

Hays Housing Needs Study 2017

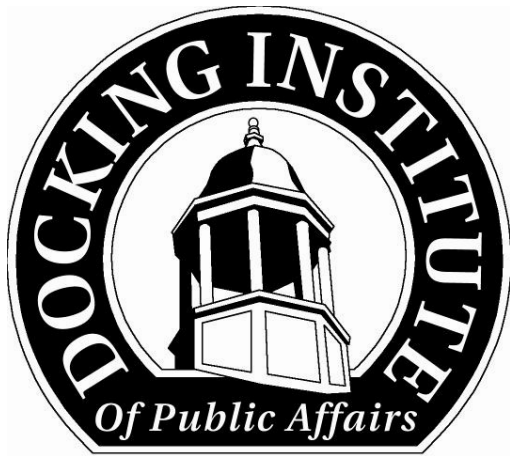
**Fort Hays State University
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Hays, Kansas**

June 2017

Prepared For
City of Hays, Kansas

By

**The Docking Institute of Public Affairs
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Mission:

To Facilitate Effective Public Policy Decision-Making.

The staff of the Docking Institute of Public Affairs and its University Center for Survey Research are dedicated to serving the people of Kansas and surrounding states.

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Executive Summary

The Docking Institute of Public Affairs was contracted by the City of Hays to conduct a housing needs analysis for the purpose of documenting the availability of affordable housing for its current and future work force, facilitating the broader goal of promoting economic development in the region. The analysis found the following:

- The Hays housing market is characterized by 1) a high proportion (43%) of older housing units built prior to 1970, suggesting a strong need for new housing units; 2) a low proportion (0.1%) of housing units one year old or less, suggesting that relatively few new housing units are being built, the threshold being at least 1.5%; and 3) high housing costs relative to the comparison communities in Western Kansas, especially for lower-income households.
- The U.S. Census estimates annual population increases in Hays from 2000 to 2015 to be between 0.25 and 0.5 percent. Although Hays has experienced a net gain in housing, that net gain, as well as planned construction for new housing, is currently declining at a time when regional population is increasing.
- U.S. Census population trends project continued population growth in Ellis County through 2060, while all 8 of its contiguous counties will experience declines in population, suggesting heavy migration into Hays and a high demand for additional housing.
- Assuming a 0.25% annual population growth rate, Hays would require 26 new owner-occupied units per year over the next 10 years (2018-2027,) 23 new renter-occupied units per year over the next 5 years (2018-2022), and 24 new renter-occupied units per year from 2023 to 2027.
- Assuming a 0.5% annual population growth rate, Hays would require 39 new owner-occupied units and 33 new renter-occupied units per year from 2018 to 2022, and 40 new owner-occupied units and 35 new renter-occupied units per year from 2023 to 2027.
- Assuming a 1.0% annual population growth rate, Hays would require 66 new owner-occupied units and 55 new renter-occupied units per year from 2018 to 2022, and 70 new owner-occupied units and 58 new renter-occupied units per year from 2023 to 2027.
- Approximately 35% of housing units in Hays (4,125 units) were constructed at least 50 years ago, making many highly likely to be suitable for rehabilitation. However, an average of only 48 permits per year for rehabilitation have been issued over the past 5 years, suggesting that additional incentives are required to maintain the quality of the older housing units in Hays.
- Comparative analysis showed housing costs in Hays and the percentage of their income Hays residents pay for housing to be among the highest in western Kansas, suggesting a high demand to supply ratio and a need to increase the supply of housing in order to bring housing costs back down and closer to that of comparison communities.

- In 2014, the Kansas Department of Labor estimated over 17,000 jobs in Ellis County, rivaling that of its sister counties with larger populations and indicating that Hays has one of the largest labor forces in Western Kansas.
- Hays offers a wide variety of educational, recreational, and cultural amenities conducive to attracting new employers and high-quality labor. It also offers a wide range of business support services necessary. The availability of affordable, high-quality housing is one of the few obstacles to economic growth and development in Hays.

Research Objectives and Methods

The City of Hays contracted with the Docking Institute of Public Affairs (Docking Institute) at Fort Hays State University to conduct a housing needs study. Following the guidelines provided by the Kansas Rural Housing Incentive District Act (Act), the Docking Institute collected data from the U.S. Census Bureau, various other state and federal government sources and official records maintained by the City of Hays. These data were analyzed to assess the City's current and future supply of and demand for housing, any inadequacies in the supply of housing that may exist and the importance of quality housing for the economic growth of the City. To facilitate review, the format of the report mirrors that of the guidelines published by the Kansas Department of Commerce.

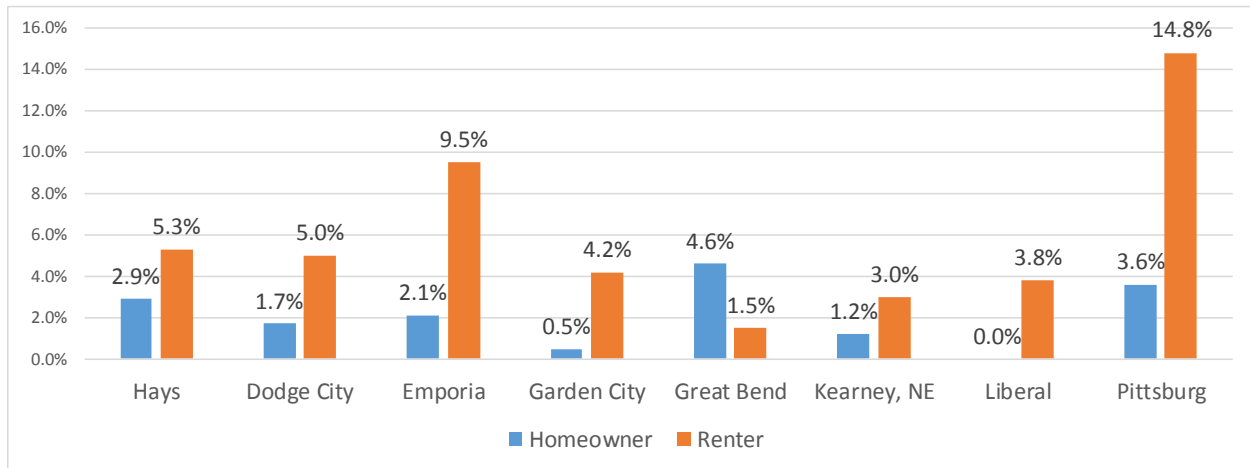
I. Quality of Housing: "There is a shortage of quality housing of various price ranges in the city or county despite the best efforts of public and private housing developers"

The first guideline provided by the Act asks if there is a shortage of quality housing of various price ranges. "Quality housing" is assessed through aggregated measures on a variety of factors, such as physical defects (for example lacking complete kitchen or plumbing), overcrowded units, excessive cost burden, and age of the houses. Table 1 shows the indicators and thresholds specified in the guidelines to define a shortage of quality housing. The following sub-sections examine the housing conditions in Hays in regards to those indicators in order to determine the degree to which a housing shortage exists. Also, in order to understand how the housing conditions in Hays fare relative to Western Kansas, four other demographically similar cities (Dodge City, Garden City, Great Bend, and Liberal) in the region are selected as comparison cities. For a few indicators that are related to rental units, three cities in the region with a major university are added for comparison, too: Emporia and Pittsburg in Kansas and Kearney in Nebraska.

Table 1: Housing Shortage Indicators/Criteria

Housing Supply/Demand Indicators	Housing Shortage Criteria
Vacancy Rate	Low (1% of stock or less for owner-occupied units; under 5% of stock for rental units)
Overcrowding	High (6% of stock or more for owner-occupied units)
Size Match	Count of large households (6 or more persons) exceeds count of large units (4 or more bedrooms)
Complete Plumbing	Low (96% of stock or less for owner-occupied units; 95% of stock or less for rental units)
New Units (1 year old or less)	Low (1.5% of stock or less for owner-occupied units; 1% of stock or less for rental units)
Old Units (50 years old or more)	High (40% of stock or more for owner-occupied units; 40% of stock or more for rental units)
Price: Income Match	Count of households in income category exceeds count of units in price/rent category (units not to exceed 30% of gross income)

Figure 1: Vacancy Rate: 2015



Source: U.S. Census, 2011-2015 American Community Survey

Vacancy Rate

The vacancy rates in Hays and the comparison communities are shown in Figure 1. In 2015, 2.9% of the owner-occupied housing units in Hays were vacant, and 5.3% of the rental units were vacant. These rates were both higher than the shortage thresholds set in the guidelines, 1% and 5%, respectively, but the proportion of rental units vacant is very near (within 0.3%) the threshold established in defining low vacancy rate for rental property. The vacancy rate for rental units in Hays were far below two of the university cities (Pittsburg and Emporia), suggesting that Pittsburg State and Emporia State University students have an ample supply of affordable rental property. With over 5,000 students residing in Hays to attend Fort Hays State University, the borderline measure for Hays rental vacancies is problematic in meeting local housing needs.

Overcrowding/Size Match

As Table 2 shows, 44.4% of the owner-occupied housing units in Hays had 4 or more bedrooms in 2015, and 22.3% of households that lived in the owner-occupied housing units had 4 persons or more in the household. The percentage of owner-occupied housing units with 2 or 3 bedrooms (54.5%) also exceeded that of the households with 2 or 3 persons (52.5%). As a result, in 99.1% of households that lived in the owner-occupied housing units, 1 or less person occupied one room, on average; less than 1% of households had more than one person occupying one room. The comparison cities all had higher percentages of households with more than 1 occupants per room. So Hays does not appear to have an overcrowding issue, and the sizes of housing units adequately house the distribution of household sizes for owner-occupied housing units.

A similar situation is observed in the renter-occupied housing units (Table 3). In 2015, 98.8% of the households who rented in Hays had 1 or less occupants per room. The percentages of rental properties with less than 1 occupant per room is lower in all of the comparison cities.

Table 2: Size Match, Owner-occupied: 2015

	Hays	Dodge City	Garden City	Great Bend	Liberal
Occupied housing units	4,894	5,043	5,584	3,777	4,398
HOUSEHOLD SIZE					
1-person household	25.20%	14.20%	19.80%	28.30%	19.90%
2-person household	39.90%	30.70%	27.60%	37.10%	30.50%
3-person household	12.60%	15.30%	13.90%	11.30%	10.00%
4-or-more-person household	22.30%	39.80%	38.60%	23.30%	39.60%
BEDROOMS					
No bedroom	0.00%	0.10%	0.00%	0.00%	0.50%
1 bedroom	1.10%	0.70%	2.30%	2.90%	0.60%
2 or 3 bedrooms	54.50%	63.10%	55.10%	69.10%	73.60%
4 or more bedrooms	44.40%	36.10%	42.60%	28.10%	25.40%
OCCUPANTS PER ROOM					
1.00 or less occupants per room	99.10%	93.20%	94.80%	98.30%	92.30%
1.01 to 1.50 occupants per room	0.90%	5.00%	5.10%	1.70%	5.80%
1.51 or more occupants per room	0.00%	1.80%	0.10%	0.00%	1.90%

Source: U.S. Census, 2011-2015 American Community Survey

Table 3: Size Match, Renter-occupied: 2015

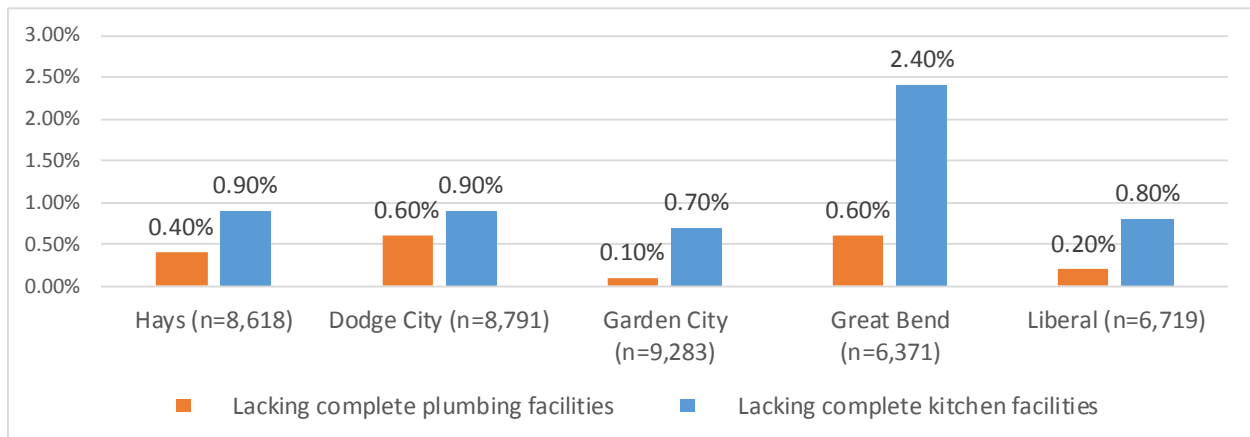
	Hays	Dodge City	Garden City	Great Bend	Liberal
Occupied housing units	3,724	3,748	3,699	2,594	2,321
HOUSEHOLD SIZE					
1-person household	48.40%	32.30%	32.00%	39.10%	28.30%
2-person household	30.70%	24.10%	25.70%	24.50%	22.10%
3-person household	10.20%	14.20%	12.90%	18.90%	21.00%
4-or-more-person household	10.70%	29.30%	29.40%	17.50%	28.70%
BEDROOMS					
No bedroom	2.60%	5.30%	2.80%	1.50%	3.10%
1 bedroom	26.80%	24.00%	18.80%	20.50%	17.50%
2 or 3 bedrooms	56.40%	66.30%	72.30%	75.30%	75.10%
4 or more bedrooms	14.30%	4.30%	6.10%	2.70%	4.20%
OCCUPANTS PER ROOM					
1.00 or less occupants per room	98.80%	92.70%	90.30%	96.30%	94.80%
1.01 to 1.50 occupants per room	0.20%	5.20%	6.60%	3.70%	4.00%
1.51 or more occupants per room	1.00%	2.10%	3.10%	0.00%	1.20%

Source: U.S. Census, 2011-2015 American Community Survey

Complete Plumbing

In Hays, 0.4% of housing units lacked completed plumbing facilities and 0.9% lacked complete kitchen facilities (Figure 2). However, none of the comparison communities met the 4% criterion for owner-occupied units or 3% criterion for rental units, suggesting that the more urbanized communities in Western Kansas tend to be more modernized and the housing more likely to have complete plumbing. Similarly, relatively few houses in Hays and the comparison communities lack kitchen facilities. The conditions of plumbing and kitchen facilities in Hays were better than those in Dodge City and Great Bend, but worse than those in Garden City and Liberal, suggesting that Hays is close to the average for houses with incomplete plumbing and kitchen facilities.

Figure 2: Deficiency of Plumbing and Kitchen Facilities: 2015



Source: U.S. Census, 2011-2015 American Community Survey

New Units (One year old or less)

Table 4 shows that only 0.1% of the housing units were built between 2014 to 2015, which was much lower than the threshold in the Act guideline of 1.5% of stock or less being 1 year old or less. The results suggest a particularly strong need for new housing units to meet Hays' and Ellis County's growing population.

Table 4: Age of Housing

	Hays	Dodge City	Garden City	Great Bend	Liberal
Total Housing Units	9,432	9,393	9,643	7,139	7,263
2014 to 2015	0.10%	0.00%	0.10%	0.00%	0.00%
2010 to 2013	0.70%	2.90%	0.20%	0.40%	0.30%
2000 to 2009	7.90%	3.80%	6.80%	2.60%	6.00%
1990 to 1999	9.50%	14.10%	10.80%	8.00%	7.40%
1980 to 1989	14.90%	11.00%	19.90%	9.90%	15.50%
1970 to 1979	23.90%	22.50%	20.10%	13.70%	18.60%
1960 to 1969	13.00%	10.30%	14.40%	15.30%	22.80%
1950 to 1959	12.50%	12.70%	7.20%	22.00%	15.60%
1940 to 1949	6.70%	4.20%	7.20%	9.20%	3.80%
1939 or earlier	10.80%	18.50%	13.40%	18.80%	9.90%

Source: U.S. Census, 2011-2015 American Community Survey

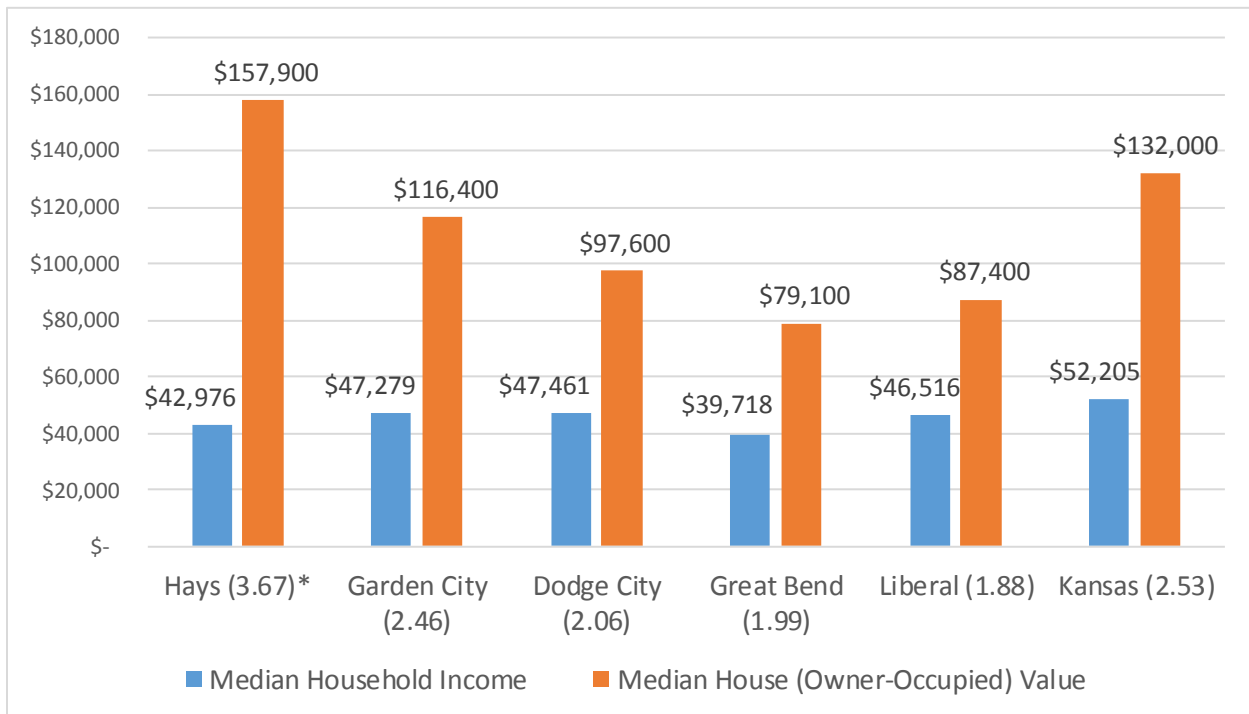
Old Units (50 years old or more)

In Hays, 43% of the housing units are 47 years old or more (built before 1970), as shown in Table 4. In the Act, it is considered high when 40% of the housing stock is 50 years old or more. Since the Census data were delineated by decades, the exact percentage for housing units 50 years or older is not known, but 43% should be an accurate approximation. So Hays does have an unusually high proportion of older housing units, suggesting a strong need for renovation and reconstruction.

Price: Income Match

Housing costs in Hays are much higher than the state average and in comparison cities. In 2015, the median household income in Hays was \$42,976, and the median value of owner-occupied housing units was \$157,900, yielding a value/income ratio of 3.67 (Figure 3). The second highest ratio was in Garden City, which was 2.46, only two-thirds of the ratio in Hays. These results suggest that residents of Hays, compared to their peer cities, are under considerable financial strain due to the relatively higher cost of their housing, providing one of the strongest arguments for supplemental funding. This suggests that incentives targeted at increasing the supply of housing in Hays would provide much-needed relief for low-income residents with less discretionary incomes.

Figure 3: House Value vs. Income, Owner-occupied: 2015



*The value in the parenthesis is the value/income ratio

Source: U.S. Census, 2011-2015 American Community Survey

Table 5 shows the monthly housing costs in 2015. The median monthly housing cost in Hays was \$752, which was a little lower than that in Garden City (\$761) but higher than those in other cities. The table also shows that 31.2% of households in Hays paid \$1,000 or more per month for housing, whereas households that paid \$1,000 or more monthly in other cities were all below 30% (29.3% in Garden City, 25.6% in Dodge City, 24.7% in Liberal, and 16.3% in Great Bend). These results suggest that Hays residents have the highest housing costs in Western Kansas. Increasing the supply of housing in Hays should cause demand, and thus housing costs, to go down.

Table 5: Monthly Housing Costs: 2015

	Hays	Dodge City	Garden City	Great Bend	Liberal	Kansas
Less than \$500	23.70%	24.80%	21.20%	37.30%	26.90%	21.50%
\$500 to \$999	42.80%	47.70%	48.00%	43.60%	47.50%	39.00%
\$1,000 to \$1,999	26.10%	24.30%	27.30%	15.10%	22.00%	30.30%
\$2,000 to \$2,999	4.10%	1.30%	1.70%	0.90%	2.10%	5.40%
\$3,000 or more	1.00%	0.00%	0.30%	0.30%	0.60%	1.70%
No cash rent	2.40%	2.00%	1.50%	2.70%	1.00%	2.10%
Median (dollars)	752	720	761	600	691	830

Source: U.S. Census, 2011-2015 American Community Survey

Table 6 shows the monthly housing costs by household income in 2015. Among those households with less than \$50,000 annual income, Hays had the highest percentages of households paying 30% or more of their household income toward housing. Among those households making less than \$20,000 a year, 81.04% paid 30% or more of their income toward housing; 51.41% of those households making \$20,000 to \$34,999 paid 30% or more; and 24.06% of those households making \$35,000 to \$49,999 paid 30% or more. Among those households making \$50,000 or more annually, the percentages of households paying 30% or more in Hays were second highest among comparison cities. Although housing costs command a large proportion of all of Hays' residents' family budgets, the percentages of low-income families paying high housing costs are particularly high, suggesting a strong need for government assistance in providing affordable housing for those with annual incomes of less than \$35,000.

Table 6: Monthly Housing Costs as a Percentage of Household Income in the Past 12 Months: 2015

	Hays	Dodge City	Garden City	Great Bend	Liberal	Kansas
Household income less than \$20,000						
Less than 20% of household income	5.21%	2.56%	6.03%	19.23%	3.95%	6.08%
20 to 29% of household income	13.74%	25.64%	13.79%	15.38%	16.45%	12.84%
30% or more of household income	81.04%	72.44%	80.17%	65.87%	78.95%	81.08%
Household income \$20,000 to \$34,999						
Less than 20% of household income	16.95%	26.40%	22.17%	29.31%	32.42%	23.90%
20 to 29% of household income	32.20%	42.64%	28.96%	35.63%	21.98%	28.30%
30% or more of household income	51.41%	30.96%	49.32%	34.48%	45.60%	47.80%
Household income \$35,000 to \$49,999						
Less than 20% of household income	37.59%	47.48%	45.45%	51.65%	43.09%	40.97%
20 to 29% of household income	39.10%	31.65%	30.48%	37.36%	42.54%	34.03%
30% or more of household income	24.06%	20.86%	24.06%	10.99%	14.36%	25.00%
Household income \$50,000 to \$74,999						
Less than 20% of household income	68.57%	68.06%	64.74%	84.57%	76.30%	58.95%
20 to 29% of household income	22.29%	28.70%	25.79%	15.43%	20.81%	28.95%
30% or more of household income	9.14%	3.24%	9.47%	0.00%	2.31%	11.58%
Household income \$75,000 or more						
Less than 20% of household income	81.44%	91.92%	89.10%	88.89%	85.52%	79.88%
20 to 29% of household income	17.42%	7.31%	10.15%	9.26%	13.47%	16.77%
30% or more of household income	1.14%	0.77%	0.75%	1.85%	1.01%	3.35%

Source: U.S. Census, 2011-2015 American Community Survey

Table 7 and Table 8 present the monthly costs for homeowners and renters, respectively. Among Hays homeowners who had a mortgage on their house, 22.9% spent 30% or more of their household income on housing, which was higher than Dodge City, where only 22.2% of homeowners without a mortgage spent 30% or more, but lower than in the other comparison communities. However, 12.6% of Hays homeowners without a mortgage spent 30% or more on housing, the highest among all the cities under examination (Table 7). This is congruent with previous results showing a high proportion of older housing units in Hays, which will tend to have higher maintenance costs.

Table 7: Monthly Owner Cost as a Percentage of Household Income: 2015

	Hays	Dodge City	Garden City	Great Bend	Liberal	Kansas
Housing units with a mortgage	2,919	2,840	3,210	1,852	2,460	453,675
Less than 20.0 percent	49.80%	47.40%	42.10%	53.20%	46.60%	48.20%
20.0 to 29.9 percent	27.40%	30.40%	26.20%	23.60%	27.80%	28.00%
30.0 percent or more	22.90%	22.20%	31.70%	23.20%	25.50%	23.70%
Housing unit without a mortgage	1,955	2,186	2,344	1,833	1,917	284,054
Less than 20.0 percent	73.80%	77.40%	76.60%	80.10%	80.60%	76.30%
20.0 to 29.9 percent	13.70%	16.20%	12.20%	11.00%	8.40%	11.80%
30.0 percent or more	12.60%	6.40%	11.40%	8.90%	10.90%	11.90%

Source: U.S. Census, 2011-2015 American Community Survey

Hays renters paid a much higher percentage of their income on housing than renters in all of comparison cities except for Pittsburg. In 2015, more than half (52.2%) of renters in Hays spent 30% or more of their household income on rent, whereas only about one-third of renters in those cities without a university spent 30% or more of their household income on rent (Table 8). Even among those cities with a university, Hays had a higher percentage of renters paying 30% or more of their household income for rent than Emporia and Kearney. These results strongly suggest that most of Hays residents are paying a higher proportion of their incomes on housing costs. Government-assisted housing would provide relief for families whose housing costs are straining their budgets and perhaps causing them to forego other necessities.

Table 8: Gross Rent as a Percentage of Household Income: 2015

	Hays	Dodge City	Emporia	Garden City	Great Bend	Kearney, NE	Liberal	Pittsburg
Occupied units paying rent	3,400	3,487	4,307	3,548	2404	5,083	2,237	3,805
Less than 20.0 percent	22.5%	40.7%	25.9%	42.4%	37.0%	26.8%	38.8%	15.2%
20.0 to 29.9 percent	25.2%	28.0%	28.2%	23.8%	29.1%	28.1%	27.7%	20.5%
30.0 percent or more	52.2%	31.3%	45.9%	33.9%	33.0%	45.0%	33.4%	64.3%

Source: U.S. Census, 2011-2015 American Community Survey

Assuming homebuyers would view a house with a value twice as high as their annual household income as affordable, and renters could afford to spend 24% of annual household income on rent, Table 9 matches households in different income categories with the affordable housing units in Hays. In 2015, 2,620 households in Hays earned less than \$25,000. A total of 1,471 housing units were affordable for these households, including 267 owner-occupied housing units (valued \$50,000 or less) and 1,204 rental units (rented for \$500 or less per month). The discrepancy means that 1,149 households had to buy a house with a value more than twice of their household income or pay a rent 25% or higher of their household income. Although there was a surplus of affordable units in the higher income categories, the large demand from the lowest income category would have forced a great number of households in higher income categories to spend beyond the affordability level. Data from the City of Hays Planning, Inspection, Enforcement Division show that only 63 “income based” or “qualified housing” units were built in Hays between 2000 and 2016, meeting only 5.5% of the estimated current need for households earning less than \$25,000.

Table 9: Income Distribution and Housing Affordability in Hays: 2015

Income Range	% of City Median Household Income	% of Households	Number of Households	Affordable Range for Owner Units	Number of Owner Units	Affordable Range of Renter Units	Number of Renter Units	Total Affordable Units	Balance
Less than \$25,000	less than 58%	30.40%	2,620	\$0-50,000	267	\$0-500	1204	1471	-1,149
\$25,000 - 49,999	58-116%	25%	2,155	\$50,000-99,999	643	\$500-999	1952	2595	441
\$50,000 - 74,999	116-175%	18.10%	1,560	\$100,000-149,999	1274	\$1,000-1,499	491	1765	205
\$75,000 - 99,999	175-233%	10.60%	914	\$150,000-199,999	1274	\$1,500-1,999	49	1323	409
\$100,000 - 149,999	233-349%	10%	862	\$200,000-299,999	955	\$2,000-\$3,000	15	970	108
\$150,000 or more	Over 349%	5.90%	508	\$300,000 or more	481	\$3,000 or more	13	494	-14

Source: U.S. Census, 2011-2015 American Community Survey

Housing Demand and Supply Forecast

Besides the current housing conditions, the guidelines in the Act suggest a housing needs study may conduct “beyond-the-present” analyses that make projections of population, as well as housing supply and demand changes. Since 1960, Hays experienced the fastest population growth in the 1960s (growing 2.57% annually) and the slowest growth in the 2000s (growing 0.25% annually). The annual growth rate increased to 0.56% between 2010 and 2015. The annual growth rate from 1960 to 2015 was 1.04% (Table 10). Based on the growth rates since 1960, Table 11 presents the population forecast under three scenarios. With an annual growth rate of 0.25%, Hays population would increase to 21,464 in 2022 and 21,734 in 2027. With an annual growth rate of 0.5%, Hays population would reach 21,841 in 2022; and the population would reach 22,613 in 2022 with the annual growth rate of 1%. These data suggest that Hays will have at least 642 additional residents needing housing within the next 5 years, and could have as many as 1,301 additional residents by 2022.

Table 10: Population Change in Hays: 1960-2015

	Population at Decade's/ Five-year End	Decennial/ Five-year Population Change	% Growth during Decade/Five Years	Annual Growth Rate
1960	11,947			
1960-1970	15,396	3,449	28.87%	2.57%
1970-1980	16,301	905	5.88%	0.57%
1980-1990	17,814	1,513	9.28%	0.89%
1990-2000	20,013	2,199	12.34%	1.17%
2000-2010	20,510	497	2.48%	0.25%
2010-2015	21,092	582	2.84%	0.56%
1960-2015		9,145	76.55%	1.04%

Source: U.S. Census, 2011-2015 American Community Survey

Table 11: Population Forecast: 2015-2027

	2015 Census Estimate, Baseline	2017	2022	2027
0.25% Annual Growth Rate	21,092	21,198	21,464	21,734
0.5% Annual Growth Rate	21,092	21,303	21,841	22,393
1.0% Annual Growth Rate	21,092	21,516	22,613	23,767

Using the 2015 Census estimates as the baseline, the housing demand forecast is done under 3 population increase scenarios. In 2015, Hays household population was 19,879, which was 94% of the total population. More than sixty percent (62.5%) of households lived in owner-occupied units and 37.5% lived in renter-occupied units. The vacancy rate for the owner-occupied units was 2.9% and the rate for the renter-occupied units was 5.3%. The average household size of owner-occupied units was 2.54 and the size of renter-occupied units was 2. According to the City of Hays, five houses were demolished on average each year from 2012 to 2016. The following assumptions are used for the forecast: 1) the percentage of household population in the total population, the percentages of owner-occupied and renter-occupied households, and the vacancy rates for owner-occupied units and renter-occupied units did not change from 2015 and would not change in the next 10 years; 2) the household sizes in both owner-occupied units and renter-occupied units would decline gradually; and 3) each year, 5 existing owner-occupied units and 5 renter-occupied units would be demolished.

With a 0.25% annual growth rate (Table 12), the Hays population would be 21,198 in 2017, and 19,978 would live in households. There would be 12,486 residents living in owner-occupied units, and with a size of 2.53 residents in each household, 4,935 units would be needed. A vacancy rate of 2.9% would increase the need to 5,083 units. In 2015, there were 5,040 owner-occupied units in Hays. By 2017, the population increase would require Hays to have 43 more units than 2015. Assuming 10 units were demolished in 2016 and 2017, a total of 53 new units would be needed in 2016 and 2017, averaging 26 units each year. Using the same method, it is estimated that, on average, 26 new owner-occupied units would be needed every year in the next 10 years (2018-2027). Similarly, 27 new renter-occupied units would be needed each year in 2016 and 2017, 23 new renter-occupied units would be needed each year in the next 5 years (2018-2022), and 24 would be needed each year from 2023 to 2027.

Table 12: Housing Demand Forecast in Hays: Assuming 0.25% Annual Population Increase

	2015 Baseline	2016-2017	2018-2022	2023-2027
Population	21,092	21,198	21,464	21,734
Household Population	19,879	19,978	20,229	20,483
Housing Demand				
<i>Owner Occupied</i>				
Household Population	12,431	12,486	12,643	12,802
Average Household Size	2.54	2.53	2.51	2.49
Housing Demand	4,894	4,935	5,037	5,141
Homeowner Vacancy Rate	2.9%	2.9%	2.9%	2.9%
Unit Needs at the End of Period	5,040	5,083	5,188	5,295
Replacement Need		10	25	25
Unit Needs during the Period		53	130	132
Average Annual Construction		26	26	26
<i>Renter Occupied</i>				
Household Population	7,448	7,492	7,586	7,681
Average Household Size	2	1.99	1.97	1.95
Housing Demand	3,724	3,765	3,851	3,939
Rental Vacancy Rate	5.3%	5.3%	5.3%	5.3%
Unit Needs at the End of Period	3,932	3,975	4,066	4,160
Replacement Need		10	25	25
Unit Needs during the Period		53	116	118
Average Annual Construction		27	23	24
Average Annual Construction: Owner-Occupied and Renter-Occupied		53	49	50

With a 0.5% annual population growth rate, Hays would need 39 new owner-occupied units and 33 new renter-occupied units each year from 2018 to 2022, and 40 new owner-occupied units and 35 new renter-occupied units each year from 2023 to 2027 (Table 13).

Table 13: Housing Demand Forecast in Hays: Assuming 0.5% Annual Population Increase

	2015 Baseline	2016-2017	2018-2022	2023-2027
Population	21,092	21,303	21,841	22,393
Household Population	19,879	20,078	20,585	21,105
Housing Demand				
<i>Owner Occupied</i>				
Household Population	12,431	12,549	12,866	13,191
Average Household Size	2.54	2.53	2.51	2.49
Housing Demand	4,894	4,960	5,126	5,297
Homeowner Vacancy Rate	2.9%	2.9%	2.9%	2.9%
Unit Needs at the End of Period	5,040	5,108	5,279	5,456
Replacement Need		10	25	25
Unit Needs during the Period		78	196	202
Average Annual Construction		39	39	40
<i>Renter Occupied</i>				
Household Population	7,448	7,529	7,719	7,914
Average Household Size	2	1.99	1.97	1.95
Housing Demand	3,724	3,784	3,918	4,059
Rental Vacancy Rate	5.3%	5.3%	5.3%	5.3%
Unit Needs at the End of Period	3,932	3,995	4,138	4,286
Replacement Need		10	25	25
Unit Needs during the Period		73	167	173
Average Annual Construction		36	33	35
Average Annual Construction: Owner-Occupied and Renter-Occupied		75	73	75

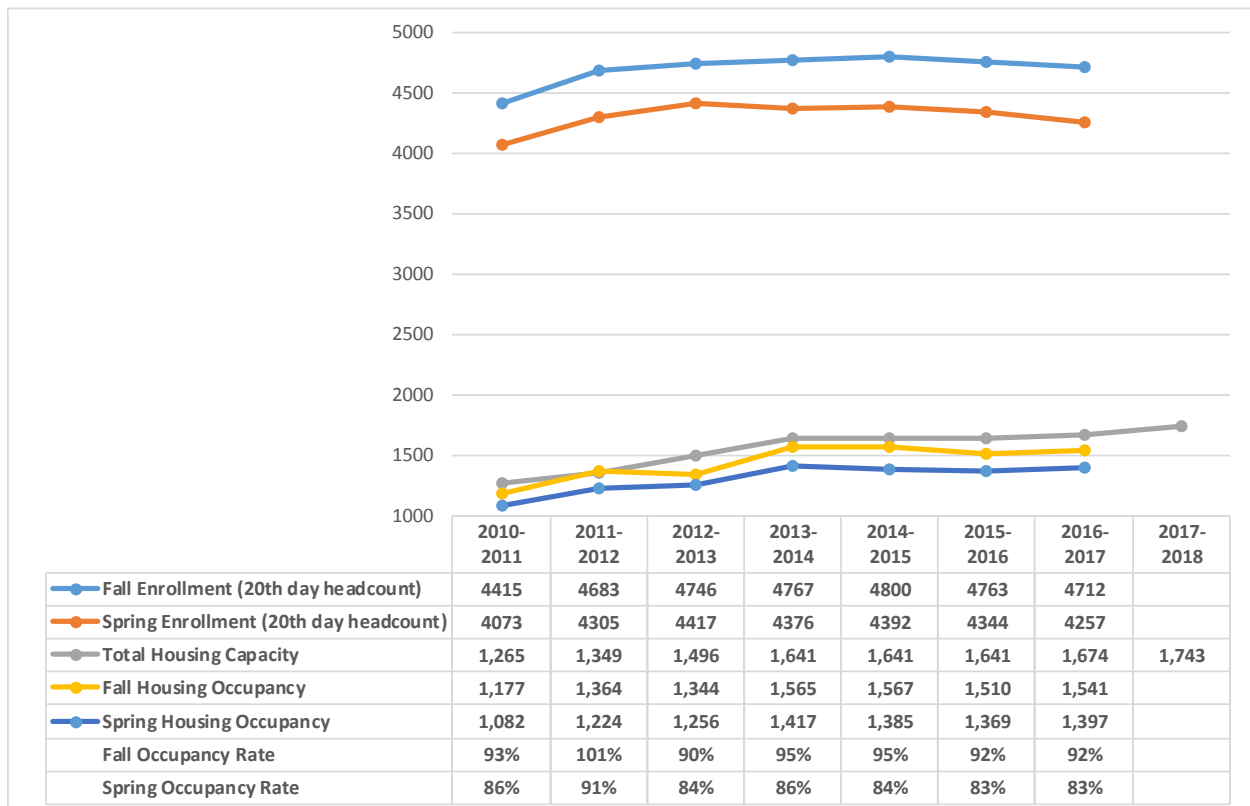
With a 1% annual population growth rate, the need would be 66 new owner-occupied units and 55 new renter-occupied units each year from 2018 to 2022, and 70 new owner-occupied units and 58 new renter-occupied units each year from 2023 to 2027 (Table 14).

Table 14: Housing Demand Forecast in Hays: Assuming 1% Annual Population Increase

	2015 Baseline	2016-2017	2018-2022	2023-2027
Population	21,092	21,516	22,613	23,767
Household Population	19,879	20,278	21,313	22,400
Housing Demand				
<i>Owner Occupied</i>				
Household Population	12,431	12,674	13,320	14,000
Average Household Size	2.54	2.53	2.51	2.49
Housing Demand	4,894	5,009	5,307	5,622
Homeowner Vacancy Rate	2.9%	2.9%	2.9%	2.9%
Unit Needs at the End of Period	5,040	5,159	5,465	5,790
Replacement Need		10	25	25
Unit Needs during the Period		129	331	350
Average Annual Construction		64	66	70
<i>Renter Occupied</i>				
Household Population	7,448	7,604	7,992	8,400
Average Household Size	2	1.99	1.97	1.95
Housing Demand	3,724	3,821	4,057	4,308
Rental Vacancy Rate	5.3%	5.3%	5.3%	5.3%
Unit Needs at the End of Period	3,932	4,035	4,284	4,549
Replacement Need		10	25	25
Unit Needs during the Period		113	274	290
Average Annual Construction		56	55	58
Average Annual Construction: Owner-Occupied and Renter-Occupied		121	121	128

In Census surveys, university students living away from their parental home while attending college in the U.S. are counted at the on-campus or off-campus residence where they live and sleep most of the time. Therefore, the forecasted housing demand based on the U.S. Census data (Tables 10-14) includes the housing demand from the students at Fort Hays State University (FHSU). In the spring of 2017, a total of 2,860 students lived off campus. Even though some of those students living off campus may stay with parents or commute from other communities, one can assume that more than 1,000 rental units in Hays would be occupied by FHSU students. FHSU has been providing more on-campus housing in recent years, and, in general, the number of FHSU students living on campus has been increasing (Figure 4). Since the on-campus FHSU enrollment has remained steady in recent years, additional on-campus housing has decreased demand for off-campus housing. However, FHSU does not expect to have more on-campus housing construction after the fall of 2017 in the near future, while recent strategic planning by FHSU administrators has called for increasing on-campus enrollment. Unless the on-campus enrollment at FHSU declines substantially, the FHSU students will sustain a high demand for the off-campus rental properties.

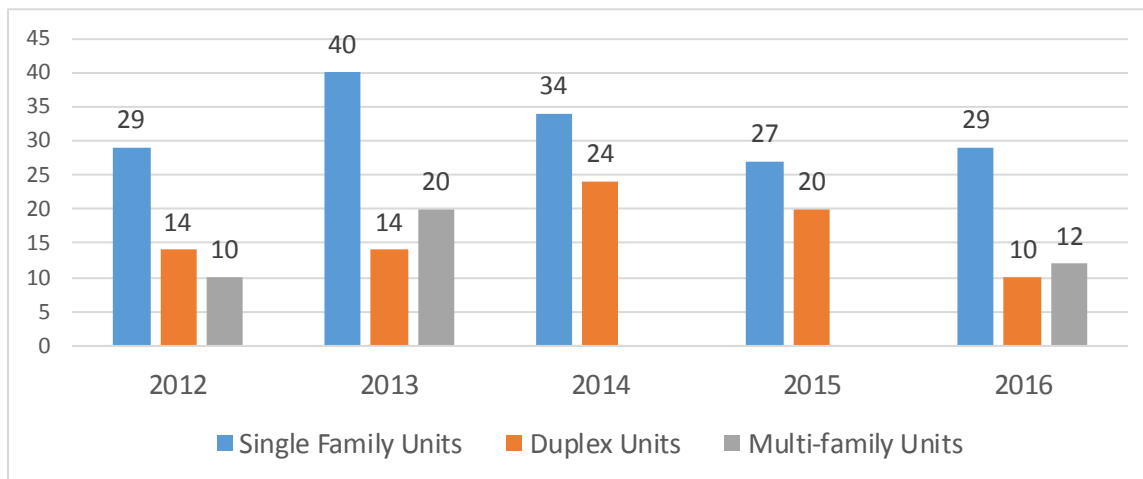
Figure 4: On-campus Enrollment and Housing Occupancy at Fort Hays State University



Source: Fort Hays State University

From 2012 to 2016, the City of Hays issued building permits for 159 single-family houses, 82 duplex units (41 duplexes), and 42 multi-family units (Figure 5). Assuming that all single-family houses became owner-occupied and all duplex and multi-family units became renter-occupied, on average, 32 owner-occupied units and 25 renter-occupied units were constructed each year from 2012 to 2016. If this housing supply trend continues and the population in Hays increases 0.25% annually, such supply would slightly exceed the demand for owner-occupied units, but would not meet the demand for renter-occupied units. If the population increases by more than 0.25%, neither the demand for owner-occupied units nor the demand for renter-occupied units would be met.

Figure 5: Building Permits Issued in Hays: 2012-2016



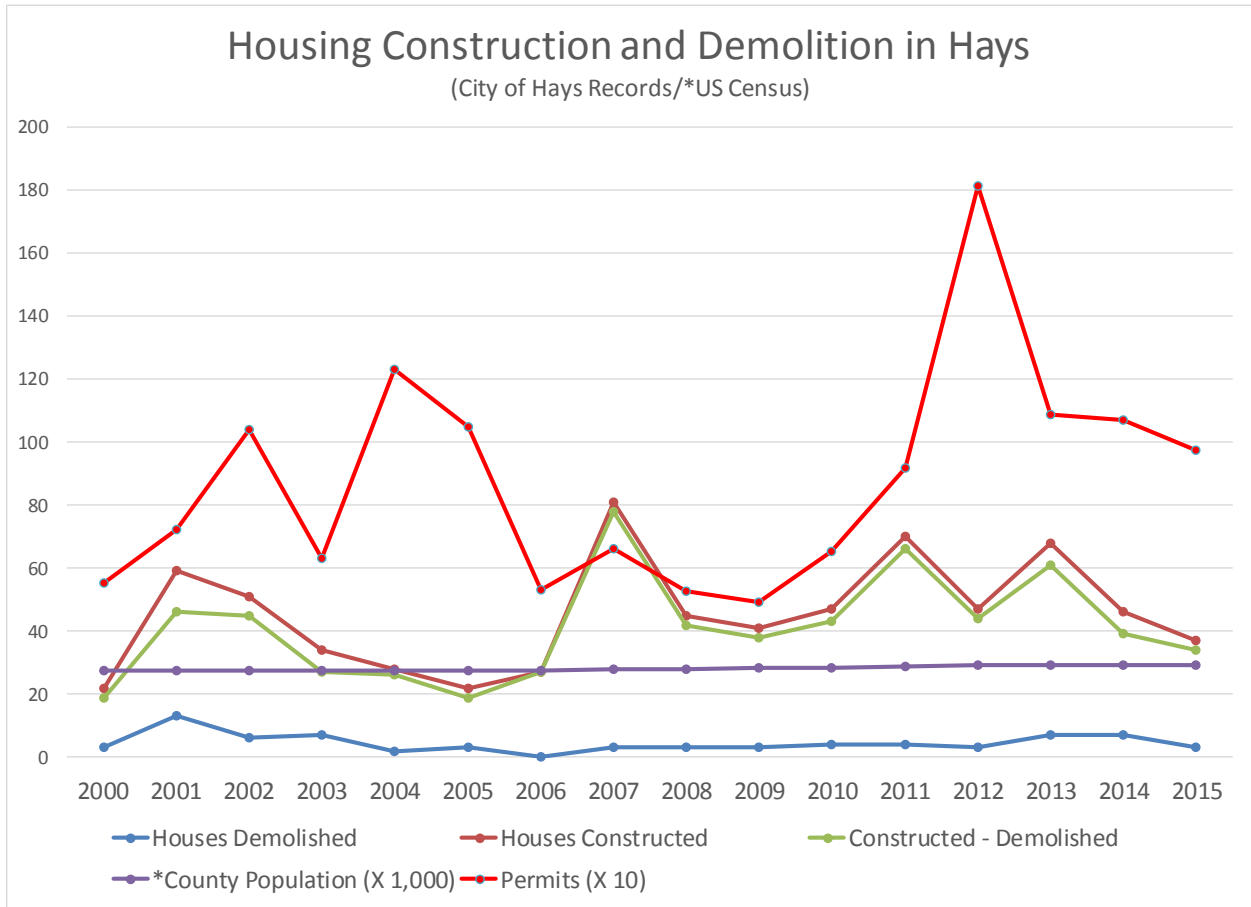
Source: City of Hays

II. The shortage of quality housing can be expected to persist and additional financial incentives are necessary in order to encourage the private sector to construct or renovate housing in such city or county;

Net Gain or Loss of Residential Units: The formula of new housing units constructed, minus existing housing units demolished, results in a low net gain (or loss) of residential units.

Figure 6 shows the net gain of housing (houses constructed minus houses demolished) between 2000 and 2015 as the green line. The trend exhibits a peak in added housing in 2007, followed by a series of declines and increases, but with an overall decline in additional housing units after 2007. The purple line shows a steady increase in population since 2000, a trend demographic studies have shown will increase as residents of rural communities migrate to the larger towns and cities in pursuit of employment. The number of building permits issued, which peaked in 2012 (largely due to the roof replacement caused by a hail storm) and prefaced the increases in construction in 2013, has declined since 2012 and suggests that, although there is currently a net gain in housing, that net gain, as well as planned construction for new housing, is currently declining at a time when regional population is increasing.

Figure 6: Housing Construction and Demolition in Hays

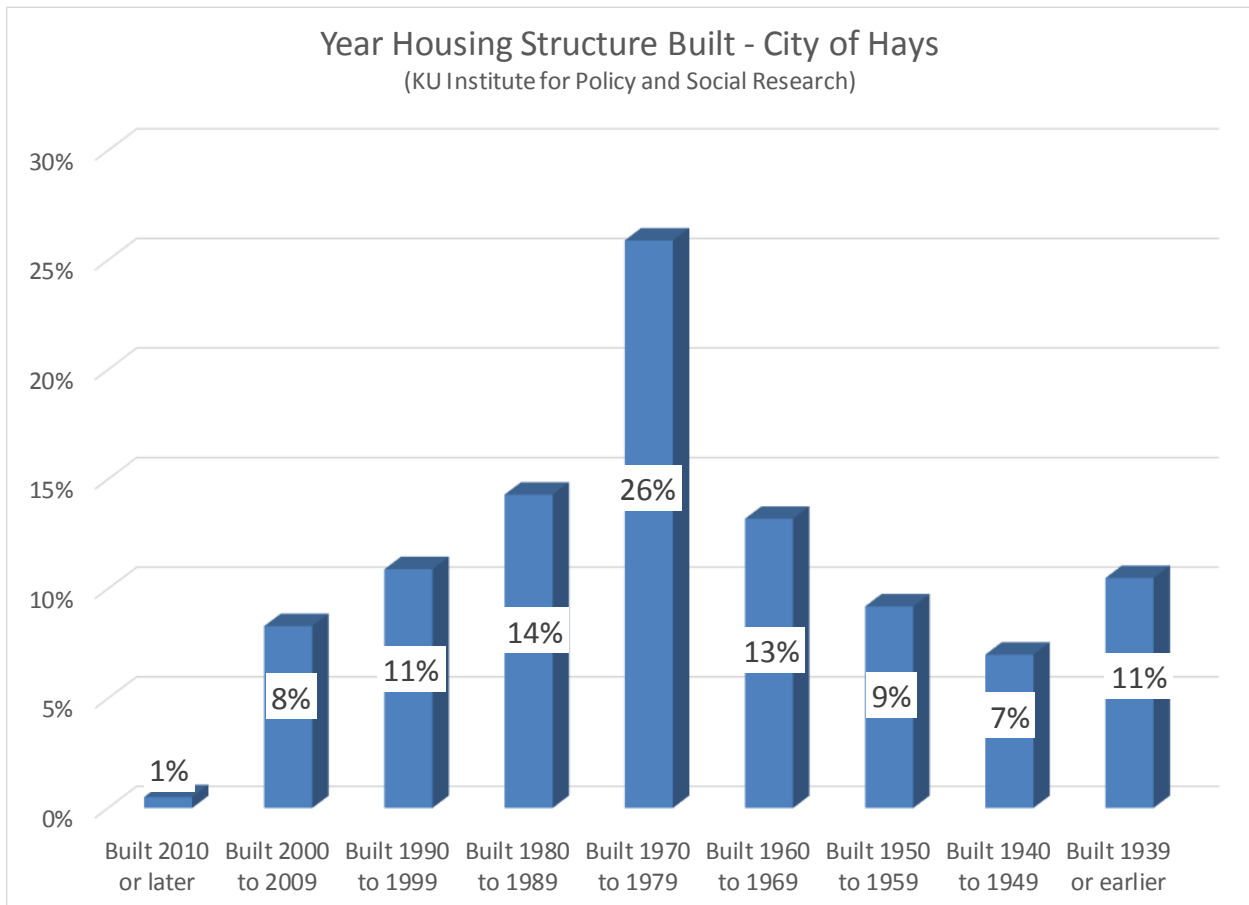


Source: City of Hays, U.S. Census

Housing Suitable for Rehabilitation: Existing housing units, suitable for rehabilitation, are present, but little or no rehabilitation activity is occurring

Figure 7 shows the percentage of housing units in Hays by year of construction. It indicates that approximately 35% of the housing units in Hays (4,125 units) were constructed at least 50 years ago, making many highly likely to be suitable for rehabilitation.

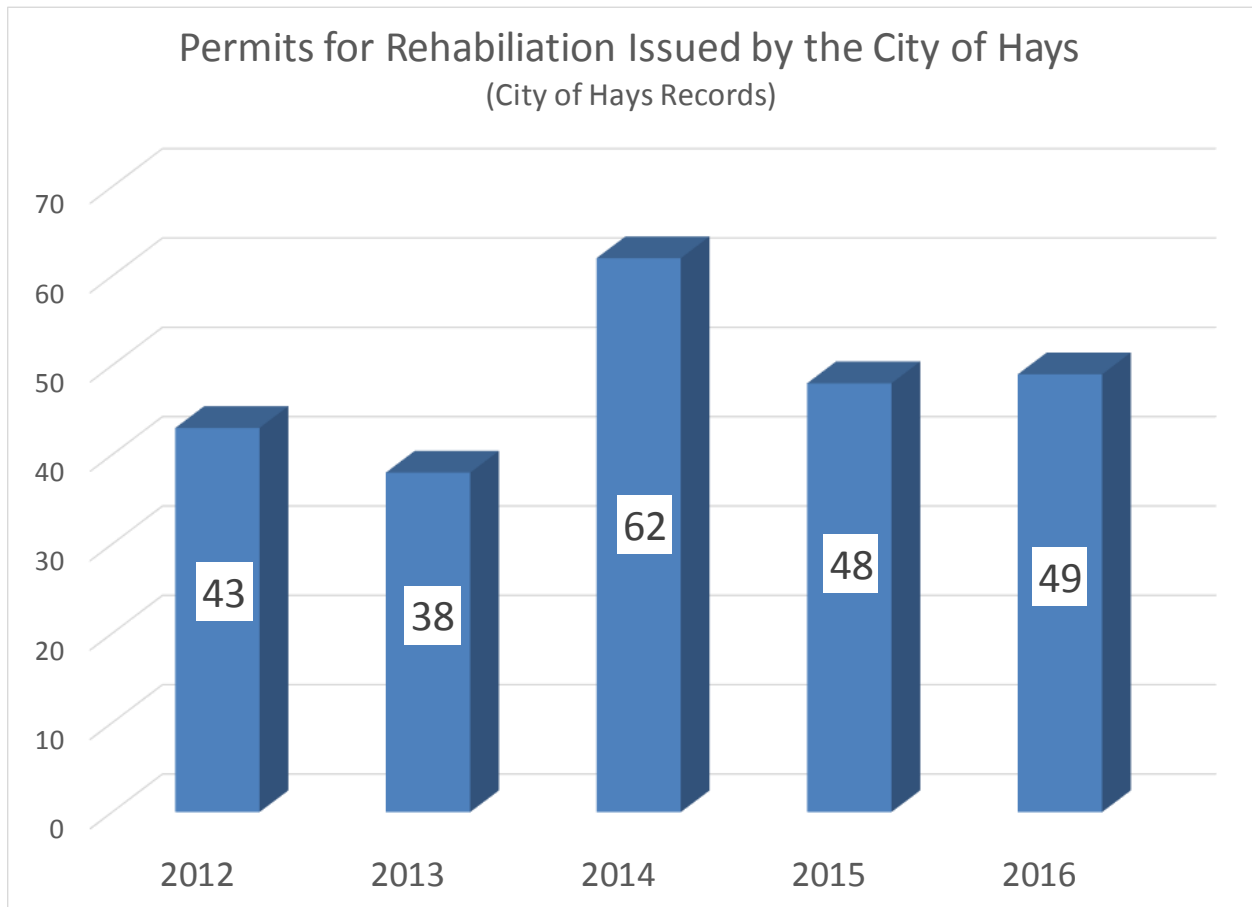
Figure 7: Year Housing Structure Built - Hays



Source: KU Institute for Policy and Social Research

Although approximately 4,000 houses in Hays are over 50 years old, an average of only 48 permits per year for rehabilitation have been issued over the past 5 years (Figure 8). The large discrepancy between houses suitable for rehabilitation and the number of permits issued to rehabilitate Hays housing over the last 3 years strongly suggest that additional incentives are required to maintain the quality of the older housing units in Hays.

Figure 8: Permits for Rehabilitation Issued by the City of Hays



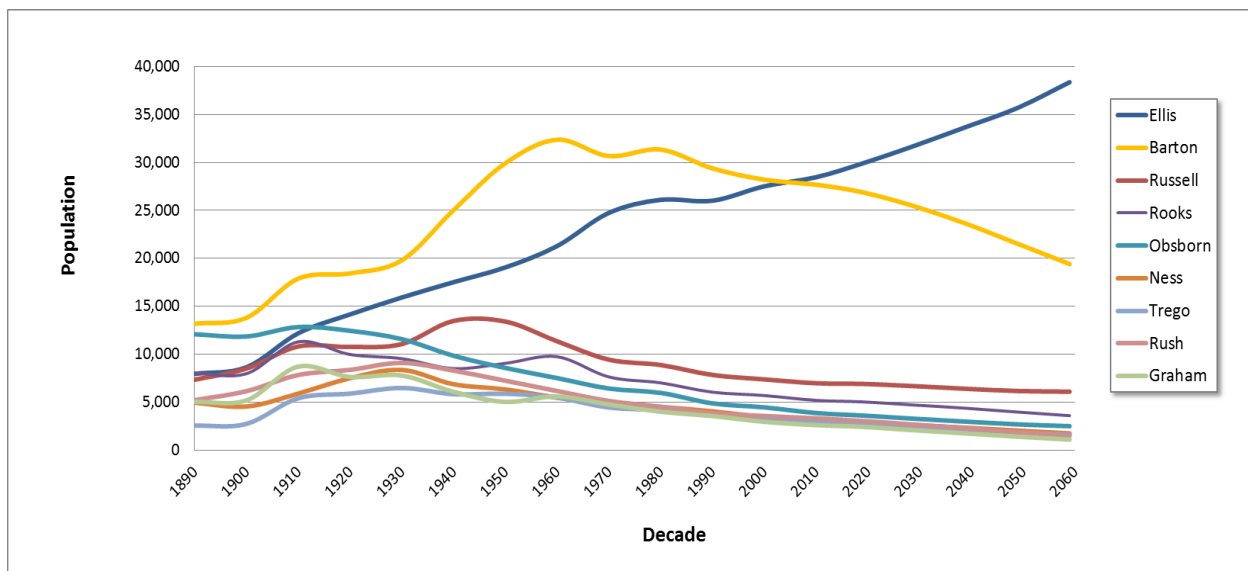
Source: City of Hays

III. The shortage of quality housing is a substantial deterrent to the future economic growth and development of such city or county.

As one of the larger towns in rural Western Kansas, Hays has been a regional hub for commerce and economic activity, as demonstrated by the indicators presented below. A migration study conducted by the Docking Institute has projected Hays to experience continued growth and employment, as the demand for agricultural labor wanes due to modernization and the declining availability of agricultural ground water and rural Kansans turn to industrial and white-collar jobs in the urban areas. Figure 9 shows how data from the US Census also suggest that population in the rural counties surrounding Hays are migrating, and will be likely to continue to migrate, into Ellis County.

Data for the years 1890 to 2010 are population estimates derived from censuses taken each decade by the US Census Bureau. Data for the years 2020 to 2050 represent population forecasts. This increasing labor availability makes Hays a prime community for long-term economic growth. However, a shortage of suitable housing for this future work force would be a barrier to economic growth and development for which corrective action would take years. It is, therefore, imperative that Hays administrators take a proactive approach to maintaining an adequate quantity of new and rehabilitated housing unit.

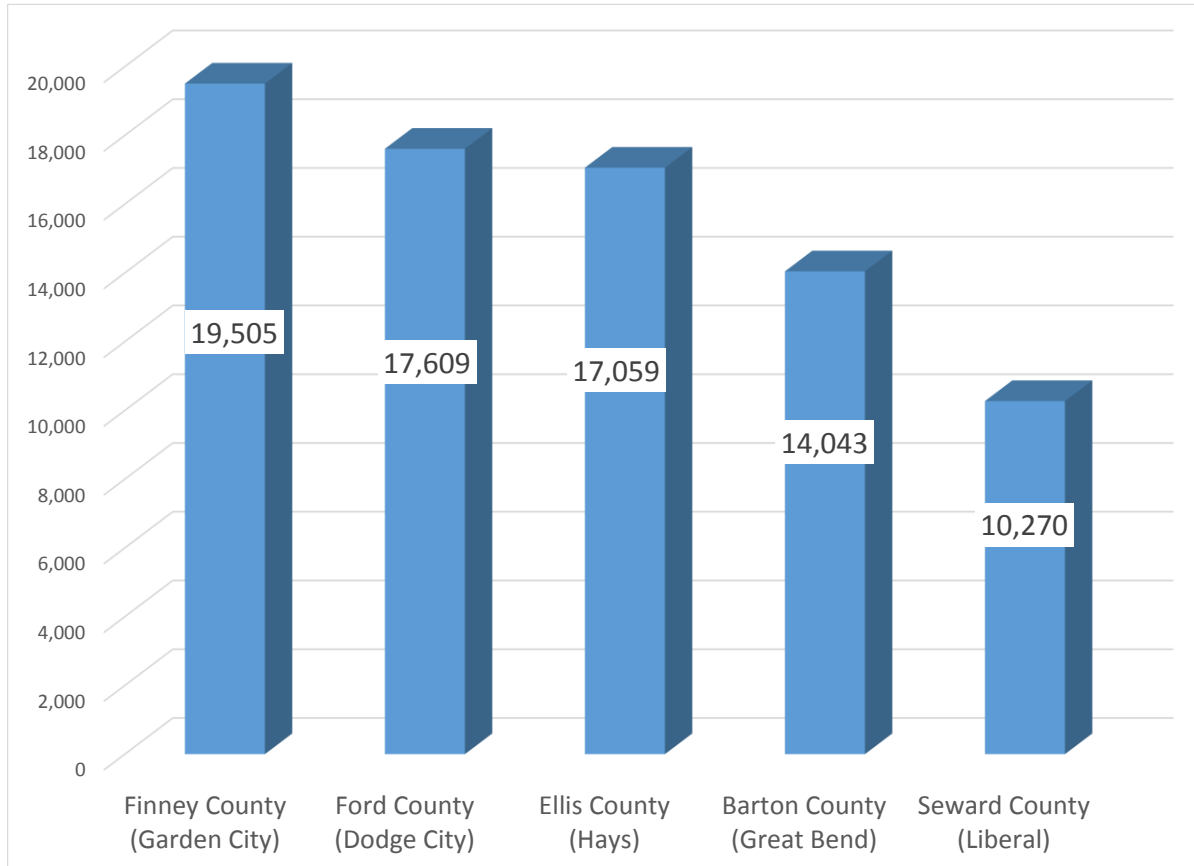
Figure 9: Population



Source: U.S. Census

Figure 10 shows that, in 2014, the Kansas Department of Labor estimated over 17,000 jobs in Ellis County, rivaling that of its larger sister counties with larger populations. These data suggest that Hays has one of the largest and strongest labor forces in Western Kansas.

Figure 10: Number of Jobs



Source: Kansas Department of Labor

IV. The future well-being of the city or county depends on the governing body providing additional incentives for the construction or renovation of quality housing in such city or county.

Although our analysis has shown that upper income housing is adequate, Section I documents a shortage of housing in Hays for low to middle-income families. Further analysis in Section II showed a low number of demolitions and a disproportionately high number of older houses in Hays, strongly suggesting that, without additional incentives, this housing shortage is very likely to persist. Section III documented evidence of heavy migration into Ellis County, as well as a high number of jobs relative to its population size, strongly suggesting that the persistent housing shortage will be the only major obstacle to economic growth and development.

Low to middle income housing in Hays is utilized extensively by the approximately 5,000 students who attend Fort Hays State University. Recent strategic plans of FHSU have included goals of substantial growth in the on-campus student body. Increasing numbers of on-campus students attending FHSU will place further strains on the availability of low to middle-income housing in Hays.

The Superintendent of Planning, Inspection and Enforcement for the City of Hays reports that, of the 393 rental units constructed between the years 2000 and 2016, only 63 (16%) were “income-based” or “income-qualified” housing. Further, all 63 units were built by a single developer. So only one developer in the past 16 years has found it profitable to construct the type of housing for which this study has documented a strong need.

Hays offers a wide variety of educational, recreational, and cultural amenities conducive to attracting new employers and high-quality labor. It also offers a wide range of business support services necessary. The availability of affordable, high-quality housing is one of the few obstacles to economic growth and development in Hays. The shortage of affordable housing for those who would otherwise find Hays an attractive community to work, go to school and raise children makes these incentives extremely important for the future of Hays and Western Kansas.

Attractive Business, Education, Recreational and Other Opportunities

Affordable housing is only one factor that attracts business and commerce to a city. In order to justify government subsidies for housing for the purpose of fostering economic growth and development, it is important to document that potential new employers will find that the community can provide for all of their needs. These include the availability of raw materials and services needed to operate their businesses, but also the social, educational and recreational amenities desired by their prospective employees.

Higher and Continuing Education

Fort Hays State University – FHSU is a public, co-educational university located in Hays, Kansas. It is the third largest of the 6 state universities governed by the Kansas Board of Regents, with an enrollment of approximately 11,200 students (4,000 undergraduate, 1,200 graduate, and 6,000 online students). FHSU offers a variety of undergraduate and graduate programs. Its extensive online program allows local employees of Hays’ businesses to complete coursework during times available to them, yet have ready access to professors and the extracurricular activities offered.



Sheridan Hall – Fort Hays State University

North Central Kansas Technical College – For employers with a need for employees trained in the latest industrial technologies, NCKTC offers a variety of programs designed to meet the training needs of commerce and industry. Some of these include nursing, business technology, carpentry, electrical, automotive, pharmacy technology and culinary arts.



Business Occupation Center – North Central Kansas Technical College

Recreational Amenities

Hays Aquatic Park – Hays offers a recreational swimming park with a slide pool, diving pool, competition pool and children’s pool to residents during the summer months. With low-cost admission, plenty of seating and a refreshment facility, the Hays Aquatic Park is the ideal daytime venue for children during their summer break, as well for families enjoying quality time on the weekend.



Hays Aquatic Park

Old Fort Hays – Residents and visitors can experience a bit of post-Civil War history by visiting Old Fort Hays. Established in 1865 in the land of the Cherokee and Arapaho, the fort protected railroad workers and travelers on the Smokey Hills Trail. Included in its history are famous military leaders and lawmen, such as George Custer, Phillip Sheridan, Buffalo Bill Cody and Wild Bill Hickok.



Old Fort Hays

Frontier Park/Buffalo Herd- Adjacent to Old Fort Hays, Frontier Park offers shaded pick-nick areas, an 18-hole Frisbee golf course and is adjacent to a small buffalo herd reminiscent of Western Kansas in the early 1800's.



Buffalo Herd – Frontier Park

Private and Municipal Golf Courses – Nestled within a residential area in Hays, the Smokey Hills Golf Course (pictured below) offers an 18-hole private course, a pro shop and dining facilities. The City of Hays also operates a municipal golf course adjacent to Old Fort Hays.



Smokey Hills Golf Course

Bicycling – Hays offers bicycling enthusiasts a network of bike lanes for safely navigating the City, as well as a two-mile paved biking/walking trail circling the southwest border and passing by Fort Hays State University, Old Fort Hays, the buffalo herd and Frontier Park.



Bike Lanes

Bickle-Schmidt Sports Complex – Next to the Fort Hays State University soccer field, the recently constructed Bickle-Schmidt Sports Complex offers 8 baseball/softball fields and 8 soccer/football fields, along with restrooms and concessions. Recently added was a dog park.



Bickle-Schmidt Sports Complex

Downtown Hays/Gellas – Historic downtown Hays, with its Chestnut District of shops, restaurants and professional services, provides a venue for numerous cultural events and upscale shopping. A local favorite is Gellas, which operates a micro-brewery and offers a wide assortment of foods and beverages.



Downtown Hays

Sternberg Museum – Operated by Fort Hays State University, the Sternberg museum, named after a noted local archeologist who pioneered excavations in the region, houses hundreds of fossils recovered by Sternberg and his team. The fossils demonstrate quite convincingly the fact that Western Kansas, at one time, was underwater.



Sternberg Museum

Business Support Services

In addition to the many educational and recreational amenities offered to Hays residents, the community also accommodates many of the standard products and services needed by typical businesses for maintenance and appropriating supplies. Businesses offering these goods and services include Walmart, Home Depot, banking institutions, dozens of practicing attorneys and accountants, printing services and easy access to Interstate 70. Fort Hays State University provides a steady, reliable source of highly educated labor for local businesses, whether it be college graduates looking for career opportunities or students wanting part-time employment.

Conclusions

The statistics and analyses of this report have documented, under criteria established by the Kansas Secretary of Commerce, the City's need for State assistance in fostering economic growth and development in Hays and Ellis County. The analyses have provided empirical evidence that 1) there is a shortage of suitable housing for the current and future work force, 2) the shortage of housing is expected to persist without additional incentives to private sector investors, 3) the current and projected shortage of quality housing is a deterrent to the future growth and development of Hays and 4) the future well-being of Hays and Ellis County is highly dependent on further government support of the local private housing industry.