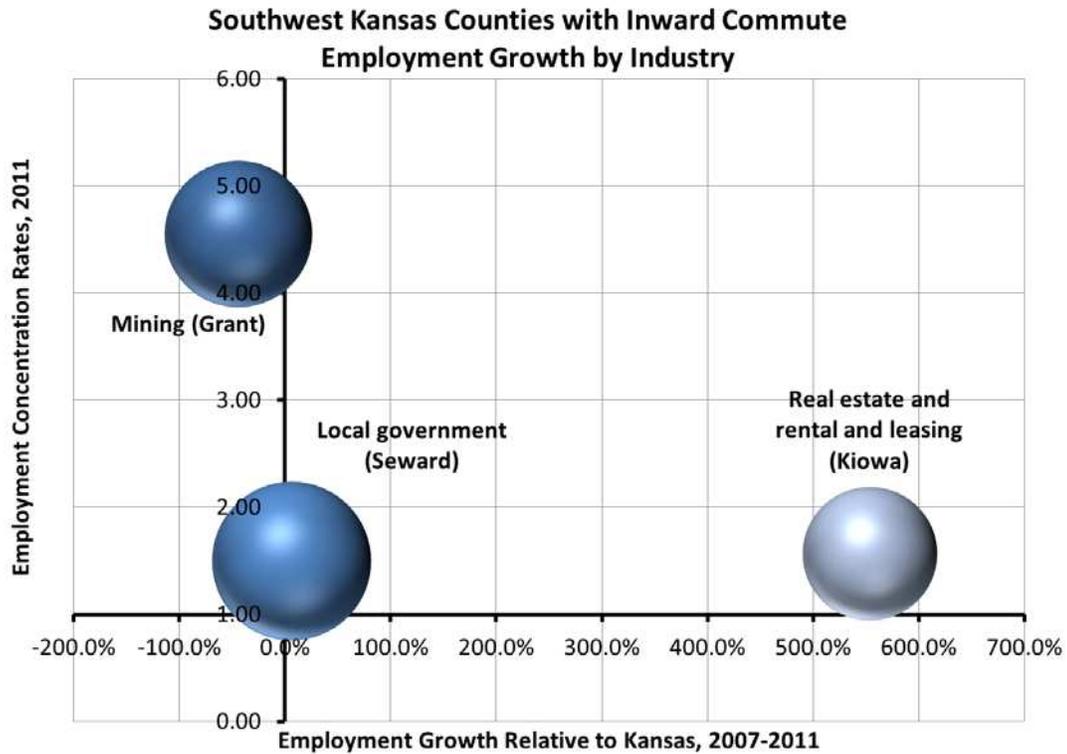
Southwest Job Growth	Employment		Change in Employment	
	2007	2011	#	%
Total employment	109,451	114,626	▲ 5,175	4.7%
Farm employment	10,318	10,674	▲ 356	3.5%
Forestry, fishing, and related activities	1,173	880	▼ -293	-25.0%
Mining	3,946	4,576	▲ 630	16.0%
Utilities	510	542	▲ 32	6.3%
Construction	3,847	3,364	▼ -483	-12.6%
Manufacturing	10,684	11,133	▲ 449	4.2%
Wholesale trade	3,462	4,077	▲ 615	17.8%
Retail trade	11,392	10,321	▼ -1,071	-9.4%
Transportation and warehousing	2,764	2,805	▲ 41	1.5%
Information	640	738	▲ 98	15.3%
Finance and insurance	2,651	2,763	▲ 112	4.2%
Real estate and rental and leasing	1,788	2,065	▲ 277	15.5%
Professional, scientific, and technical services	2,237	2,457	▲ 220	9.8%
Management of companies and enterprises	101	156	▲ 55	54.5%
Administrative and waste management services	2,259	2,757	▲ 498	22.0%
Educational services	85	248	▲ 163	191.8%
Health care and social assistance	1,346	1,932	▲ 586	43.5%
Arts, entertainment, and recreation	703	1,089	▲ 386	54.9%
Accommodation and food services	4,360	4,815	▲ 455	10.4%
Other services, except public administration	4,995	4,636	▼ -359	-7.2%
Federal, civilian	903	835	▼ -68	-7.5%
Military	780	718	▼ -62	-7.9%
State government	2,895	2,641	▼ -254	-8.8%
Local government	16,956	16,997	▲ 41	0.2%
Wage and salary employment	82,641	84,444	▲ 1,803	2.2%
Farm proprietors employment	6,728	6,712	▼ -16	-0.2%
Nonfarm proprietors employment	20,082	23,470	▲ 3,388	16.9%

Source: Bureau of Economic Analysis - Numbers may not sum to total due to data suppression and rounding.

Although not on the scale of employment changes in the micropolitan areas or the region as a whole, rural counties in the Southwest, with a high level of inward commuters relative to the size of the labor force, have experienced changes in specific industries.

- Seward County had an increase of 133 jobs in local government employment from 2007 to 2011. The majority of the increase happened in 2009.
- Grant County had an increase of 114 mining jobs between 2007 and 2011, growing at an average annual rate of 5.5 percent.

- Kiowa County had an increase of 95 jobs in real estate and rental and leasing, with the majority of the growth happening in 2008 and 2010.



Southwest High Growth Industries in Counties with a High Level of Inward Commuters

	Industry	Employment		Change in Employment	
		2007	2011	#	%
Micropolitan County					
Seward	Local Government	2,112	2,245	133	6.3%
Rural Counties					
Grant	Mining	415	529	114	27.5%
Kiowa	Real estate and rental and leasing	17	112	95	558.8%

Source: Bureau of Economic Analysis - Numbers may not sum to total due to data suppression and rounding.

Southwest Housing Indicators

The job growth in Southwest counties, with a high level of inward commuting relative to the size of the labor force, provides insights into the potential increased demand for housing in these areas. Further

insights into the housing market in these areas can be gained from looking at the household income and tenure of the inward commuters.

As was consistent throughout the state, the Census data indicates that in the Southwest region of the state there was generally a higher level of inward commuting for workers with income from \$10,000 to \$34,999. However, there was also a large number of inward commuting for workers with household incomes from \$35,000 to \$49,999. Almost 80 percent of householders in the region currently commute from owner-occupied housing units. However, there were some significant variances between counties in the area, both in the level of commuting and in the income ranges of those workers traveling into the counties to work.

Worker Commute by Income

Three micropolitan counties in the Southwest region had a net inward commute. Seward County had the highest level relative to the labor force at 11.4 percent, followed by Ford at 4.9 percent and Finney at 2.8 percent. Seward County had the largest inward commute of workers with incomes from \$50,000 to \$74,999; however, in Seward County there was significant inward commute in all income categories.

The rural counties in the Southwest region, with a net inward commute of workers, generally experienced the most inward commute from workers with income of \$10,000 to \$34,999. However, Pawnee County also had a large number of commuters with income from \$35,000 to \$49,999. Grant County also had a high level of commuters with income from \$50,000 to \$74,999.

Net Inward Commute as a Percentage of the Labor Force by Earnings

	Total	Less than \$10,000	\$10,000 to \$34,999	\$35,000 to \$49,999	\$50,000 to \$74,999	\$75,000 or more
Micropolitan Counties						
Seward	11.4%	0.4%	2.2%	2.3%	4.6%	1.8%
Ford	4.9%	1.0%	1.2%	0.9%	1.3%	0.5%
Finney	2.8%	0.1%	1.9%	0.6%	0.1%	0.1%
Rural Counties						
Pawnee	13.1%	1.7%	8.8%	4.2%	0.6%	-2.2%
Grant	12.3%	0.7%	3.2%	3.2%	4.5%	0.7%
Kiowa	9.9%	-0.1%	5.8%	2.8%	0.0%	1.4%
Morton	5.3%	0.3%	3.0%	1.0%	0.8%	0.2%
Pratt	4.5%	-0.2%	2.7%	1.0%	1.1%	-0.1%
Hamilton	2.3%	0.3%	4.0%	-0.5%	-0.2%	-1.3%

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates - Workers 16 and over with earnings.

All other counties in the Southwest region, which had a net outward commute of workers, did not have a significant inward commute of workers in any income category, with the exception of Comanche and Edwards Counties. Comanche County had a net inward commute of workers with incomes from \$10,000 to \$34,999 of 2.3 percent of the labor force. Edwards County had a net inward commute of workers with incomes of \$75,000 or more of 2.4 percent of the labor force.

Householder Commute by Tenure

Across the Southwest region the net inward commute of householders was coming from both owner-occupied and renter-occupied housing units, indicating the need for both types of housing in all of these counties. However, in Ford, Morton and Pawnee Counties the number of commuters from owner-occupied housing units was much higher, indicating a potentially higher need for owner-occupied housing in those areas. Hamilton County had a relatively low level of inward bound commuters, but the majority of them were from renter-occupied housing units.

Net Inward Commute from Householders

	Total Inward Commuters	Owner-occupied housing units	Renter-occupied housing units
Micropolitan Counties			
Seward	1,300	1,065	235
Ford	826	779	47
Finney	546	358	188
Rural Counties			
Grant	506	402	104
Pawnee	469	397	72
Pratt	227	158	69
Kiowa	125	63	62
Morton	89	84	5
Hamilton	31	3	28

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

In the Southwest region, the counties with a net outward commute of workers had outward commutes by both owner-occupied and renter-occupied householders, with the exception of Stanton, Comanche, Haskell and Gray Counties. Comanche, Haskell and Gray counties had an inward commute of renter-occupied householders of 6, 17, and 34 householders, respectively, indicating a potential shortage of rental housing. Stanton County had a small inward commute of owner-occupied householders.

Southwest Potential Housing Needs

The high level of inward commute by a specific class of worker in each county can be used to estimate the potential housing needs in that county based on the value of homes currently owned by householders of a similar income level in the county.

Seward County had a typical value of housing in relation to income, with value generally increasing as income increased. The highest level of inward commuters in Seward County had income from \$50,000 to \$74,999. This may indicate a shortage of housing valued from \$100,000 to \$249,999.

Pawnee County had a high level of inward commuters with income from \$10,000 to \$34,999. These workers would typically live in housing valued under \$70,000. However, in Pawnee County high income earners tend to live in lower valued housing.

Grant County had fewer people than expected living in higher valued housing and a high level of inward commuters with income from \$50,000 to \$74,999. This indicates the potential shortage of housing valued from \$100,000 to \$249,000.

Kiowa County had housing values that increased with income, as would generally be expected. There were a large number of inward commuters with income from \$10,000 to \$34,999, who typically live in housing valued at less than \$70,000.

Southwest Value of Owner-occupied Housing Units by Household Income

	Less than \$40,000	\$40,000 to \$69,999	\$70,000 to \$99,999	\$100,000 to \$249,999	\$250,000 or more
Household Income \$10,000 to \$34,999					
Seward	27.6%	23.2%	21.1%	26.6%	1.6%
Pawnee	44.4%	29.0%	10.5%	16.2%	0.0%
Grant	19.7%	30.5%	27.2%	22.6%	0.0%
Kiowa	19.3%	36.3%	15.6%	22.6%	6.1%
SW Regional Average	33.1%	25.5%	20.7%	18.7%	2.1%
Household Income \$35,000 to \$49,999					
Seward	21.1%	25.8%	36.2%	13.2%	3.7%
Pawnee	12.5%	44.5%	24.0%	19.0%	0.0%
Grant	38.1%	6.7%	37.1%	18.1%	0.0%
Kiowa	22.6%	33.5%	19.4%	24.5%	0.0%
SW Regional Average	21.7%	26.5%	24.8%	24.9%	2.1%
Household Income \$50,000 to \$74,999					
Seward	19.3%	19.2%	26.2%	34.3%	1.0%
Pawnee	35.9%	17.3%	18.8%	26.3%	1.7%
Grant	18.1%	13.7%	39.7%	22.1%	6.5%
Kiowa	14.1%	22.4%	27.6%	31.4%	4.5%
SW Regional Average	18.5%	19.0%	26.1%	33.2%	3.2%

Source: U.S. Census Bureau, 2011 American Community Survey 5-Year Estimates

In addition to owner-occupied housing, Kiowa County had a high level of inward commute from renter-occupied housing units, 49.6 percent of total inward commuters. This indicates the potential need for additional rental units in this area.

Furthermore, population loss in Kiowa County indicates a potential decline in the quality of the housing stock. Between the 2000 census and the 2010 census Kiowa County experienced a population decline of 22.1 percent, the highest in the state. Population decline has been found to have a negative impact on the quality of housing stock.

Conclusion

The available information on rural housing shows an important connection between adequate and available housing and the vitality of a community. Housing can be an important decision point for new residents, and to a certain extent, for businesses, also.

However, in many rural areas the quality and quantity of housing stock may have been negatively impacted by demographic and employment changes. To better understand how these trends in rural housing may be affecting rural areas in Kansas the commuter patterns of Kansas workers were analyzed. The net inward commute of workers into an area can be an indication of a shortage of housing in that area. It is only an indication, one factor out of many different variables that shape individual housing markets. However, it does provide a clue to potential housing needs in various counties in Kansas.

The dynamics of commuter patterns vary greatly across the state and within regions of the state. The relative expansions and contractions of industries within the state can shift the demand for housing as jobs move from one industry and location to another. These shifting workers were a combination of homeowners and renters across income ranges.

There were a number of counties in Kansas that had a high level of inward bound commuters relative to the size of its labor force. The commuting data shows the highest potential need for housing in these areas.

- **Northeast**

- Geary County had the highest level of inward commuting, relative to the size of the labor force, of the counties included in the study. There was an indication of a high level of needed owner-occupied and rental housing across all income categories. Home values were generally very high in relation to income.
- Mitchell County had the third highest level of inward commuting, relative to the size of the labor force, of the counties included in the study. There was an indication of a significant need for owner-occupied housing valued at less than \$70,000 to meet the needs of workers with earnings from \$10,000 to \$34,999. Home values were generally low in relation to income; higher end housing may also be needed. Population loss indicates the quality of the housing stock may have deteriorated.
- Saline County had a moderately high level of inward commuting. There was an indication of a need for owner-occupied housing to meet the needs of workers with earnings from \$10,000 to \$34,999. Home values were generally very high in relation to income.
- Marshall County had a moderately high level of inward commuting. There was an indication of a need for owner-occupied housing valued at less than \$70,000 to meet the needs of workers with earnings from \$10,000 to \$34,999. Home values were generally as expected in relation to income. Population loss indicates the quality of the housing stock may have deteriorated.

- **Southeast**

- Montgomery County had a moderately high level of inward commuting. There was an indication of a need for owner-occupied housing valued at less than \$70,000 to meet the needs of workers with earnings from \$10,000 to \$34,999. Home values were generally low in relation to income; higher end housing may also be needed. There was also an indication of a need for some additional renter-occupied housing.
- Coffey County had a moderately high level of inward commuting. There was an indication of a need for owner-occupied housing valued from \$100,000 to \$249,999 to meet the needs of workers with earnings over \$75,000. Home values were generally as expected in relation to income.

- **Northwest**

- Gove County had the second highest level of inward commuting, relative to the size of the labor force, of the counties included in the study. There was an indication of a significant need for owner-occupied housing valued less than \$70,000 and from \$100,000 to \$249,999, to meet the needs of workers with earnings from \$10,000 to \$34,999 and workers with earnings from \$50,000 to \$74,999. Home values were generally low in relation to income; higher end housing may also be needed. There was also an indication of a need for some additional renter-occupied housing. Population loss indicates the quality of the housing stock may have deteriorated.
- Norton County had a moderately high level of inward commuting. There was an indication of a need for owner-occupied housing valued from \$70,000 to \$99,999 to meet the needs of workers with earnings from \$35,000 to \$49,999. Home values were generally low in relation to income; higher end housing may also be needed.
- Logan County had a moderately high level of inward commuting. There was an indication of a need for owner-occupied housing valued at less than \$100,000 to meet the needs of workers with earnings from \$10,000 to \$49,999. Home values were generally as expected in relation to income. There was also an indication of a need for renter-occupied housing. Population loss indicates the quality of the housing stock may have deteriorated.
- Ness County had a moderately high level of inward commuting. There was an indication of a need for owner-occupied housing valued at less than \$70,000 to meet the needs of workers with earnings from \$10,000 to \$34,999. Home values were generally low in relation to income; higher end housing may also be needed. Population loss indicates the quality of the housing stock may have deteriorated.

- **Southwest**

- Pawnee County had a high level of inward commuting. There was an indication of a need for owner-occupied housing valued at less than \$70,000 to meet the needs of workers with earnings from \$10,000 to \$34,999. Home values were generally low in relation to income; higher end housing may also be needed.
- Grant County had a high level of inward commuting. There was an indication of a need for owner-occupied housing valued at more than \$100,000 to meet the needs of

workers with earnings from \$50,000 to \$74,999. Home values were generally low in relation to income.

- Seward County had a high level of inward commuting. There was an indication of a need for owner-occupied housing valued at more than \$100,000 to meet the needs of workers with earnings from \$50,000 to \$74,999. Home values were generally high in relation to income.
- Kiowa County had a moderately high level of inward commuting. There was an indication of a need for owner-occupied housing valued at less than \$70,000 to meet the needs of workers with earnings from \$10,000 to \$34,999. Home values were generally low in relation to income; higher end housing may also be needed. Home values were generally as expected in relation to income. There was also an indication of a need for renter-occupied housing. Population loss indicates the quality of the housing stock may have deteriorated.