

**PREPARED FOR:
WASATCH COUNTY
PLANNING AND
ZONING DEPARTMENT
2017**

**HOUSING NEEDS
ASSESSMENT:
UNINCORPORATED
WASATCH COUNTY,
HEBER, AND MIDWAY**

**Prepared by :
James Wood**

Table of Contents

Key Findings..... 3

Executive Summary 5

I. Characteristics of Wasatch County’s Housing Supply 11

 Changes in the Housing Inventory..... 11

 Vacancy Status..... 13

 Bedroom Types..... 14

 Age of Housing Inventory 15

 Housing Problems: Kitchen and Plumbing Facilities 18

 Permit Authorized Residential Construction 18

 Housing Prices 20

 Rental and Occupancy Rates 23

 Affordable Rental Inventory 24

II. Characteristics of Housing Demand..... 26

 Population and Households..... 26

 Race and Ethnicity 30

 Household Income and Wages..... 31

 Wage Rates 33

 Household Income and Tenure 34

 Employment Characteristics and Trends 34

 Commuting Patterns of Wasatch County Residents and Worker 37

III Housing Affordability and Needs Analysis 43

 Gap Analysis for Renters 45

 Severe Housing Cost Burden for Renters 47

 Housing Affordability Calculator 52

 Supply of Affordable Homes and Condominiums..... 53

 Severe Housing Cost Burden for Owners 55

 Five Year Affordable Housing Need Projections 59

 Need for Affordable Rental Housing..... 59

 Need for Affordable Owner Occupied Housing 60

 Estimates for Fee-in-Lieu Payments..... 62

VITA James Wood 64

Key Findings

Housing Supply Conditions

The housing supply conditions in the three planning districts—unincorporated Wasatch County, Heber, and Midway—indicate a serious shortage of affordable housing. This condition is present despite near record levels of new residential construction.

Housing prices are accelerating as housing demand outpaces supply. The median sales price of a home increased by 12% in 2016 and rental rates increased by at least 5%.

Affordable housing supply is limited. The housing market is extremely “tight” for renters. The current vacancy rate is near zero. Renters have had to contend with low vacancy rates for the past four years. Homeowners also face limited housing opportunities. Fewer than 10% of the homes sold in Wasatch County in 2016 were affordable to homeowners with incomes below the median income of \$66,486.

Wasatch County planning districts are among least affordable housing markets in the state. Data on housing prices and housing cost burdens show that, compared to other jurisdictions, unincorporated Wasatch County, Heber, and Midway are among the least affordable housing markets in Utah. Each of planning districts has a relatively high percentage of renters and homeowners facing severe housing cost burdens.

Housing Demand Conditions

The demand for housing is exceptionally strong in the three planning districts due to extraordinary demographic and economic growth.

Wasatch County leads the state in population growth and is second in job growth since 2010. In the past five years the population of Wasatch County has increased by 26% and employment by 32%.

Rapid growth in the Hispanic population growth adds to demand for affordable housing. Hispanic population has grown from 528 individuals to 2,278 individuals over the past fifteen years, an increase of 154%. Fifty-three percent of Hispanics are in households below the poverty level and 78% of Hispanic households are renters.

Demand for high priced housing squeezes out affordable workforce housing. The county is attractive to high income households due to its close proximity to the job markets of Salt Lake and Utah Counties and the natural beauty of the county. This demand pressure, for high priced homes, acts to effectively limit the financial feasibility of affordable workforce housing.

Five Year Housing Needs Assessment

Need: Renters ≤50% AMI. The current need for affordable rental housing for households with incomes ≤50% AMI is at least 250 units. To address the current acute shortage a reasonable five year goal is the development of two tax credit projects with a total of 100 to 150 units. The addition of these units would reduce the severe cost burden for renters by about 50% and just as important relieve some of the stress in the local rental market.

Need: Renters 80%-120% AMI. The gap analysis shows that all jurisdictions have a shortage of rental units for households with incomes from 80% AMI to 120% AMI. There is a market and a clear need for the development of a traditional market rate rental project of 80 to 100 units, over the next five years in any of the planning districts.

Need: Senior Renters ≤50% AMI. The development, in the next five years, of a 24-unit Senior rent assisted project would reduce, by more than half, the severe cost burden for very low income Senior renters (≤50% AMI).

Need: Owner Occupied Units 80%-120% AMI. The development of 100 to 125 owner occupied units priced from \$250,000 to \$350,000 would provide affordable housing opportunities and attract households at 80%-120% AMI to the county. While the need is as high as 240 units, a reasonable five year development goal, given land and construction costs, is 50% of the projected need.

Estimates of Fee-in-Lieu Payments Updated fee-in-lieu payments were calculated for Heber, Midway, and the unincorporated county using construction cost data for new homes in Wasatch County and the maximum mortgage loan amount a household at 80% AMI could afford. In the Heber case the maximum mortgage amount for a household at 80% AMI is \$200,186. The cost of a 1,350 square foot home was estimated at \$306,450. Therefore, the fee-in-lieu option for Heber is \$106,264. The fee-in-lieu payment for the unincorporated county is \$85,030, and for Midway \$49,352.

Executive Summary

This housing needs assessment presents data, analysis, and conclusions for the three planning districts in Wasatch County; unincorporated Wasatch County, Heber, and Midway.

Characteristics of Housing Supply

- The current housing inventory in Wasatch County totals 11,350 units. These units are unevenly distributed among the three planning districts with the unincorporated Wasatch County accounting 52% of all housing units, while Heber has a 30% share, and Midway an 18% share.
- Although the unincorporated areas has the largest housing inventory many of these units—over 2,000—are vacant seasonal, second homes. In terms of occupied housing units Heber has largest share of year-round occupied housing units with 44% of occupied housing in Wasatch County. The unincorporated area has 39% of the county’s occupied housing units and Midway 17%. Most of the second homes in the unincorporated county are located near the Jordanelle Reservoir and the Timber Lakes area.
- The young median age of the housing stock in Wasatch County reflects the rapid demographic growth of county over the past twenty years. For each of the planning areas the median age of owner occupied housing is 20-22 years. For rental housing the median age is about 22 years with the notable exception of Heber where the rental inventory is much older; a median age of 35 years.
- Like most high growth housing markets in Utah, Wasatch County experienced a surge in residential construction during the decade from 2000-2009. This is particularly the case with Midway and the unincorporated county. Both set all-time records in new residential construction; Midway in 2005 with 171 new units and the unincorporated county in 2006 with 381 units. Heber differs with a larger and more sustained building boom in recent years (2013 to present). 2016 set an all-time record for residential buildings permits in Heber with 234 permits.
- Wasatch County, Heber, and Midway are high priced housing markets. In 2016 the median sales price for all types of residential homes (single family, condominiums, and townhomes) was \$404,200, compared to only \$265,000 in Salt Lake County, and \$255,000 in Utah County. Among Utah’s 29 counties only Summit County has higher housing prices than Wasatch County. The median sales price of a home in 2016 in Heber was \$363,500, and in Midway \$464,250.
- Housing prices in Wasatch County are increasing rapidly. Since 2012 the median sales price of a home in the county has increased by 58%, in Heber by 55%, and in Midway by 42%. Both sales data and price data show strong demand for condominium units in the county. Condominium prices have more than doubled in the past five years.
- The rental market in the county is extremely “tight”. Rental rates have increased at least 15% in the past three years as the vacancy rate has dropped to near zero. About one quarter of the rental inventory (567 units) is in the two large traditional apartment projects in the county, Wing Pointe and Wasatch Commons, and the six tax credit projects. These projects were surveyed regarding rents and vacancies. The eight projects had no vacant units and all have long waiting list, over 1,000 applicants on the list at Liberty Station.

● *The housing supply conditions in the three planning districts indicate a shortage of housing, particularly affordable housing. This condition persists despite near record levels of new residential construction. Housing demand is outpacing supply as housing prices increased by 12% in 2016 and rental rates increased by at least 5% as rental vacancies dropped to near zero. These supply conditions create very limited affordable housing opportunities for median and moderate income households. The median income households could afford less than ten percent of the single family homes sold in Wasatch County in 2016.*

Characteristics of Demand: Demographic and Economic Trends

● The population of Wasatch County in 2015 was 29,200 and the number of households 9,300. The unincorporated county had a population of 10,200, 35% of the county's population, Heber a population of 14,300, and 49% of the county's population, and Midway a population of 4,646, 16% of the county's population

● Since 2000 the population of the county has grown at an average annual growth rate of 4.5%, more than double the demographic growth rate of the state. Of the three planning districts Midway has the highest average annual growth rate of 5.4%, followed by Heber at 4.6% and then the unincorporated county at 3.9%.

● Since 2010, Wasatch County is the fastest growing county in Utah. In the past five years the population of the county has increased by 24%. Unincorporated Wasatch County, when compared to counties, ranks second with an increase of 22.3% over the six year period. Also both Heber and Midway are among the fastest growing cities when compared to cities of comparable size. Extraordinary demographic growth is a key feature of the Wasatch County housing market and has important implications for housing affordability.

● About 15% of the population growth in Wasatch County since 2000 is due to the increase in the Hispanic population. In 2000, the Hispanic population of the county was 1,400. By 2015 it had grown to 3,500, an increase of 154%. Most of the increase has been concentrated in Heber where the Hispanic population has grown from 528 individuals to 2,278 individuals over the past fifteen years. Again this demographic trend has serious implications for affordable housing. Seventy-eight percent of Hispanic households in the county rent and 53% of Hispanics live in households with incomes below the poverty level.

● In sharp contrast to the Hispanic population most residents of Wasatch County are high income households. Households of the county have a median income of \$66,486, the sixth highest income level of Utah's 29 counties. Heber resident's median income was \$60,171 in 2015 and Midway's \$77,273. While residents have high incomes, many of those working in the unincorporated county and Heber receive relatively low wages. The average wage rate for workers in Wasatch County in 2015 was \$36,204 and in Heber \$41,124; in both case below the statewide average wage of \$43,452. The countywide wage rate was only 83% of the statewide average wage rate.

● The disparity between the high income of local residents and low wages for local workers is a common feature of a "bedroom community", a feature that creates increased levels of commuting in both directions.

- Employment in Wasatch County in 2015 totaled 7,721 jobs; two-thirds (5,100 jobs) of these jobs were located in Heber. Wasatch County and Heber have fully recovered from the Great Recession and are both at all-time peaks in employment.
- Wasatch County employment growth since 2001 has been exceptional. The local job market has increased from 4,700 to 7,700 jobs in the past fifteen years, an increase of 64%. A comparison to other counties shows that Wasatch County has the second highest rate of job growth of all counties in Utah.
- Fifty-three percent of the job growth in the county since 2001 has been concentrated in four sectors: construction (480 increase in jobs), retail trade (+441), healthcare (+330), and business services (+347). These four sectors have been the drivers of *employment* growth in Wasatch County. Unfortunately, the high growth sectors are also low wage sectors.
- The rapid job growth in the county has required increased levels of commuting into the county. In 2002 only 1,700 individuals commuted from other counties into Wasatch County for work. In 2014 that number had jumped to 5,200.
- The increase in commuting into Wasatch County from out of county locations and the rapid job growth in low wages sectors combine to make a strong case for workforce housing; affordable housing for those who provide essential support services for the local economy but are priced out of the local housing market.
- Wasatch County's proximity to employment centers in Salt Lake and Utah Counties—over 900,000 jobs—has driven the *demographic* growth of the county. Wasatch County residents have an acceptable commute time and distance to the major employment centers in the state. This proximity along with the natural setting has attracted new residents to the county. And as expected commuting by residents to out of county work locations has increased substantially in recent years, growing from 4,900 commuters in 2002 to 8,900 commuters in 2014.
- *The demand for housing is exceptionally strong in the three planning districts of Wasatch County. The county leads the state in population growth and is second in job growth. In addition the rapid increase in the Hispanic population adds another dimension to housing demand and affordability. And finally, the economic base of the community (low wage) and socioeconomic characteristics of the resident population (high income) create a condition of limited affordable housing opportunities for median and moderate income households.*

Housing Affordability and Needs Assessment

- Rapid population and employment growth in Wasatch County combined with the limited supply of affordable renter and owner occupied housing creates a critical need for additional affordable housing.

Needs Assessment for Renter Occupied Housing

- The rental needs assessment relied on two methodologies: (1) an evaluation of the demand and supply of affordable rental occupied housing (gap analysis) and (2) severe

housing cost burdens faced by current renters (severe cost burden is defined as paying more than 50% of household income for housing and utilities).

- The gap analysis for renters shows that all three planning districts have a current deficit in affordable rental housing for households with incomes <30% AMI. As we move up the income ladder the gap analysis shows that for the 30%-50% AMI renter only Heber has a deficit; a deficit of 60 units *Table 1 below*.

Table 1
Need for Affordable Rental Housing by Gap Analysis and Severe Cost Burden
 (red denotes need)

Jurisdiction	<30% AMI	30%-50% AMI	50%-80% AMI	80%-100% AMI	100%-120% AMI
Gap Analysis - surplus/deficit of rental units					
Unincorporated Wasatch Co.	-27	40	155	-50	-125
Heber	-182	-60	395	-9	-161
Midway	-60	119	29	5	-93
Renters with Severe Cost Burden	<30% AMI	30%-50% AMI	50%-80% AMI	80%-100% AMI	100%-120% AMI
Unincorporated Wasatch Co.	75	25	5	0	0
Heber	195	70	10	0	0
Midway	40	25	0	4	0

Source: HUD CHAS,

- The gap analysis also shows that in all three planning district there are current deficits in affordable rental housing for renter households at from 80% to 120% AMI.

- Combining the gap analysis with the percent of renters facing severe housing cost burdens deepens our understanding of affordable housing needs. While the gap analysis shows that renters in the unincorporated county and Midway, with incomes from 30% AMI to 50% AMI, have affordable rental opportunities, the severe housing cost burden data contradict this assessment. The severe cost burden data show that in all planning districts a substantial number of renters with incomes from 30% to 50% AMI face severe housing cost burdens, indicating a serious need for additional affordable housing.

- The severe cost burden data also provide pertinent information for renters with incomes at 80% AMI to 120% AMI. While the gap analysis shows a deficit of affordable units, the cost burden data show that these higher income renter households are not facing severe cost burdens. The absence of severe cost burdens for this income group may be a factor in prioritizing affordable housing policies.

- Finally, a comparison with other counties and cities shows that unincorporated Wasatch County, Heber, and Midway all rank among the jurisdictions in the state with the highest percent of renter households with severe housing cost burdens.

Needs Assessment for Owner Occupied Housing

- The need for additional affordable owner occupied housing adopts a different approach than the rental market assessment. The rental housing assessment was focused on alleviating both the existing affordable housing gap and the severe cost burden faced by current renters. In the case of owner occupied housing the approach is focused on the future need for affordable housing with respect to the anticipated growth in population and households in Wasatch County. The estimated need depends on the demographic projections for Wasatch County, Heber, and Midway, which were provided by the Utah Affordable Housing Forecast Tool.

- An analysis of the population projections for Wasatch County shows that 20% of the projected five year increase in households would have incomes at 80% to 120% of AMI. Currently, three out of four households with incomes from 80% to 120% AMI are homeowners. Assuming the owner to renter ratio persists in the five year projection period the need for additional affordable owner occupied units is projected to be 240 units for Wasatch County. *Table 2* shows the projected need for each planning district.

Table 2
Need for Owner Occupied Housing Units for Households at 80% to 120% AMI

Planning District	Projected Increase in All Households 2015-2020	Projected Increase in Households at 80% to 120% AMI	Projected Increase in Owner Households 80%-120% AMI
Unincorporated Wasatch Co.	490	98	75
Heber	630	126	95
Midway	465	93	70
Total	1,585	317	240

Source: Utah Affordable Housing Forecast Tool, U.S. Census Bureau.

Five Year Affordable Housing Needs Projections

- The current need for affordable rental housing for households with incomes $\leq 50\%$ AMI is at least 250 units. To address the current acute shortage a reasonable five year goal is the development of two tax credit projects with a total of 100 to 150 units. The addition of these units would reduce the severe cost burden for renters by about 50% and just as important relieve some of the stress in the local rental market. The local market is near full occupancy rates. Addressing current rental market conditions should be a first-order priority; anticipating the affordable housing needs of future renters a second-order priority.

- The gap analysis shows that all jurisdictions have a shortage of rental units for households with incomes from 80% AMI to 120% AMI. The severe cost burden data show however, that none of these households are suffering from severe housing cost burdens. The absence of severe cost burdens reduces the priority of market rate units for moderate income households. Nevertheless there is a market and a clear need for the development of a traditional market rate rental project of 80 to 100 units, over the next five years, in either Heber or unincorporated Wasatch County.

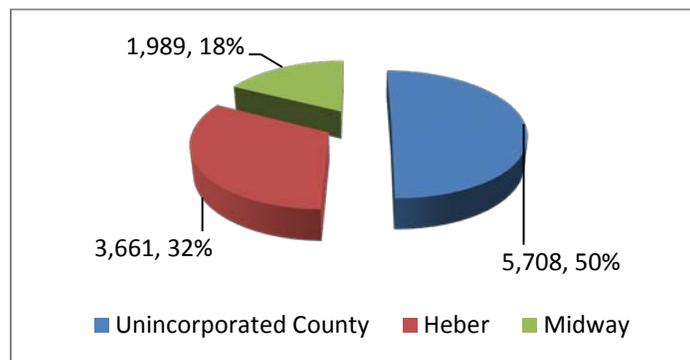
- The development, in the next five years, of a 24-unit Senior rent assisted project, located in any of the three jurisdictions, would reduce, by more than half, the severe cost burden for very low income Senior renters ($\leq 50\%$ AMI).
- The development of 100 to 125 owner occupied units priced from \$250,000 to \$350,000 would provide affordable housing opportunities and attract households at 80%-120% AMI to the county. While the need is as high as 240 units, a reasonable five year development goal, given land and construction costs, is 50% of the projected need.

I. Characteristics of the Housing Supply: Unincorporated Wasatch County, Heber, and Midway

This section follows the *Recommended Affordable Housing Plan Outline* provided by the Utah Department of Housing and Community Development. The objective is to provide a statistical summary of the trends and current conditions of the housing market in each of the three subject jurisdictions or planning areas: unincorporated Wasatch County, Heber, and Midway. The data for the unincorporated county was derived by subtracting Heber and Midway estimates from Wasatch County totals. Therefore, as defined in this study, the unincorporated county includes all unincorporated area and the following small towns; Charleston, Daniel, Hideout, Independence, and Wallsburg.

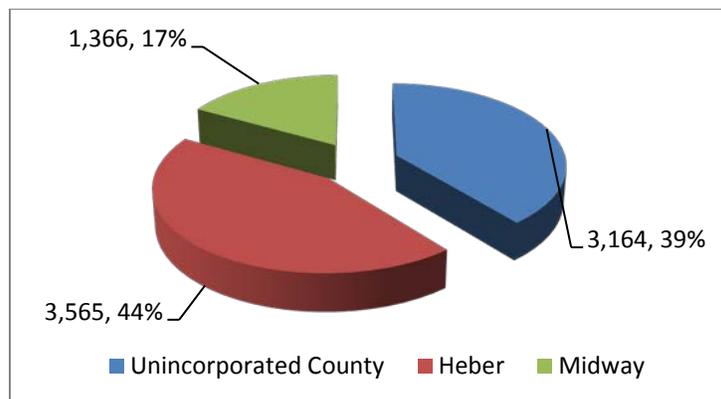
Changes in the Housing Inventory – The current housing inventory in Wasatch County totals 11,358 housing units. The housing units are unevenly distributed among the three planning areas, with the unincorporated area accounting for half of all housing units. Heber has a 32% share of the county’s housing units and Midway an 18% share *Figure 1*. The distribution of housing differs considerably when the analysis is limited to occupied housing units as shown in *Figure 2*. Heber City has accounts for 44% of occupied housing units while the unincorporated area’s share drops to 39%.

Figure 1
Housing Units by Planning Area in Wasatch County



Source: U.S. Census Bureau, American Community Survey.

Figure 2
Occupied Housing Units by Planning Area



Source: U.S. Census Bureau, American Community Survey.

The large difference in *total* housing units and *occupied* housing units for the unincorporated county and also Midway is discussed under vacancy status below.

In terms of *numeric* change the unincorporated county has the largest increases in housing inventory, occupied units, vacant units, and second homes *Tables 1-3*. While the percentage increases for most of the housing metrics for the unincorporated county are significant Midway has slightly higher rates of percentage growth. Heber City is distinguished by the numeric increase as well as the percentage increase in rental housing. Since 2000 the number of rental units in Heber City has increased 750 units, an increase of 137%. Rental housing accounts for 36% of the occupied housing units in Heber compared to 17% in the unincorporated county and 24% in Midway.

Wasatch County's housing inventory is characterized by a relatively high percentage of second homes. Both Midway and the unincorporated area have an unusually large number of second homes, 425 homes and 2,063 homes respectively. Second homes in the unincorporated area are concentrated around the Jordanelle Reservoir, and the Timber Lakes area. In Midway second homes are scattered throughout the city. The preponderance of second homes results in high vacancy for the housing market.

Table 1
Characteristics of Housing Inventory for Unincorporated Wasatch County

Category	2000	2010	2015*	Numeric Change 2000-15	Percent Increase 2000-15
Total Housing Units	3,143	4,958	5,708	2,565	81.6%
Occupied	1,760	2,649	3,164	1,404	79.8%
Share of Total Units	56.0%	53.4%	55.4%	---	---
Vacant	1,353	2,309	2,538	1,185	87.6%
Share of Total Units	43.0%	46.6%	44.5%	---	---
Owner Occupied	1,523	2,092	2,610	1,087	71.4%
Share of Occupied Units	86.5%	79.0%	82.5%	---	---
Renter Occupied Units	237	557	554	317	133.8%
Share of Occupied Units	13.5%	21.0%	17.5%	---	---
Vacant Seasonal, Recreational	1,245	1,959	2,063	818	65.7%

*average for 2011-2015.

Source: U.S. Census Bureau, American Community Survey

Table 2
Characteristics of Housing Inventory for Heber City

Category	2000	2010	2015*	Numeric Change 2000-15	Percent Increase 2000-15
Total Housing Units	2,421	3,637	3,661	1,240	51.2%
Occupied	2,296	3,362	3,565	1,269	55.3%
Share of Total Units	94.8%	92.4%	97.4%	---	---
Vacant	155	275	96	-59	-38.1%
Share of Total Units	6.4%	7.6%	2.6%	---	---
Owner Occupied	1,748	2,419	2,267	519	29.7%
Share of Occupied Units	76.1%	72.0%	63.6%	---	---
Renter Occupied Units	548	943	1,298	750	136.9%
Share of Occupied Units	23.9%	28.0%	36.4%	---	---
Vacant Seasonal, Recreational	36	54	0	-36	-100.0%

*average for 2011-2015.

Source: U.S. Census Bureau.

Table 3
Characteristics of Housing Inventory for Midway City

Category	2000	2010	2015*	Numeric Change 2000-15	Numeric Change 2010-15
Total Housing Units	1,000	1,982	1,989	989	98.9%
Occupied	687	1,276	1,366	679	98.8%
Share of Total Units	68.7%	64.4%	68.7%	---	---
Vacant	313	706	623	310	99.0%
Share of Total Units	31.3%	35.6%	31.3%	---	---
Owner Occupied	556	960	1,032	476	85.6%
Share of Occupied Units	80.9%	75.2%	75.5%	---	---
Renter Occupied Units	131	316	334	203	155.0%
Share of Occupied Units	19.1%	24.8%	24.5%	---	---
Vacant Seasonal, Recreational	245	546	425	180	73.5%

*average for 2011-2015.

Source: U.S. Census Bureau.

Vacancy Status - The most recent vacancy data from the 2015 American Community Survey shows the vacancy rate for each planning area; unincorporated county vacancy rate at 44%, Midway at 31%, and Heber City at 3% *Tables 4-6*. In the unincorporated area nearly 2,100 second homes were vacant. There were more vacant homes in the unincorporated area than housing units in Midway. While Heber City data shows a zero inventory of second homes, an unlikely number, the vacancy rate for the relatively large apartment inventory—1,300 rental units—was less than 3%.

Table 4
Vacant Units in Unincorporated Wasatch Housing Inventory

Category	2000	2010	2015
Vacant Units	1,508	2,309	2,538
For Rent	22	35	86
For Sale Only	30	204	38
Rented or Sold Not Occupied	10	37	122
For Seasonal, Recreational, or Occasional Use	1,245	1,959	2,063
For Migratory Workers	1	---	0
Other Vacant	46	74	229

Source: U.S. Census Bureau.

Table 5
Vacant Units in Unincorporated Heber City Housing Inventory

Category	2000	2010	2015
Vacant Units	155	275	96
For Rent	28	71	31
For Sale Only	48	81	17
Rented or Sold Not Occupied	12	26	0
For Seasonal, Recreational, or Occasional Use	36	54	0
For Migratory Workers	0	---	0
Other Vacant	31	43	48

Source: U.S. Census Bureau.

Table 6
Vacant Units in Unincorporated Midway City Housing Inventory

Category	2000	2010	2015
Vacant Units	313	706	623
For Rent	12	50	0
For Sale Only	31	60	45
Rented or Sold Not Occupied	10	13	26
For Seasonal, Recreational, or Occasional Use	245	546	425
For Migratory Workers	0	--	0
Other Vacant	15	37	127

Source: U.S. Census Bureau.

Bedroom Types – There are more similarities than differences among the three planning areas in terms of the number of bedrooms per owner occupied housing units *Table 7-9*. About ten percent of owner occupied housing units are one or two bedroom homes and roughly 50% are four and five bedroom homes in each of the planning areas although Midway tends to have more three bedroom homes than either Heber or the unincorporated area.

There are greater differences in the renter occupied inventory. Compared to Heber the rental inventory, in both the unincorporated county and Midway, have nearly double the rate of two bedroom units. In both areas the share of two bedroom units account for more than 50% of the rental inventory while in Heber City two bedroom units are just 29% of the inventory. In Heber 41% of rental units are three bedroom units. I would conjecture that the bedroom configuration of rental units in the unincorporated county and Midway reflects a greater share of small condominiums in the rental inventory whereas in Heber the relatively large share of three bedroom units probably reflects a high share of detached single family homes in the rental pool.

Table 7
Housing Units by Number of Bedrooms in Unincorporated Wasatch County - 2015

Category	Units	% Share
Total Occupied Units	3,164	
Owner Occupied	2,610	100.0%
No Bedroom	7	0.3%
1 Bedroom	76	2.9%
2 Bedrooms	287	11.0%
3 Bedrooms	816	31.3%
4 Bedrooms	731	28.0%
5 or more Bedrooms	693	26.6%
Renter Occupied	554	100.0%
No Bedroom	6	1.1%
1 Bedroom	53	9.6%
2 Bedrooms	289	52.2%
3 Bedrooms	85	15.3%
4 Bedrooms	110	19.9%
5 or more Bedrooms	11	2.0%

Source: U.S. Census Bureau.

Table 8
Housing Units by Number of Bedrooms in Heber City - 2015

Category	Units	% Share
Total Occupied Units	3,565	
Owner Occupied	2,267	100.0%
No Bedroom	0	0.0%
1 Bedroom	7	0.3%
2 Bedrooms	200	8.8%
3 Bedrooms	669	29.5%
4 Bedrooms	728	32.1%
5 or more Bedrooms	663	29.2%
Renter Occupied	1,298	100.0%
No Bedroom	13	1.0%
1 Bedroom	87	6.7%
2 Bedrooms	374	28.8%
3 Bedrooms	532	41.0%
4 Bedrooms	88	6.8%
5 or more Bedrooms	204	15.7%

Source: U.S. Census Bureau.

Table 9
Housing Units by Number of Bedrooms in Midway - 2015

Category	Units	% Share
Total Occupied Units	1,366	
Owner Occupied	1,032	100.0%
No Bedroom	12	1.2%
1 Bedroom	0	0.0%
2 Bedrooms	86	8.3%
3 Bedrooms	472	45.7%
4 Bedrooms	227	22.0%
5 or more Bedrooms	235	22.8%
Renter Occupied	334	100.0%
No Bedroom	0	0.0%
1 Bedroom	0	0.0%
2 Bedrooms	173	51.8%
3 Bedrooms	71	21.3%
4 Bedrooms	50	15.0%
5 or more Bedrooms	40	12.0%

Source: U.S. Census Bureau.

Age of Housing Inventory – The median year housing units were built in the three planning areas reflects the growth in Wasatch County over the past ten to fifteen years. Almost uniformly the median age for both rental units and owner occupied units is about twenty years old, i.e. the median year built is near the mid-1990s *Table 10*. The one exception, almost an outlier, is rental units in Heber. The median age of rental units in Heber is 1981.

Table 10
Median Year Housing Unit Built

Category	Wasatch County	Heber	Midway
Owner Occupied	1997	1995	1997
Renter Occupied	1994	1981	1996
Total	1995	1992	1997

Source: U.S. Census Bureau.

A more detailed measure of the age of housing in the three planning areas shows that the 2000-2010 decade was a period of extraordinary levels of housing development throughout the county *Tables 11-13*. For example, prior to the 2000-2009 decade owner occupied construction in the unincorporated area had never exceeded 450 units *over a decade*, but in the 2000-2009 decade 1,123 new owner occupied homes were added to the inventory. In both Heber and Midway the 2000-2009 decade was also the years of largest increase in new home construction.

And the same is true for rental units. The decade of the 2000-2009 had the greatest number of new rental units of any decade covered by the U.S. Census data in both Heber and the unincorporated area. In the unincorporated area during the decade 276 rental units were added to the inventory, in Heber City 362 rental units were added, roughly one-third of the total rental inventory. In Midway the 2000-2009 decade produced the second largest number of rental units of any decade, second only to the 1990-1999 decade when the number of rental units produced was about 12% higher than 2000-2009.

Table 11
Tenure by Year Housing Unit Built in Unincorporated Wasatch County
2015

Year Built	Units	% Share
Owner Occupied	2,610	100.0%
2014 or later	3	0.1%
2010 to 2013	126	4.8%
2000 to 2009	1,123	43.0%
1990 to 1999	441	16.9%
1980 to 1989	404	15.9%
1970 to 1979	249	9.5%
1960 to 1969	39	1.5%
1950 to 1959	31	1.2%
1940 to 1949	12	0.5%
1939 or earlier	182	7.0%
Renter Occupied	554	100.0%
2014 or later	0	0.0%
2010 to 2013	23	4.2%
2000 to 2009	276	49.8%
1990 to 1999	127	22.9%
1980 to 1989	11	2.0%
1970 to 1979	38	6.9%
1960 to 1969	11	2.0%
1950 to 1959	34	6.1%
1940 to 1949	10	1.8%
1939 or earlier	24	4.3%

Source: U.S. Census Bureau.

Table 12
Tenure by Year Housing Unit Built in Heber City
2015

Year Built	Units	% Share
Owner Occupied	2,267	100.0%
2014 or later	10	0.4%
2010 to 2013	59	2.6%
2000 to 2009	789	34.8%
1990 to 1999	516	22.8%
1980 to 1989	101	4.5%
1970 to 1979	260	11.5%
1960 to 1969	107	4.7%
1950 to 1959	84	3.7%
1940 to 1949	66	2.9%
1939 or earlier	275	12.1%
Renter Occupied	1,298	100.0%
2014 or later	0	0.0%
2010 to 2013	40	3.1%
2000 to 2009	362	27.9%
1990 to 1999	178	13.7%
1980 to 1989	78	6.0%
1970 to 1979	191	14.7%
1960 to 1969	0	0.0%
1950 to 1959	0	0.0%
1940 to 1949	106	8.2%
1939 or earlier	343	26.4%

Source: U.S. Census Bureau.

Table 13
Tenure by Year Housing Unit Built in Midway - 2015

Year Built	Units	% Share
Owner Occupied	1,032	100.0%
2014 or later	0	0.0%
2010 to 2013	0	0.0%
2000 to 2009	462	44.8%
1990 to 1999	206	20.0%
1980 to 1989	27	2.6%
1970 to 1979	138	13.4%
1960 to 1969	92	8.9%
1950 to 1959	0	0.0%
1940 to 1949	21	2.0%
1939 or earlier	86	8.3%
Renter Occupied	334	100.0%
2014 or later	0	0.0%
2010 to 2013	0	0.0%
2000 to 2009	115	34.4%
1990 to 1999	129	38.6%
1980 to 1989	0	0.0%
1970 to 1979	45	13.5%
1960 to 1969	29	8.7%
1950 to 1959	0	0.0%
1940 to 1949	0	0.0%
1939 or earlier	16	4.8%

Source: U.S. Census Bureau.

Housing Problems: Kitchen and Plumbing Facilities - HUD classifies housing units “with problems” as those units that do not have complete kitchen or plumbing facilities. Census data show that these types of “housing problems” are nearly absent from the three planning areas in Wasatch County market *Table 14*. In most cases only a fraction of one percent of housing units are without complete kitchens or bathroom facilities. In the case of telephone service an estimated 48 households were without telephone service. Clearly the most serious housing problems are units lacking plumbing and kitchen facilities, which are all but absent in the Wasatch County housing market.

Table 14
Housing Units Without Complete Kitchen or Bathrooms, 2015

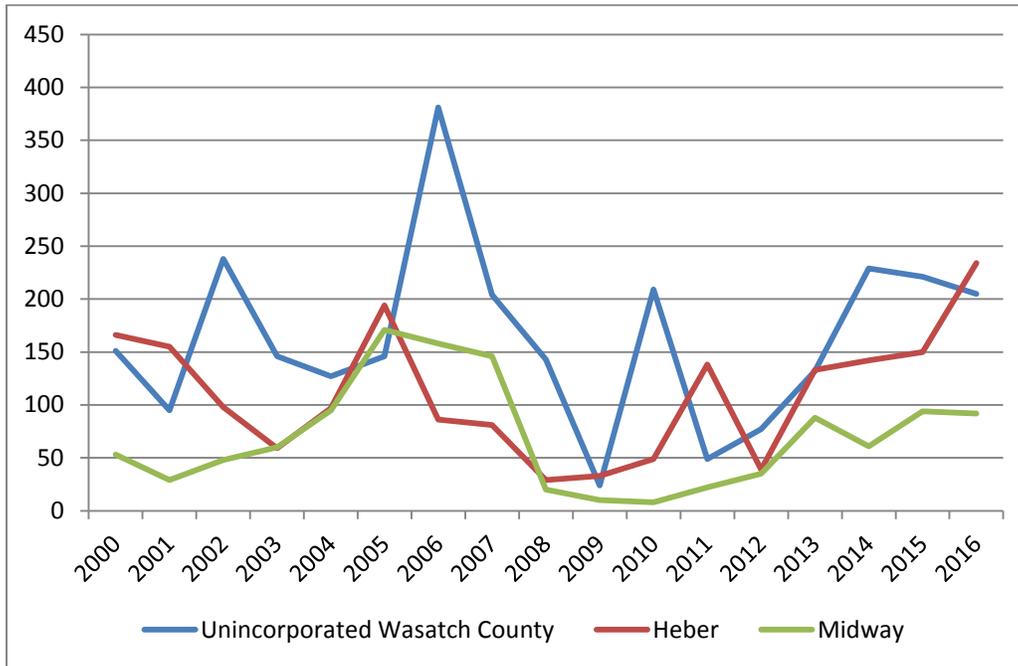
Category	Unincorporated County	Heber	Midway
Occupied Housing Units	3,164	3,565	1,366
Lacking Complete Plumbing Facilities	25	9	0
Lacking Complete Kitchen Facilities	15	16	0
No Telephone Service	48	24	23

Source: U.S. Census Bureau.

Permit Authorized Residential Construction – Since 2000 a total of 5,850 building permits have been issued for residential units in Wasatch County *Tables 15-17* and *Figure 3*. Nearly half of these permits were for units in the unincorporated area. And construction activity in the unincorporated area differs from Heber and Midway. In both these communities over 90% of new residential construction has been single family homes whereas in the unincorporated area 68% were single family homes as condominiums and townhomes captured a sizeable share of the market. In the past three years residential construction in the unincorporated county has averaged slightly more than 200 units annually while in Heber it has been about 175 units and in Midway about 80 units.

The volatility of building permits activity is shown in *Figure 3*. The unincorporated area is by far the most volatile of the three planning areas. In 2006, 381 units received building permits in the unincorporated area. Three years later permit activity dropped to 24 units. Construction in Midway tracked quite closely with Heber City until the recession. Over the past few years activity in Heber has move well above activity in Midway.

Figure 3
Permits Issued for Residential Construction in Unincorporated Wasatch County, Heber and Midway



Source: Ivory-Boyer Construction Database, Kem C. Gardner Policy Institute.

Table 15
Permits Issued for Residential Units in Unincorporated Wasatch County

Year	Single Family	Duplex	Condominium	Apartments	Other	Cabins	Manufactured Home	Total
2000	87	0	0	48	0	12	4	151
2001	93	0	0	0	0	1	1	95
2002	89	0	124	0	0	23	2	238
2003	133	2	0	0	0	9	2	146
2004	110	8	0	0	0	8	1	127
2005	119	20	0	0	0	7	0	146
2006	248	108	0	20	0	4	1	381
2007	175	0	0	0	0	27	2	204
2008	67	20	54	0	0	2	0	143
2009	24	0	0	0	0	0	0	24
2010	41	0	0	168	0	0	0	209
2011	33	4	12	0	0	0	0	49
2012	37	2	38	0	0	0	0	77
2013	117	0	15	0	0	0	0	132
2014	200	0	29	0	0	0	0	229
2015	157	0	63	0	0	0	1	221
2016	162	0	43	0	0	0	0	205
Total	1,892	164	378	236	0	93	14	2,777
% Share	68.1%	5.9%	13.6%	8.5%	0.0%	3.3%	0.5%	100.0%

Source: Ivory-Boyer Construction Database, Kem Gardner Policy Institute, University of Utah.

Table 16
Permits Issued for Residential Units in Heber City

Year	Single Family	Duplex	Condominium	Apartment	Other	Cabins	Manufactured Homes	Total
2000	156	8	0	0	0	0	2	166
2001	154	0	0	0	0	0	1	155
2002	95	0	0	0	0	0	3	98
2003	59	0	0	0	0	0	0	59
2004	97	0	0	0	0	0	0	97
2005	194	0	0	0	0	0	0	194
2006	86	0	0	0	0	0	0	86
2007	81	0	0	0	0	0	0	81
2008	29	0	0	0	0	0	0	29
2009	33	0	0	0	0	0	0	33
2010	49	0	0	0	0	0	0	49
2011	74	0	0	64	0	0	0	138
2012	39	0	0	0	0	0	0	39
2013	131	2	0	0	0	0	0	133
2014	142	0	0	0	0	0	0	142
2015	150	0	0	0	0	0	0	150
2016	169	0	0	64	0	0	1	234
Total	1,738	10	0	128	0	0	7	1,883
% Share	92.3%	0.5%	0.0%	6.8%	0.0%	0.0%	0.4%	100.0%

Source: Ivory-Boyer Construction Database, Kem Gardner Policy Institute, University of Utah.

Table 17
Permits Issued for Residential Units in Midway

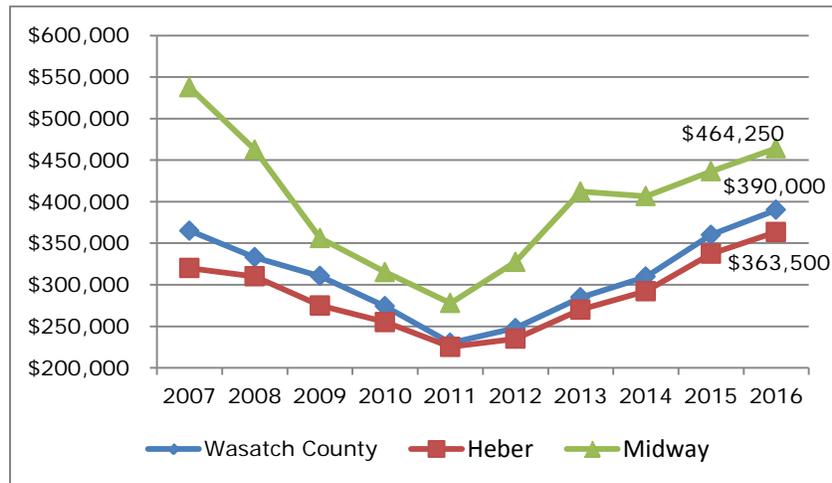
Year	Single Family	Duplex	Condominium	Apartment	Other	Cabins	Manufactured Home	Total
2000	53	0	0	0	0	0	0	53
2001	20	4	5	0	0	0	0	29
2002	43	0	5	0	0	0	0	48
2003	54	0	6	0	0	0	0	60
2004	83	2	10	0	0	0	0	95
2005	161	0	0	10	0	0	0	171
2006	123	2	33	0	0	0	0	158
2007	116	6	20	4	0	0	0	146
2008	18	2	0	0	0	0	0	20
2009	10	0	0	0	0	0	0	10
2010	8	0	0	0	0	0	0	8
2011	22	0	0	0	0	0	0	22
2012	35	0	0	0	0	0	0	35
2013	88	0	0	0	0	0	0	88
2014	56	2	2	0	0	0	1	61
2015	90	4	0	0	0	0	0	94
2016	80	4	4	4	0	0	0	92
Total	1,060	26	85	18	0	0	1	1,190
% Share	89.1%	2.2%	7.1%	1.5%	0.0%	0.0%	0.1%	100.0%

Source: Ivory-Boyer Construction Database, Kem Gardner Policy Institute, University of Utah.

Housing Prices – The three planning areas in Wasatch County are high priced housing markets *Figure 4 and Table 18*. In 2016 the median sales price in the county was \$390,000. (This is the overall median for the county. It was not possible to determine the median price for the unincorporated area.) Heber’s median sales price for an existing home was \$363,500 and in Midway it was \$464,250. Housing prices have recovered from the Great Recession in both the county and Heber and are slightly above the levels of ten years ago. However, in Midway

housing prices have yet to recover and are 13% below the peak price of \$537,500 in 2007. It should be noted that Midway is a relatively small market with the limited number of sold homes, which may result in greater volatility in the price statistics.

Figure 4
Median Sales Price of Single Family Homes in
Wasatch County, Heber, and Midway



Source: Wasatch Front Regional MLS.

Table 18
Median Sales Price of Single-Family Homes in
Wasatch County, Heber, and Midway

Year	Wasatch County	Heber	Midway
2007	\$365,000	\$320,000	\$537,500
2008	\$333,000	\$310,000	\$462,631
2009	\$310,500	\$275,000	\$356,250
2010	\$273,950	\$255,000	\$315,250
2011	\$230,000	\$225,213	\$277,950
2012	\$247,750	\$235,000	\$327,500
2013	\$284,750	\$270,000	\$412,195
2014	\$309,590	\$292,196	\$406,500
2015	\$359,950	\$337,250	\$436,422
2016	\$390,000	\$363,500	\$464,250
% Chg 2007-2016	6.80%	13.6%	-13.6%

Source: Wasatch Front Regional MLS.

Condominium prices have increased substantially in Wasatch County since 2007, but here again the small number of sales can lead to price volatility in the data due to a change in the characteristics of sold properties. In 2007 the median sales price of a condominium in the county was \$235,500. By 2016 the median sales price had jumped to \$355,000, an increase of 50% *Table 19*. Probably the most important aspect of the price statistics for condominiums is not the exact level of prices but rather the strong suggestion in the data of a high demand for condominium units. In most cases, condominiums are a more affordable housing option, and demand appears to have put strong upward pressure on prices. The sharp upward move in prices is a reflection of demand for affordable housing.

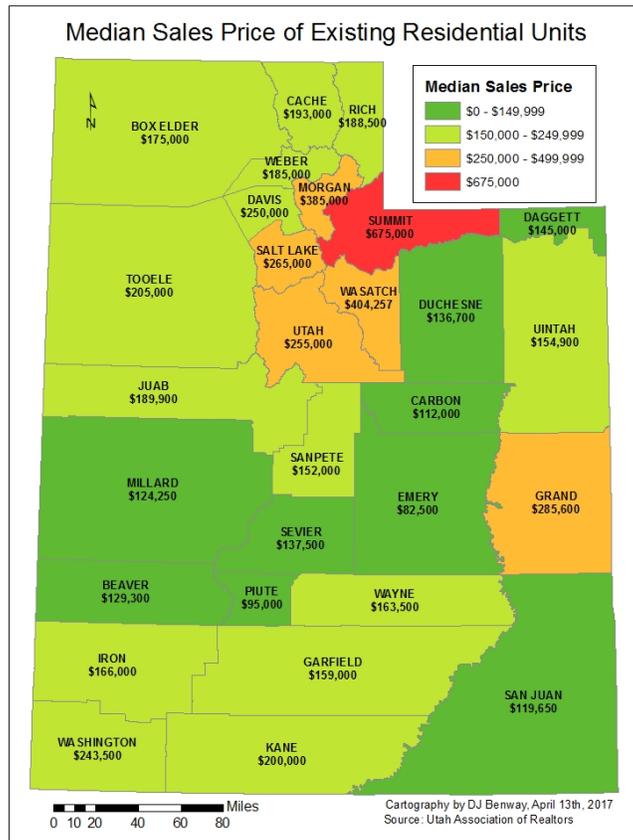
Table 19
Median Sales Price of Condominium, Townhomes,
and Twin Homes in Wasatch County

Year	Wasatch County
2007	\$235,500
2008	\$220,000
2009	\$171,500
2010	\$142,000
2011	\$125,000
2012	\$158,500
2013	\$191,450
2014	\$204,000
2015	\$298,940
2016	\$355,000
% Chg. 2007-16	50%

Source: Wasatch Front Regional MLS.

As mentioned Wasatch County is a high priced housing market. Only Summit County has a higher median sales price for homes (*combined single-family, condominiums, townhomes*) than Wasatch County. In 2016 the median sales price of a home in Wasatch County was \$404,257 Figure 1. Statewide the median sales price was \$246,000.

Map 1



Rental Rates and Occupancy Rates -There is no regularly published survey of rental rates in Wasatch County. As is the case with most rental markets outside the metropolitan area, there are only a handful of traditional apartment projects. Beyond the six tax credit projects in the county (discussed below), which are all 100% occupied and have long waiting lists, there are only two non-subsidized traditional apartment projects; Wasatch Commons (168 units, built in 2011) and Wing Pointe (158 units, built in 2000). Sixty percent of all rental units in Wasatch County are in single family homes and the basement of single family homes. Statewide that percentage is 38%. This fragmentation of the rental market makes it very difficult to get a good fix on occupancy and rental rates.

In discussion with managers of the tax credit projects as well as Wasatch Commons and Wing Pointe all indications are that the market is “extremely” tight. None of the eight projects, which have a total of 567 units, had a vacant unit. The waiting list at Liberty Station is over 1,000 names. All projects have waiting lists. The 567 units in the eight projects surveyed represent a 25% sample of rental units in Wasatch County; a sufficient sample to lend reasonable reliability to the conclusion that the overall rental market has near zero vacancies.

Rental rates at Wasatch Commons, Wing Pointe, and the market rate units at Liberty Station, and Deer Mountain suggest the following rental rates ranges: one bedroom unit: \$850 to \$950, two bedroom two bath \$950 to \$1,100, and three bedroom two bath \$1,100 to \$1250. Wasatch Commons has the highest rents in the market with rates about 10% higher than those above. Nevertheless, the rental rates of those projects surveyed are quite close to the HUD gross rents (includes utilities) estimated for Wasatch County. Therefore the HUD 50 percentile rents are a reasonable substitute for a comprehensive rental survey *Table 20*.

Table 20
Median Gross Rental Rates in Wasatch County by Bedroom Type

Year	Studio	One Bedroom	Two Bedroom	Three Bedroom	Four Bedroom
2013	\$698	\$775	\$919	\$1,354	\$1,359
2014	\$673	\$748	\$887	\$1,307	\$1,311
2015	\$730	\$803	\$903	\$1,506	\$1,512
2016	\$643	\$803	\$980	\$1,338	\$1,343
AAGR	-2.7%	1.2%	2.2%	-0.4%	-0.4%

AAGR = average annual growth rate.
Source: HUD 50% percentile rents.

Another measure of local rental rates is provided by the U.S. Census Bureau however, this data includes only median gross rents. No estimates are made of rents by bedroom type. The median gross rent for Wasatch County in 2015 was \$1,083. This estimate is a composite rent for all bedroom types *Table 21*.

Table 21
Median Gross Rent in Wasatch County

Year	Wasatch County	Heber	Midway
2010	\$888	\$855	\$1,154
2011	\$923	\$878	\$1,314
2012	\$954	\$928	\$1,259
2013	\$987	\$958	\$1,254
2014	\$1,025	\$997	\$1,305
2015	\$1,083	\$1,094	\$1,167

Source: U.S. Census Bureau.

Affordable Rental Inventory - There are six tax credit apartment projects in Wasatch County with a total of 241 units *Tables 22-24*. Deer Mountain (formerly Todd Hollow) is the only tax credit project not in Heber City. Deer Mountain has a total of 158 units. The largest tax credit project in Heber is Elmbridge with 76 units. There are two small Senior tax credit projects; Prestige Senior Living Center (23 units), and Brooklane Senior Apartments (16 units). half the units are tax credit and half market rate units. The rent structure of the tax credit projects is favorable for affordability with half of the tax credits units priced at 45% AMI or below *Table 25*. Tax credit units amount to 12% of the rental inventory in the county, the sixth highest share of Utah's 29 counties *Table 26*.

Table 22
Unit Mix in Unincorporated Wasatch County Tax Credit Projects
(includes only tax credit units in project)

Project	Studio	One Bedroom	Two Bedroom	Three Bedroom	Total Units
Deer Mountain			38	36	74

Source: Utah Housing Corporation.

Table 23
Unit Mix in Tax Credit Projects in Heber City
(includes only tax credit units in project)

Project	One Bedroom	Two Bedroom	Three Bedroom	Four Bedroom	Total Units
Liberty Station			26	20	46
Prestige Senior Living Center	21	2			23
Elmbridge	16	36	24		76
Brooklane Senior Apts.	16				16
Crown Homes Wheeler Park				6	6
Total	53	38	50	26	167

Source: Utah Housing Corporation.

Table 24
Unit Mix in Tax Credit Projects in Midway

Project	Studio	One Bedroom	Two Bedroom	Three Bedroom	Total Units
No Tax Credit Projects					

Source: Utah Housing Corporation.

Table 25
Tax Credit Units by AMI Level

AMI Level	Units
60%	80
53%	16
50%	8
49%	2
48%	9
45%	80
40%	14
39%	23
25%	9
Total	240

Source: Utah Housing Corporation.

Table 26
Tax Credit Units as Percent of Rental Inventory by County - 2016

County	Total Units in Tax Credit Projects*	Tax Credit Units	Rental Inventory	Tax Credit Units as Share of Rental Units
Rich	24	24	112	21.40%
Summit	674	671	3,171	21.20%
Tooele	742	712	4,327	16.50%
Box Elder	577	560	3,628	15.40%
Grand	166	166	1,290	12.90%
Wasatch	361	241	1,991	12.10%
Weber	2,656	2,499	22,909	10.90%
Salt Lake	14,739	12,374	116,355	10.60%
Davis	2,346	2,187	21,693	10.10%
San Juan	82	82	836	9.80%
Iron	599	551	5,622	9.80%
Carbon	219	218	2,355	9.30%
Washington	1,381	1,347	14,821	9.10%
Duchesne	148	148	1,670	8.90%
Beaver	39	39	517	7.50%
Kane	47	47	643	7.30%
Cache	907	874	12,335	7.10%
Sevier	102	98	1,613	6.10%
Uintah	157	157	2,737	5.70%
Juab	28	28	589	4.80%
Sanpete	86	86	2,051	4.20%
Utah	1,890	1,767	47,549	3.70%
Emery	23	23	678	3.40%
Garfield	9	9	390	2.30%
Millard	6	6	1,038	0.60%
Daggett	0	0	57	0.00%
Morgan	0	0	394	0.00%
Piute	0	0	76	0.00%
Wayne	0	0	142	0.00%
Total	28,008	24,923	271,589	9.20%

*Some tax credit projects also have market rate units. The difference between column 2 and 3 is the number of market rate units.

Source: Utah Housing Corporation.

II. Characteristics of Housing Demand: Demographic and Employment Trends

Growth Trends for Population and Households - The population and household growth in Wasatch County over the past fifteen years has been impressive. Demographically, the county is one of the fastest growing counties in the state. Since 2000 the average annual population growth rate of the county has been 4.5% *Table 1*. In 2015 the population of the county is estimated at 29,161, the number of households at 9,286.

Table 1
Population and Household Trends in Wasatch County

Year	Population	Households	Average Household Size
2000	15,215	4,743	3.18
2010	23,530	7,287	3.19
2015	29,161	9,286	3.19
Average Annual Growth Rate			
2000-2010	4.5%	4.4%	NA
2000-2015	4.4%	4.6%	NA
2010-2015	4.4%	5.0%	NA

Source: Kem Gardner Policy Institute, University of Utah

Of the three planning areas in the study; unincorporated Wasatch County, Heber, and Midway, Midway has had the highest average annual growth rate. Midway's average annual growth rate since 2000 was 5.4% for population and 5.6% for households. Heber's population growth rate for the same period was 4.6% and for the unincorporated county 3.9%.

In 2015 the unincorporated county had a population of 10,231, 35% of the population of the county, Heber had a population of 14,302, a 49% share of the county population, and Midway had a population of 4,646, 16% of the county's population *Tables 2-4*.

Table 2
Population and Household Trends in Unincorporated Wasatch County*

Year	Population	Households	Average Household Size
2000	5,805	1,760	3.18
2010	8,323	2,649	3.19
2015	10,231	3,256	3.18
Average Annual Growth Rate			
2000-2010	3.7%	4.2%	NA
2000-2015	3.9%	4.2%	NA
2010-2015	4.2%	4.2%	NA

*City estimates for 2015 are for single year not averaged 2011-2015 as is the case in some selected tables.

Source: U.S. Census Bureau.

Table 3
Population and Household Trends in Heber*

Year	Population	Households	Average Household Size
2000	7,291	2,296	3.16
2010	11,362	3,362	3.35
2015	14,302	3,565	3.60
Average Annual Growth Rate			
2000-2010	4.5%	3.9%	NA
2000-2015	4.6%	4.0%	NA
2010-2015	4.7%	4.1%	NA

*City estimates for 2015 are for single year not averaged 2011-2015 as is the case in some selected tables.

Source: U.S. Census Bureau.

Table 4
Population and Household Trends in Midway*

Year	Population	Households	Average Household Size
2000	2,121	687	3.09
2010	3,845	1,276	3.01
2015	4,646	1,550	3.00
Average Annual Growth Rate			
2000-2010	6.1%	6.4%	NA
2000-2015	5.4%	5.6%	NA
2010-2015	3.9%	4.0%	NA

*City estimates for 2015 are for single year not averaged 2011-2015 as is the case in some selected tables.

Source: U.S. Census Bureau.

Since 2010 Wasatch County has had the fastest demographic growth of all 29 counties in Utah. Over the six year period the county's population has increased by a remarkable 26.8%. The unincorporated county, when compared to counties, ranks second to Wasatch County with an increase of 22% and an average annual growth rate of 4.1% *Table 5*.

Recent demographic growth is even stronger in Heber. For the 2010 to 2015 period the population of Heber increased at an average annual growth rate of 4.5%, giving Heber a ranking of fifth fastest growing city for cities with a population of more than 10,000 *Table 6*. Heber ranks just behind Washington City, and ahead of Eagle Mountain.

Midway ranks as one of the fastest growing small cities (1,000 to 10,000 population). From 2010 to 2015 Midway was the sixth fastest growing small city in Utah just behind North Logan and ahead of Fruit Heights.

Table 5
Counties Ranked by Percent Change in Population 2010-2016

Rank	County	2010	2016	% Chg.	AAGR
1	Wasatch County	23,652	29,995	26.8%	4.9%
...	Unincorporated Wasatch County	8,347	10,212	22.3%	4.1%
2	Morgan County	9,518	11,522	21.1%	3.9%
3	Utah County	518,872	603,362	16.3%	3.1
4	Washington County	138,579	160,359	15.7%	3.0
5	Juab County	10,280	11,541	12.3%	2.3
6	Tooele County	58,358	65,285	11.9%	2.3
7	Uintah County	32,760	36,580	11.7%	2.2
8	Davis County	307,625	342,645	11.4%	2.2
9	San Juan County	14,771	16,302	10.4%	2.0
10	Duchesne County	18,721	20,608	10.1%	1.9
....
29	Emery County	11,012	10,659	-4.0%	-0.6%

Source: U.S. Census Bureau.

Table 6
Cities Ranked by Change in Population 2010 to 2015
(Cities with more than 10,000 population)

Rank	City	2010	2015	% Chg	AAGR*
1	Saratoga Springs	18,048	25,407	40.8%	7.1%
2	Herriman	22,466	30,835	37.3%	6.5%
3	South Jordan	51,322	66,648	29.9%	5.4%
4	Washington	18,858	24,299	28.9%	5.2%
5	Heber	11,446	14,302	25.0%	4.6%
6	Eagle Mountain	22,226	27,332	23.0%	4.2%
7	Farmington	18,419	22,566	22.5%	4.1%
8	Lehi	48,157	58,486	21.4%	4.0%
9	North Salt Lake	16,352	19,796	21.1%	3.9%
10	Midvale	28,310	32,613	15.2%	2.9%
....
45	Provo c	112,945	115,264	2.1%	0.4%

*AAGR = Average Annual Growth Rate.

Source: U.S. Census Bureau.

Table 7
Cities Ranked by Change in Population 2010 to 2015
(Cities with >1,000 to 10,000 population)

Rank	City	2010	2015	% Chg	AAGR*
1	Bluffdale	7,623	10,931	43.4%	7.5%
2	Elk Ridge	2,469	3,183	28.9%	5.2%
3	Naples	1,746	2,212	26.7%	4.8%
4	Vernal	9,057	11,200	23.7%	4.3%
5	North Logan	8,316	10,181	22.4%	4.1%
6	Midway	3,859	4,646	20.4%	3.8%
7	Fruit Heights	5,050	6,072	20.2%	3.8%
8	Francis	1,068	1,258	17.8%	3.3%
9	Ivins	6,772	7,876	16.3%	3.1%
10	Nibley	5,568	6,451	15.9%	3.0%
....
95	Huntington	2,146	2,004	-6.6%	-1.4%

*AAGR = Average Annual Growth Rate

Source: U.S. Census Bureau.

Population by Age Group – Tables 8-10 show the population of the three planning areas by five year age group. The median age for all three jurisdictions is approximately 30 years of age with very little change over the past fifteen years. There is not much noteworthy in the population by age data other than the shift in the share of young population (19 years or less) in the unincorporated area. In 2000, 36.5% of the population in the unincorporated county was 19 years or younger. By 2015 that share had dropped to 30%. Most of the other age groups picked up some of this declining share with the 65 years and over age getting the largest increase as their share of the population grew from 8% to 12%. In both Heber and Midway the share of the 19 years and younger age group is nearly unchanged at 35% for Midway and 39% for Heber.

Table 8
Population by Age in Unincorporated Wasatch County

Age Group	2000	2010	2011- 2015
Under 5 Years	419	668	771
5 to 9 years	527	739	810
10 to 14 years	599	720	716
15 to 19 years	574	616	534
20 to 24 years	340	423	374
25 to 29 years	305	437	490
30 to 34 years	352	575	581
35 to 39 years	422	552	752
40 to 44 years	520	540	546
45 to 49 years	402	556	563
50 to 54 years	357	677	666
55 to 59 years	289	517	886
60 to 64 years	231	438	618
65 to 69 years	178	341	441
70 to 74 years	130	225	317
75 to 79 years	76	157	194
80 to 84 years	46	96	102
85 years and over	36	46	53
Median Age	30.6	31.6	31.8
Total	5,803	8,323	9,413

Source: U.S. Census Bureau.

Table 9
Population by Age in Heber City

Age Group	2000	2010	2011-2015
Under 5 Years	773	1,308	1,157
5 to 9 years	718	1,245	1,287
10 to 14 years	668	1,079	1,586
15 to 19 years	630	853	1,157
20 to 24 years	541	643	988
25 to 29 years	576	802	897
30 to 34 years	612	1,022	923
35 to 39 years	575	973	1,443
40 to 44 years	501	727	741
45 to 49 years	414	664	858
50 to 54 years	302	553	650
55 to 59 years	209	436	403
60 to 64 years	145	337	208
65 to 69 years	165	236	234
70 to 74 years	153	155	143
75 to 79 years	116	133	130
80 to 84 years	106	114	117
85 years and over	87	82	91
Median Age	29.6	30.3	30.6
Total	7,291	11,362	13,014

Source: U.S. Census Bureau.

Table 10
Population by Age in Midway City

Age Group	2000	2010	2011-2015
Under 5 Years	206	358	311
5 to 9 years	175	386	409
10 to 14 years	205	327	418
15 to 19 years	188	246	362
20 to 24 years	147	161	51
25 to 29 years	127	214	213
30 to 34 years	121	251	256
35 to 39 years	138	267	311
40 to 44 years	162	242	285
45 to 49 years	163	210	179
50 to 54 years	120	251	230
55 to 59 years	105	246	311
60 to 64 years	73	254	294
65 to 69 years	64	173	311
70 to 74 years	49	110	153
75 to 79 years	37	74	102
80 to 84 years	27	41	21
85 years and over	14	34	43
Median Age	30.6	30.0	30.4
Total	2,121	3,845	4,261

Source: U.S. Census Bureau.

Race and Ethnicity - Race and ethnicity are important to the housing needs assessment. First, race (people of color) and ethnicity (Hispanic origin) are classifications used by HUD in the designation of protected classes. Federal law prohibits housing discrimination based on a person's color or ethnicity. While all of the planning areas are predominately white (*white alone not Hispanic*), each planning area does have a share of residents who are of Hispanic origin. (Hispanic is an ethnicity not a race.) Most Hispanics are generally part of the white population except when the white population is defined as *white alone not Hispanic*).

Since 2000 the number of Hispanics has increased in the unincorporated county, Heber, and Midway *Tables 11-13*. But in the unincorporated area the growth of the Hispanic population has been modest, consequently the Hispanic share of the population has actually declined. In the unincorporated county Hispanics total 910 individuals and have a 9.7% share of the population compared to a 13.7% share in 2000.

In contrast the Hispanic population in Midway and Heber has increased in both numeric and relative terms. The Hispanic population in Midway totals 342 individuals and is 8% of the population, up from 2.6% of the population in 2000. In Heber, the Hispanic population has increased from 528 individuals in 2000 to 2,278 individuals in 2015 and the share of the population has grown from 7% to 17%. The number of Hispanics in Heber has quadrupled since 2000. This rapid growth has implications for the housing market. Hispanic households are generally larger than white households and Hispanics have a greater likelihood of renting. Seventy-eight percent of all Hispanic households are renters compared to thirty percent for all races and ethnicities in Wasatch County. The local Hispanic population is employed primarily in low wage occupations. Fifty-three percent of all Hispanic individuals in Wasatch County were living below the poverty line in 2015.

Table 11
Race and Ethnicity – Unincorporated Wasatch County

Category	2000	2010	2011-2015	% Share 2000	% Share 2011-2015
White alone	5,582	7,274	8,200	96.2%	87.2%
Black or African alone	0	19	14	0.0%	0.1%
American Indian alone	41	13	18	0.7%	0.2%
Asian alone	14	32	182	0.2%	1.9%
Pacific Islander alone	33	12	14	0.6%	0.1%
Two or more races	50	87	0	0.9%	0.0%
Hispanic or Latino	805	880	910	13.9%	9.7%
Total	5,803	8,053	9,399	100.0%	100.0%

Source: U.S. Census Bureau.

Table 12
Race and Ethnicity – Heber City

Category	2000	2010	2011-2015	% Share 2000	% Share 2011-2015
White alone	6,474	8,984	10,319	90.7%	79.4%
Black or African	10	23	0	0.1%	0.0%
American Indian	60	26	4	0.8%	0.0%
Asian alone	12	116	190	0.2%	1.5%
Pacific Islander	10	9	0	0.1%	0.0%
Two or more races	42	105	210	0.6%	1.6%
Hispanic or Latino	528	2,092	2,278	7.4%	17.5%
Total	7,136	11,355	13,001	100.0%	100.0%

Source: U.S. Census Bureau.

Table 13
Race and Ethnicity – Midway

Category	2000	2010	2011-2015	% Share 2000	% Share 2011-2015
White alone	2,070	3,560	3,919	96.4%	92.0%
Black or African	0	7	0	0.0%	0.0%
American Indian	7	13	0	0.3%	0.0%
Asian alone	4	20	0	0.2%	0.0%
Pacific Islander	0	3	0	0.0%	0.0%
Two or more races	12	29	0	0.6%	0.0%
Hispanic or Latino	55	212	342	2.6%	8.0%
Total	2,148	3,845	4,261	100.0%	100.0%

Source: U.S. Census Bureau.

Household Income and Wages - Wasatch County ranks fifth among all Utah Counties in median household income. In 2015 the median household income of the county was \$66,486 *Table 14*. The county ranks 18th in terms of income inequality with a Gini Index of .40. The relatively low Gini Index is a bit surprising given the income levels, housing prices, and “bedroom community” aspects of Wasatch County. But the index does show that the county has a reasonable rate of income equality. The higher the Gini Index number the more unequal the income distribution. Perfect income equality would have an index value of 0 and perfect inequality would have an index of 1. Summit County, a neighboring county, has the highest Gini Index (.48) among Utah’s twenty nine counties.

Table 14
Counties Ranked by Household Income

County	Median Household Income
Summit	\$91,733
Morgan	\$74,314
Davis	\$72,016
Uintah	\$66,815
Wasatch	\$66,486
Salt Lake	\$65,694
Utah	\$65,487
Tooele	\$63,552
Duchesne	\$61,133
Daggett	\$56,750
Weber	\$56,581
Box Elder	\$55,038
Washington	\$54,913
Juab	\$54,761
Grand	\$53,168
Millard	\$51,593
Rich	\$50,781
Cache	\$50,518
Sanpete	\$50,323
Beaver	\$50,282
Kane	\$50,191
Emery	\$49,787
Carbon	\$46,900
Sevier	\$46,291
Iron	\$43,855
Garfield	\$42,614
San Juan	\$41,484
Wayne	\$40,645
Piute	\$35,980

Source: U.S. Census Bureau, American Community Survey.

Changes in the median household income for Wasatch County, Heber and Midway are shown in Tables 15-17. Midway has the highest median income at \$77,272 and also has had the largest increase in median household income since 1999. Over the 16 year period the median income in Midway has increased by 51%. These data indicate that the household growth in Midway has been driven by higher income households. The median income in both unincorporated Wasatch County and Heber has increased by about 33% since 1999.

Table 15
Household Income in Wasatch County

Year	Median Income	Average Income
1999	\$49,612	NA
2010	\$65,204	\$83,870
2011	\$64,651	\$81,616
2012	\$65,012	\$90,230
2013	\$65,050	\$85,960
2014	\$65,582	\$82,805
2015	\$66,486	\$81,751
% Chg. 1999-2015	34%	---

Source: U.S. Census Bureau.

Table 16
Household Income in Heber City

Year	Median Income	Average Income
1999	\$45,394	NA
2010	\$55,865	\$63,245
2011	\$57,147	\$64,256
2012	\$57,714	\$65,191
2013	\$58,883	\$68,317
2014	\$60,275	\$68,999
2015	\$60,171	\$70,041
% Chg. 1999-2015	33%	---

Source: U.S. Census Bureau.

Table 17
Household Income in Midway

Year	Median Income	Average Income
1999	\$51,071	NA
2010	\$71,393	\$89,015
2011	\$76,556	\$91,824
2012	\$74,968	\$90,705
2013	\$77,244	\$88,593
2014	\$77,896	\$90,627
2015	\$77,273	\$88,340
% Chg. 1999-2015	51%	---

Source: U.S. Census Bureau.

Wages Rates -The average annual wage rate for workers in Wasatch County in 2015 was \$36,204 well below the average wage rate statewide of \$43,452 *Table 18*. The Wasatch County wage is only 83% of statewide average wage. The low wages leave local workers vulnerable to severe housing cost burdens and limited opportunities for affordable housing. Those Wasatch County households with very high incomes generally do not work in the county. They commute to Salt Lake, Utah, or Summit Counties working in high priced professional occupations.

Table 18
Comparison of Average Annual Wage Rates

Year	Wasatch County	Heber	State	Wasatch County as % of State Average Wage	Heber City as % of State Average Wage
2006	\$27,804	\$28,776	\$34,596	80.4%	83.2%
2007	\$31,332	\$29,016	\$36,516	85.8%	79.5%
2008	\$30,612	\$31,320	\$37,452	81.7%	83.6%
2009	\$30,540	\$31,380	\$38,052	80.3%	82.5%
2010	\$31,176	\$31,848	\$38,820	80.3%	82.0%
2011	\$31,284	\$32,028	\$39,660	78.9%	80.8%
2012	\$31,112	\$32,460	\$40,644	76.5%	79.9%
2013	\$32,652	\$34,956	\$41,064	79.5%	85.1%
2014	\$34,560	\$36,708	\$42,180	81.9%	87.0%
2015	\$36,204	\$41,124	\$43,452	83.3%	94.6%

Source: Utah Department of Workforce Services.

Household Income and Tenure - Household income by tenure shows that a substantial share of all renters have incomes below \$35,000. In Heber 44% of all renters have incomes below \$35,000 while in the unincorporated county and Midway the share is about 30% *Table 19*. On the other hand 38% of owners have incomes above \$100,000 in the unincorporated county, 26% in Heber and 42% in Midway.

Table 19
Household Income by Tenure

Income Group	Unincorporated Wasatch Co.	Heber	Midway
Owner occupied:	2,610	2,267	1,032
Less than \$5,000	64	26	7
\$5,000 to \$9,999	2	31	28
\$10,000 to \$14,999	56	75	23
\$15,000 to \$19,999	52	48	50
\$20,000 to \$24,999	90	39	0
\$25,000 to \$34,999	171	136	36
\$35,000 to \$49,999	344	305	110
\$50,000 to \$74,999	452	541	167
\$75,000 to \$99,999	387	472	181
\$100,000 to \$149,999	524	319	271
\$150,000 or more	468	275	159
% of Owners ≤ \$100,000	38%	26%	42%
Renter occupied:	554	1,298	334
Less than \$5,000	42	63	11
\$5,000 to \$9,999	16	94	32
\$10,000 to \$14,999	15	129	0
\$15,000 to \$19,999	19	55	29
\$20,000 to \$24,999	30	56	0
\$25,000 to \$34,999	36	172	28
% of Renters ≤ \$35,000	28.5%	43.8%	29.9%
\$35,000 to \$49,999	131	151	45
\$50,000 to \$74,999	101	260	67
\$75,000 to \$99,999	92	99	72
\$100,000 to \$149,999	65	200	21
\$150,000 or more	7	19	29

Source: U.S. Census Bureau, American Community Survey Table B25118, 2011-2015.

Employment Characteristics and Trends - The most recent employment data for Wasatch County and Heber show the number of jobs at 7,721 for the county and about 4,700 for Heber *Table 20 and Figure 1*. Heber accounts for about two-thirds of the jobs in Wasatch County. Fifteen years ago three out of four jobs in Wasatch County were located in Heber. There has been some shift in employment in the county to the unincorporated area. Local workers whether employed in Heber City or the county generally work in low wage occupations.

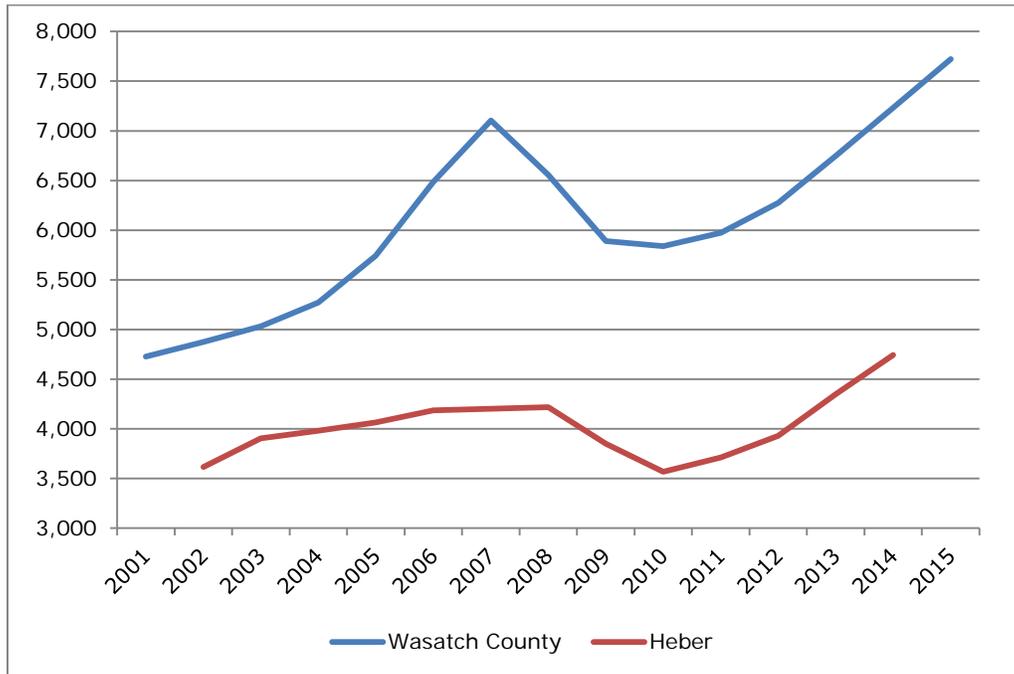
Employment trends in Wasatch County show that the pre-recession peak in 2007 of 7,103 was surpassed in 2014 and employment countywide is at an all-time high in 2015. The number of jobs in Heber is also at a record level.

Table 20
Employment in Wasatch County and Heber City

Year	Wasatch County	Heber City	Heber City % Share of County
2001	4,726	NA	NA
2002	4,876	3,615	74.1%
2003	5,032	3,904	77.6%
2004	5,273	3,982	75.5%
2005	5,744	4,064	70.8%
2006	6,485	4,187	64.6%
2007	7,103	4,203	59.2%
2008	6,556	4,217	64.3%
2009	5,890	3,850	65.4%
2010	5,838	3,569	61.1%
2011	5,973	3,713	62.2%
2012	6,273	3,929	62.6%
2013	6,748	4,348	64.4%
2014	7,232	4,742	65.6%
2015	7,721	NA	NA

Source: Utah Department of Workforce Services.

Figure 1
Employment Trends in Wasatch County and Heber



Since 2001 employment in Wasatch County has increased by 76%. Only Summit County has had a more rapid increase in employment *Table 21*. Wasatch County is just slightly ahead of the fast growing Washington County.

Table 21
Counties Ranked by Employment Change 2001-2016

Rank	County	2001	2016	% Chg.
1	Summit	15,846	29,650	87.1%
2	Wasatch	4,727	8,330	76.2%
3	Washington	35,740	62,204	74.0%
4	Utah	154,056	242,031	57.1%
5	Duchesne	5,122	7,560	47.6%
6	Davis	87,579	123,386	40.9%
7	Tooele	11,646	16,080	38.1%
8	Cache	42,537	58,201	36.8%
9	Morgan	1,636	2,168	32.5%
10	Iron	13,960	18,406	31.8%
---	---	---	---	---
29	Wayne	1,110	881	-20.6%

Source: Utah Department of Workforce Services.

About half of all workers in Wasatch County are employed in retail trade, accommodations and food services and government. The average annual wage in retail trade and accommodations and food services area relatively low and tend to reduce the average wage rate in the county. The highest wage sector is construction in Heber with an average wage rate of \$66,984 *Table 22*. The lowest wage sector is accommodations and food services with an average wage of \$13,656.

Table 22
Employment and Wages in Wasatch County and Heber City, 2015

Sector	Wasatch County		Heber City	
	Employment	Avg. Wage	Employment	Avg. Wage
Mining	D	D	D	D
Construction	1094	\$54,672	617	\$66,984
Manufacturing	281	\$46,512	203	\$51,444
Trade, Transportation, Utilities	1,307	\$28,416	1,070	\$29,292
Information	102	D	D	D
Financial Activities	335	\$45,516	159	\$37,308
Professional & Bus. Services	854	\$36,300	411	\$51,300
Health Care & Education	822	\$45,192	614	\$38,088
Accommodations and Food Service	1,100	\$36,036	625	\$13,656
Other Services	341	\$16,860	132	\$24,144
Government	1,470	\$24,460	1,092	\$41,196
Total	7,721	\$39,216	3,713	\$32,028

Source: Utah Department of Workforce Services.

Jobs in Wasatch County have consistently had a ratio of about one job to every three residents of the county; a very different profile than Summit County where jobs outnumber the population with 1.4 jobs for every resident. Wasatch County employment and population data reflect the “bedroom community” aspect of the county with little trace of the resort community features and characteristics of Summit County *Table 23*. The “bedroom community” nature of Wasatch County is best illustrated by the commuting patterns of residents discussed in the next section.

Table 23
Employment to Population Ratio in Wasatch County

Year	Population	Employment	Employment to Population Ratio
2000	15,427	4,695	.30 jobs/one person
2001	16,244	4,727	.29
2002	17,411	4,874	.28
2003	18,416	5,031	.27
2004	19,042	5,274	.28
2005	19,826	5,744	.29
2006	20,836	6,485	.31
2007	21,689	7,105	.33
2008	22,535	6,564	.29
2009	23,072	5,890	.26
2010	23,652	5,840	.25
2011	24,484	5,980	.24
2012	25,542	6,270	.25
2013	26,389	6,748	.26
2014	27,342	7,229	.26
2015	28,613	7,723	.27

Source: U.S. Census and Utah Department of Workforce Services.

Commuting Patterns of Residents and Workers -The Longitudinal Employment Household Dynamics (LEHD) tool from the U.S. Census Bureau shows the home origin of workers in Wasatch County and Heber. LEHD estimates the total employment in the county in 2014 at 8,882, *Table 24*. About fifteen percent of workers employed in Wasatch County are residents of the county. Another 8% of those working in county come from Salt Lake County and 8% as well from Summit County.

Table 24
County Origin for Workers Commuting into Wasatch County

City of Origin	2014	% Share
Total Employment	8,882	100.0%
Wasatch County	3,695	14.7%
Summit County	1,059	8.2%
Salt Lake County	1,092	8.6%
Utah County	1,053	4.6%
Other	1,660	0.5%
Total In County Commuting	3,695	41.6%
Total Out of County Commuting	5,187	58.4%

Source: U.S. Census, Longitudinal Employment Household Dynamics.

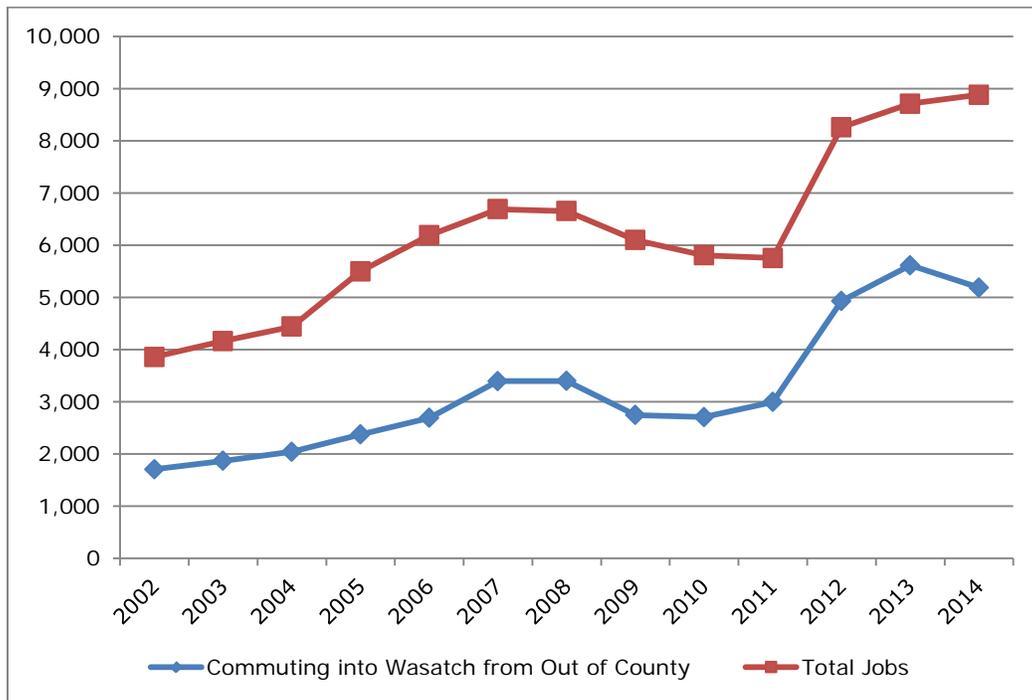
Fifty-eight percent of all workers in the county are out of county commuters. The share of out of county workers has increased significantly in the past few years; growing from about 50% a few years ago to nearly 60% in 2014 *Table 25 and Figure 2*.

Table 25
Share of Workers Commuting into Wasatch County from Outside the County

Year	Workers Commuting into Wasatch from Another County	Total Employment	% Share of Workers Commuting from Out of County
2002	1,707	3,859	44.2%
2003	1,869	4,165	44.9%
2004	2,043	4,440	46.0%
2005	2,375	5,500	43.2%
2006	2,692	6,190	43.5%
2007	3,396	6,691	50.8%
2008	3,399	6,654	51.1%
2009	2,746	6,099	45.0%
2010	2,708	5,808	46.6%
2011	2,997	5,754	52.1%
2012	4,932	8,259	59.7%
2013	5,614	8,709	64.5%
2014	5,187	8,882	58.4%

Source: U.S. Census, Longitudinal Employment Household Dynamics.

Figure 2
Wasatch County Employment and Commuting from Out of County



A little over half of all employees in Heber are residents of Wasatch County *Table 26*. Utah County and Salt Lake County combined account for another 20% of the commuters into Heber for employment. Forty-six percent of workers in Heber are out of county residents. The share of workers commuting from out of county into Heber has increased significantly in the past few years, growing from around 30% ten years ago to 46% by 2014 *Table 27 and Figure 3*.

Table 26
County Origin for Workers Commuting into Heber City

City of Origin	2014	% Share
Total Employment	4,468	100.0%
Wasatch County	2,407	53.9%
Utah County	525	11.8%
Salt Lake County	412	9.2%
Summit County	230	5.1%
Other	894	20.0%
Total In County Commuting	2,407	53.9%
Total Out of County Commuting	2,061	46.1%

Source: U.S. Census, Longitudinal Employment Household Dynamics.

Table 27
Share of Workers Commuting into Heber City from Outside the County

Year	Workers Commuting into Heber City from Outside County	Total Employment	% Share of Workers Commuting from Out of County
2002	1,005	3,615	27.8%
2003	1,109	3,904	28.4%
2004	1,126	3,982	28.2%
2005	1,304	4,064	32.1%
2006	1,423	4,187	34.0%
2007	1,841	4,203	43.8%
2008	1,765	4,217	41.8%
2009	1,660	3,850	43.1%
2010	1,477	3,569	41.3%
2011	1,702	3,713	45.8%
2012	1,777	3,929	45.2%
2013	1,943	4,348	44.7%
2014	2,061	4,742	46.0%

Source: U.S. Census, Longitudinal Employment Household Dynamics.

Figure 3
Heber City Employment and Commuting from Outside the County

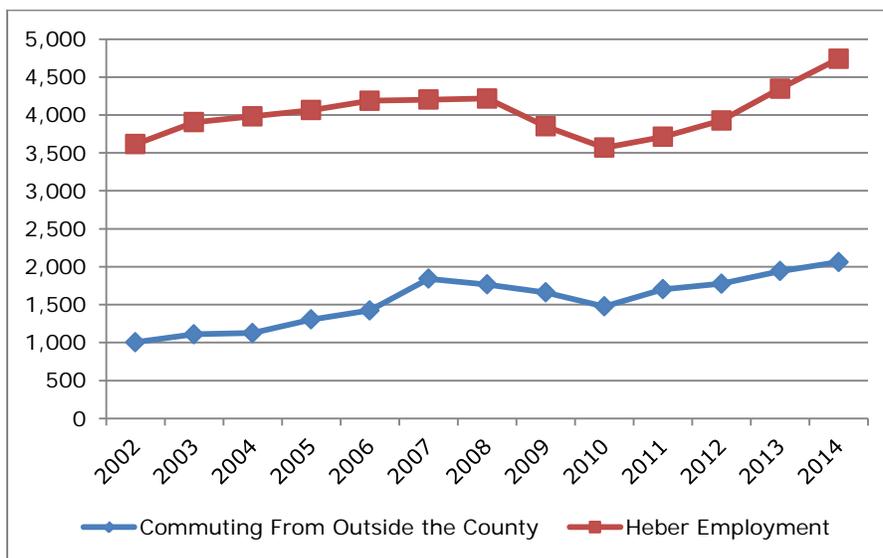


Table 28 shows the commuting patterns of residents of Wasatch County and Heber City who are in the workforce and commuting outside of the county for work. In 2014, 70% of Wasatch County residents with jobs commute outside of the county for work. Twenty-five percent work in Salt Lake County and 19% work in Summit County. The share of the residents commuting out of county has remained remarkably consistent since 2002 at 70% of residents in the workforce Table 29 and Figure 4. The absolute number of Wasatch County residents leaving the county for work has increased from 4,900 in 2002 to 8,900 in 2014.

Table 28
Location of Employment of Wasatch County Residents
Commuting Out of County, 2014

County	2014	% Share
Total Residents Employed	12,577	100.0%
Wasatch County	3,695	29.4
Salt Lake County	3,165	25.2
Summit County	2,421	19.2
Utah County	1,533	12.2
Weber County	404	3.2
Davis County	400	3.2
Other Counties	959	7.6

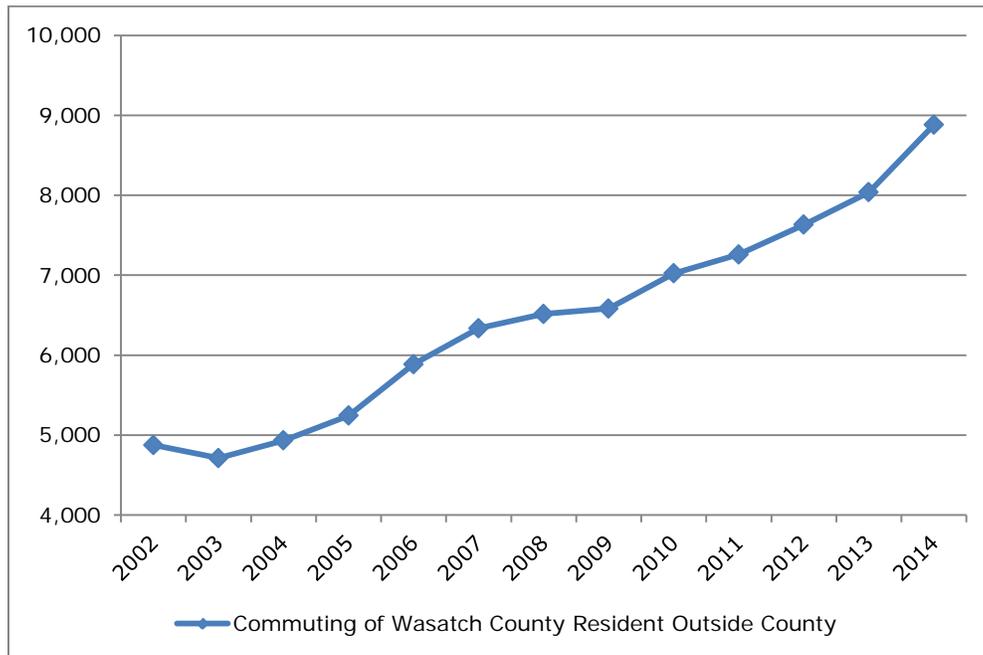
Source: U.S. Census, Longitudinal Employment Household Dynamics.

Table 29
Commuting Out of County for Employment by Wasatch County Residents

Year	Residents Commuting Out of County	Wasatch Residents in Workforce	Share Commuting Out of County
2002	4,876	7,028	69.4%
2003	4,713	6,982	67.5%
2004	4,933	7,330	67.3%
2005	5,243	8,367	62.7%
2006	5,886	9,384	62.7%
2007	6,336	9,631	65.8%
2008	6,515	9,770	66.7%
2009	6,582	9,935	66.3%
2010	7,023	10,123	69.4%
2011	7,259	10,016	72.5%
2012	7,632	10,959	69.6%
2013	8,037	11,582	69.4%
2014	8,882	12,577	70.6%

Source: U.S. Census, Longitudinal Employment Household Dynamics.

Figure 4
Commuting of Wasatch County Residents to Employment Outside of the County



Nearly 70% of the Heber residents who are in the workforce commute out of county for work. Salt Lake County is the destination for almost 25% of these commuters, followed by Summit County at 20%. Out of county commuting has been very consistent, maintaining roughly a 65% share for those Heber residents in the workforce. While the percentage share has remained unchanged the absolute number of commuters has increased considerably, from 2,700 in 2002 to almost 4,600 in 2014.

Table 30
Location of Employment of Heber Residents
Commuting Out of County, 2014

County	2014	% Share
Total Residents Employed	6,596	100.0%
Wasatch County	2,029	30.8
Salt Lake County	1,525	23.4
Summit County	1,350	20.5
Utah County	752	11.4
Davis County	234	3.5
Weber County	210	3.2
Other Counties	496	7.5

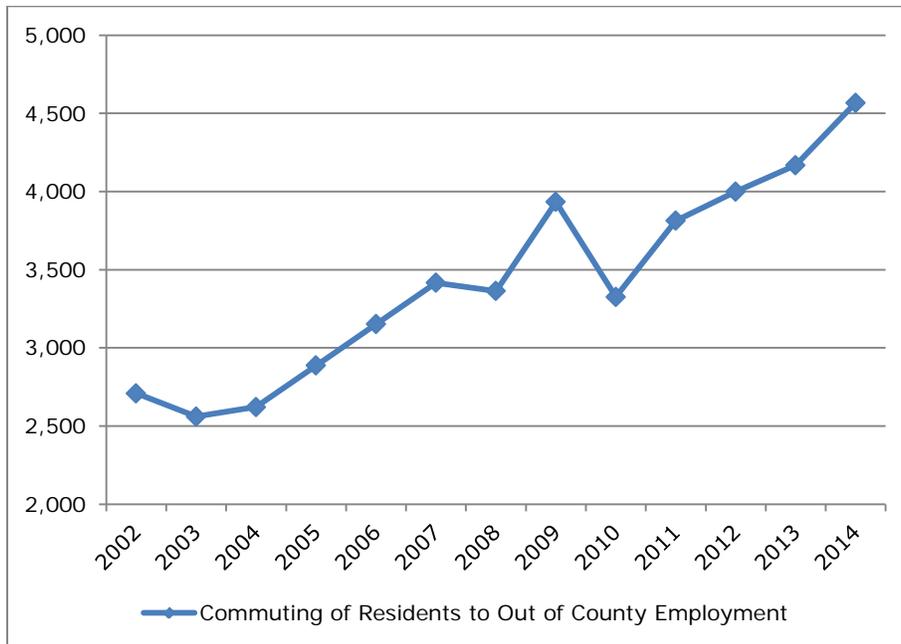
Source: U.S. Census, Longitudinal Employment Household Dynamics.

Table 31
Commuting Out of County for Employment by Heber City Residents

Year	Residents Commuting Out of County	Heber Residents in Workforce	Share Commuting Out of County
2002	2,709	3,925	69.0%
2003	2,561	3,818	67.1%
2004	2,622	3,958	66.2%
2005	2,887	4,653	62.0%
2006	3,152	5,147	61.2%
2007	3,417	5,294	64.5%
2008	3,364	5,183	64.9%
2009	3,933	6,073	64.8%
2010	3,326	5,013	66.3%
2011	3,813	5,361	71.1%
2012	4,000	5,815	68.8%
2013	4,169	6,127	68.0%
2014	4,567	6,596	69.2%

Source: U.S. Census, Longitudinal Employment Household Dynamics.

Figure 5
Commuting of Heber City Residents to Employment Outside of the County



III. Housing Affordability and Needs Analysis

The need for affordable housing is determined by two measures, an analysis of the gap between supply and demand of affordable units and an analysis of the cost burden of renters and owners, with special attention to households facing a severe housing cost burden.

Need for Affordability of Rental Housing

Affordability Calculator - Household income is one of the most important factors in assessing a city or county’s housing affordability. The household income used for the three jurisdictions in this study relies on U.S. Census Bureau estimates. The household income along with an estimated mortgage interest rate of five percent, monthly utilities costs of \$200, and mortgage insurance cost of one percent were all entered into the Utah Division of Housing and Community Development’s *Utah Affordable Housing Forecast Tool*. This tool then calculated the monthly income for housing expenses and maximum mortgage payment for households with incomes at 30% AMI, 30%-50% AMI, 50%-80% AMI, 80% to 100% AMI, and 100% to 120% AMI for Wasatch County, Heber City, and Midway Tables 1-3.

The *Affordability Calculator* determined that in Wasatch County the monthly income available for housing costs for households with 30% AMI to 120% AMI ranged from a low of less than \$500 to a high of \$1,995, for Heber City the range is \$450 to \$1,805, and for Midway, the most expensive of the jurisdictions, the affordable range for housing costs is \$580 to \$2,320. The maximum mortgage loan amounts based on the median income of the jurisdictions are also determined by the *Affordability Calculator* and are presented in *Tables 1-3*.

Table 1
Affordability Calculator for Unincorporated Wasatch County

Category	Amount
County	Wasatch County
City	County
Year	2011-2015
AMI	\$66,486
Monthly Utility Costs	\$200
Loan Terms (Years)	30
Interest Rate	5.00%
Mortgage Insurance	Yes
Mortgage. Insurance Rate	1.00%
<i>Monthly Income for Housing Expenses</i>	
≤30% AMI	≤\$501
>30% to ≤50% AMI	>\$501 to ≤\$831
>50% to ≤80% AMI	>\$831 to ≤\$1,330
>80% to ≤100% AMI	>\$1,330 to ≤\$1,662
>100% to ≤120% AMI	>\$1,662 to ≤1,995
<i>Maximum Mortgage Loan Amount</i>	
≤30% AMI	\$83,250
>30% to ≤50% AMI	\$138,350
>50% to ≤80% AMI	\$221,420
>80% to ≤100% AMI	\$276,700
>100% to ≤120% AMI	\$332,130

Source: Utah Affordable Housing Forecast Tool

Table 2
Affordability Calculator for Heber City

Category	Amount
County	Wasatch County
City	Heber City
Year	2011-2015
AMI	\$60,171
Monthly Utility Costs	\$200
Loan Terms (Years)	30
Interest Rate	5.00%
Mortgage Insurance	Yes
Mortgage. Insurance Rate	1.00%
<i>Monthly Income for Housing Expenses</i>	
≤30% AMI	≤\$451
>30% to ≤50% AMI	>\$451 to ≤\$752
>50% to ≤80% AMI	>\$752 to ≤\$1,203
>80% to ≤100% AMI	>\$1,203 to ≤\$1,504
>100% to ≤120% AMI	>\$1,504 to ≤1,805
<i>Maximum Mortgage Loan Amount</i>	
≤30% AMI	\$75,049
>30% to ≤50% AMI	\$125,137
>50% to ≤80% AMI	\$200,186
>80% to ≤100% AMI	\$250,275
>100% to ≤120% AMI	\$300,363

Source: Utah Affordable Housing Forecast Tool

Table 3
Affordability Calculator for Midway

Category	Amount
County	Wasatch County
City	Midway
Year	2011-2015
AMI	\$77,273
Monthly Utility Costs	\$200
Loan Terms (Years)	30
Interest Rate	5.00%
Mortgage Insurance	Yes
Mortgage. Insurance Rate	1.00%
<i>Monthly Income for Housing Expenses</i>	
≤30% AMI	≤\$580
>30% to ≤50% AMI	>\$580 to ≤\$966
>50% to ≤80% AMI	>\$966 to ≤\$1,545
>80% to ≤100% AMI	>\$1,545 to ≤\$1,932
>100% to ≤120% AMI	>\$1,932 to ≤2,320
<i>Maximum Mortgage Loan Amount</i>	
≤30% AMI	\$96,515
>30% to ≤50% AMI	\$160,748
>50% to ≤80% AMI	\$257,098
>80% to ≤100% AMI	\$321,500
>100% to ≤120% AMI	\$386,062

Source: Utah Affordable Housing Forecast Tool

Gap Analysis for Renter Households - The income by AMI levels and the affordable rent range for households in the respective income levels are essential to the gap analysis. Income levels

determine household funds available for monthly rent. For example, a very low income household in Heber—income from roughly \$18,000 to \$30,000—would have an affordable rent range of \$450 to \$750. Once the rent range was established the next step is to estimate the number of rental units in Heber in the respective rent ranges.

Data from the *U.S. Census American Community Survey Table 25056 2011-2015*, which gives the number of rental units by contract rent, is used to estimate the number of rental units in each rent range. For Heber City the number of rental units in the city with rents from \$450 to \$750 is 155 units. Fitting the number of rental units to affordable rent ranges often involved some numerical interpolation. This process established the supply of affordable rental units by AMI level. The demand for these units is then determined by data from the HUD CHAS, which gives the number of renters and owners by AMI levels.

For Heber City the most recent HUD CHAS shows that there were 215 renters with incomes at 30% to 50% AMI. These renters represent the demand for rental units priced between \$450 and \$750 in Heber City. The last step is to subtract the number of renters from the number of affordable rental units to determine the gap between supply and demand, i.e. the need for additional affordable housing. In the Heber City case, for the very low income renter, the gap or deficit is 60 units *Tables 4-6*.

The gap analysis shows that in all three jurisdictions there is a gap in affordable rental units for the extremely low income households (incomes less than 30% AMI). For Wasatch County the gap for this income group is 27 units, for Heber City 182 units, and for Midway 60 units. Also each jurisdiction has a deficit of affordable rental units for households with incomes between 100% and 120% of the median. The deficit for the unincorporated county is 125, for Heber City 161 units, and for Midway 93 units.

Those households in the unincorporated county, and Midway, with incomes at 30%-50% AMI, and 50%-80% AMI, enjoy a surplus of affordable rental units, at least as determined by the gap analysis. Only in Heber City in the 30%-50% AMI income group is there a deficit. The 50%-80% AMI group in Heber has a surplus of 395 units. The apparent surplus of units for very low and low income households is counter to anecdotal information. Market conditions indicate a very “tight” market, and the experience of renters, landlords, and market analyst suggests quite the opposite; the demand for affordable rental units for all groups under 80% AMI exceeds the supply of units. For this reason it is appropriate and instructive to use an additional measure of affordability, the housing cost burden of renter households.

Housing Cost Burden for Renters – The HUD CHAS provides the cost burden data for renters and owners for each of the AMI income levels. A housing cost burden is present when a renter or owner pays more than 30 percent of their household income for housing costs. A severe cost burden is present when housing costs rise to 50 percent of household income.

Housing Needs Assessment: Unincorporated Wasatch County, Heber, and Midway

Table 4
Gap Analysis for Renter Households in Unincorporated Wasatch County

AMI Income Levels	Income Thresholds by AMI	Affordable Rent Range	Number of Rental Units in Rent Range	Number of Renters in AMI Income Level	Gap Units Minus Renters
≤30% AMI	≤\$19,945	≤\$501	48	75	-27
>30% to ≤50% AMI	>\$19,945 to ≤\$33,243	>\$501 to ≤\$831	105	65	40
>50% to ≤80% AMI	>\$33,243 to ≤\$53,188	>\$831 to ≤\$1,330	270	115	155
>80% to ≤100% AMI	>\$53,188 to ≤\$66,486	>\$1,330 to ≤\$1,662	20	70	-50
>100% to ≤120% AMI	>\$66,486 to ≤\$79,783	>\$1,662 to ≤\$1,995	40	165	-125
>120% AMI	>\$79,783	More than \$1,995	7	0	7
Total			490	490	

Source: U.S. Census Bureau, American Community Survey, Table B25056 Contract Rent, HUD CHAS 2009-2013 Renters by Income, and UAHFT.

Table 5
Gap Analysis for Renter Households in Heber City

AMI Income Levels	Income Thresholds by AMI	Affordable Rent Range	Number of Rental Units in Rent Range	Number of Renters in AMI Income Level	Gap Units Minus Renters
≤30% AMI	≤\$18,050	≤\$451	78	260	-182
>30% to ≤50% AMI	>\$18,050 to ≤\$30,085	>\$451 to ≤\$752	155	215	-60
>50% to ≤80% AMI	>\$30,085 to ≤\$48,137	>\$752 to ≤\$1,203	645	250	395
>80% to ≤100% AMI	>\$48,137 to ≤\$60,171	>\$1,203 to ≤\$1,504	151	160	-9
>100% to ≤120% AMI	>\$60,171 to ≤\$72,200	>\$1,504 to ≤\$1,805	34	195	-161
>120% AMI	>\$72,200	More than \$1,805	17		
Total			1,080	1,080	

Source: U.S. Census Bureau, American Community Survey, Table B25056 Contract Rent, HUD CHAS 2009-2013 Renters by Income, and UAHFT.

Table 6
Gap Analysis for Renter Households in Midway

AMI Categories	Income Levels by AMI	Affordable Rent Range	Number of Rental Units by Rent Range	Number of Renters in Income Level	Gap Units Minus Renters
≤30% AMI	<\$23,182	≤\$580	0	60	-60
>30% to ≤50% AMI	>\$23,182 to ≤\$38,636	>\$580 to ≤\$966	149	30	119
>50% to ≤80% AMI	>\$38,636 to ≤\$61,818	>\$966 to ≤\$1,545	109	80	29
>80% to ≤100% AMI	>\$61,818 to ≤\$77,273	>\$1,545 to ≤\$1,932	20	15	5
>100% to ≤120% AMI	>\$77,273 to ≤\$92,727	>\$1,932 to ≤\$2,320	17	110	-93
Total			295	295	

Source: U.S. Census Bureau, American Community Survey, Table B25056 Contract Rent, HUD CHAS 2009-2013 Renters by Income, and UAHFT.

A high percentage of renters with incomes \leq 50% AMI have housing cost burdens greater than 30 percent. In all three jurisdictions 92 percent of these renters have housing cost burdens greater than 30% of their income.

Severe Housing Cost Burden and Need for Affordable Rental Units - The need for affordable rental housing is best illustrated by those households with a severe housing cost burden. These households are most vulnerable to housing instability and homelessness. In unincorporated Wasatch County 100 renters with income less than 50% AMI have severe housing cost burdens and in Heber City that number jumps to 265 households; one quarter of all renter households are extremely low and very low income households with severe housing cost burdens. In Midway there are 65 extremely low and very low income households with severe cost burdens *Tables 7-9*.

Unincorporated Wasatch County, Heber City, and Midway combined have a total of 610 renter households that have incomes at or below 50% AMI and also face severe housing cost burdens. These households are on the edge of eviction and homelessness and represent the highest need cohort for affordable housing.

**Table 7
Cost Burdened Renter Households in Unincorporated Wasatch County**

Income AMI, Cost Burdened Households (>30%)	Households with Burden	Total Households	% Share with Burden
\leq 30% AMI	75	75	100.0%
>30% to \leq 50% AMI	61	65	93.8%
>50% to \leq 80% AMI	40	115	34.8%
>80% to \leq 100% AMI	0	70	0.0%
>100% AMI	0	165	0.0%
Total	176	490	35.9%
Income AMI, Severely Cost Burdened Households (>50%)	Households With Burden	Total Households	% Share With Burden
\leq 30% AMI	75	75	100.0
>30% to \leq 50% AMI	25	65	38.5
>50% to \leq 80% AMI	5	115	4.3
>80% to \leq 100% AMI	0	70	0.0
>100% AMI	0	165	0.0
Total	105	490	21.4%

Source: HUD CHAS 2009-2013.

Table 8
Cost Burdened Renter Households in Heber City

Income AMI, Cost Burdened Households (>30%)	Households with Burden	Total Households	% Share with Burden
≤30% AMI	240	260	92.3%
>30% to ≤50% AMI	205	215	95.3%
>50% to ≤80% AMI	140	250	56.0%
>80% to ≤ 100% AMI	35	160	21.9%
>100% AMI	0	195	0.0%
Total	620	1,080	57.4%
Income AMI, Severely Cost Burdened Households (>50%)	Households With Burden	Total Households	% Share with Burden
≤30% AMI	195	260	75.0%
>30% to ≤50% AMI	70	215	32.6%
>50% to ≤80% AMI	10	250	4.0%
>80% to ≤ 100% AMI	0	160	0.0%
>100% AMI	0	195	0.0%
Total	275	1,080	25.5%

Source: HUD CHAS 2009-2013.

Table 9
Cost Burdened Renter Households in Midway

Income AMI, Cost Burdened Households (>30%)	Households with Burden	Total Households	% Share with Burden
≤30% AMI	40	60	66.7%
>30% to ≤50% AMI	29	30	96.7%
>50% to ≤80% AMI	40	80	50.0%
>80% to ≤ 100% AMI	4	15	26.7%
>100% AMI	0	110	0.0%
Total	113	295	38.3%
Income AMI, Severely Cost Burdened Households (>50%)	Households With Burden	Total Households	% Share with Burden
≤30% AMI	40	60	66.7%
>30% to ≤50% AMI	25	30	83.3%
>50% to ≤80% AMI	0	80	0.0%
>80% to ≤ 100% AMI	4	15	26.7%
>100% AMI	0	110	0.0%
Total	69	295	23.4%

Source: HUD CHAS 2009-2013.

Further confirmation of the high need for affordable rental housing in Wasatch County is provided by a comparative analysis with other counties and cities. Placing the study jurisdictions in context shows that Wasatch County, unincorporated Wasatch County, Heber City, and Midway have a relatively high share of renters with severe housing cost burdens.

Wasatch County ranks second among all Utah counties in the percent of renter households that have a severe housing cost burden. Nearly one in four renters faces housing costs in excess of 50 percent of their household income, 449 of the 1,865 renter households in Wasatch County have severe housing cost burdens *Table 10*. Unincorporated Wasatch County ranks eighth in the county comparison with 21 percent of renters facing severe housing cost burdens.

Table 10
Counties Ranked by Percent of Renter Households with Severe Housing Cost Burden
by Income (AMI Categories)

Rank	County	Renters Households	Renter Households with Severe Cost Burden					Total	% Renters with Severe Cost Burden
			≤30% AMI	>30%-≤50% AMI	>50%-≤80% AMI	>80%-≤100% AMI	≥100% AMI		
1	Utah County	45,940	7,090	3,185	860	60	65	11,260	24.5%
2	Wasatch County	1,865	310	120	15	4	0	449	24.1%
3	Washington County	14,475	1,835	985	355	25	95	3,295	22.8%
4	Salt Lake County	112,425	18,325	6,135	925	100	105	25,590	22.8%
5	Grand County	1,160	185	60	15	0	0	260	22.4%
6	Wayne County	155	30	4	0	0	0	34	21.9%
7	Rich County	110	20	4	0	0	0	24	21.8%
---	Unincorporated Wasatch	490	75	25	5	0	0	105	21.4%
8	Summit County	3,490	530	130	30	15	0	705	20.2%
9	Weber County	22,580	3,605	690	70	10	35	4,410	19.5%
10	Cache County	12,565	1,590	570	240	25	10	2,435	19.4%
11	Juab County	595	100	15	0	0	0	115	19.3%
12	Emery County	660	115	10	0	0	0	125	18.9%
13	Duchesne County	1,650	210	85	0	0	0	295	17.9%
14	Davis County	21,270	2,825	890	35	25	10	3,785	17.8%
15	Iron County	5,750	850	100	35	0	0	985	17.1%
16	Sevier County	1,500	230	15	0	4	0	249	16.6%
17	Carbon County	2,365	355	30	0	0	0	385	16.3%
18	Uintah County	2,755	275	110	60	0	0	445	16.2%
19	Box Elder County	3,360	300	155	15	15	4	489	14.6%
20	Morgan County	310	45	0	0	0	0	45	14.5%
21	Tooele County	4,530	500	100	15	0	0	615	13.6%
22	San Juan County	790	95	10	0	0	0	105	13.3%
23	Millard County	1,055	100	25	4	4	0	133	12.6%
24	Sanpete County	1,855	185	40	4	0	0	229	12.3%
25	Garfield County	410	50	0	0	0	0	50	12.2%
26	Piute County	95	10	0	0	0	0	10	10.5%
27	Beaver County	470	45	0	0	0	0	45	9.6%
28	Kane County	650	20	25	0	0	0	45	6.9%
29	Daggett County	80	4	0	0	0	0	4	5.0%
	Statewide	264,915	39,834	13,493	2,678	287	324	56,616	21.4%

Source: HUD CHAS, 2009-2013.

A comparison among cities shows that Heber City ranks, in terms of renters with severe housing cost burdens, in the top twenty percent of cities with 25 percent of renters having severe cost burdens *Table 11*. Among smaller cities, 250 to 1,000 renters, Midway ranks 10th among the 50 small cities. Of Midway's 290 renter households 69 have severe cost burdens; 23 percent of all renters *Table 12*.

Table 11
Cities Ranked by Percent of Renters with Severe Housing Cost Burden
 (Cities with More than 1,000 Renter Households)

Rank	City	Renter Households	Number Renters with Severe Cost Burden	% Share with Severe Cost Burden
1	Magna CDP	1,725	505	29.3%
2	Provo	18,400	5,330	29.0%
3	Park City	1,250	360	28.8%
4	South Salt Lake	5,140	1,464	28.5%
5	West Valley	11,935	3,350	28.1%
6	Vernal	1,230	340	27.6%
7	Hurricane	1,180	315	26.7%
8	American Fork	1,825	485	26.6%
9	Heber	1,080	275	25.5%
10	Orem	9,890	2,450	24.8%
11	St. George	9,085	2,250	24.8%
12	Pleasant Grove	3,035	750	24.7%
13	North Salt Lake	1,310	315	24.0%
14	Washington	1,875	450	24.0%
15	Herriman	1,165	270	23.2%
16	Murray	6,245	1,445	23.1%
17	West Jordan	7,195	1,660	23.1%
18	Salt Lake City	37,160	8,510	22.9%
19	Taylorsville	5,475	1,240	22.6%
20	Ogden	13,095	2,950	22.5%
21	Lehi	2,435	545	22.4%
22	Millcreek CDP	8,905	1,960	22.0%
23	Sandy	5,990	1,280	21.4%
24	Midvale	6,295	1,335	21.2%
25	Kearns CDP	1,570	330	21.0%
26	Layton	5,615	1,165	20.7%
27	Logan	9,355	1,930	20.6%
28	Price	1,125	215	19.1%
29	South Ogden	2,050	390	19.0%
30	South Jordan	2,545	480	18.9%
31	Holladay	2,660	500	18.8%
32	Washington Terrace	1,340	250	18.7%
33	Tooele	2,770	485	17.5%
34	Clearfield	4,405	765	17.4%
35	Cedar City	4,700	805	17.1%
36	Springville	2,435	405	16.6%
37	Draper	2,345	370	15.8%
38	Payson	1,260	195	15.5%
39	Spanish Fork	2,060	315	15.3%
40	Roy	1,960	290	14.8%
41	Kaysville	1,065	155	14.6%
42	Cottonwood Heights	3,515	505	14.4%
43	Bountiful	3,695	525	14.2%
44	Brigham City	1,565	210	13.4%
45	Riverton	1,335	160	12.0%
	Average			21.2%

Source: HUD CHAS, 2009-2013.

Table 12
Percent of Renter Households with Severe Cost Burden
 (Cities with 250 to 1,000 Renter Households)

Rank	City	Renter Households	Number of Renters with Severe Cost Burden	% Share with Severe Cost Burden
1	Sunset	475	179	37.7%
2	West Point	270	90	33.3%
3	La Verkin	325	105	32.3%
4	Highland	255	80	31.4%
5	North Logan	780	240	30.8%
6	Cedar Hills	295	90	30.5%
7	Nephi	295	75	25.4%
8	Alpine	535	130	24.3%
9	Salina	250	60	24.0%
10	Midway	295	69	23.4%
11	Bluffdale	370	80	21.6%
12	Hyrum	320	65	20.3%
13	Roosevelt	740	145	19.6%
14	Eagle Mountain	690	135	19.6%
15	Centerville	665	130	19.5%
16	Blanding	285	55	19.3%
17	White City	285	55	19.3%
18	Helper	260	50	19.2%
19	Tremonton	705	135	19.1%
20	Moab	870	165	19.0%
21	Lindon	475	90	18.9%
22	Salem	285	54	18.9%
23	Carbonville	280	50	17.9%
24	Duchesne	280	50	17.9%
25	Richfield	760	135	17.8%
26	Snyderville CDP	710	125	17.6%
27	West Haven	805	135	16.8%
28	Clinton	875	145	16.6%
29	Grantsville	480	75	15.6%
30	Delta	355	55	15.5%
31	Summit Park CDP	455	70	15.4%
32	Providence	425	65	15.3%
33	Riverdale	930	140	15.1%
34	Syracuse	535	80	15.0%
35	Ephraim	740	105	14.2%
36	North Ogden	780	105	13.5%
37	Saratoga Springs	820	110	13.4%
38	Santaquin	415	55	13.3%
39	Farmington	970	125	12.9%
40	Wendover	315	35	11.1%
41	Beaver	285	30	10.5%
42	Woods Cross	570	55	9.6%
43	Harrisville	285	25	8.8%
44	Kanab	425	25	5.9%
45	Ivins	535	29	5.4%
46	Santa Clara	375	19	5.1%
47	Smithfield	390	15	3.8%
48	Erda CDP,	290	0	0.0%
49	Hildale	290	0	0.0%
50	Dugway	260	0	0.0%
	Average of Cities			17.0%

Source: HUD CHAS, 2009-2013.

Need for Affordable Owner Occupied Housing

Affordability Calculator - The availability of affordable owner occupied housing is determined, as is the case with rental housing, by a comparison of income and housing prices. Again income and affordability rely on the Utah Affordable Housing Finance Tool's *Affordability Calculator*, which provides the income by AMI levels as well as monthly income available for housing costs, and the maximum affordable mortgage value.

In unincorporated Wasatch County, the maximum affordable home price by AMI level ranges from \$83,250 for the extremely low income household to \$332,130 for a household at 120% AMI *Table 13*. The maximum housing prices for each of the five AMI income levels in Heber ranges from a low of \$75,049 to a high of \$300,363, and in Midway the maximum price ranges from \$96,515 for the extremely low income household to \$386,062 for the household at 120% AMI *Tables 14-15*.

Table 13
Maximum Affordable Home Price by AMI Income Level
Unincorporated Wasatch County

AMI Income Categories	Monthly Income Available for Housing Costs	Maximum Home Price
≤30% AMI	≤\$501	\$83,250
>30% to ≤50% AMI	>\$501 to ≤\$831	\$138,350
>50% to ≤80% AMI	>\$831 to ≤\$1,330	\$221,420
>80% to ≤100% AMI	>\$1,330 to ≤\$1,662	\$276,700
>100% to ≤120% AMI	>\$1,662 to ≤\$1,995	\$332,130

Source: Utah Affordable Housing Forecast Tool.

Table 14
Maximum Affordable Home Price by AMI Income Level
Heber City

AMI Income Categories	Monthly Income Available for Housing Costs	Maximum Home Price
≤30% AMI	≤\$451	\$75,049
>30% to ≤50% AMI	>\$451 to ≤\$752	\$125,137
>50% to ≤80% AMI	>\$752 to ≤\$1,203	\$200,186
>80% to ≤100% AMI	>\$1,203 to ≤\$1,504	\$250,275
>100% to ≤120% AMI	>\$1,504 to ≤\$1,805	\$300,363

Source: Utah Affordable Housing Forecast Tool.

Table 15
Maximum Affordable Home Price by AMI Income Level
Midway

AMI Income Categories	Monthly Income Available for Housing Costs	Maximum Home Price
≤30% AMI	>\$580 to ≤\$966	\$96,515
>30% to ≤50% AMI	>\$966 to ≤\$1,545	\$160,748
>50% to ≤80% AMI	>\$1,545 to ≤\$1,932	\$257,098
>80% to ≤100% AMI	>\$1,932 to ≤\$2,320	\$321,500
>100% to ≤120% AMI	>\$580 to ≤\$966	\$386,062

Source: Utah Affordable Housing Forecast Tool.

Supply of Affordable Homes and Condos - Once the price ranges of affordability are determined by the Affordability Calculator the next step is to compare the number of “for sale” listed homes in each of the five AMI categories for each jurisdiction. Using the sales data from the MLS the number of single family homes and condominiums, twin homes, and townhomes sales in each of the price ranges was determined. To estimate the number of sales by affordable price range it was often necessary to use numeric interpolation of the sales data.

Unincorporated Wasatch County had very little in the way of affordable housing sales in 2016. Most of the sales activity in the unincorporated county was in the Jordanelle area where homes and condominiums are priced well above the affordability level of households with incomes below 120% AMI, the target market for this study. Only nine of the 50 *single family* homes that sold in the unincorporated county in 2016 were affordable to households with incomes below 120% AMI. Thirty of the *condominiums* at the Jordanelle were affordable to the high income households with maximum mortgage payment of \$332,130 *Tables 16-17*. In 2016 there were almost no opportunities for households with incomes below the median to purchase an owner occupied unit in the unincorporated area of Wasatch County.

Table 16
Unincorporated Wasatch County: Single Family Sales Affordable to Selected Income Groups, 2016

Income by AMI Level	Affordable Home Price Range	Number Sales	Percentage of Total Sales
≤30% AMI	≤\$83,250	0	0.0%
>30% to ≤50% AMI	>\$83,250 to ≤\$138,350	2	13.3%
>50% to ≤80% AMI	>\$138,350 to ≤\$221,420	1	6.7%
>80% to ≤100% AMI	>\$221,420 to ≤\$276,700	2	13.3%
>100% to ≤120% AMI	>\$276,700 to >\$332,130	4	20.0%
Total Home Sales All Prices		50	100.0%

Source: Wasatch Front Regional Multiple Listing Service.

Table 17
Unincorporated Wasatch County: Condominium, Town Home and Twin Home, 2016 Sales Affordable to Selected Income Groups

Income by AMI Level	Affordable Home Price Range	Number Sales	Percentage of Total Sales
≤30% AMI	≤\$83,250	0	0.0%
>30% to ≤50% AMI	>\$83,250 to ≤\$138,350	0	0.0%
>50% to ≤80% AMI	>\$138,350 to ≤\$221,420	0	0.0%
>80% to ≤100% AMI	>\$221,420 to ≤\$276,700	9	5.2%
>100% to ≤120% AMI	>\$276,700 to ≤\$332,130	30	17.2%
Total Condo Sales All Prices		174	100.0%

Source: Wasatch Front Regional Multiple Listing Service.

In 2016, 382 single family homes were sold in Heber City. About one in ten of the homes sold were affordable to the median income household, a total of 43 homes *Table 18*. The lack of affordability in Wasatch County, Heber, and Midway is pronounced in comparison to statewide housing affordability. As measured by the Wells Fargo/National Home Builders housing opportunity index the median income household in the Salt Lake Metropolitan Area could afford 70% of the homes sold in the metro area in 2016. Again in Wasatch County less than 10% of homes sold were affordable to the median income household.

Condominiums and townhomes offer some additional housing affordability opportunities in Heber, but the supply is still limited. In 2016, of the 121 condominiums and townhomes sold 25 were affordable to the median income household, about 20 percent of condominium and townhomes sold *Table 19*.

Table 18
Heber City: Single Family Sales Affordable to Selected Income Groups, 2016

Income by AMI Level	Affordable Home Price Range	Number	Percentage of Total Sales
≤30% AMI	≤\$75,049	0	0.0%
>30% to ≤50% AMI	>\$75,149 to ≤\$125,137	2	0.5%
>50% to ≤80% AMI	>\$125, 127 to ≤\$200,186	9	2.4%
>80% to ≤100% AMI	>\$200,186 to ≤\$250,275	32	8.4%
>100% AMI to ≤120% AMI	>\$250,275 to ≤\$300,363	51	13.4%
Total Home Sales All Prices		382	100.0%

Source: Wasatch Front Regional Multiple Listing Service.

Table 19
Heber city: Condominium, Town Home and Twin Home Sales Affordable to Selected Income Groups, 2016

Income by AMI Level	Affordable Home Price Range	Number	Percentage of Total Sales
≤30% AMI	≤\$75,049	1	1.0%
>30% to ≤50% AMI	>\$75,149 to ≤\$125,137	2	1.7%
>50% to ≤80% AMI	>\$125, 127 to ≤\$200,186	4	3.3%
>80% to ≤100% AMI	>\$200,186 to ≤\$250,275	18	14.9%
>100% AMI to ≤120% AMI	>\$250,275 to ≤ \$300,363	10	8.3%
Total Condo Sales All Prices		121	100.0%

Source: Wasatch Front Regional Multiple Listing Service.

As was the case in Heber, only ten percent of the homes sold in Midway were affordable to the median income households; 124 homes were sold in 2016 and 12 were affordable to the median income household *Table 20*. Condominiums and townhomes did provide some opportunity for owner occupied housing in Midway. The Villas at Zermatt, Hamlet, and Seven Oaks condominium projects all have units priced at or below \$250,000, and account for the affordable units sold in 2016. The twelve affordable units that sold for less than \$250,000 represent 23 percent of the condominiums sold in the city in 2016 *Table 21*.

Table 20
Midway City: Single Family Sales Affordable to Selected Income Groups, 2016

Income by AMI Level	Affordable Home Price Range	Number	Percentage of Total Sales
≤30% AMI	>\$96,515	0	0.0%
>30% to ≤50% AMI	>\$96,515 to ≤\$160,748	1	1.0%
>50% to ≤80% AMI	>\$160,748 to ≤ \$257,098	6	4.8%
>80% to ≤100% AMI	>\$257,098 to ≤\$321,500	5	4.0%
>100% to ≤120% AMI	>\$321,500 to ≤ \$386,062	14	11.3%
Total Home Sales All Prices		124	100.0%

Source: Wasatch Front Regional Multiple Listing Service.

Table 21
Midway City: Condominium, Town Home and Twin Home
Sales Affordable to Selected Income Groups, 2016

Income by AMI Level	Affordable Home Price Range	Number	Percentage of Total Sales
≤30% AMI	>\$96,515	0	0.0%
>30% to ≤50% AMI	>\$96,515 to ≤\$160,748	0	0.0%
>50% to ≤80% AMI	>\$160,748 to ≤ \$257,098	12	23.1%
>80% to ≤100% AMI	>\$257,098 to ≤\$321,500	8	15.4%
>100% to ≤120% AMI	>\$321,500 to ≤ \$386,062	12	23.1%
Total Condo Sales All Prices		52	100.0%

Source: Wasatch Front Regional Multiple Listing Service.

Housing Cost Burdens of Owners – The housing cost burden carried by homeowners is an important indicator of affordability. *Tables 22-24* show the number of homeowners with a cost burden in excess of 30% and 50% of their income. Isolating the analysis to those homeowners with severe cost burdens illustrates the lack of affordability for owner occupied housing in Wasatch County, Heber, and Midway.

Sixteen percent (406 of 2,510 homeowners) of homeowners in the unincorporated county have housing cost burdens above 50%. In Heber and Midway the percent share is somewhat less at around ten percent. Overall the three jurisdictions have a total of 770 households that are paying more than 50% of their income for housing costs, **about one out of every eight homeowners**.

Table 22
Cost Burdened Owner Households in Unincorporated Wasatch County

Income AMI, Cost Burdened Households (>30%)	Households with Burden	Total Households	% Share
≤30% AMI	106	160	66.3%
>30% to ≤50% AMI	105	200	52.5%
>50% to ≤80% AMI	260	365	71.2%
>80% to ≤ 100% AMI	140	400	35.0%
>100% AMI	256	1,390	18.4%
Total	867	2,510	34.5%
Income AMI, Severely Cost Burdened Households (>50%)	Households With Burden	Total Households	% Share
≤30% AMI	90	160	56.3%
>30% to ≤50% AMI	45	200	22.5%
>50% to ≤80% AMI	165	365	45.2%
>80% to ≤ 100% AMI	15	400	3.8%
>100% AMI	91	1,390	6.5%
Total	406	2,510	16.2%

Source: HUD CHAS 2009-2013.

Table 23
Cost Burdened Owner Households in Heber City

Income AMI, Cost Burdened Households (>30%)	Households with Burden	Total Households	% Share
≤30% AMI	105	140	75.0%
>30% to ≤50% AMI	40	65	61.5%
>50% to ≤80% AMI	275	480	57.3%
>80% to ≤ 100% AMI	60	290	20.7%
>100% AMI	120	1,280	9.4%
Total	600	2,255	26.6%

Income AMI, Severely Cost Burdened Households (>50%)	Households With Burden	Total Households	% Share
≤30% AMI	90	140	64.3%
>30% to ≤50% AMI	40	65	61.5%
>50% to ≤80% AMI	95	480	19.8%
>80% to ≤ 100% AMI	0	290	0.0%
>100% AMI	35	1280	2.7%
Total	260	2,255	11.5%

Source: HUD CHAS 2009-2013.

Table 24
Cost Burdened Owner Households in Midway

Income Level, Cost Burdened Households (>30%)	Households with Burden	Total Households	% Share
≤30% AMI	64	70	91.4%
>30% to ≤50% AMI	40	50	80.0%
>50% to ≤80% AMI	40	120	33.3%
>80% to ≤ 100% AMI	45	50	90.0%
>100% AMI	84	680	12.4%
Total	273	975	28.0%

Income Level, Severely Cost Burdened Households (>50%)	Households With Burden	Total Households	% Share
≤30% AMI	60	70	85.7%
>30% to ≤50% AMI	10	50	20.0%
>50% to ≤80% AMI	20	120	16.7%
>80% to ≤ 100% AMI	10	50	20.0%
>100% AMI	4	680	0.6%
Total	104	975	10.7%

Source: HUD CHAS 2009-2013.

In *Table 25* the twenty-nine counties in Utah are ranked by the share of homeowners with severe cost burdens. Unincorporated Wasatch County ranks first with sixteen percent. The county as a whole, with all unincorporated area and municipalities ranks second behind Wayne County. (Wayne County has a very small population, but has a community of second homeowners that has driven home prices up.) As noted a 13 percent (one out of eight) homeowners in Wasatch County have severe housing cost burdens.

Table 26 shows that of the 63 cities with more than 2,000 homeowners Heber City ranks fifth in the share of owners with a severe cost burden. And Midway ranks 13th among the 58 small cities (500 to 2,000 homeowners) with severe housing cost burden. In 2016 10.7% of households in Midway had severe housing cost burdens *Table 27*.

Table 25
Counties Ranked by Percent of Owner Households with Severe Housing Cost Burden
by Income (AMI Categories)

Rank	County	Total Owners	Owner Households with Severe Cost Burden					Total	% Owners with Severe Cost Burden
			<30% AMI	>30% to ≤50% AMI	>50% to ≤80% AMI	>80% to ≤100% AMI	≥100% AMI		
---	Unincorporated Wasatch	2,510	90	45	165	15	91	406	16.2
1	Wayne County	815	80	20	10	4	0	114	14.0%
2	Wasatch County	5,740	240	95	280	25	130	770	13.4%
3	Summit County	10,140	315	375	200	160	255	1,305	12.9%
4	Washington County	32,350	1,070	960	1,095	360	395	3,880	12.0%
5	Iron County	9,685	445	270	200	55	95	1,065	11.0%
6	Salt Lake County	231,665	7,450	6,395	5,485	1,245	1,585	22,160	9.6%
7	Beaver County	1,640	95	15	40	4	0	154	9.4%
8	Utah County	97,065	2,175	2,580	2,210	740	965	8,670	8.9%
9	Juab County	2,420	50	95	20	35	0	200	8.3%
10	Piute County	475	30	4	4	0	0	38	8.0%
11	Kane County	2,430	90	60	30	0	10	190	7.8%
12	Sevier County	5,645	285	120	25	4	4	438	7.8%
13	Rich County	555	10	4	10	15	4	43	7.7%
14	Garfield County	1,480	90	15	4	0	4	113	7.6%
15	Cache County	22,810	435	610	405	225	45	1,720	7.5%
16	Weber County	56,945	1,745	1,350	815	205	95	4,210	7.4%
17	Morgan County	2,550	30	80	20	40	15	185	7.3%
18	Uintah County	8,255	360	115	115	4	4	598	7.2%
19	Sanpete County	5,925	150	115	85	30	10	390	6.6%
20	Davis County	73,965	1,870	1,210	1,140	325	195	4,740	6.4%
21	San Juan County	3,425	175	40	4	0	0	219	6.4%
22	Grand County	2,470	100	50	4	0	0	154	6.2%
23	Carbon County	5,400	190	125	15	4	0	334	6.2%
24	Tooele County	13,755	375	200	145	25	40	785	5.7%
25	Box Elder County	12,850	285	255	135	4	15	694	5.4%
26	Millard County	3,045	65	40	35	4	0	144	4.7%
27	Daggett County	225	4	0	4	0	0	8	3.6%
28	Emery County	2,935	50	35	10	0	4	99	3.4%
29	Duchesne County	5,200	80	30	35	20	4	169	3.3%
	Statewide	621,860	18,339	15,263	12,580	3,533	3,874	53,589	8.6%

Source: HUD CHAS, 2009-2013.

Table 26
Cities Ranked by Percent of Homeowners with Severe Cost Burden
 (Cities with more than 2,000 homeowners)

Rank	City	Total Owners	<30% AMI	30-50% AMI	50-80% AMI	80-100% AMI	100+ AMI	Total	% Severe Cost Burden
1	Ivins	2,115	205	10	115	30	30	390	18.4%
2	Summit Park CDP	2,235	35	45	65	85	75	305	13.6%
3	Hurricane	3,275	35	135	200	30	20	420	12.8%
4	Draper	9,460	175	400	280	100	210	1,165	12.3%
5	Heber	2,255	90	40	95	0	35	260	11.5%
6	Midvale	5,015	160	125	245	10	30	570	11.4%
7	Washington	4,605	100	125	140	135	20	520	11.3%
8	St. George	16,470	515	495	455	135	240	1,840	11.2%
9	West Point	2,315	95	40	105	0	10	250	10.8%
10	Salt Lake City	36,480	1,550	1,095	690	160	365	3,860	10.6%
11	Herriman	4,670	125	140	135	40	50	490	10.5%
12	West Haven	2,415	30	105	90	25	0	250	10.4%
13	Logan	6,580	175	295	155	45	10	680	10.3%
14	Kearns	8,035	400	275	135	10	0	820	10.2%
15	Pleasant Grove	6,475	240	150	130	55	80	655	10.1%
16	South Jordan	12,150	210	255	410	155	190	1,220	10.0%
17	Orem	16,075	475	460	430	110	125	1,600	10.0%
18	West Valley City	25,520	975	860	555	100	30	2,520	9.9%
19	Holladay	7,470	265	195	75	95	105	735	9.8%
20	Lehi	10,295	230	325	300	65	80	1,000	9.7%
---	---	---	---	---	---	---	---	---	---
63	Brigham City	4,505	55	75	15	0	0	145	3.2%

Source: HUD CHAS.

Table 27
Cities Ranked by Percent of Homeowners with Severe Cost Burden
 (Cities with 500 to 2,000 homeowners)

Rank	City	Total Owners	<30% AMI	30-50% AMI	50-80% AMI	80-100% AMI	100% AMI	Total	% with Severe Cost Burden
1	Granite CDP	535	20	0	40	0	35	95	17.8%
2	Mapleton	1,735	15	35	120	10	110	290	16.7%
3	Park City	1,915	120	80	35	15	65	315	16.4%
4	Monroe	760	65	45	4	0	0	114	15.0%
5	Parowan	775	40	40	15	0	20	115	14.8%
6	Bluffdale	1,690	70	80	25	40	35	250	14.8%
7	Beaver	650	45	4	30	4	0	83	12.8%
8	Mount Pleasant	825	30	20	40	10	0	100	12.1%
9	Snyderville	1,860	35	120	0	15	55	225	12.1%
10	La Verkin	950	45	25	40	0	0	110	11.6%
11	Enoch	1,415	110	25	25	0	0	160	11.3%
12	Nephi	1,350	30	75	4	35	0	144	10.7%
13	Midway	975	60	10	20	10	4	104	10.7%
14	White City	1,410	35	60	30	25	0	150	10.6%
15	Sunset	1,295	100	35	0	0	0	135	10.4%
16	Silver Summit CDP	870	35	10	0	0	40	85	9.8%
17	Santa Clara	1,300	30	35	40	20	0	125	9.6%
18	Nibley	1,255	30	35	25	30	0	120	9.6%
19	Farr West	1,780	70	50	30	0	4	154	8.7%
20	Lewiston	530	25	15	4	0	0	44	8.3%
---	---	---	---	---	---	---	---	---	---
58	Erda	1,140	10	0	0	0	0	10	0.9%

Source: HUD CHAS 2009-2013.

Five Year Affordable Housing Need Projections – The gap analysis combined with the estimates of severe cost burdens leads to the following key findings for the five year affordable housing needs.

Need for Affordable Rental Housing - Heber has the highest need for additional affordable rental housing, and the highest need households are the very low (30%-50% AMI) and extremely low income (< 30% AMI) households. The Heber gap analysis shows a deficit of 242 units for these two income groups *Table 28*. In addition the severe cost burden data shows there are 265 renter households in Heber with incomes below 50% AMI that have a housing cost burden of greater than 50%. The lack of affordability is acute for very low and extremely low income renters in Heber. *The development of a tax credit apartment project of 70 units in Heber during the next five years would reduce the number of renter households with severe cost burdens by 25%.*

The gap analysis shows that all jurisdictions have a shortage of rental units for households with incomes from 80% AMI to 120% AMI. The severe cost burden data show however, that none of these households are suffering from severe housing cost burdens. The absence of severe cost burdens reduces the priority of market rate units for moderate income households. *Nevertheless there is a market and a clear need for a traditional market rate rental project of 80 to 100 units in either Heber or unincorporated Wasatch County.*

Table 28
Need for Affordable Rental Housing by Gap Analysis and Severe Cost Burden
 (red denotes need)

Jurisdiction	<30% AMI	30%-50% AMI	50%-80% AMI	80%-100% AMI	100%-120% AMI
Gap Analysis - surplus/deficit of rental units					
Unincorporated Wasatch Co.	-27	40	155	-50	-125
Heber	-182	-60	395	-9	-161
Midway	-60	119	29	5	-93
Renters with Severe Cost Burden	<30% AMI	30%-50% AMI	50%-80% AMI	80%-100% AMI	100%-120% AMI
Unincorporated Wasatch Co.	75	25	5	0	0
Heber	195	70	10	0	0
Midway	40	25	0	4	0

Source: HUD CHAS,

The cost burden data includes housing cost burdens by age. These data show there are 44 elderly renter households (≥62 years) in Wasatch County with severe housing cost burdens *Table 29*. *The development, in the next five years, of a 24-unit Senior rent assisted project, located in any of the three jurisdictions, would reduce, by more than half, the severe cost burden for these vulnerable renters.*

Table 29
Senior Renter Households with Housing Cost Burdens

>30% Cost Burden	30% AMI	30%-50% AMI	Total
Unincorporated Wasatch Co.	5	4	9
Heber	20	15	35
Midway	0	15	15
Total	25	34	59
>50% Severe Cost Burden	30% AMI	30%-50% AMI	Total
Unincorporated Wasatch Co.	5	4	9
Heber	20	0	20
Midway	0	15	15
Total	25	19	44

Source: HUD Mapping Tool.

Need for Affordable Owner Occupied Housing – The need for additional affordable owner occupied housing adopts a different approach. In the above case of rental housing the approach was to alleviate both the existing affordable housing gap and the severe cost burden faced by renters. In the case of owner occupied housing the approach is to project the need for affordable housing with respect to the anticipated growth in population and households in Wasatch County. The estimated need depends on the demographic projections for Wasatch County, Heber, and Midway.

The Utah Department of Housing and Community Development recommends that the housing needs assessment include five year population projections for the subject jurisdiction. The UHAFT provides population estimates and projections for every city in the state from 2000 to 2060 in ten year intervals. These projections were developed by the Governor’s Office of Management and Budget (GOMB) in 2012.

Table 30 shows three scenarios of demographic growth. Scenario 1 is the actual population growth rate of the three jurisdictions from 2000 to 2015. Scenario 2 is the projected population growth rate 2015 to 2020 by the Governor’s office of Management and Budget for the jurisdictions. Scenario 3 is the midpoint or average of the growth rates between Scenarios 1 and 2. The table also includes a projection of the annual growth rate for households. The household growth rates were derived from the fifteen year ratio of household growth rates to population growth rates for each jurisdiction.

Table 30
Average Annual Growth Rates for Population and Households

Scenarios	Unincorporated Wasatch County.	Heber	Midway
Scenario 1: 2000-2015 Actual AAGR*	3.9%	4.6%	5.4%
Scenario 2: 2015-2020 GOMB Projection	2.0%	1.4%	5.4%
Scenario 3: Midpoint Population Growth Rate	2.9%	3.0%	5.4%
Household Growth Rate	3.1%	2.6%	5.7%

*AAGR = average annual growth rate.

Source: Utah Affordable Housing Forecast Tool, Kem C. Gardner Policy Institute, James Wood.

The population and household projections for unincorporated Wasatch County, Heber and Midway are shown in *Tables 31-32*. The household projections are the most relevant since additional households drive the demand for additional housing. The five-year projections show that the number of households is expected to increase by 490 for the unincorporated county, 630 for Heber, and 465 for Midway.

Table 31
Population Projections Using Midpoint of Actual and GOMB Projection

Category	Unincorporated Wasatch County	Heber	Midway
Population 2015	10,231	14,302	4,646
Population Projection 2020	11,803	16,580	6,040
Increase in Population 2015-2020	1,572	2,278	1,394
Annual Increase 2015-2020	314	456	279

Source: Utah Affordable Housing Forecast Tool, Kem C. Gardner Policy Institute, James Wood.

Table 32
Household Projections

Category	Unincorporated Wasatch County	Heber	Midway
Household 2015	3,256	3,565	1,550
Household Projection 2020	3,746	4,195	2,015
Increase in Households 2015-2020	490	630	465
Annual Increase 2015-2020	98	126	93

Source: Utah Affordable Housing Forecast Tool, Kem C. Gardner Policy Institute, James Wood.

The comparison, earlier in the section, of availability of affordable owner occupied housing indicated that the opportunity for owner occupied housing for households with incomes below 80% AMI is nearly non-existent. But in a high priced housing market with exceptionally high land costs it is unlikely that private, public, or private/public partnerships of housing developers would be able to produce owner occupied units for those with incomes below 80 percent of the median (income of <\$53,200 for family of four). But for those households at 80% to 120% AMI, (incomes from \$53,200 to \$80,000), housing priced from \$250,000 to \$350,000 is affordable.

By definition 20% of all households have incomes from 80% to 120% AMI. Hence, if household growth were representative of current household income distribution, twenty percent of the new households would have incomes at 80% to 120% of AMI. Heber, over the next five years, is expected to have an additional 630 households, and 126 of these households would have incomes at 80% to 120% AMI. A reasonable housing goal is assist in the development of affordable housing for at least half of the projected growth of these moderate to median income households. For Heber that would be an owner occupied development of 65 units priced from \$250,000 to \$350,000 *Table 33*.

To expand affordable housing opportunities and attract 80%-120% AMI households to the county, it is recommended that over the next five years a portion of the deferred developer fees controlled by the county be targeted to assist the development of 50 to 100 owner occupied affordable housing units priced from \$250,000 to \$350,000.

Table 33
Need for Owner Occupied Housing Units for Households at 80% to 120% AMI

	Increase in Households 2015-2020	Projected Increase in Households 80%-120% AMI	Minimum Units Needed to Expand Affordable Housing Opportunity (Housing Cost \$250,000 to \$350,000)
Unincorporated Wasatch Co.	490	98	50
Heber	630	126	65
Midway	465	93	50

Source: Utah Affordable Housing Forecast Tool, U.S. Census Bureau

Estimates for Fee-In-Lieu Payments – The fee-in-lieu payment option included in the Wasatch County Ordinance and the Heber Affordable Housing Ordinance has not been updated since approximately 2002 when the fee-in-lieu option was set at \$28,000 per ERU. In the past fifteen years, as shown in the report, housing prices in Wasatch County have increased substantially consequently the fee-in-lieu option is only a fraction of the difference between an affordable home for a household at 80% AMI and the cost of a moderately priced home.

Using data from the Construction Monitor website the construction cost of a moderately priced new home was estimated. Construction Monitor provides information on square footage and building permit value of new homes. Only data on homes priced from \$300,000 to \$400,000 were included. The construction costs from the Construction Monitor do not include soft costs such as architect fees, engineering fees, landscaping, and land costs. Therefore, it was assumed that the hard construction costs from the Construction Monitor represent 70 percent of the market value of the home. The hard construction cost for each home was divided by .70 to derive the market cost or price of a new home *Table 34*. For the thirty-three homes the average construction cost per square foot was \$227.

Table 34
Cost and Square Footage of New Homes in Wasatch County and Heber

Market Price	Square Feet	Market Price	Square Feet
\$377,900	1,671	\$317,174	1,052
\$379,900	1,597	\$299,749	1,673
\$380,900	1,597	\$341,176	1,874
\$385,900	1,597	\$314,663	1,678
\$390,900	1,597	\$299,749	1,673
\$397,900	1,597	\$299,749	1,673
\$317,174	1,052	\$341,176	1,874
\$327,150	1,323	\$314,663	1,678
\$306,384	1,441	\$299,891	1,673
\$317,174	1,052	\$341,056	1,490
\$317,174	1,052	\$314,984	1,553
\$327,150	1,323	\$306,423	1,657
\$306,384	1,449	\$306,423	1,657
\$317,174	1,052	\$341,056	1,490
\$317,174	1,052	\$314,984	1,553
\$327,150	1,323	\$306,423	1,657
\$306,384	1,449		

Average Cost per Square Foot = \$227

Source: Construction Monitor and James Wood.

The average square foot cost was then multiplied by the number of square feet in a moderately priced new home of 1,350 square feet to arrive at the home cost of \$306,450. The maximum mortgage loan amount for a household at 80% AMI for each jurisdiction was then subtracted from the cost of the moderately priced home to arrive at the updated fee-in-lieu payment. The fee-in-lieu payment for the unincorporated county is estimated at \$85,030, for Heber at \$106,264, and for Midway at \$49,352 *Table 35*.

Table 35
Fee-in-Lieu Calculation

	Maximum Mortgage Loan Amount @ 80% AMI	Cost of Moderately Priced Home	Difference = Fee-in-Lieu Option
Unincorporated County	\$221,420	\$306,450	\$85,030
Heber	\$200,186	\$306,450	\$106,264
Midway	\$257,098	\$306,450	\$49,352

Source: Utah Affordable Housing Forecast Tool and Construction Monitor.

VITA
JAMES A. WOOD

P.O. Box 58107
Salt Lake City, Utah 84158
Phone: (801) 581-7165 (office), fax (801) 581-3354
(801) 583-0392 (residence)

EDUCATION

University of Utah, Salt Lake City, Utah; B.S. Finance, June 1967.
University of Utah, Salt Lake City, Utah; Graduate Student in Economics, 1970-1974.

MILITARY EXPERIENCE

United States Army, Military Intelligence 1968-1970; Vietnam 1969-1970.

EMPLOYMENT EXPERIENCE

July 2015 to present Ivory Boyer Senior Fellow, Kem C. Gardner Policy Institute, University of Utah.
2002 to 2015 June, Director, Bureau of Economic and Business Research, David Eccles School of Business, University of Utah.
1975 to 2002, Senior Research Analyst, Bureau of Economic and Business Research, David Eccles School of Business, University of Utah, Salt Lake City, Utah.
1975 to present, private consultant, Salt Lake City, Utah.
1974-1975 - Legislative Aide on economic issues for Senator Frank E. Moss, Washington, D.C.
1972-1974 - Research Analyst, Bureau of Economic and Business Research.
1970 - Accountant, Jacobsen Construction Company, Salt Lake City, Utah.
1966-1967 - Accountant, Utah Idaho Sugar Company, Salt Lake City, Utah.

ADVISORY COMMITTEES AND BOARDS

Ex-Officio Member of the Board of Trustees Downtown Alliance Salt Lake City.
Committee Member of Revenue Assumption Working Group, State of Utah.
Board Member of NeighborWorks Salt Lake City
President of Wasatch Economic Forum 2008-2009
Advisory Board Member of the Salt Lake County Housing Trust Fund 2009-2014
Board Member Salt Lake Home Builders Association
Member Salt Lake County Consortium Housing (HOME) Committee

UNIVERSITY RESEARCH STUDIES AND PUBLICATIONS

“The Impact of Globalization on Utah: Flow of Goods and People,” Kem C. Gardner Policy Institute, Research Report, April 2017.

“Salt Lake County Real Estate Conditions and Forecast 2016-2017:”, Kem C. Gardner Policy Institute, prepared for Salt Lake Board of Realtors, February 2017.

“Salt Lake City’s Downtown Rental Market: Past, Present, and Future”, Kem C. Gardner Policy Institute, Research Brief, October 2016

“Salt Lake County Real Estate Market Conditions and Forecast 2015-2016”, Kem C. Gardner Policy Institute, Research Brief, February 2016.

“Access to Opportunity in Wasatch Front Counties”, Utah Economic and Business Review, Volume 75 Number 1, Winter 2015. Coauthored with DJ Benway.

“The Great Recession: Utah’s Homebuilding and Real Estate Sectors”, Utah Economic and Business Review, Volume 74 Number 2, Summer 2014.

Regional Analysis of Impediment to Fair Housing Choice (Salt Lake, Utah, Davis and Weber Counties). Funded by Housing and Urban Development Sustainable Communities Grant 2011-2014. Grant awarded to Salt Lake County and a research team composed of six participants including the Bureau of Economic and Business Research, University of Utah. The Regional Analysis of Impediments and Fair Housing Equity Assessment for entitlement jurisdictions was completed by a four-person team at the Bureau of Economic and Business Research under the direction of James Wood. Published May 2014.

“Salt Lake County Real Estate Market: Current Conditions and Forecast for 2012” Utah Economic and Business Review, Volume 71 Number 4, Winter 2011.

“Nonresidential Construction: Past, Present and Future”, Utah Economic and Business Review, Volume 70 Number 2, Summer 2010.

“Utah’s Home Building Industry: Recovery and Challenges”, Utah Economic and Business Review, Volume 70 Number 1, Spring 2010.

Residential and Nonresidential Construction Trends and Forecast for Utah and Wasatch Front Counties. David Eccles School of Business, University of Utah. Prepared for Summit Materials, May 2010.

Utah’s Sports Sector: Economic Activity and Impact. David Eccles School of Business, University of Utah. Prepared for Utah’s Sports Commission. February 2010.

“Utah’s Housing Market: Present Perspective, Future Prospects”, Utah Economic and Business Review, Volume 69 Number 1, Spring 2009.

A Review of the Proposed Home Run Grant Program, David Eccles School of Business, University of Utah. Prepared for Utah’s Housing Action Coalition. February 2009.

Economic Impact of Bonding for Capital Facilities in Utah, David Eccles School of Business, University of Utah. Prepared for Commissioner’s Office of Higher Education. January 2009.

The Economic Impact of Thanksgiving Point on the Utah County Economy. David Eccles School of Business, University of Utah. Prepared for Thanksgiving Point Foundation. November 2008.

Foreclosures in Utah Likely to Hit Record. David Eccles School of Business, University of Utah. Prepared for Foreclosure Prevention Taskforce, October 2008.

Economic Baseline Study for Vernal and Ashley Valley, Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Prepared for Tightline Community Resources, September 2008.

Pathways Project: A Study of the Cost of Services for Chronically Homeless Individuals in Salt Lake County. Funded by Utah State Department of Community and Culture, August 2008

The Changing Structure and Current Baseline of the Davis County Economy, Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Prepared for Davis County Community and Economic Development, June 2007.

Competitive Role of Commercial Development at the West Bench, Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Prepared for Kennecott Land. January 2007.

An Analysis of the Land Use and Value of Weber State University's Mountainside Parcel, Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Prepared for Weber State University. Co-authored with Frank Lilly. December 2006.

The Changing Structure and Current Baseline of Draper City, Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Prepared for Draper City Office of Economic Development. Co-authored with Frank Lilly. September 2006.

West Bench Economic Impact: Economic, Demographic and Fiscal Analysis, Bureau of Economic and Business Research, David Eccles School Business, University of Utah. Prepared for Kennecott Land. Co-authored with Pam Perlich. October 2005.

Economic Impact of Affordable Housing: Construction, Rehabilitation and Assistance Programs, Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Prepared for Utah Housing Coalition, September 2004.

“The Utah Economy: Outlook and Review”, Utah Economic and Business Review, Volume 64, Numbers 1 and 2, January/December 2004.

Affordable Housing in Utah Cities: New Construction, Building Fees and Zoning. Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Prepared for Fannie Mae Utah Partnership Office, Utah Housing Corporation, Envision Utah and The Olene Walker Housing Trust Fund, June 2003.

Changing Economic Structure of Salt Lake City's Central Business District, 1990 to 2002. Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Prepared for The Downtown Alliance of Salt Lake City, 2002.

"The Impact of Changing Economics and Demographics on the Characteristics of New Homes and Housing Densities (Part II)," Utah Economic and Business Review, Volume 61 Numbers 9 & 10, September/October 2001.

"Utah Residential Construction: A Look at Past and Present Construction Cycles (Part I)," Utah Economic and Business Review, Volume 61, Numbers 1 & 2, January/February 2001.

A Demand and Use Analysis of Research Park Land and Buildings 2000 to 2015. Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Report prepared for University of Utah Administration. Co-authored with Jan Crispin-Little, May 2000.

"Single-Family Construction Bucks Trend," Utah Construction Report, Volume 42 No 2. April, May, June 1999, published by Bureau of Economic and Business Research, University of Utah.

"A Closer Look: Nonresidential Construction in Utah 1985 to 1998," Utah Economic and Business Review, Volume 59, Numbers 5 and 6, May/June 1999.

"Residential Construction Remains Surprisingly Strong," Utah Construction Report, Volume 42 No 1. January, February, March 1999, published by the Bureau of Economic and Business Research, University of Utah.

"Construction Value Reaches New High," Utah Construction Report, Volume 41 No 4. October, November, December 1998, published by the Bureau of Economic and Business Research, University of Utah.

"Retail Trends and the Need for Downtown Revitalization," Utah Economic and Business Review, Volume 58, Numbers 11 and 12, November/December 1998.

Gateway Retail Development and Downtown Revitalization. Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Report prepared for Boyer Company and Salt Lake City Council, October 1998.

"Overview of Construction and Housing in the Utah Economy", Economic Report to the Governor, 1998.

Utah Technology Finance Corporation: Economic Development Policy and Economic Impacts. Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Report prepared for Utah Technology Finance Corporation, June 1998.

"Housing Prices and Affordability in Utah", Utah Economic and Business Review, Volume 59 / Numbers 5 and 6, May/June 1997.

Demographic and Economic Trends for Utah, U.S., the Rocky Mountain Region and Hermes' Market Areas. Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Report prepared for Hermes Associates. Coauthored with Jan Crispin-Little. March 1997.

"Housing Price Trends in Utah 1980-1996", Economic Report to the Governor, 1997.
Impediments to Low and Moderate Income Housing in Unincorporated Salt Lake County and Selected Municipalities. Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Report for Salt Lake County Office of Economic Development and Job Training. December 1996.

The University of Utah Research Park: A Review of Policy and History. Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Report prepared University of Utah Research Park Administration, December 1996.

Demographic and Economic Trends and Forecasts for Utah and Idaho. Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Report prepared for Oldcastle Materials. Coauthored with Jan Crispin-Little. February 1996.

"Construction Cycles in Utah" Utah Economic and Business Review, Volume 55 Numbers 11 and 12, November/December 1995.

"Losing Ground: Housing Affordability and Low-Income Renters in Utah", Utah Economic and Business Review, Volume 55 Numbers 9 and 10, September/October 1995.

"The Performance of Wage Rates in Utah 1982-1993" Utah Economic and Business Review, Volume 55 Numbers 3 and 4, March/April 1995. Coauthored with Kenneth E. Jensen, Utah Department of Employment Security.

Demographic, Economic and Export Statistics for the Salt Lake City Airport Authority. Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Reported prepared for Salt Lake Airport Authority. May 1995.

A Study of the Custom Fit Training Program. Bureau of Economic and Business Research, David Eccles School of Business, University of Utah. Report prepared for Utah State Office of Education. Coauthored with Jan Crispin-Little. March 1995.

"Utah Wage Levels" Economic Report to the Governor, 1995. Coauthored with Kenneth Jensen.

"Management of State Trust Lands in Washington County" Utah Economic and Business Review, Volume 54, Numbers 7 and 8, July/August 1994. Bureau of Economic and Business Research, University of Utah, 1994.

"The Changing Demographic and Economic Structure of Washington County, 1970-1993." Utah Economic and Business Review, Volume 54, Numbers 1 and 2, January/February 1994. Bureau of Economic and Business Research, University of Utah, 1994.

An Economic Analysis for the Management of State Lands in Washington County. Bureau of Economic and Business Research, University of Utah. Report prepared for the Division of State Lands and Forestry, Department of Natural Resources, State of Utah, March 1994.

"Economic Impact of Utah Housing Finance Agency's New Residential Mortgage Programs" Utah Economic and Business Review, Volume 53, Numbers 11 and 12, November/December 1993. Bureau of Economic and Business Research, University of Utah December, 1993.

Economic Analysis for the Salt Lake Courts Complex. Bureau of Economic and Business Research, University of Utah. Report prepared for the Division of Facilities and Construction Management, Department of Administrative Services, State of Utah, October 1992.

"Economic Well-Being of Utah Households: 1979-1989" Utah Business and Economic Review, Volume 52, Numbers 4 and 5, April/May, 1992. Coauthored with R. Thayne Robson. Bureau of Economic and Business Research, University of Utah, May 1992.

Economic Impact of the Utah Technology Finance Corporation on the Utah Economy. Bureau of Economic and Business Research, University of Utah. Coauthored with Jan Elise Crispin. Report prepared for the Utah Technology Finance Corporation, State of Utah, 1992.

"Manufacturing in the West Since World War II." Utah Business and Economic Review, Volume 51, Number 3, March 1991. Bureau of Economic and Business Research, University of Utah, 1991.

"Utah's Adjustment to Declining Defense Budgets." Utah Economic and Business Review, Volume 50, Numbers 11 and 12, November/December 1990. Coauthored with Jan Elise Crispin. Bureau of Economic and Business Research, University of Utah, 1990.

"Utah's Electronics Industry." Utah Economic and Business Review, Volume 50, Number 9, September 1990. Bureau of Economic and Business Research, University of Utah, 1990.

Electronics Target Industry Study. Bureau of Economic and Business Research, University of Utah. Report prepared for the Division of Business and Economic Development, Department of Community and Economic Development, State of Utah, 1990.

"Report on Women-Owned Business in Utah." Utah Economic and Business Review, Volume 50, Number 3, March 1990. Coauthored with Rose Ann Watson. Bureau of Economic and Business Research, University of Utah, 1990.

Report on Women-Owned Business in Utah. Bureau of Economic and Business Research, University of Utah. Report prepared for the Women's Business Development Office, Division of

Business and Economic Development, Department of Community and Economic Development, State of Utah, 1990.

"Utah Housing Finance Agency: The Economic Impact of Mortgage Programs for New Residential Units." *Utah Economic and Business Review*, Volume 49, Number 9, September 1989. Bureau of Economic and Business Review, University of Utah, 1989.

Economic Impact of Utah Housing Finance Agency Programs on the Utah Economy. Bureau of Economic and Business Research, University of Utah. Report prepared for the Utah Housing Finance Agency, 1989; annual report 1989 to present.

"Utah's Aerospace Industry." *Utah Economic and Business Review*, Volume 49, Number 8, August 1989. Bureau of Economic and Business Research, University of Utah, 1989.

Utah's Aerospace Industry. Bureau of Economic and Business Research, University of Utah. Coauthored with John Brereton. Report prepared for the Division of Business and Economic Development, Department of Community and Economic Development, State of Utah, 1989.

The Economic Impact of a Catastrophic Earthquake on Utah's Financial Institutions. Bureau of Economic and Business Research, University of Utah. Report prepared for the Division of Comprehensive Emergency Management, Financial Institution Emergency Preparedness Committee, June 1989.

Public Education and Economic Development. Bureau of Economic and Business Research, University of Utah. Report prepared for the Division of Business and Economic Development, Department of Community and Economic Development, State of Utah, 1989.

The Characteristics and Potential of the Health Care and Weight Control/Fitness Industries of St. George. Bureau of Economic and Business Research, University of Utah. Prepared for St. George City, October 1988.

Economic Profile Summit County/Park City. Bureau of Economic and Business Research, University of Utah. Report Prepared for Summit County/Park City Chamber of Commerce and Visitors Bureau, September 1988.

The Economic Impact on Utah of the U.S. Petroleum Corporation's Wax Processing Plant. Report for the Division of Business and Economic Development, Department of Community and Economic Development, State of Utah, October 1987.

Projected Employment Growth Rates for State Government. Bureau of Economic and Business Research, University of Utah. Report prepared for Wallace Associates, Salt Lake City, Utah, October 1987.

A Proposal for US West Advanced Technologies. Bureau of Economic and Business Research, University of Utah. Coauthored with Jan Elise Crispin and Shipley Associates. Prepared for

Division of Business and Economic Development, Department of Community and Economic Development, State of Utah, 1987.

"The Utah Housing Market: Demographic and Economic Trends." Utah Economic and Business Review, Volume 47, Number 3, March 1987. Bureau of Economic and Business Research, University of Utah, March 1987.

Utah as a Location for Frozen Prepared Food Manufacturing. Bureau of Economic and Business Research University of Utah. Prepared for the Division of Business and Economic Development, State of Utah, 1986.

Capital Flow in Utah. Bureau of Economic and Business Research, University of Utah, 1986. Report prepared for Governor's Economic Development Conference, February 1986.

The Strategy and Economic Impact for the Development of a Western Town in Moab Utah. Report prepared for the Division of Business and Economic Development, Department of Community and Economic Development, State of Utah, June 1985.

"The Changing Conditions of The Salt Lake County Apartment Market." Utah Economic and Business Research, Volume 45, Number 3, March 1985. Bureau of Economic and Business Research University of Utah, 1985.

"Utah's Expanding Service Sector," Utah Economic and Business Review, Volume 44, Number 9, September 1984. Coauthored with Constance C. Steffan. Bureau of Economic and Business Research, September 1984.

Electronics Target Industry. Bureau of Economic and Business Research, University of Utah. Report prepared for the Division of Business and Economic Development, Department of Community and Economic Development, State of Utah, September 1984.

"Salt Lake County Apartment Construction Activity," Utah Economic and Business Review, Volume 44, Number 6, June 1984. Bureau of Economic and Business Research, University of Utah, 1984.

Service Sector Target Industry Study. Bureau of Economic and Business Research, University of Utah, May 1984. Coauthored with Constance C. Steffan. Report prepared for Division of Business and Economic Development, Department of Community and Economic Development, State of Utah, May 1984.

Survey of Utah's Exporting Firms. Bureau of Economic and Business Research, University of Utah, 1983. Report prepared for the Division of Business and Economic Development, Department of Community and Economic Development, State of Utah, 1983.

Market Feasibility Study for Apartment Development. Bureau of Economic and Business Research, University of Utah. Report prepared for Triad Utah, December 1983.

Market Feasibility Study for Luxury Condominiums. Bureau of Economic and Business Research, University of Utah. Report prepared for Triad Utah, October 1983.

"Natural Resource Development and Small Business Opportunities in the Uintah Basin." Utah Economic and Business Review, Volume 43, Numbers 4 and 5, April/May 1983. Bureau of Economic and Business Research, University of Utah, 1983.

Natural Resource Development and Small Business Opportunities in the Uintah Basin. Bureau of Economic and Business Research, University of Utah. Report prepared for the Small Business Development Center, Salt Lake City, Utah, June 1983.

"The Electronics/Information Processing Industry in Utah," Utah Economic and Business Review, Volume 42, Number 10, October 1982. Bureau of Economic and Business Research, University of Utah, 1982.

The Electronic Components and Information Processing Industry and State Industrial Development Programs. Bureau of Economic and Business Research, University of Utah, 1982. Report prepared for the Division of Business and Economic Development, Department of Community and Economic Development, State of Utah, 1982.

"Utah Homebuilding: Decline, Structural Changes, and Demand Factors." Utah Economic and Business Review, Volume 42, Number 9, September 1982. Bureau of Economic and Business Research, University of Utah, 1982.

"Utah's Thrust Belt: Exploration, Development and Economic Impacts." Utah Economic and Business Review, Volume 41, Number 1, January 1981. Bureau of Economic and Business Research, University of Utah, 1981.

Demand for Cold and Frozen Storage in Utah and the Mountain States. Bureau of Economic and Business Research, University of Utah. Report prepared for the Division of Business and Economic Development, Department of Community and Economic Development, State of Utah, 1980.

Proposed Industrial Park Development in Grand County. Bureau of Economic and Business Research, University of Utah. Report prepared for Division of Economic and Industrial Development, Department of Community and Economic Development, State of Utah, October 1979.

Utah Labor Market Conditions for Manufacturing Assemblers and Electronic Technicians 1979. Coauthored with Randy Rogers and Ronda Brinkerhoff. Bureau of Economic and Business Research, University of Utah, 1979.

Utah: A Profitable Location for Headquarters and Administrative Office Facilities, Bureau of Economic and Business Research, University of Utah, September 1979. Report prepared for Division of Economic and Industrial Development, Department of Community and Economic Development, State of Utah, 1979.

Utah Demand for Bricks 1978, 1985, 1990. Bureau of Economic and Business Research, University of Utah. Coauthored with Mark Linford. Report prepared for Interstate Brick, Entrada Industries, July 1979.

Market Feasibility Study for Kaolin Clay Production in Utah. Bureau of Economic and Business Research, University of Utah, May 1979. Coauthored with Mark Linford. Report prepared for Office of Small Business Development, Department of Community and Economic Development, State of Utah, 1979.

Utah: A Profitable Location for the Machinery Industry. Bureau of Economic and Business Research, University of Utah, 1978. Report prepared for Division of Industrial Development, Department of Development Services, State of Utah, 1978.

"Demand for Housing in Salt Lake County." Real Estate Activities in Salt Lake Davis, Weber, Utah and Cache Counties, Fall 1978. Utah Real Estate Research Committee and Bureau of Economic and Business Research, University of Utah, 1978.

An Analysis of the Clay Roofing Tile Market in Utah. Bureau of Economic and Business Research, University of Utah, 1978. Report prepared for Interstate Brick, Entrada Industries, March 1978.

Sandy: An Economic Profile and Land Use Requirements. Bureau of Economic and Business Research, University of Utah. Coauthored with John Brereton and Randall Rogers. Report prepared for Sandy City Planning Office, January, 1977.

Demand for Selected Steel Products. Bureau of Economic and Business Research, University of Utah, October 1976. Coauthored with Dwight Israelsen, Robert Wood and Randall Rogers. Report prepared for Steelco Corporation, Salt Lake City, Utah, 1976.

A Study of the Economic Potential of the Great Salt Lake State Park. Bureau of Economic and Business Research, University of Utah, September 1976. Coauthored with John Brereton and Janet Kiholm. Report prepared for Division of Parks and Recreation, Department of Natural Resources, State of Utah, 1976.

Married Student Housing Survey. Bureau of Economic and Business Research, University of Utah, August 1976. Report prepared for Housing Management, University of Utah, 1976.

"The Changing Composition of the State Budget," Utah Economic and Business Review, Volume 36, Numbers 4 and 5, April/May 1976. Bureau of Economic and Business Research, University of Utah, 1976.

"Utah Building Activity 1970-1975." Real Estate Activities in Salt Lake, Davis, Weber, Utah and Cache Counties, Fall 1975. Coauthored with Kathy Watanabe. Utah Real Estate Research Committee and the Bureau of Economic and Business Research, University of Utah, 1975.

"Condominium Developments in Utah," Utah Economic and Business Review, Volume 34, Number 9, September 1974. Bureau of Economic and Business Research, University of Utah, 1974.

Electronics Industry: Location Potential in Utah. Bureau of Economic and Business Research, University of Utah, June 1973. Coauthored with Jean H. Hanssen. Report prepared for the Division of Industrial Development, Department of Development Services, State of Utah, 1973.