The Economics of Land Use

EPS

Final Report

Housing Demand Forecast and Needs Assessment

Prepared for:

City of Reno, Nevada

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1. INTRODUCTION AND POLICY RECOMMENDATIONS

Project Overview and Tasks

In order to inform the development of ReImagine Reno, the City of Reno's Master Plan update, an assessment of future housing demand was completed. The purpose of the assessment is to provide the technical analysis needed to inform the development of housing-related policies and strategies for the Master Plan. The goal of the analysis is to estimate the future demand for housing in the City in order to align the land use plan and policies to reflect demand and to identify housing gaps and needs the City may need to address.

The analysis has two main components; a forecast of housing and land demand over the next 20 years, and an analysis of the City's housing gaps and needs. The process to analyze both components included 1) completion of a citywide technical data analysis, 2) interviews with key Reno stakeholders, 3) analysis of key focus areas within the city, and 4) development of plan policies and strategies. This document provides the summary of the technical analysis completed.

Summary of Findings

1. **Reno has a greater share of young residents than the U.S., as well has a higher proportion of non-family and households without children.**

   Twenty-three percent of householders in Reno are under 35 years old compared to 19 percent nationally. As well, Reno has twice as many non-family households (people who live alone or who share their residence with unrelated individuals) under the age of 35 than the U.S. average, and more non-family households in all age cohorts than found nationally. Over half of householders over the age of 65 live alone.

2. **Reno has a higher proportion of renter occupied households.**

   The majority of households in Reno are renter occupied (55 percent) and renter occupied households are more prevalent the younger the resident. Reno has a higher percent of renter households for all age cohorts compared to the U.S. Home ownership is significantly more prevalent for older residents in Reno, especially for householders over 65.

3. **The existing housing stock in Reno is predominately single family homes despite the higher proportion of renter occupied households.**

   The majority of the housing stock in Reno is comprised of either detached single family or attached single family units (65 percent) and single family homes accounted for 72 percent of new units built in Reno since 2000. More than 40 percent of all homes are single family detached homes on lots greater than 6,000 square feet in size. Single family homes are a major component of the rental housing stock as there are nearly as many single family rental homes as traditional apartments in Reno. The number of single family rental units doubled in the past decade largely due to the recession; Nevada had one of the highest rates of foreclosure in the U.S. and many single family homes were purchased by investors during the recession.

4. **The senior population (residents over 65 years old) is estimated to increase by 66 percent over the next 20 years.**

   This percent increase matches the forecast for the U.S. as a whole, as the aging baby boomer population has reached retirement years. The majority of Reno's seniors are home owners and a significant portion of them live alone.

5. **Incoming residents to the City of Reno are generally younger and from out of state.**

   The majority of people moving to Reno (51 percent) from 2010 to 2014 were between the age of 18 and 34. Seventy-two percent of new residents were from out of state, with California being the most common origin. On average, incoming residents have a higher household income than the average in the city.

6. **The economic base for Reno and the region has a major impact on housing demand and housing affordability.**

   The current economic base in Reno is bifurcated between lower and higher paying jobs and this split of jobs will generate a greater diversity of housing demand. Homeownership will likely be more difficult for many of the workers in tourism-related industries, as well as within manufacturing and logistics industries. Workers within these industries would need multiple jobs or be in a household with multiple employed persons to afford home ownership. The average household income needed to afford the median home price in Reno is $70,000, and the average annual wages of these industries range from $25,000 to $60,000.

7. **The preferred housing unit type for Reno residents is a single family detached home, but there are many residents for whom alternative housing types are desirable, especially if their surrounding neighborhoods have their desired amenities.**

   Both national and local surveys on housing preferences find respondents stating a preference for a single family detached home when deciding in isolation. However, both national and local surveys find that many people desire neighborhoods with walkable access to amenities such as restaurants and coffee shops, grocery stores, schools, playgrounds and recreation paths and trails, and they are willing to consider other housing unit types if these amenities are present. Survey results indicate that a greater variety of housing can be supported by allowing for flexibility of housing types throughout the city and ensuring that both new and existing neighborhoods have the amenities residents' desire.

8. **The future demand for housing over the next 20 years is estimated to be more evenly split among a variety of housing types than the existing housing stock and historic development patterns.**

   A detached single family home of moderate density (between 2 and 7.26 dwelling units per acre) is still estimated to be the most desired housing type of the five types used in the study, with demand for 10,500 units or 33 percent of total demand (compared to 39 percent within the existing housing stock). There is estimated to be demand for nearly 12,400 units within the moderate and high-density multifamily housing types. The shift in demand is driven by the difficulty of owning a single family home for many residents based on income limitations and shifts in preferences for denser, walkable neighborhoods. Demographics shifts, such as the influx of young residents and the increase of seniors, will also necessitate greater diversity as ownership of a single family detached home is less feasible and desirable for these groups. Going forward, there will be increased demand for rental units, which will likely result and/or necessitate the development of more multifamily units than historically built in Reno.

9. ***The housing development approved in the past does not match the estimated future demand.***

   The majority of units built since 2000 (72 percent) were single family homes. The approved housing stock is also predominantly single family homes. Capacity exists for 32,000 moderate density single family homes, which is greater than the total demand for housing over the next 20 years. Based on future demand estimates, only 10,500 homes of this type will be needed. Conversely, based on estimates for capacity for multifamily development, there is a small deficit in land capacity to meet demand. A wider variety of units should be planned to match demand.

10. ***Many of the new homes planned and being constructed in Reno are priced higher than what is affordable for the average worker.***

   In addition to the overabundance of single family homes planned and being built, the homes being constructed are unaffordable to households earning 80 to 120 percent AMI. The average price of a new single family home is $420,000. A household would need to earn over $100,000 annually to afford a new single family home in Reno. In the past traditional, single family homes have been affordable to the average worker in Reno, but currently that is not the reality. A greater diversity of housing (i.e. condominiums and townhomes) needs to be planned for to create more affordable for-sale options for the Reno workforce.

11. ***Households earning less than 50 percent of AMI (Area Median Income) have the greatest need for affordable housing. Maintaining homeownership for lower income residents and seniors are also priorities.***

   Ninety percent of renter households earning less than 50 percent of AMI are cost burdened. For these households there is a gap between the amount they can afford for rent and the median rent price in Reno. Home ownership affordability is difficult for the workers in many of Reno's largest and growing industries (tourism, retail, manufacturing, and logistics) as the average wages are lower than needed to afford median homes prices. Continued increased economic diversity and corresponding increase of higher paying jobs can help address this gap in addition to the ongoing subsidized affordable housing efforts.

   Additionally, owner-occupied households also face affordability challenges. Thirty percent of owner-occupied households earn less than 80 percent of AMI, and the senior population is predominately owners. Maintaining ownership for lower income residents and seniors should also be a priority.

2. HOUSING DEMAND MODEL METHODOLOGY

This chapter provides a summary of the housing forecast and land demand estimates completed for the Master Plan update. The demand for housing over the time span of the Master Plan is estimated to inform plan policies and guide scenarios of potential land use change.

Housing Demand Model

The future demand for housing in Reno over the next 20 years was estimated by socio-economic group (Living Groups) and translated to demand for housing unit types. A Housing Demand Model was created by EPS to estimate future demand for both units and land. A citywide forecast was completed in order to inform land use planning decisions throughout Reno and specific areas where land use change could support community values identified during the plan process. This section provides the methodology for the demand model and describes the major factors impacting demand.

Methodology

The Housing Demand Model allocates housing units forecasted by the Truckee Meadows Regional Planning Agency (TMRPA) Consensus Forecast over a 20-year period (2015-2035) into housing unit types based on segmented estimated future demand. "Living Group" segments of the household population were defined to refine the specificity of the forecast by living situations and associated housing preferences and needs. The depth of the characteristics assigned to each Living Group is derived from a combination of cross-tabulations of historic data on households by household type (based on household income, age of householder and presence of children) and estimated future demand (based on population growth consensus forecasts, national survey data, and local survey data).
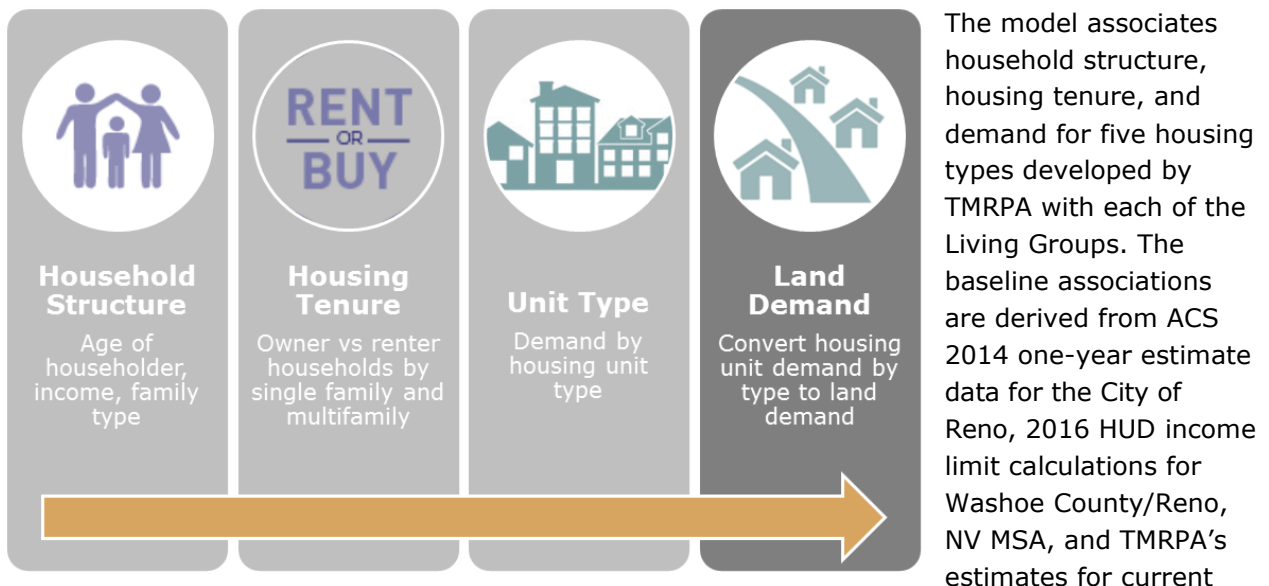
The model associates household structure, housing tenure, and demand for five housing types developed by TMRPA with each of the Living Groups. The baseline associations are derived from ACS 2014 one-year estimate data for the City of Reno, 2016 HUD income limit calculations for Washoe County/Reno, NV MSA, and TMRPA's estimates for current distribution of units by housing type. Group preferences are derived from national and local survey data and incorporated into this baseline distribution to estimate future demand. This future demand is then used to calculate corresponding future land demand.

Living Groups

Households were categorized into seven different Living Groups (Student, Emerging Singles, Emerging Families, Established Singles, Mid-life Families, Empty Nesters, and Seniors) in order to derive a more specific basis for future housing unit demand by housing type. These groups are generally categorized by the householder's age group and the family/nonfamily composition. According the U.S. Census Bureau and the American Community Survey (ACS), a family household contains at least two persons—the householder and at least one other person related to the householder by birth, marriage, or adoption—and is categorized into three types: married couple, female householder with no spouse present, and male householder with no spouse present. A nonfamily household may contain only one person—the householder—or additional persons who are not relatives of the householder. Nonfamily households may be classified as either female nonfamily or male nonfamily households.

Student

The Student group primarily comprises students enrolled at the University of Nevada, Reno (UNR) who live off-campus. According to an off-campus housing demand study conducted by Brailsford and Dunlavey for UNR in 2015, 85 percent of the student population at UNR resides off-campus. These off-campus students live in a variety of living situations, but historically have generally split into 65 percent renters and 35 percent owners/living at home. The age range for the majority of off-campus students is 18 to 24 years old. As such, their living characteristics (income, housing preference) largely reflect the characteristics of the larger Emerging Singles cohort. The Student household population has been apportioned out of the other Living Groups to account for typical tenure splits for students, larger household sizes (people per household), and students living at home.

Emerging singles

Emerging Singles consists of nonfamily households with householders 15 to 34 years old. This group includes households of young professionals, roommates, unmarried couples, and other nonfamily arrangements.

Emerging families

Emerging Families consists of family households with householders 15 to 34 years old. This group includes young households of married couples, female householders with no spouse present, and male householders with no spouse present. Families with and without children are included in this group.

Established singles

Established Singles consists of nonfamily households with householders 35 to 64 years old. This group includes households of mid-life professionals, roommates, unmarried couples, and other nonfamily arrangements.

Mid-life families

Mid-life Families consists of family householders 35 to 64 years old. This group includes households of married couples, female householder with no spouse present, and male householder with no spouse present. Married families with children, male householder only with and without children, and female households only with and without children are included in this group.

Empty Nesters

Empty Nesters consists of married couples within family households with householders age 35 years or older without children. This includes married Mid-life Families without children and married seniors without children.

Seniors

Seniors include all households with householders 65 years or older, except for married seniors without children, which is accounted for in the Empty Nesters group. This includes households of family and nonfamily households, living alone or living with others.

Living Groups Summary

In general, Reno's household distribution shows a younger grouping than the national distribution, with a higher percentage of householders between 15 and 34 years of age. The student population of UNR contributes to this distribution, but Reno also has a higher concentration of younger residents who are not college students than found nationally. As well, Reno has a higher percentage of Established Singles households than the U.S. as a whole. Reno has a lower percentage of Mid-life Families households than the United States (35 percent). By Comparison, the nation consists of a larger percentage of Mid-life Families (41 percent) (**Figure 1**).

Figure 1
Distribution of Households in Living Groups

Reno, NV
Source: American Community Survey 2014 1-Year Estimates; Economic & Planning Systems
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United States
Source: American Community Survey 2014 1-Year Estimates; Economic & Planning Systems
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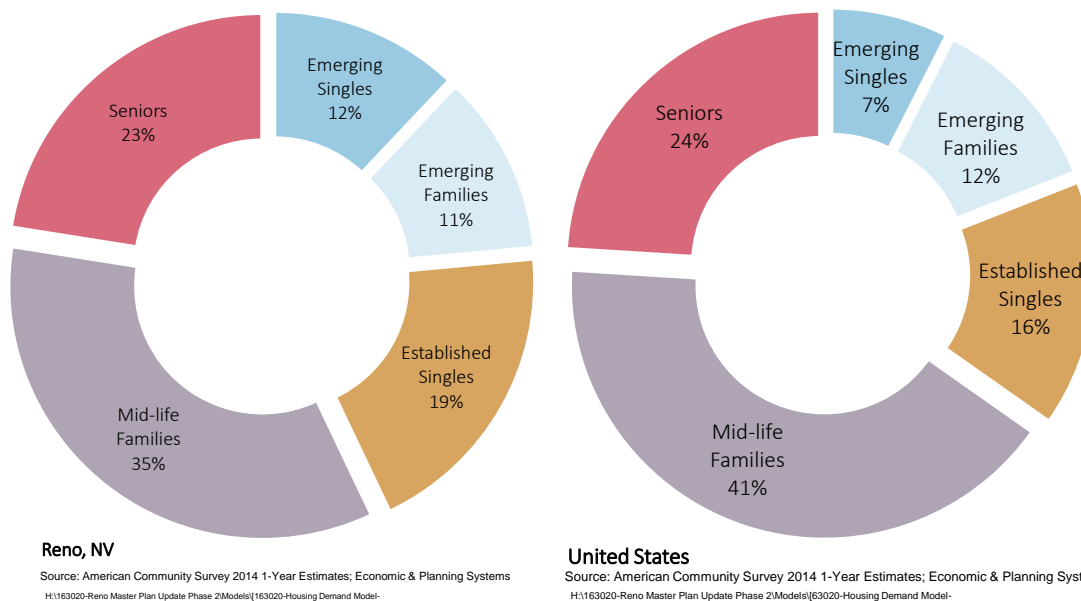
Figure 2 shows the distribution after accounting for the Student and the Empty Nesters Living Groups. These two Living Groups, Students and Empty Nesters, were separated from the original categories to better understand two these two segments account for a larger proportion of the community than in other communities and therefore have a greater impact on housing demand. Households in Reno fall into the following distribution: 5 percent Students, 7 percent Emerging Singles (13 percent in total for non-family householders between the age of 15 and 34), 12 percent Emerging Families, 20 percent Established Singles, 20 percent Mid-life Families, 15 percent Empty Nesters, and 20 percent Seniors based on ACS 2014 one-year estimates of family and nonfamily households by age of householders.

Figure 2
Detailed Distribution of Households in Living Groups
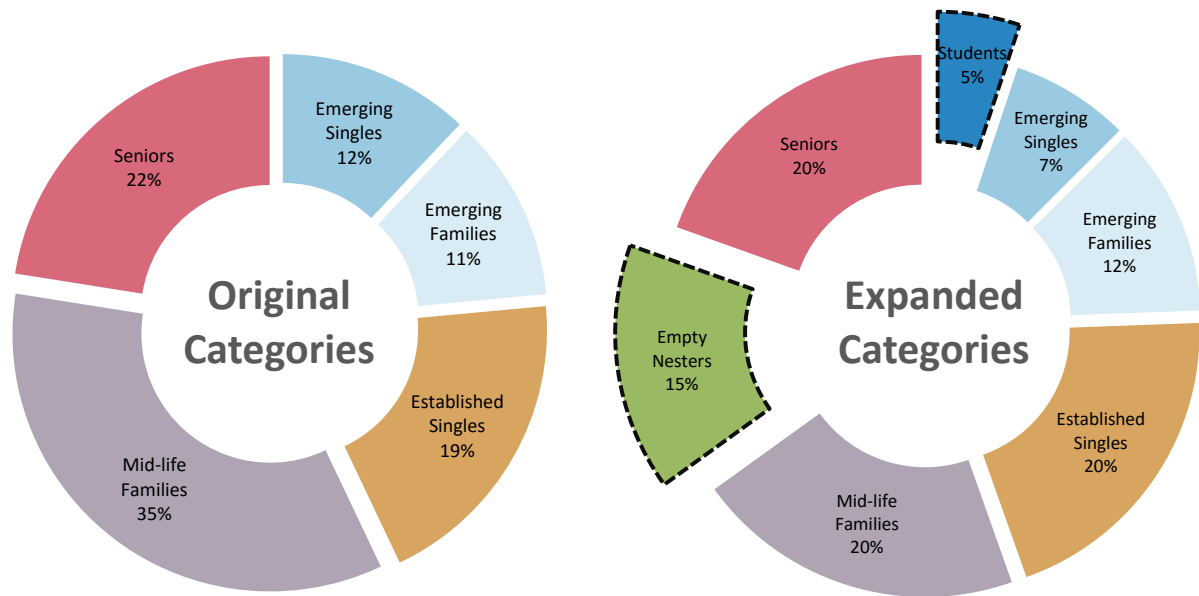
Reno, NV

Source: American Community Survey 2014 1-Year Estimates; Economic & Planning Systems

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The three largest Living Groups are the Established Singles (18,674 households), Mid-life Families (18,957 households), and Seniors (18,094 households). These three groups each account for 20 percent of total households, as shown in **Figure 3.**

Figure 3
Living Group by Household Type

Living Group	Description	Total	%
Students	18-24 years old (UNR Off-Campus)	**4,729**	**5%**
Emerging Singles	15 to 34 years old, nonfamily households	**6,850**	**7%**
Living Alone		4,992	5%
Not Living Alone		1,858	2%
Emerging Families	15 to 34 years old, family households	**11,035**	**12%**
Married		7,173	8%
Male Householder Only		1,355	1%
Female Householder Only		2,507	3%
Established Singles	35 to 64 years old, nonfamily households	**18,674**	**20%**
Living Alone		15,444	17%
Not Living Alone		3,230	3%
Mid-life Families	35 to 64 years old, family households	**18,957**	**20%**
Married with Children		9,260	10%
Male Householder Only		3,181	3%
Female Householder Only		6,516	7%
Empty Nesters	35+ years old, family households without children	**14,269**	**15%**
Married Mid-life Families without Children		10,734	12%
Married Seniors without Children		3,535	4%
Seniors	65+ years old	**18,094**	**20%**
Married with Children		3,050	3%
Male Householder Only with Family		493	1%
Female Householder Only with Family		1,172	1%
Living Alone		12,064	13%
Nonfamily Not Living Alone		1,315	1%
Total Households		**92,608**	**100%**
Family		34,707	37%
Nonfamily		43,632	47%

[1] UNR population living off campus not with parents (2014) divided by avg. hh size of 2.76 to estimate households

Source: American Community Survey 2014 1-Year Estimates; Brailsford & Dunlavey; Economic & Planning Systems

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Living Group Tenure

The Living Groups were split by tenure to understand the buy and/or renting patterns of each group (**Table 1**).

Table 1
Living Group by Household Type by Tenure

Living Group	Renter	%	Owner	%	Total	%
Students	**4,162**	**88%**	**568**	**12%**	**4,729**	**5%**
Emerging Singles	**6,114**	**89%**	**735**	**11%**	**6,850**	**7%**
Living Alone	4,522	91%	470	9%	4,992	5%
Not Living Alone	1,593	86%	265	14%	1,858	2%
Emerging Families	**7,243**	**66%**	**3,792**	**34%**	**11,035**	**12%**
Married	3,927	55%	3,246	45%	7,173	8%
Male Householder Only	1,009	74%	346	26%	1,355	1%
Female Householder Only	2,307	92%	200	8%	2,507	3%
Established Singles	**10,720**	**57%**	**7,954**	**43%**	**18,674**	**20%**
Living Alone	8,935	58%	6,509	42%	15,444	17%
Not Living Alone	1,785	55%	1,445	45%	3,230	3%
Mid-life Families	**9,516**	**50%**	**9,441**	**50%**	**18,957**	**20%**
Married with Children	3,241	35%	6,019	65.00%	9,260	10%
Male Householder Only	1,724	54%	1,457	46%	3,181	3%
Female Householder Only	4,551	70%	1,965	30%	6,516	7%
Empty Nesters	**3,900**	**27%**	**10,369**	**73%**	**14,269**	**15%**
Married Mid-life Families without Children	3,440	32%	7,294	68%	10,734	12%
Married Seniors without Children	460	13%	3,076	87%	3,535	4%
Seniors	**7,532**	**42%**	**10,561**	**58%**	**18,094**	**20%**
Married with Children	396	13%	2,653	87%	3,050	3%
Male Householder Only with Family	232	47%	261	53%	493	1%
Female Householder Only with Family	418	36%	754	64%	1,172	1%
Living Alone	5,864	49%	6,200	51%	12,064	13%
Nonfamily Not Living Alone	622	47%	693	53%	1,315	1%
Total Households	**49,187**	**53%**	**43,421**	**47%**	**92,608**	**100%**
Family	17,806	51%	16,901	49%	34,707	37%
Nonfamily	27,482	63%	16,150	37%	43,632	47%

[1] UNR population living off campus not with parents (2014) divided by avg. hh size of 2.76 to estimate households

Source: American Community Survey 2014 1-Year Estimates; Brailsford & Dunlavey; Economic & Planning Systems

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Affordability by Tenure

Average household incomes and the number of households by income cohort by age of householder were used to estimate income averages for each Living Group. The purpose was to incorporate housing affordability into the Living Groups. Income data was used to determine generally what portion of households in Reno are making renting and buying decisions based on choice or based on income limitations.

Tenure type and AMI levels provided insight on housing affordability. Existing renter households were grouped into two categories: 1) those who rent by necessity—assuming that based on their household income they typically cannot afford to buy a home (0 to 80 percent AMI); and 2) those who rent by choice, which means their household income would allow them to buy a home, but they choose to rent for lifestyle/inventory availability reasons (greater than 80 percent AMI). Thirty-four percent of the total households in Reno are estimated to be renters by necessity, and 19 percent are renters by choice.

Existing owner households were also grouped into two categories: 1) those who own with limited options—that is, those who can afford a limited range of housing unit types if they were to buy a different home based on their household income (0 to 120 percent AMI); and 2) those who have greater options, which means that based on their household income they can afford a wider range of housing unit types (greater than 120 percent AMI). Twenty-five percent of the total households in Reno are limited owners and 22 percent are choice owners (**Figure 4**).

Figure 4
Distribution of Households by Affordability
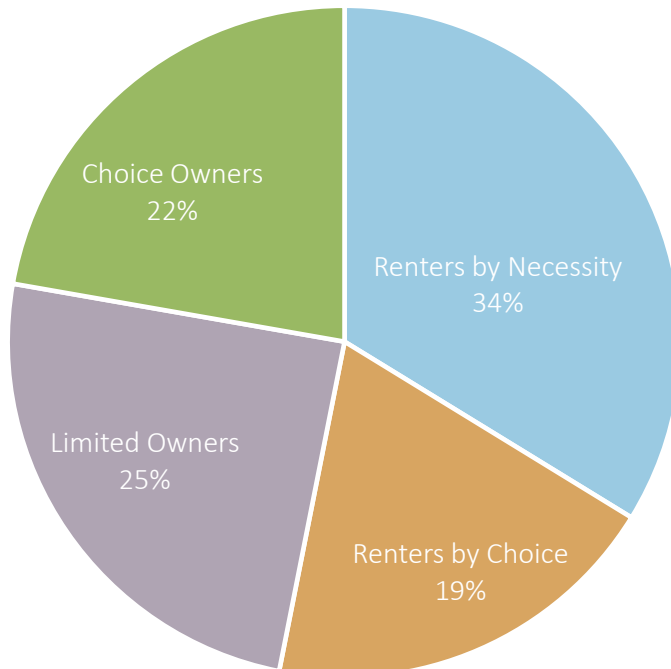
Source: Economic & Planning Systems
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Household Categorization Findings

The process of categorizing households in Reno by Living Group revealed a handful of findings and deviations from national averages that indicate differences in preferences/realities in Reno. These findings/deviations include:

Age and Household Structure

The City of Reno has a higher concentration of younger residents than the U.S. average. As well, Reno has a smaller percentage of households with children. The majority of households with children are in households where the parent(s) are older than 35. However, there are more households with householders older than 35 that do not have children than those that do.

- Reno has a higher percentage of younger households than the U.S. Reno also has twice as many non-family households under the age of 35 than the U.S. average.

- Reno has a smaller proportion of householders between the age of 35 and 64 than the U.S. average.

- Reno also has a greater percentage of households with householders age 35 to 64 that are in non-family households. In addition, more than half householders over the age of 65 (12,064 or 55 percent) live alone.

- Twenty-six percent of households in Reno have children under 18 years of age compared to 28 percent nationally.

- Sixty percent of households in Reno with children are in the Mid-life families living group, 23 percent are in Emerging families, and 17 percent are in Seniors. Sixty-six percent of these households with children are in families with a married couple.

- Approximately 50 percent of Emerging Families households have children, 50 percent of Mid-life Families households have children, and 19 percent of Senior households have children.

Tenure

On the whole, Reno has more renter-occupied housing units than the national average. Home ownership is significantly more prevalent for older residents, especially for householders over 65. More householders under 65 rent than own. It is likely that in the future more Senior households will be renter households.

- The majority of households with a householder under the age of 65 in Reno are renter occupied households. Mid-life Families with a married couple have a higher proportion of households that own a home than rent. Every other household cohort with a head of householder under 65 has a higher proportion of renters.

Figure 5
Percent of Renter Occupied Households by Age Group
City of Reno and U.S., 2014
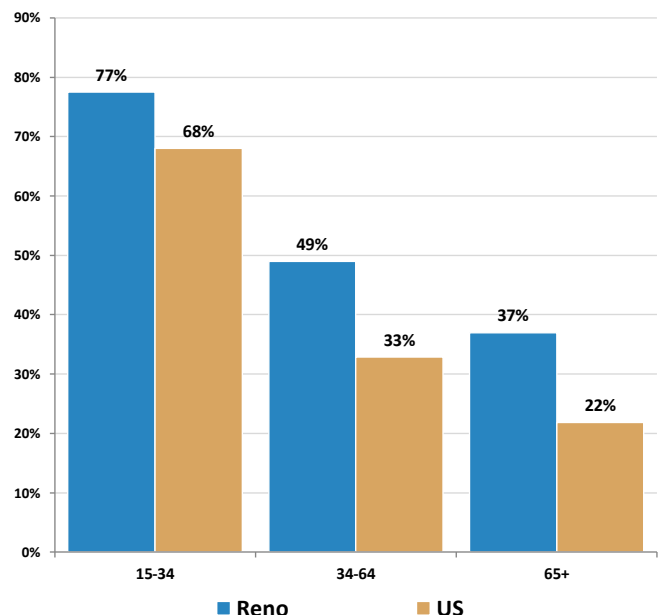
Source: American Community Survey 2014 1-Year Estimates; Economic & Planning Systems

- All of the subgroups (split by household structure) for the Senior Living Group have a higher proportion of owner households to renter households. Two-thirds of the Senior households own a home; but in contrast more households in the 35 to 64-year-old age cohorts rent than own.

- Eighty-seven percent of married couples over the age of 65 (falls within the Empty Nester Living Group) own a home, which is a much higher percentage than the other households with a married couple in the younger age cohorts.

- Ninety-six percent of Emerging Singles rent a home compared to 88 percent of Emerging Singles in the U.S.

- Sixty-five percent of married Mid-life Families own a home compared to 81 percent of married Mid-life Families in the U.S.

Affordability

Reno has a significant portion (34 percent) of households that rent because they are likely unable to buy a home. As well, a majority of owners earn less than 120 percent of the Area Median Income (AMI) of $65,000 (based on income eligibility income limits by AMI set by the U.S. Department of Housing and Urban Development (HUD) for countywide average households size of 2.56), which may indicate that these households would be limited in their housing options if they were to buy a different home. Many of these households are owned by residents over 65.

- Thirty-two percent of owner households earn less than 80 percent of AMI, indicating that a significant number of home owners earn less than what is likely required to buy a home. A large portion of these households are likely households in the Senior Living Group.

- Thirty-six percent of all renters (19 percent of all households) earn more than 80 percent of AMI and are considered renters by choice. The remaining 64 percent earn less than 80 percent of AMI.

- Of the higher-income earning households (120 percent AMI and greater), 70 percent own and 30 percent rent.

- Fifty-three percent of owner households earn less than 120 percent of AMI and are considered to be limited in the home buying options, while the other 47 percent have more flexibility with preferences.

Housing Unit Type

TMRPA is currently completing a housing study for the region that is assessing capacity for housing development, forecasting demand for the region based on historic trends, developing an alternative housing forecast to match with the current regional plan policies related to regional centers and transit corridors, and estimating the fiscal implications of future housing development on the regional service providers. For the study, TMPRA developed housing unit types to estimate demand for housing development. The housing demand forecast being completed for ReImagine Reno builds on this analysis and uses the same housing unit types.

Low Density Single Family: Low Density Single Family housing is characterized by housing density that is less than 2 dwelling units per acre. These units are typically estates and ranches in remote settings.

Moderate Density Single Family: Moderate Density Lot Single Family housing is characterized by housing density that is between 2 and 7.26 dwelling units per acre. These units are standard moderate and large-lot single family homes in suburban settings.

High Density Single Family/Low Density Multifamily: High Density Single Family/Low Density Multifamily housing is characterized by housing density that is between 7.27 and 14.5 dwelling units per acre.

Moderate Density Multifamily: Moderate Density Multifamily housing is characterized by housing density that is between 14.5 and 30 dwelling units per acre. These units are the standard multifamily homes found in Reno, NV.

High Density Multifamily: High Density Multifamily housing is characterized by housing density that is greater than 30 dwelling units per acre. This housing type is indicative of a new multifamily product to the region.

Aligning Household Demand with Housing Unit Types

The estimated number of households by each of the Living Groups is split into the five general housing unit types. Generally, housing unit demand is characterized by preference and ability to afford (renter by necessity, choice renter, limited ownership options, and wider ownership options), and preferences for housing are shaped by family/non-family characteristics. That is, Students, Emerging Singles, and Established Singles prefer or have to rent and own for similar reasons, and Emerging Families and Mid-Life Families prefer or have to rent and own for similar reasons. The assumptions of preference for renting and owning are estimated to be the same for certain Living Groups for this reason. The segmentation of demand for each of these Living Groups is then filtered by AMI level to discern ability to afford those family/non-family driven preferences. To also help estimate the allocation by housing unit type, these groups were then appended with ACS households by units in structure data to gauge the proportion in single family and multifamily housing units.

The baseline forecast for the City is based on existing patterns and assumptions of preferences. As part of the ReImagine Reno process, the community is also being surveyed in number of ways to assess housing preferences. This outreach, along with national housing preference surveys, allows for a better understanding of the current and future housing behaviors and desires of the community. Results of the survey have been incorporated into the model to refine the baseline assumptions.

TMRPA determined the current distribution of housing units in the City of Reno and its Sphere of Influence by the housing unit types developed for their study. The current distribution of housing types is held constant in the model to distribute the Living Groups by housing unit type to estimate current conditions and create the basis for future households. This distribution assumes the proportionality of households in Reno and demand for housing units in Reno TMSA are at equilibrium going forward until changes to the model assumptions are made based on the stakeholder interviews, analysis of affordability, and preference survey findings.

Figure 6 shows the current (2015) baseline distribution by housing unit type. In Reno, 39 percent of housing units are Moderate Density Single Family housing units, 24 percent Moderate Density Multifamily, 22 percent High Density Single Family/Low Density Multifamily, 13 percent High Density Multifamily, and 2 percent Low Density Single Family.

Reno has a greater proportion of multifamily housing and denser product types compared to the overall Truckee Meadows Service Area, which has 51 percent Moderate Density Single Family, 12 percent Moderate Density Multifamily, 20 percent High Density Single Family/Low Density Multifamily, 20 percent High Density Multifamily, and 4 percent Low Density Single Family.

Figure 6
Current Distribution of Housing Unit Types in Reno
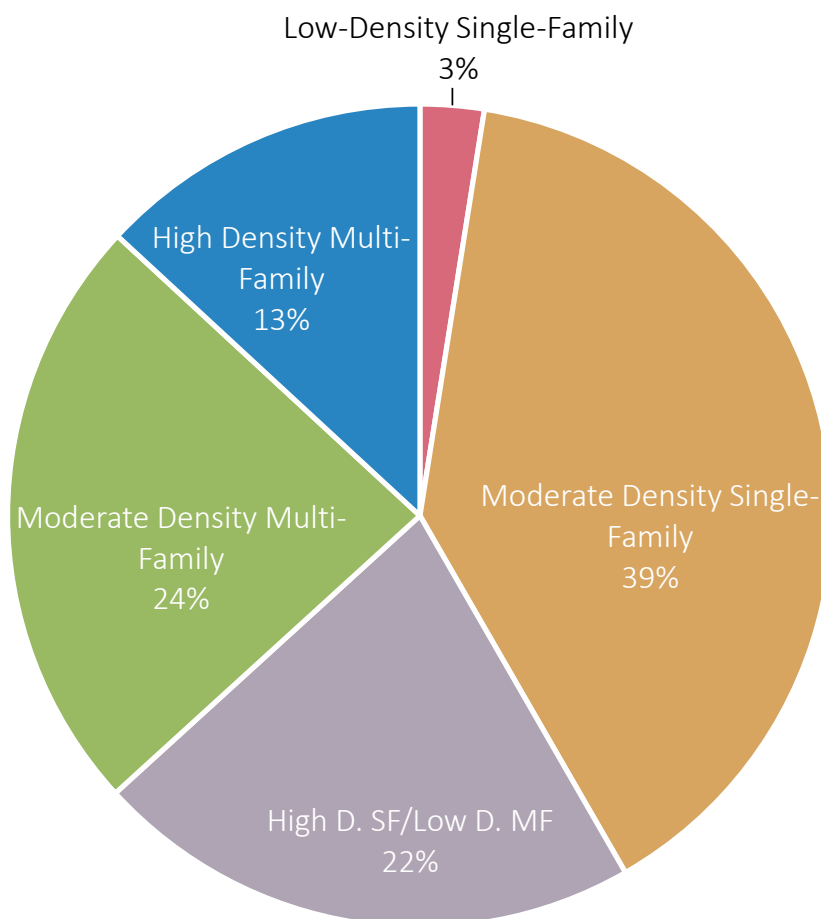
Source: TMRPA; Economic & Planning Systems

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# 3. MAJOR FACTORS IMPACTING DEMAND

The future demand for housing in Reno is largely impacted by a set of major factors that will drive housing demand. These major factors are summarized and assessed in this chapter. The findings from this assessment are used to modify the baseline/historic trend assumptions for housing demand.

It is anticipated that the socio-economic make-up of Reno is going to shift over the next 20 years. The major impacting trends related to the socio-economic make-up of the City are age of residents, in- and out- migration of residents, and housing affordability, which is largely driven by Reno's economic base. Changes in all of these factors will ultimately shift the consumer preferences of Reno to align with emerging national trends and to match the composition of the community. To aid in the assessment of the implications of these factors, interviews of stakeholders within the region were completed over the course of the Master Plan update. The takeaways from these interviews helped inform the demand model as well.

Age of the Residents

TMRPA has estimated that the age distribution of the population in Washoe County is expected to shift over the next two decades, primarily in the working and retired age groups. While growth in all age cohorts is expected, a marked increase in the retired group (ages 65 and older) is expected, as shown in **Figure 7**.

Figure 7
TMRPA Consensus Population Forecast by 5-year Age Cohort, 2014–2034
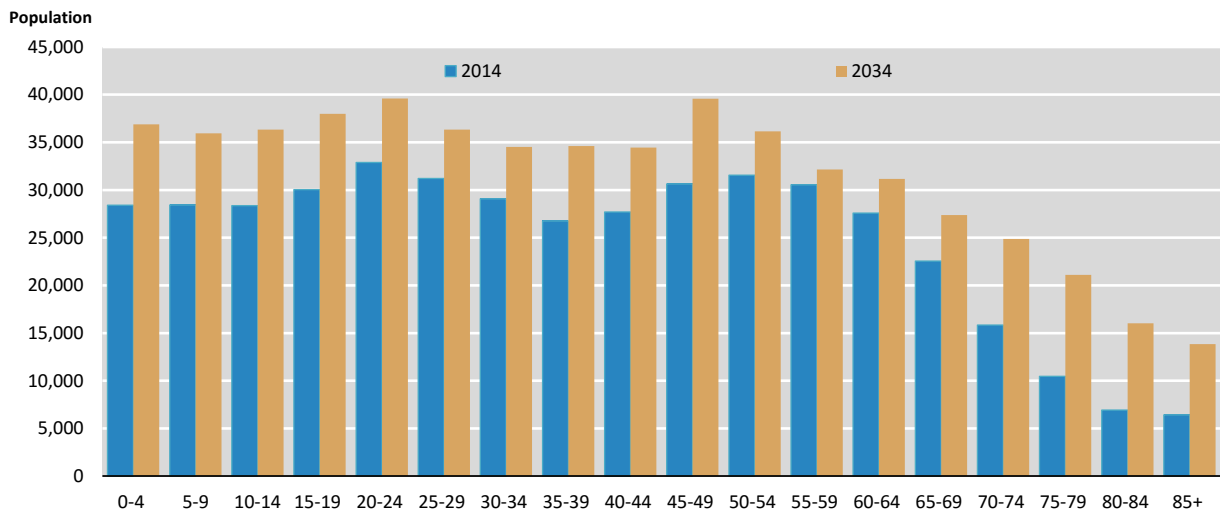
Source: TMRPA
H:\163020-Reno Master Plan Update Phase 2\Data\[163020-Housing Research Quick Calcs.xlsx]TMRPA Age

Age cohorts were grouped to form the living groups shows where significant shifts are expected to occur. The senior population (over 65 years old) is estimated to increase by 66 percent, while the other cohorts are expected to increase by approximately 20 percent, (**Figure 8**). This significant increase in the senior population matches the national population forecasts for this age cohort. While the middle-aged cohort will still be the largest age group, these changes will require a shift of attention from focusing primarily on the housing demands of Emerging Families and Mid-Life Families to focusing more on the housing demands of the Senior population.

Figure 8
**TMRPA Consensus Population Forecast by Age of Living Groups, 2014–2034**
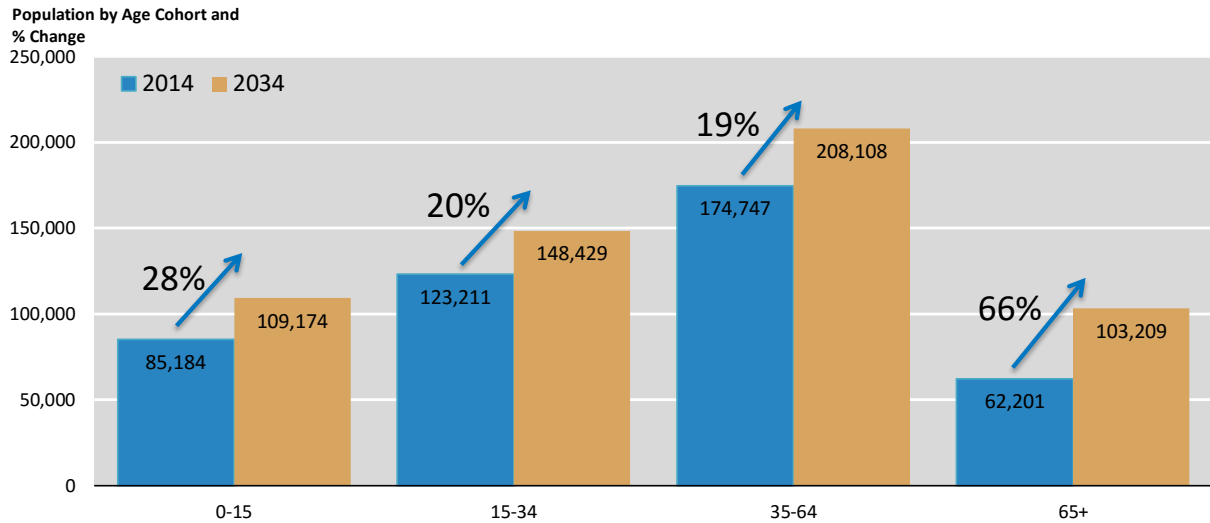
Source: TMRPA
D:\163020-Reno Master Plan Update Phase 2\Data\[163020-Housing Research Quick Calcs.xlsx]TMRPA Age

Migration

The growth of the region, especially employment growth, will drive in-migration to Reno in the future. The patterns of migration will impact future housing demand. While the age, income, and composition of households coming into Reno will shift demand, preferences of new residents may also be different from those of existing residents.

From 2008 to 2013, migration in and out of Washoe County was approximately even, as the same number of households also moved out (**Figure 9)**.

Figure 9
Household Migration to and from Washoe County, 2008-2013
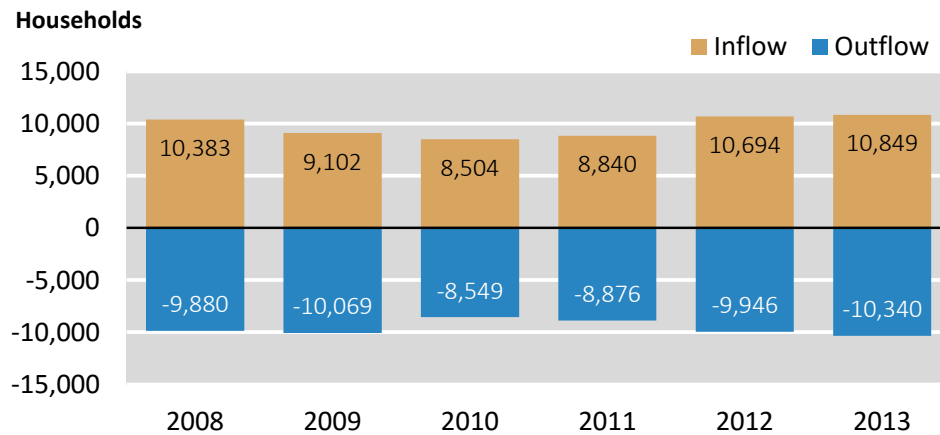
Source: Economic & Planning Systems

According to the U.S. Census, over 70 percent of the in-migrants to Reno on average come from outside the state of Nevada (**Figure 10**). Sixty-three percent of in-migrants come from different states and 9 percent from abroad, of which the majority come to Reno for the University.

Figure 10
Origin of In-Migrants to Reno by average annual percentage, 2010-2014
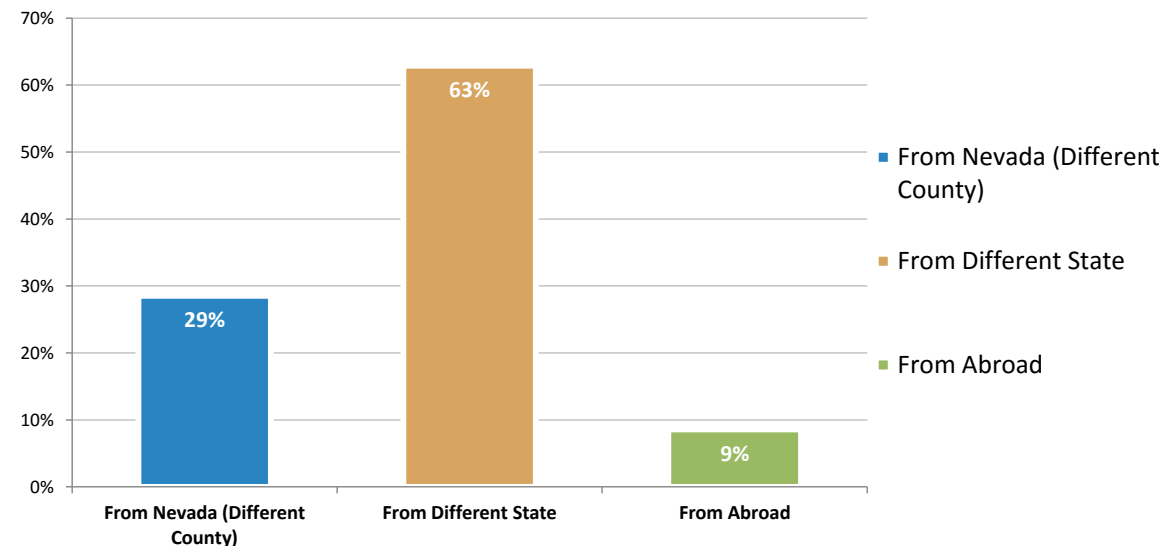
Source: US Census ACS 1 Year Estimates; Economic & Planning Systems

The majority of households moving into Reno are from nearby counties in Nevada and from counties in California. This data set is provided by the Internal Revenue Service (IRS) and tracks the shifts of where people and households file income tax returns, which does not include persons who do not file a tax return (e.g., foreign students). Over a six-year period between 2008 and 2013, the top three counties of in-migrant households were Clark, Lyon, and Carson County, NV (**Table 2**). However, 74 percent of in-migrating households were from outside of Nevada, many of which came from California. Los Angeles County was the origin of the most in-migrants from 2008 to 2013 of any county outside of Nevada.

Table 2
**Top 10 In-Migration Counties over 6-year Period (2008-2013)**

# County of Origin	Households 2008-2013
1. Clark County, NV	3,829
2. Lyon County, NV	3,325
3. Carson City, NV	2,647
4. Los Angeles County, CA	1,761
5. Sacramento County, CA	1,564
6. Douglas County, NV	1,498
7. Nevada County, CA	1,386
8. Placer County, CA	1,290
9. Santa Clara County, CA	1,024
10. Maricopa County, AZ	975
Same State	14,544
Different State	43,046
US	57,590
Foreign	782
Total	**58,372**
Washoe County Non-migrants	159,186

Source: IRS County to County Migration Data; Economic & Planning Systems

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The average income of in-migrating households was $71,000 between 2008 and 2013, which is higher than the average for the City of Reno ($61,000) and for out-migrating households of $49,600, as shown in **Figure 11**.

Figure 11
Average Household Income of In-Migrating Households, 2008-2013

Source: IRS County to County Migration Data; Economic & Planning Systems
H:\163020-Reno Master Plan Update Phase 2\Data\[163020-Housing Research Quick Calcs.xlsx]T-County In-Migration
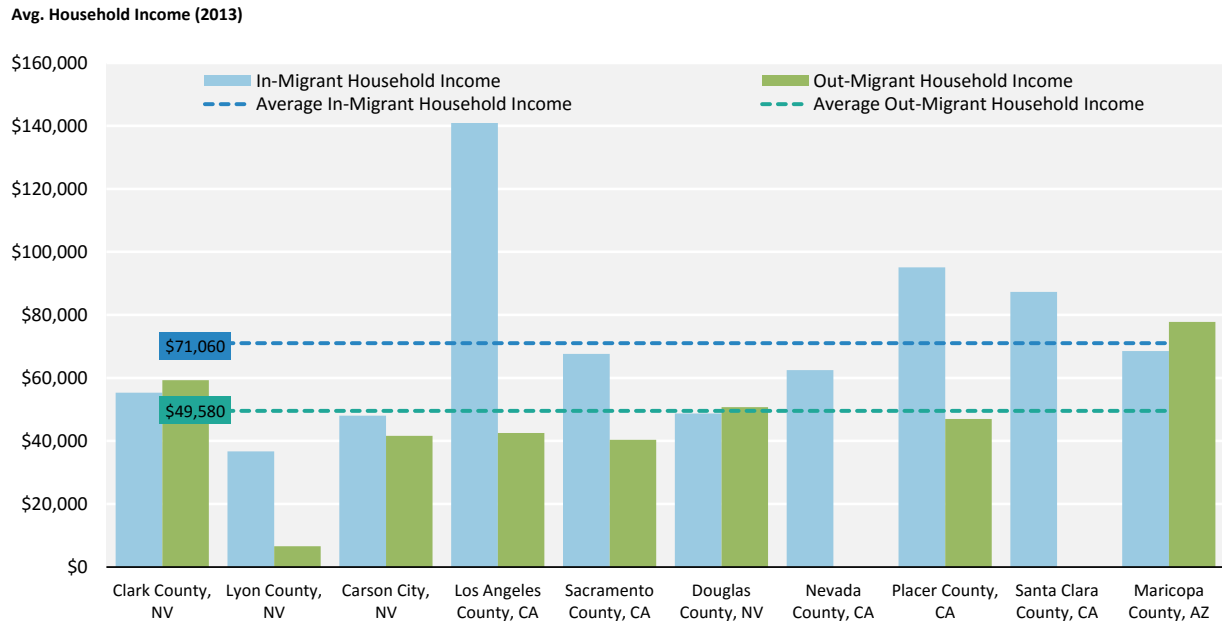
A breakdown of the larger age cohorts for in-migrants found that a higher percentage of in-migrants are from younger cohorts (18 to 34 years old), as shown in **Figure 12**. The majority of people migrating to Reno, (51 percent) from 2010 to 2014 were between the ages of 18 and 34 years**.** On average**,** 31 percent of new residents were 35 to 64 years old between 2010 and 2014. The average percent of new residents for children (under 18) was 10 percent and 8 percent for seniors (age 65 and older). A higher number of new residents are expected to be younger given the draw of new residents (e.g. incoming students) generated by UNR. However, the number of in-migrants who were 18 to 22 years old was roughly equal to in-migrants aged 25 to 34. In 2014, there were more in-migrants aged 25 to 34 than "college age" in-migrants. The average number of in-migrants by the five-year age cohorts for each cohort between 35 to 64 years old was on average less than half of the younger cohorts (18 to 34).

Figure 12
Number of In-migrants by Age, 2010-2014
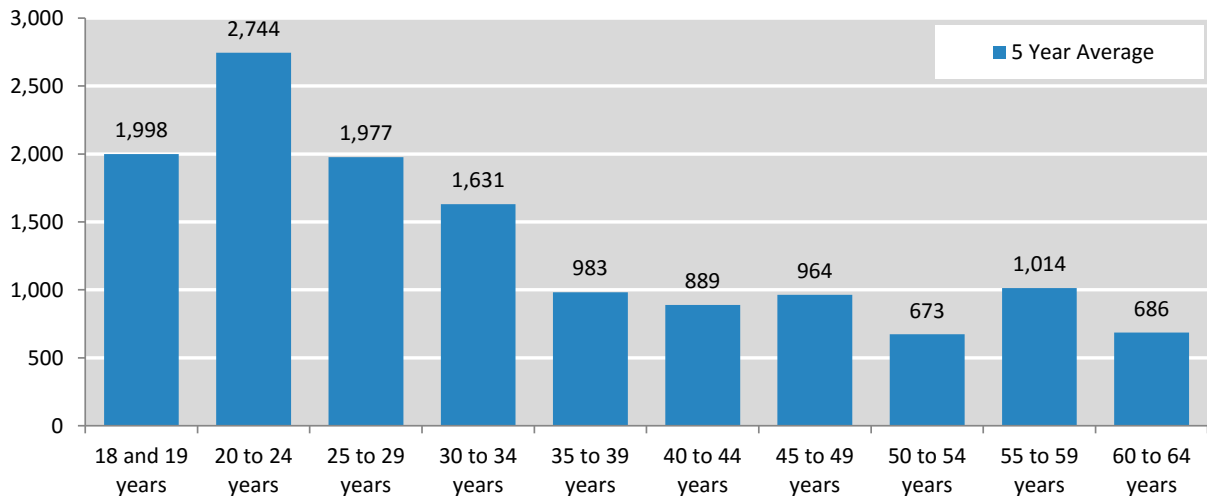
Source: US Census ACS 1 Year Estimates; Economic & Planning Systems

In summary, the people moving to Reno are generally younger, more affluent than the average Reno resident (at least when they moved to Reno), and from outside of Nevada.

Housing Market and Housing Affordability

A high level assessment of the housing affordability issues present in Reno is provided in this section. The assessment builds on analysis completed in Phase 1 of the Master Plan Update and interviews with affordable housing stakeholders in Reno.

Housing Affordability

The housing market in Reno is rebounding from the national economic recession from 2008 to 2010. Home prices in the Reno metro area significantly decreased to nearly 40 percent of the peak in 2011 from the average price in 2006, as shown in **Figure 13**. In 2015, the average home price was 71 percent of the peak in 2006. Apartment rental rates over the same period were not impacted. The average rental rate for apartments largely did not change from 2006 to 2013, as the depressed for- sale market likely stabilized demand for apartments. In the past two years (2013-2015), rental rates have climbed by approximately 8 percent.

Figure 13
Percent Change in Home Sale Price and Rental Rates, Reno MSA, 2006-2015
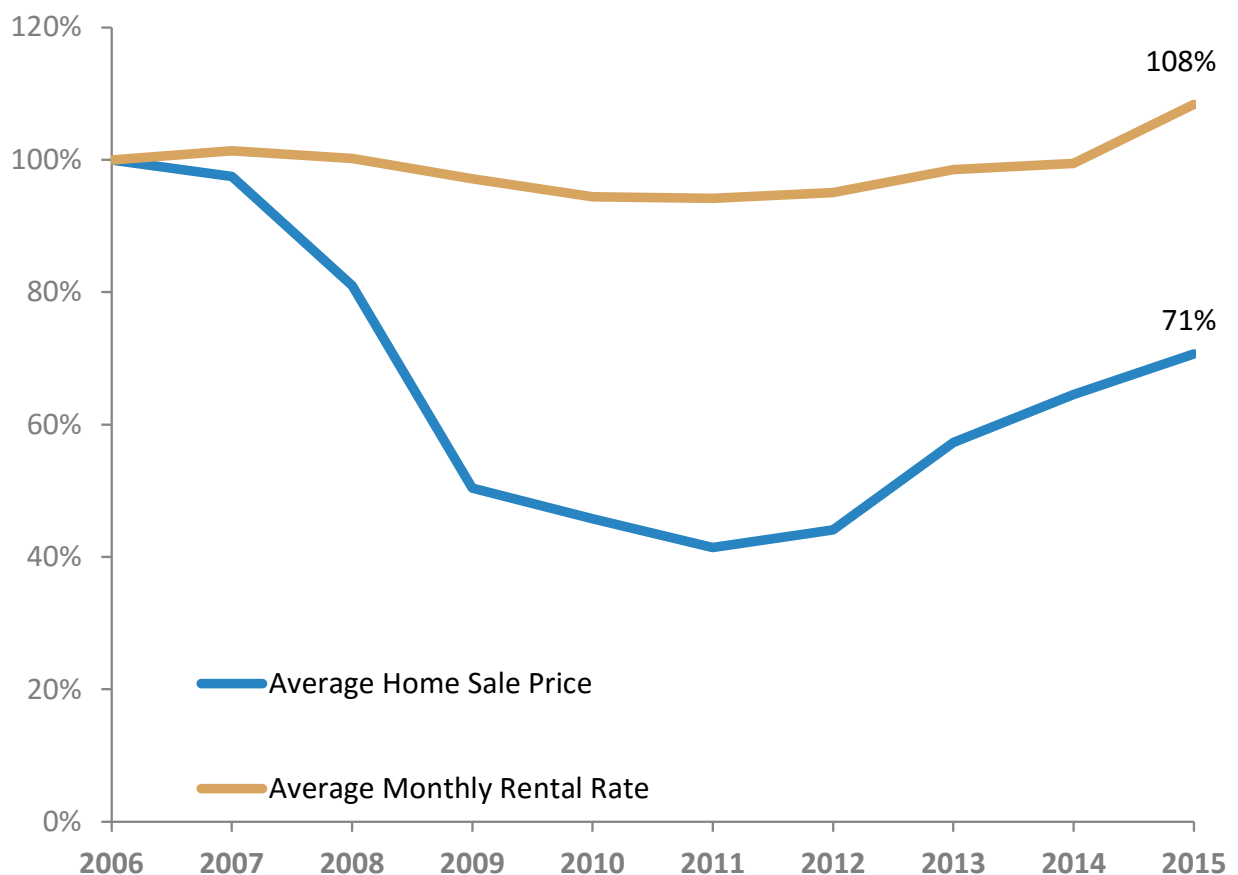
Source: Reno-Sparks Association of Realtors; Johnson-Perkins & Associates

Fluctuations in employment growth have had a significant impact on the housing prices and affordability of housing in Reno. The number of new jobs and new housing units permitted in Washoe County are shown annually from 2001 to 2015 in **Figure 14**. Employment growth is more volatile than housing production, but housing production generally tracks with job growth. During the recession when the County lost more than 25,000 jobs, housing production was largely non-existent, as expected. As the economy has recovered from 2010 to present, housing production has slowly increased. In the past four years, employment growth has been strong, returning to new jobs totals seen before the recession, but housing production is still less than half of the average from 2001 to 2005. The slow return of the housing market is a problem other cities have faced after the recession. The severe impact the housing market crash had on Reno may have left investors and/or builders reluctant to attempt larger projects. This recent mismatch is evident in the changes in housing prices and rental rates to be highlighted in the following pages. Strong employment growth in the City and region will likely drive price increases and an increase in housing production.

Figure 14
New Jobs and New Housing Units for Washoe County, 2001-2015
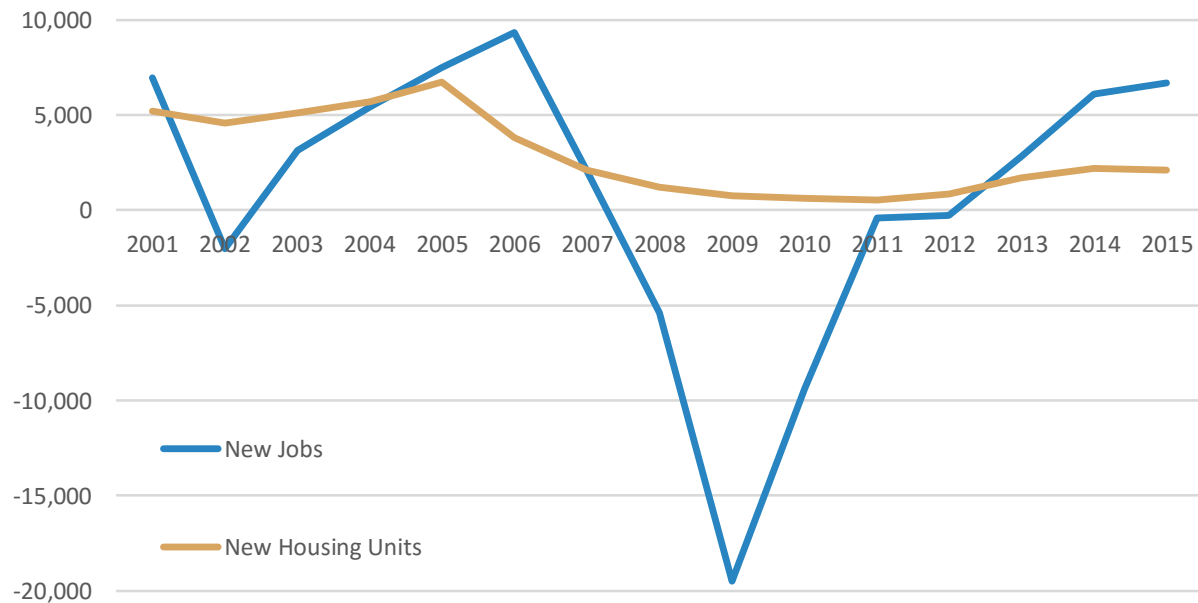
Source: BLS QCEW Microdata; City of Reno; Washoe County

The economic base of Reno will have a significant impact on housing demand in the future. The economic base is bifurcated between jobs with a low wage (below $30,000 annually) and jobs with a high wage (above $75,000 annually). Nearly 40 percent of jobs in Washoe County, based on job totals and average wages for industries at the four-digit NAICS level, are in industries that have an average wage of less than $30,000, as shown in **Figure 15**. Another 22 percent of the jobs are in industries that pay an average of $30,000 to $45,000 annually (the average wage for jobs in Washoe County is approximately $45,000). Twenty-two percent of jobs are in industries with an average wage of over $75,000 annually. Only 19 percent of jobs are in industries that pay at or slightly above the average wage ($45,000 to $75,000).
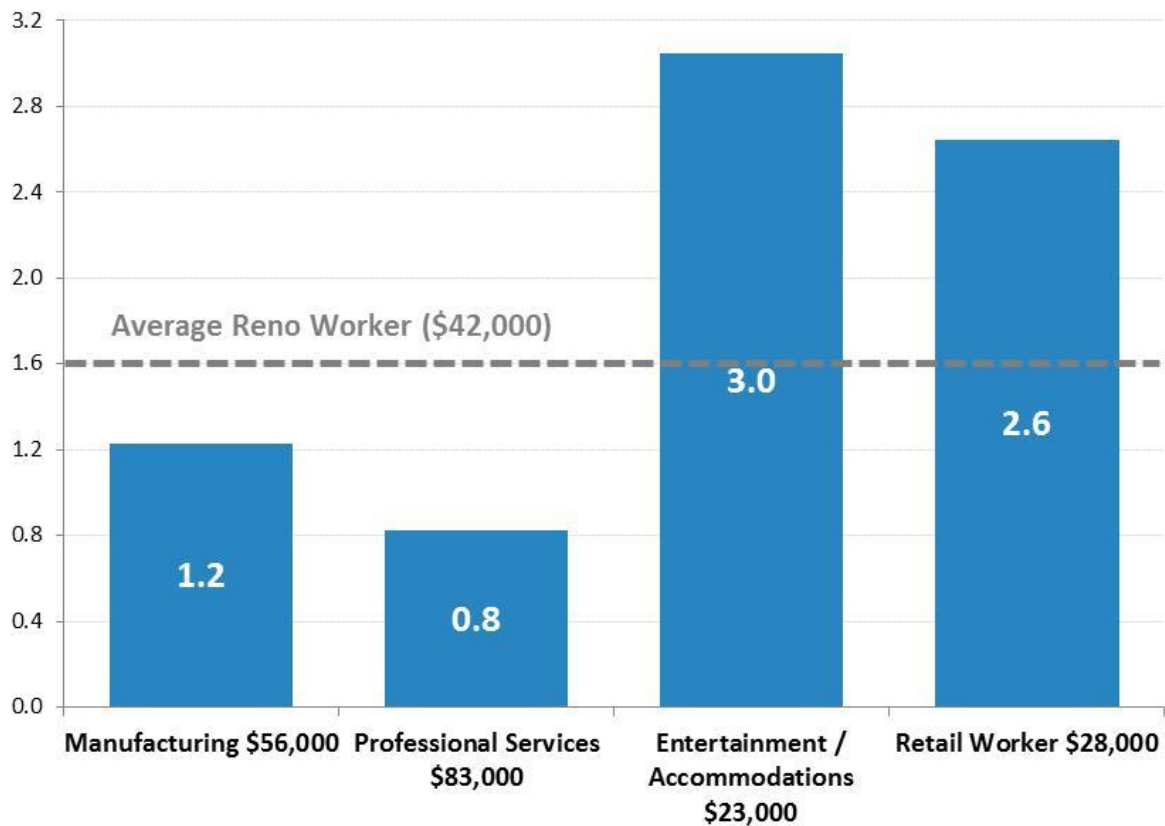
Figure 15
Percent of Jobs by 4 Digit NAICS Industry by Average Annual Wage in Washoe County, 2015
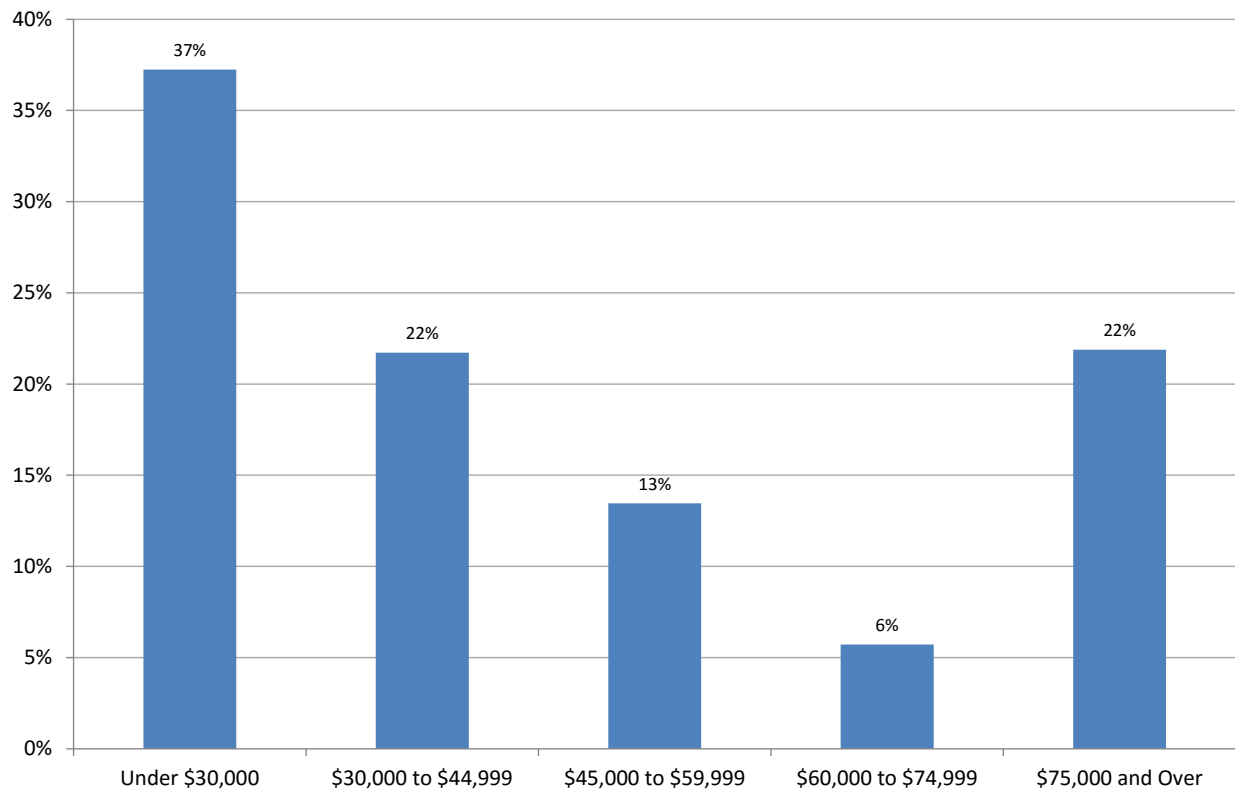
Source: US Bureau of Labor Statistics (BLS) 2015

The bifurcation of jobs by wage level impacts housing affordability, and most specifically the affordability of home ownership. The average number of jobs, by the larger industries in Reno, needed to afford the median home price is shown in **Figure 16**. A resident earning the average wage would need 1.6 jobs to afford the median home price of $256,000. The average worker in the entertainment and accommodations industry would need 3 jobs. Recent employment growth in the region has been in manufacturing and logistics related industries that are slightly above average wages. Manufacturing jobs, for example, have an average wage of $56,000 annually, which would require 1.2 jobs to afford the median home price. Unless residents working in these lower paying industries have multiple jobs or are sharing home mortgage costs with a worker in a higher paying industry, affording a home is not a reality. As shown previously, Reno has a higher percentage of single head of household and non-family households, indicating that many households have only one wage earner.

Figure 16
Number of Jobs Needed to Afford Median Home Price in Reno by Industry

Being able to afford the median rental rate ($750, 2014 ACS 1-year estimate) is more realistic for most wage earners, as shown in **Figure 17**. However, multiple jobs are still needed for workers in the entertainment/accommodations and retail industries.

Figure 17
Number of Jobs Needed to Afford Median Rent in Reno by Industry
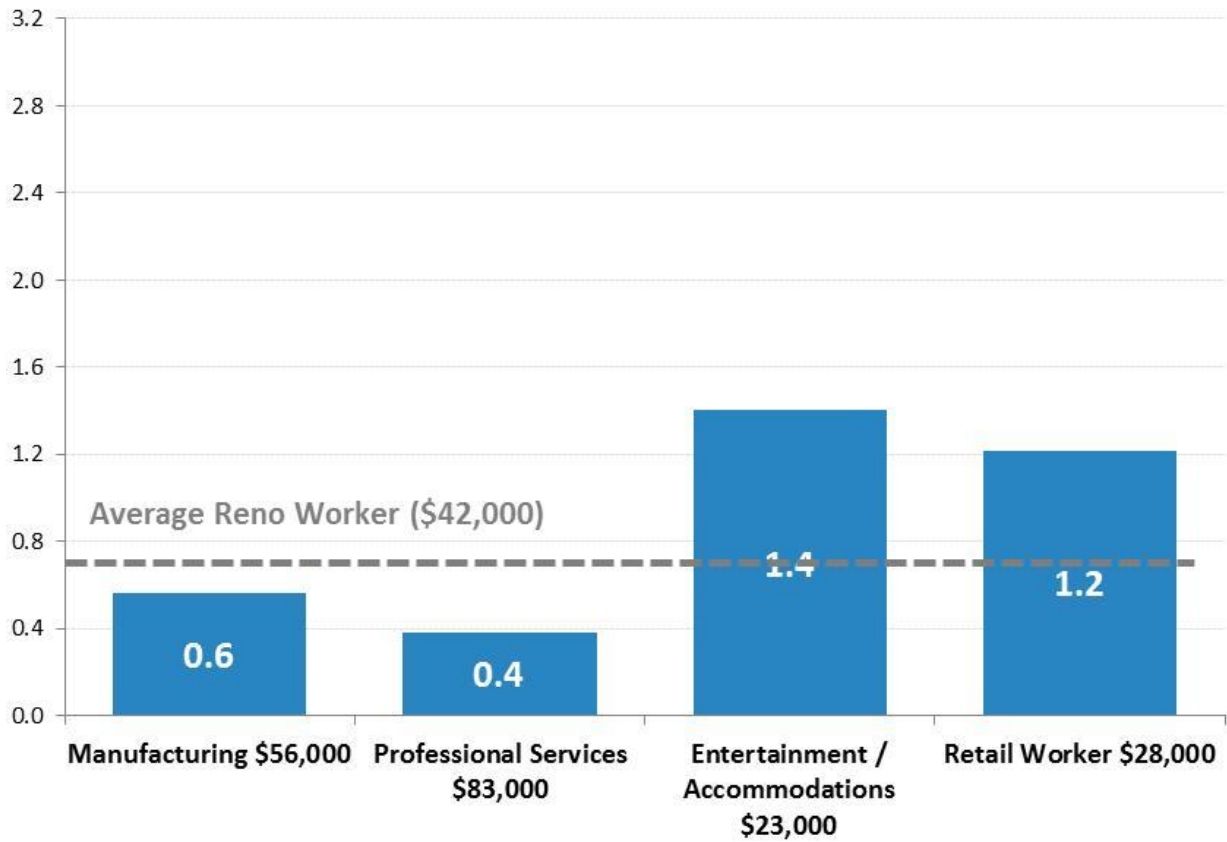
Housing Market

The average home price in the City of Reno in 3rd Quarter 2015 was $303,468 and the median home price was $256,167. There were nearly 5,000 home sale transactions in 2014. The number of transactions rose through the recession and has been relatively consistent since 2011.
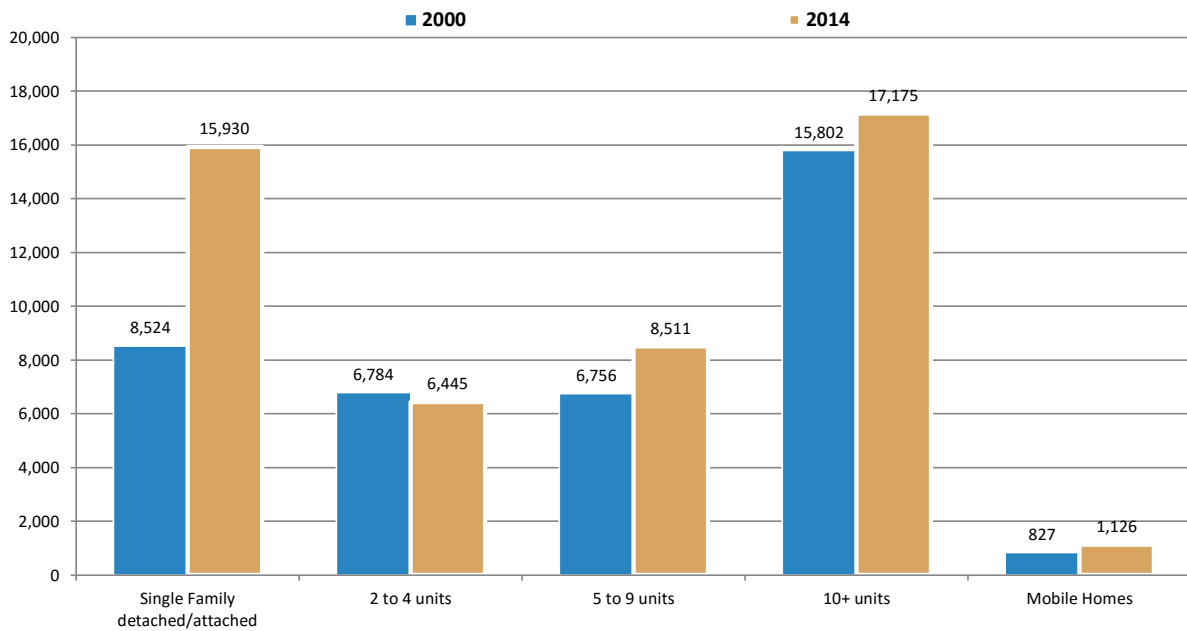
Figure 18
Average and Median Home Sale Price for City of Reno, 2006-2015
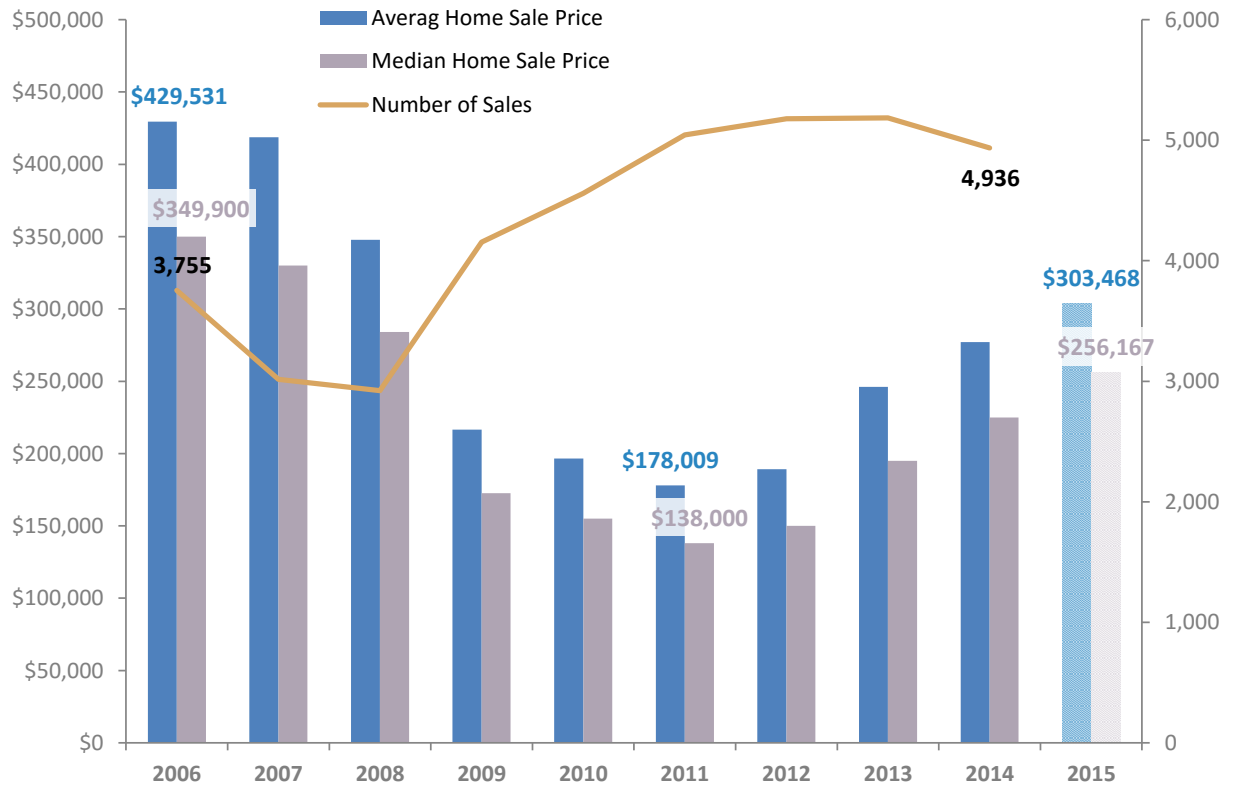
Note: 2015 Data Through 3rd Quarter
Source: Reno-Sparks Association of Realtors;

Given the lack of population and employment growth in the recession, these transactions likely included households that sold homes but did not buy a new home, and buyers who were not purchasing their primary residence. In 2014, nearly 16,000 single family detached/attached homes were renter-occupied, which is slightly less than the number of rental units in buildings with 10 or more units (i.e. traditional apartments), as shown in **Figure 19.** In 2000, the number of renter-occupied single family homes was roughly half of the total in 2014. Many of the for-sale single family homes converted to rental during the recession, representing the majority of the rental housing inventory growth in the City, as opposed to new apartments.
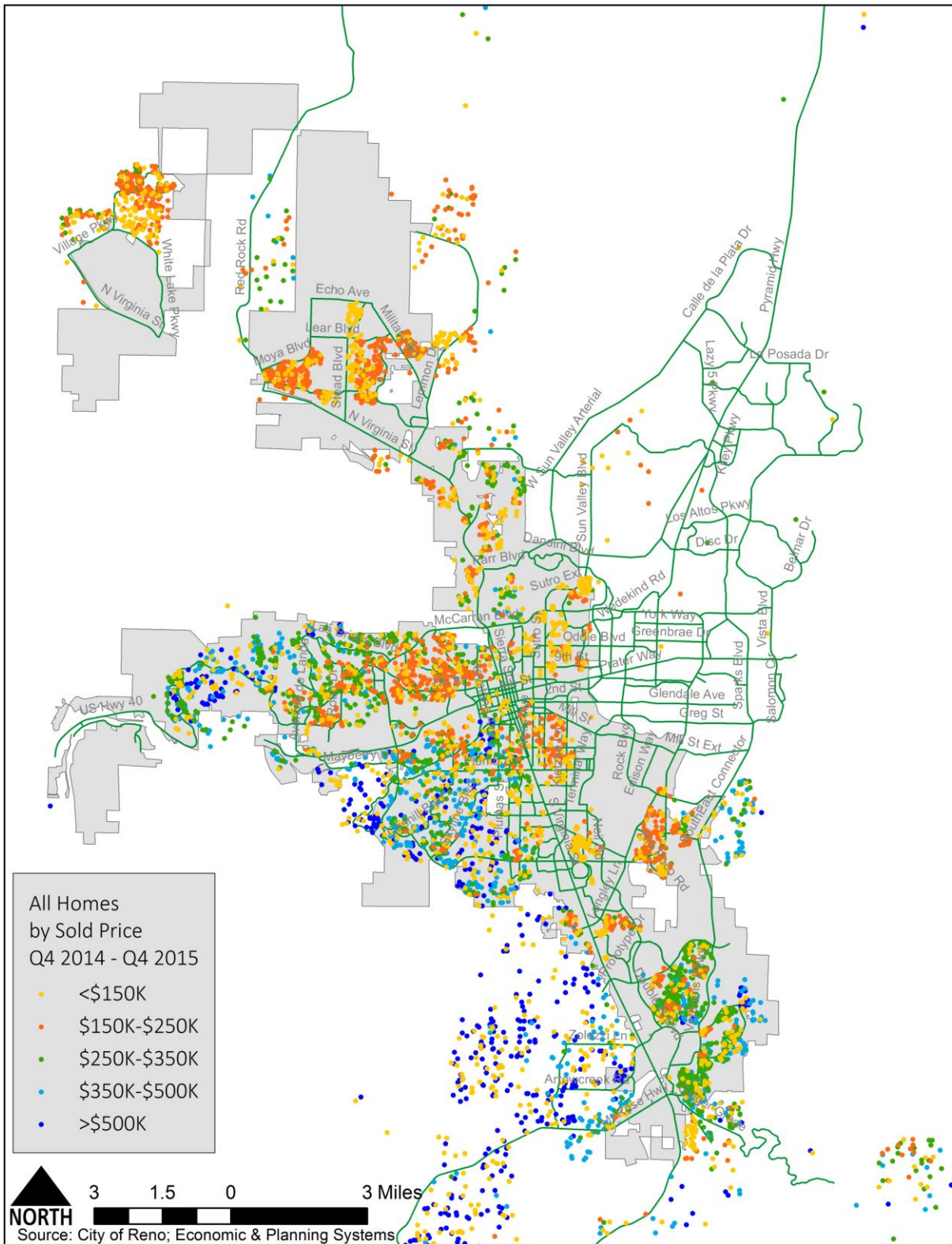
Figure 19
Renter Occupied Households by Units in the Structure for City of Reno, 2000 and 2014

Source: 2000 US Census; American Community Survey 2014 1-Year Estimate

Home sales prices in Reno from the 4th Quarter 2014 to the 4th Quarter 2015 are shown in **Figure 20**. The majority of homes that sold for under the median home price (approximately $250,000 to $260,000) were either northeast of downtown, east of the airport, or in the North Valleys. Homes selling for over the median price were mostly west of Virginia Street and in the South Meadows area. There were very few homes in the North Valleys that sold for more than the average home price for the City (**Figure 20)**. The variation in housing prices is pretty limited in most areas of the City with the exception of the South Meadows, which appears to have a greater diversity of housing prices. The diversity of prices in the South Meadows area appears to be the result of a diversity of product types, as the age of the housing stock is relatively the same.

Figure 20
Location of All Home Sales by Price for City of Reno, 2014-2015

The average monthly rental rate for apartments is $990 in the Reno-Sparks area, as shown in **Figure 21**. The average rental rate has increased by more than $120 per month over the past two years. The apartment vacancy rate was 2.3 percent in the 1st Quarter of 2016. Typically, apartment vacancy rates in a given market are at equilibrium at 5 to 7 percent. Rates below 5 percent indicate demand for new inventory especially with growing rents. A vacancy rate of 2.3 percent indicates that vacant units are likely just a result of turnover of renters, which means there is essentially no vacancy in the market.

Figure 21
Average Monthly Apartment Rental Rates for Reno-Sparks, 2006-2016
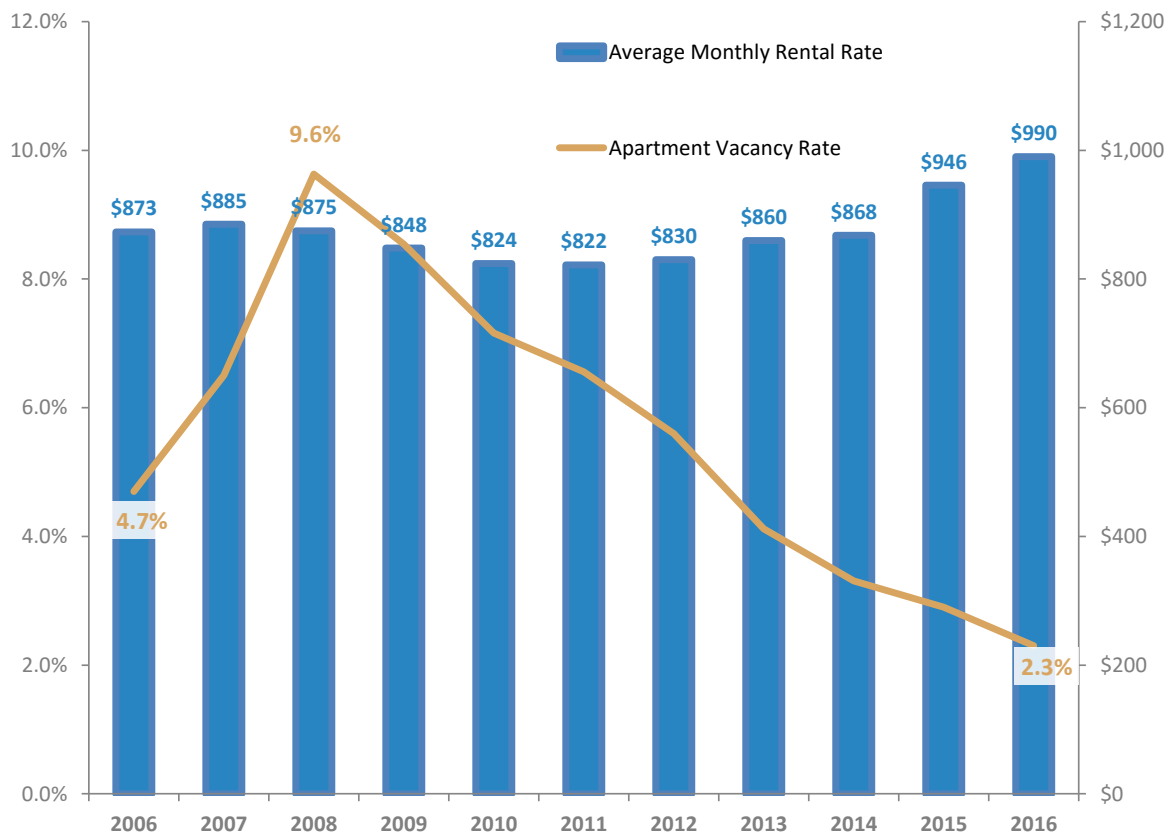
Note: 2016 data is for 1st Quarter
Source: Johnson-Perkins & Associates

The average rental rates for apartments do not vary substantially in different parts of Reno; however, three of the Reno submarkets have higher rents than the rest of the Reno submarkets. The Northwest Reno, Lakeridge and Southeast Reno submarkets have average rental rates of more than $1,000 per month, while the remaining Reno submarkets have average rents ranging from $722 to $895 per month. Newer apartment projects in Reno have mostly been constructed in submarkets with the higher average rents. The East Sparks area of the region has the highest rental rates at $1,135 per month in 1st Quarter 2016, as shown in **Table 3**.

Table 3
Average Rental and Vacancy Rate for Reno-Sparks Area, 2016

Submarket	Average Monthly Rental Rate Q1 2016	Average Vacancy Q1 2016
Northwest Reno	$1,083	1.7%
Northeast Reno	$895	2.1%
W. Sparks/N. Valley	$866	1.2%
East Sparks	$1,135	2.8%
West Reno	$856	0.0%
Southwest Reno	$818	6.6%
Brinkby/Grove	$722	5.6%
Airport	$825	1.3%
Lakeridge	$1,055	1.7%
Southeast Reno	$1,010	2.0%
Overal Reno-Sparks	$990	2.3%

Source: Johnson & Perkins Apartment Survevy
\\epsdc02\proj\163020-Reno Master Plan Update Phase 2\Data\[163020-Housing Research Quick Calcs.xlsx]Sheet1

Summary of Housing Affordability Findings

The income of a given household has a significant impact on its housing choices. Analysis in Phase I of the Master Plan found incomes in the region have only increased by half the rate of inflation since 2000. The most common housing affordability issue in Reno is cost burden, defined as spending more than 30 percent of income on housing. The City's Consolidated Plan found that the City lacks housing for households earning less than 40 percent of AMI ($22,000 annually) and also affordable housing for seniors is a significant issue. As home prices and rents rebound and continue to grow, this problem will likely increase in significance.

The majority of households in Reno (60 percent) are limited in their housing choice due to their income. To afford the median home price in Reno ($256,000, 3rd Quarter 2015) a household would need to earn $70,000 annually. The median home price has increased over the past nine months and is higher than the $256,000. Thirty-three percent of the households in Reno earn enough to afford the median home price. Conversely, nearly 37 percent of households earn less than $32,000 annually, which is the amount needed to afford the median rent of $750 per month.

The significant presence of jobs paying a low wage in Reno will continue to drive demand for rental housing and likely continue to lead to a deficit in units affordable for lower AMI households. The economic base of Reno is diversifying as more manufacturing ($56,000 average annual wage) and logistics related jobs ($48,000 to $58,000 average annual wage depending industries) are being created. These jobs do pay higher wages than the tourism related jobs on average, but are not significantly higher than the citywide average and likely make home ownership difficult for workers earning these wages. Historically, these jobs in these industries may have allowed for workers to own homes, but the rise of home prices and tightening of lending opportunities makes this more difficult, at least in the short term.

Housing Preference

Housing preferences within the U.S. and locally are shifting, particularly for younger people. To understand the implications of shifts in preferences on the future housing demand, analysis of national and local housing preferences was completed.
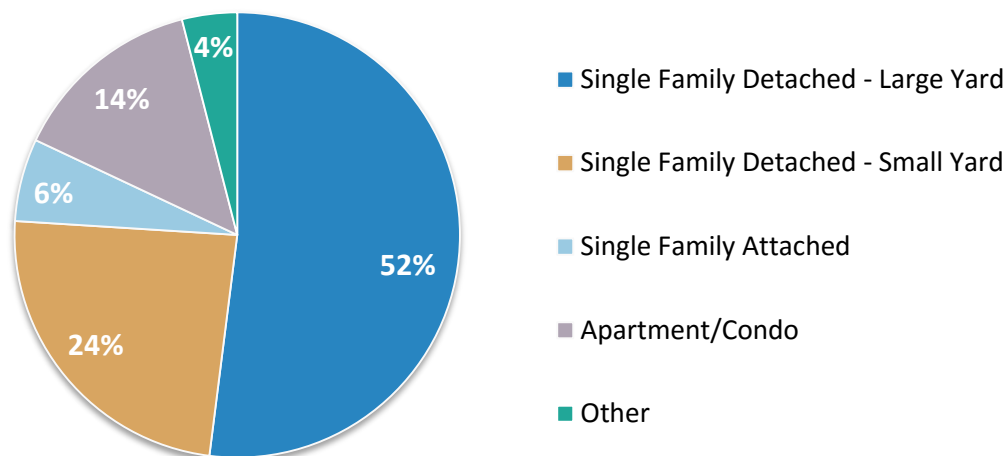
National Preference Surveys

In Phase I of the Master Plan, the results from the National Association of Realtors' (NAR) *2013 Community Preference Survey* and *2015 Community and Transportation Preference Surveys* were analyzed. The findings from the national surveys are similar to the findings of the ReImagine Reno community surveys, which indicate a demand for neighborhood types that are largely not present in Reno. The findings from the Phase I analysis are provided below.

2013 NAR's Community Preference Survey

The NAR has done a consumer preference survey three times over the past five years: in 2011, 2013, and 2015. The 2013 and 2015 surveys had similar general findings to the 2011 survey, but some impactful changes have emerged that will be summarized below. The 2015 survey included 3,000 responses from people over the age of 18 by both phone and online. The survey response pool was selected to ensure the responses used reflected the population proportion for each state and total adult age population across the nation.

The analysis of the 2013 survey results completed by the NAR illustrated that housing preferences have not shifted greatly, declaring "Americans overwhelmingly prefer to live in a detached home," backed by the finding that 76 percent of respondents said they would prefer to live in a single family detached house, which was down from 80 percent in 2011. As well, when asked whether respondents would prefer a large yard or a small yard, more than 52 percent responded with preference for a large yard, as shown in **Figure 22**.

Figure 22
**NAR 2013 Community Preference Survey - Housing Type Preference**

These survey responses in isolation do not indicate any change to the housing preferences of the past 60+ years in America. However, the survey had a series of community style and community trade-off type questions, which illustrate a shift in historic trends and better indicates which elements of their house and community respondents valued.

Respondents were asked to choose between two types of communities:

- "Walkable Community" defined as a community where: *There is a mix of single family detached houses, townhouses, apartments and condominiums. Places such as shopping, restaurants, a library, and a school are within a few blocks of your home and you can either walk or drive. Parking is limited when you decide to drive to local stores, restaurants and other places. Public transportation, such as bus, subway, light rail, or commuter rail, is nearby.*

- "Conventional Suburb" defined as a community where: *There are only single family houses. Places such as shopping, restaurants, a library, and a school are within a few miles of your home and you have to drive to most. There is enough parking when you drive to local stores, restaurants and other places. Public transportation, such as bus, subway, light rail, or commuter rail, is distant or unavailable*.

The responses in both the 2013 and 2015 surveys were split evenly. Forty-five percent (50 percent in 2013) of the survey respondents preferred a "Walkable Community," as shown in **Figure 23**, while 48 percent (45 percent in 2013) preferred a conventional suburb. This survey indicates a split preference for both walkable and conventional neighborhoods. However, in the majority of America and Reno the existing housing stock and neighborhoods are predominately a "Conventional Suburb."

Figure 23
NAR 2015 Community and Transportation Preference Survey - Neighborhood Type Preference
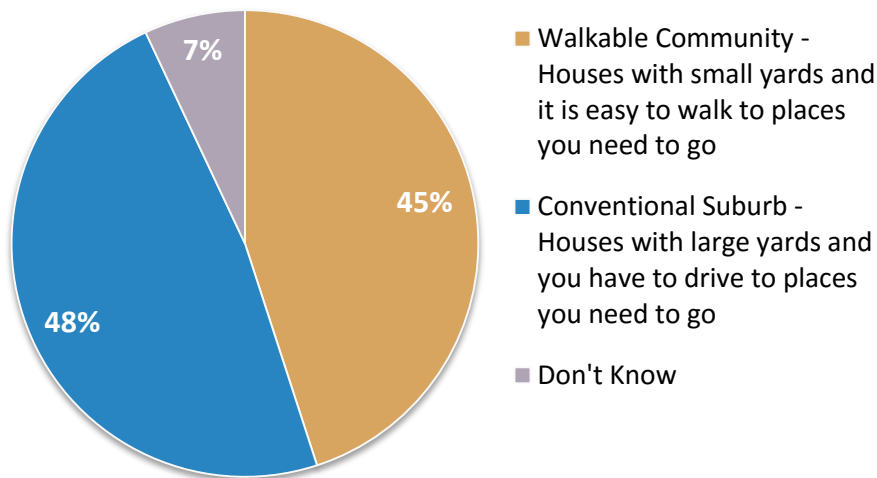
Responses by age group also illustrate the split in preferences. The responses found fairly even split among respondents by age group for both options, as shown in **Figure 24**, but millennials (born 1981 or later) have a greater preference (51 percent) for the walkable option.

Figure 24
NAR 2015 Community and Transportation Preference Survey - Neighborhood Type Preference by Age
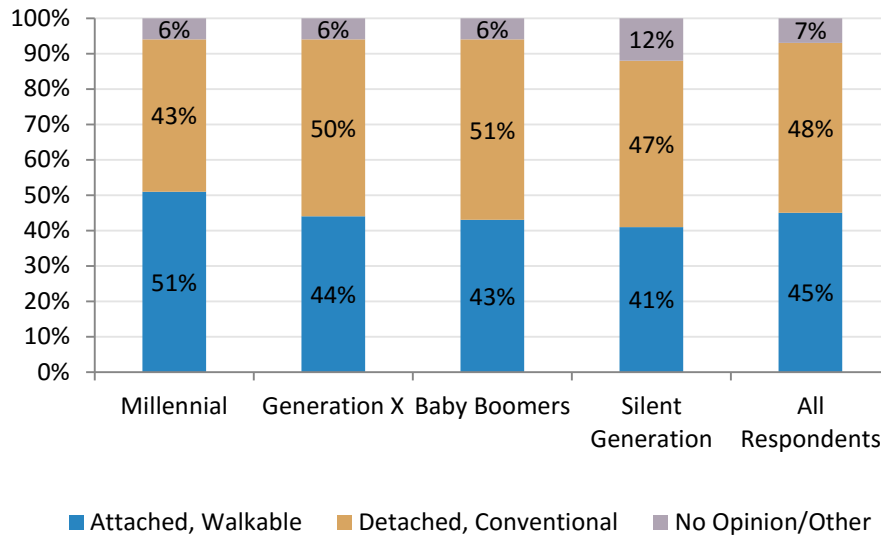
A series of four additional trade-off questions were asked in the 2013 survey that help illustrate which elements of housing types and community amenities are more important. The results reinforced the previous question measuring preferences for walkable or conventional suburban neighborhoods. **Figure 25** shows the respondents' preference for the four questions. Almost sixty percent of respondents said they would prefer to live in a mixed use community as opposed to 35 percent who would like to live in a neighborhood with houses only. Fifty-five percent of respondents said they preferred a small yard if it meant a short commute. Over half of respondents indicated they would prefer a smaller yard if it meant they could easily walk to schools, shops and restaurants, and parks, playgrounds, and recreation areas, as opposed to having a large yard but having to drive to these amenities.

Figure 25
2013 NAR Community Preference Survey – Preference Trade-off Responses
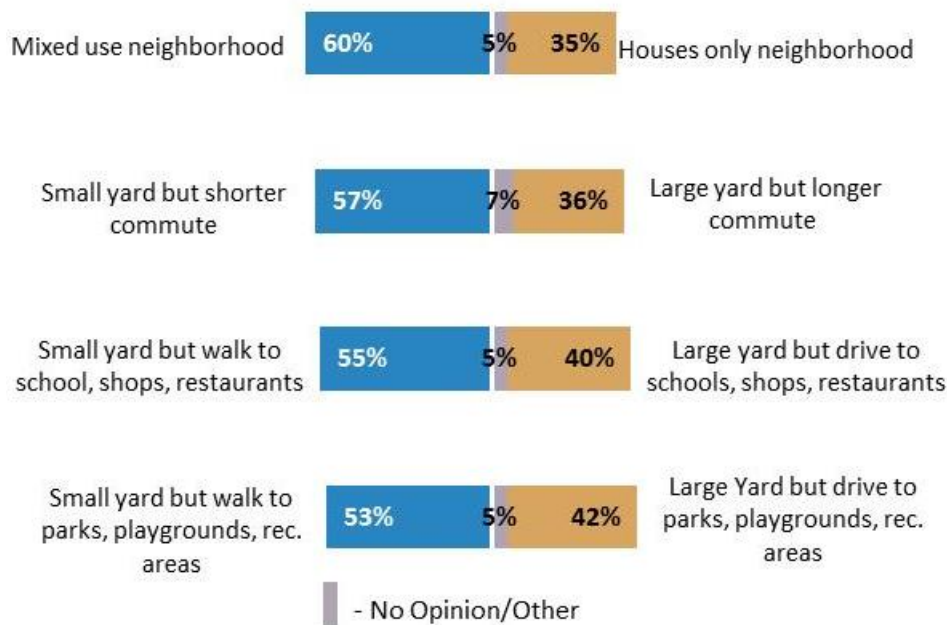
For all respondents, regardless of neighborhood preference, the proximity to walkable community amenities such as stores, restaurants, schools, and libraries was the most appealing attribute of walkable communities. Also, the preference for and importance of neighborhoods with availability of sidewalks and places to walk, as well as being within an easy walk to other places and amenities in the community, increased substantially from 2011 to 2013 and 2015. The two major themes found were a growing demand for walkable neighborhoods and a desire to live somewhere that doesn't require a long commute to work.
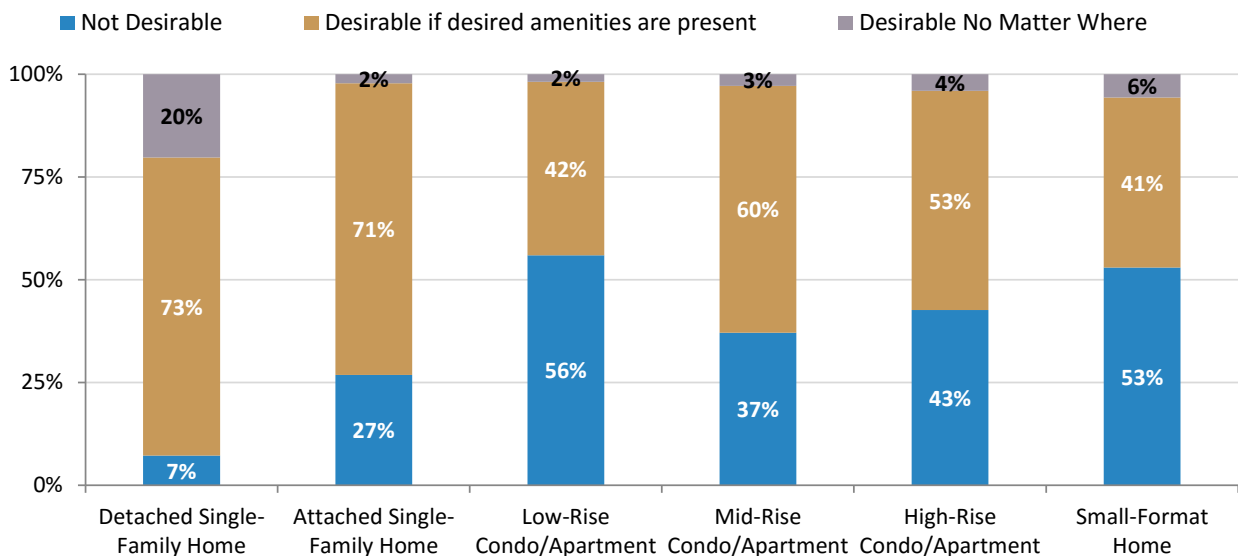
ReImagine Reno Preference Survey Questions

To assess community preferences for housing and neighborhoods, the City solicited public input in a variety of ways. During Phase I of the Master Plan update a Community Survey sought community feedback about housing and neighborhood preferences. The findings from the City's Phase I Community Survey prompted additional questions related to housing types and amenities. During Phase II, a follow up survey was sent out to the community to ask about neighborhood amenity preferences, as well as housing preferences in relation to these neighborhood preferences.

The questions related to housing preferences asked how desirable different housing types are based on the presence of desired neighborhood amenities. The housing types used were detached single family homes, attached single family homes, low-rise condos or apartments, mid-ride condos or apartments, high-rise condo or apartments, and small-format homes. The question asked "based on your desired amenity preferences for a neighborhood, how desirable is this housing type if all, most, some, or none of my amenity preferences are present".

The results generally match with the national survey findings. Responses were grouped into three categories: 1) not desirable, 2) desirable if desired amenities are present, and 3) desirable no matter where. Single family detached homes were found as most desirable with only 7 percent of respondents finding this type to be Not Desirable, as shown in **Figure 26.** Attached single family homes were found as the second most desirable housing type. While only two of the housing types—low-rise condos/apartments and small format homes—were rated by the majority to be undesirable, over 40 percent of respondents still rated these types as desirable with some amenities. As expected, based on the current housing stock in Reno, Single Family detached homes are the most desired. However, the survey illustrated that the majority of respondents find other housing types desirable as well if amenities are present.
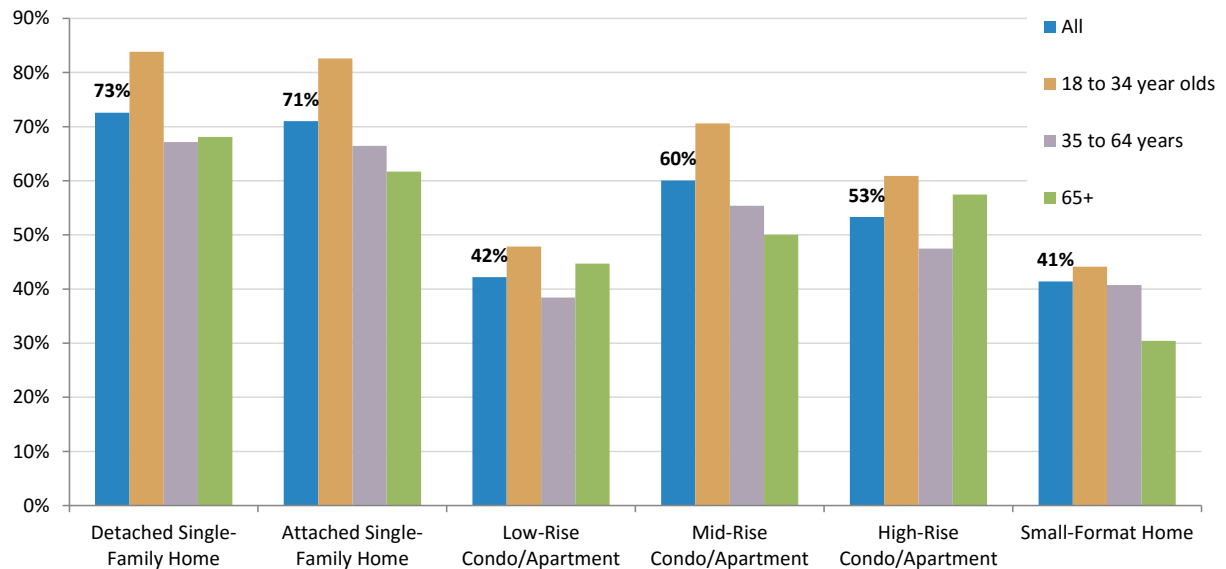
Figure 26
Desirability of Housing Types

Source: ReImagine Reno Phase 2 neighborhood amenities preference survey

The desirability of housing types varied among age groups, but not by a substantial amount. All age groups generally had the same rating of desirability if amenities were present in the neighborhood for each housing type, as shown in **Figure 27**. The respondents who were 18 to 34 years old had a higher rating of desirability of every housing type compared to the other age cohorts, showing that younger residents are more open to a variety of housing types. Respondents age 35 to 64 had the lowest desirability ratings for most housing types. However, the majority of respondents indicated they found four of the six housing types desirable if all, most, or some amenities were present near the house.

Figure 27
Desirability of Housing Types if Neighborhood Amenities are Present by Age Group

Source: ReImagine Reno Phase 2 neighborhood amenities preference survey

The main finding regarding the desirability of housing types other than detached single family homes is the need/desire for these types to be in neighborhoods with amenities that support higher density housing and make neighborhoods attractive to live in.

Another question within the survey asked how important certain neighborhood amenities were to have within 10 minutes of their home and which transportation mode they preferred to access the amenities. The results found that residents desire to live in close proximity to recreational opportunities (i.e., paths/trails, gyms or parks), and retail stores selling everyday goods (i.e. restaurants, coffee shops, grocery stores). For these amenities, respondents desired to be as close as a 10-minute walk (as opposed to a 10-minute bike, drive, or not within 10 minutes by any mode). The desire to be in close proximity to these amenities reinforces the desirability ranks for the mid-rise condo/apartment and high-rise condo/apartment housing types, as these housing types are typically found in more urban, mixed use locations that are likely in close proximity to the desired amenities. In short, the trade-off for not living in single family detached home is to be in a neighborhood that is amenity-rich.

The survey results prompt the need to measure and consider how well Reno's current neighborhoods provide the amenities that resident desire. The survey results also indicate that a greater variety of housing can be supported by allowing for flexibility in housing types throughout the City and ensuring both new and existing neighborhoods have the amenities residents' desire.

4. HOUSING GAPS AND NEEDS

This section provides an assessment of housing gaps and needs for the City of Reno. The assessment includes three main components: 1) estimates for future housing demand by housing unit type; 2) a comparison of housing demand to housing land supply; and 3) estimates of current housing gaps by AMI. The findings of this assessment will impact the policy direction that the Master Plan will need to take to address housing gaps. Lastly, the gaps identified will help inform an analysis of barriers to development of needed and desired housing types that will be completed to further housing policies and help identify how Reno can raise the bar for housing development in the future.
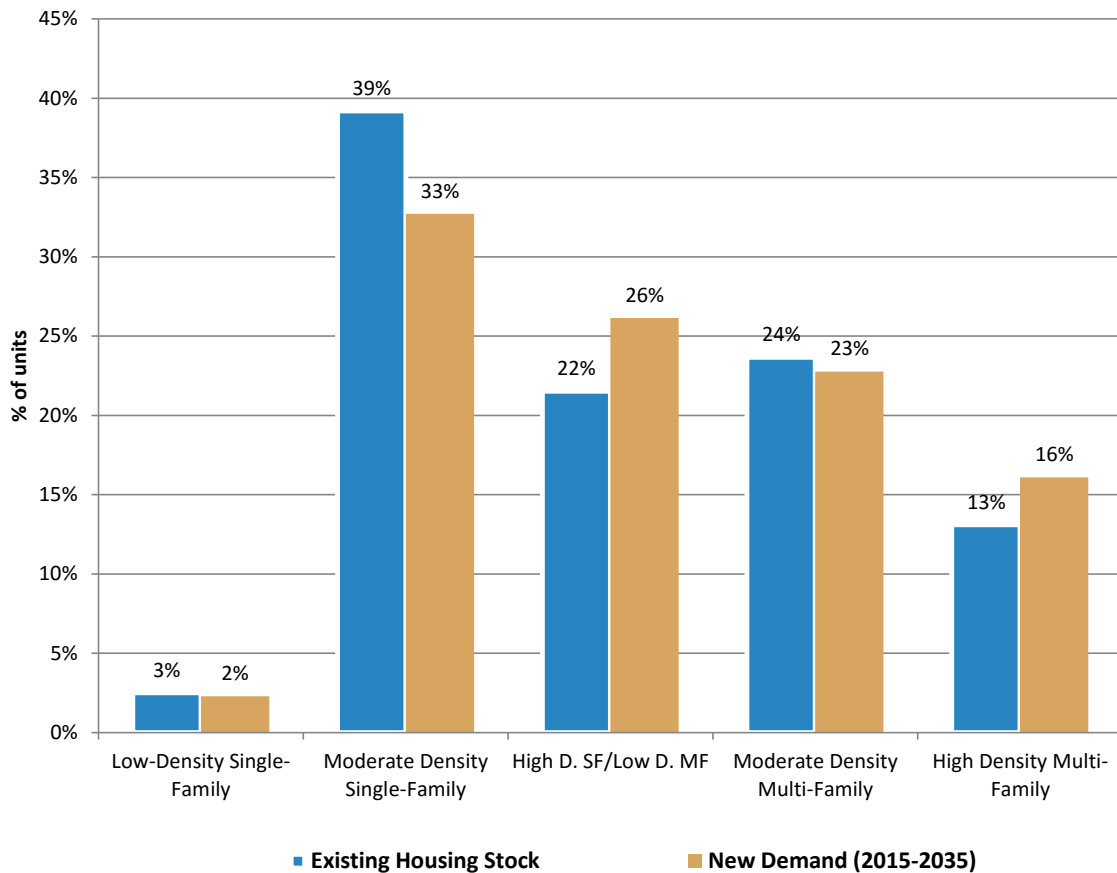
Future Housing Demand

Future housing demand will be influenced by the major factors summarized in chapter 3. To estimate future housing demand, the Housing Demand Model was modified from baseline conditions (existing/historic patterns) to reflect these factors and stakeholder outreach. An estimate of the number of new households for each Living Group by AMI level was created and these households were distributed to each of the housing unit types.

The analysis of factors impacting demand had two major findings that shifted existing patterns. The first finding was that based on current and forecasted demographics and economic industry mix, fewer households will be able to afford owning a home, especially a single family detached home. A significant portion of Reno households (66 percent) cannot afford the median home price of $256,000. Furthermore, the average (mean) price of a new home (a home built in the last 10 years) is $400,000 (Data from 3rd Quarter 2015). A household needs to earn over $70,000 annually to afford the median home price and $100,000 annually to afford the average new home price. However, the average cost of new townhomes and condos ($249,000) is significantly less than a single family home ($420,000), and are a more affordable option. Households that cannot afford to buy the new single family homes being built in Reno but still want to own can look for older homes or townhomes/condos, or look outside the City. Moving forward, the turnover of older homes is likely to be much lower than needed to meet demand, given the lack of inventory selling currently and the high price of entry for new housing for households considering selling. Townhome and condo products will likely become more in demand due to the lower price, which will shift demand from the moderate single family unit types to more-dense housing types. In addition, more rental units than historically built will be in demand as renter households are the majority in Reno and it is unlikely that renters will be able to find for-rent single family homes at the percentages they have in the recent past, translating into more multifamily development.

The second factor that will shift existing patterns is the shifting of housing type preferences. The surveys on housing preference, both local and national, found a preference for more walkable neighborhoods. In addition, there is willingness to trade a single family home with a yard (the most desired housing type) for a different housing type (typically on a smaller lot and/or with a more compact layout) if it is near amenities that are desired.

Combined, these two factors were estimated within the model to shift housing demand in several Living Groups to denser product types. As a result, the future demand for housing is estimated to be more evenly spread among the housing types. Currently, the most prevalent housing unit type in Reno is the Moderate Density Single Family home (2 to 7.26 DU/acre). This housing type accounts for 39 percent of Reno's current housing stock. The demand for this housing type is estimated to be 33 percent of future housing units, as shown in **Figure 28**. High Density Single Family and Low Density Multifamily housing types are estimated to capture 26 percent of the future demand compared to 22 percent of the current housing stock. Moderate Density Multifamily housing demand is estimated to approximately match current capture of 23 to 24 percent. Lastly, the demand for High Density Multifamily housing types (more than 30 dwelling units per acre) is estimated to account for 16 percent of future demand.

Figure 28
Percent of Units by Housing Type, Existing versus Future Demand

Source: TMRPA; Economic & Planning Systems

The estimated capture of demand for future units, shown above, results in the number of new units by housing type shown in **Figure 29**. There is estimated to be demand for 10,500 Moderate Density Single Family homes (33 percent of total new units). Within the Moderate and High Density Multifamily housing types there is estimated to be demand for over 12,400 units (39 percent of total new units).

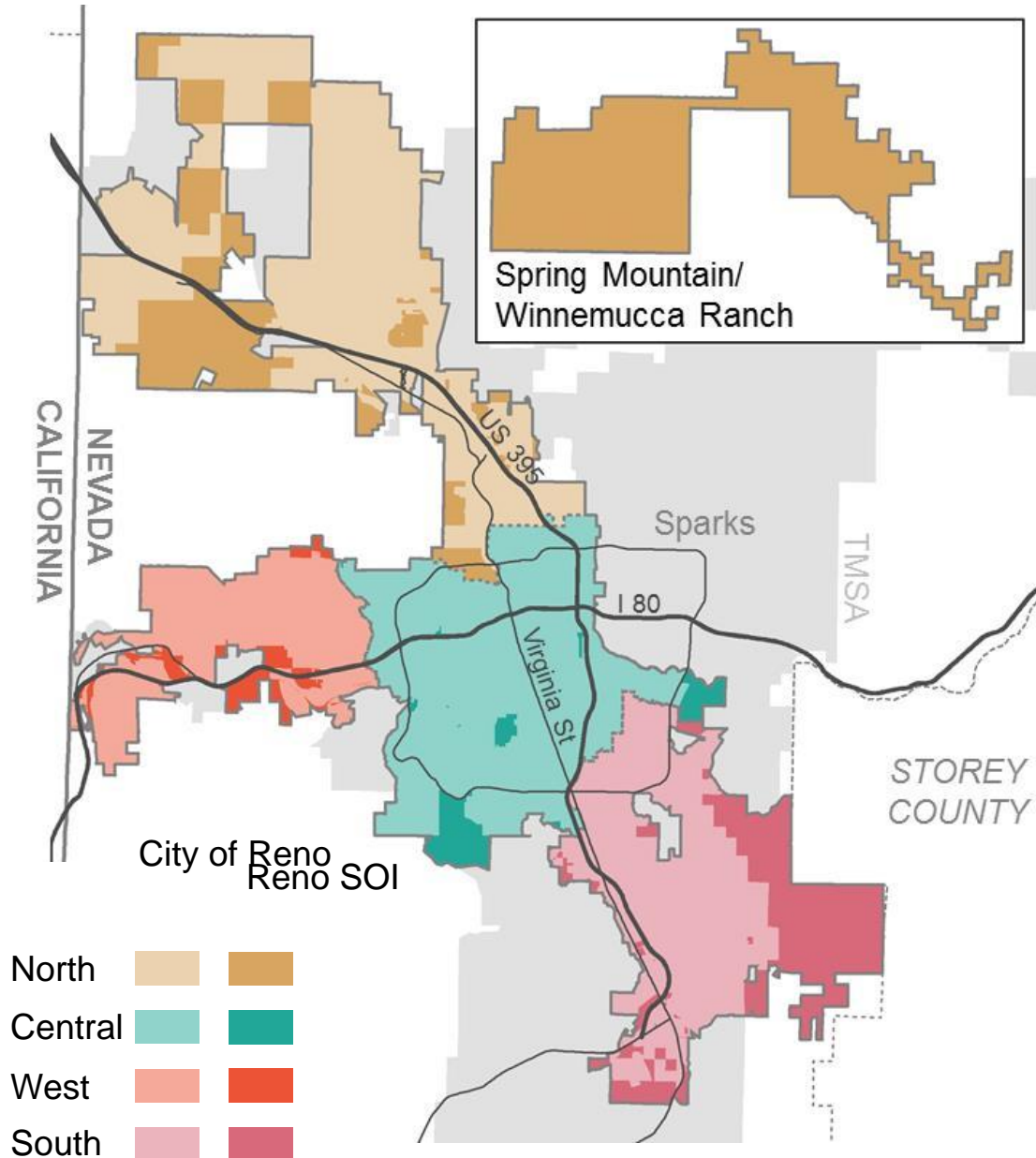**Figure 29**
Future Housing Unit Demand, 2015-2035
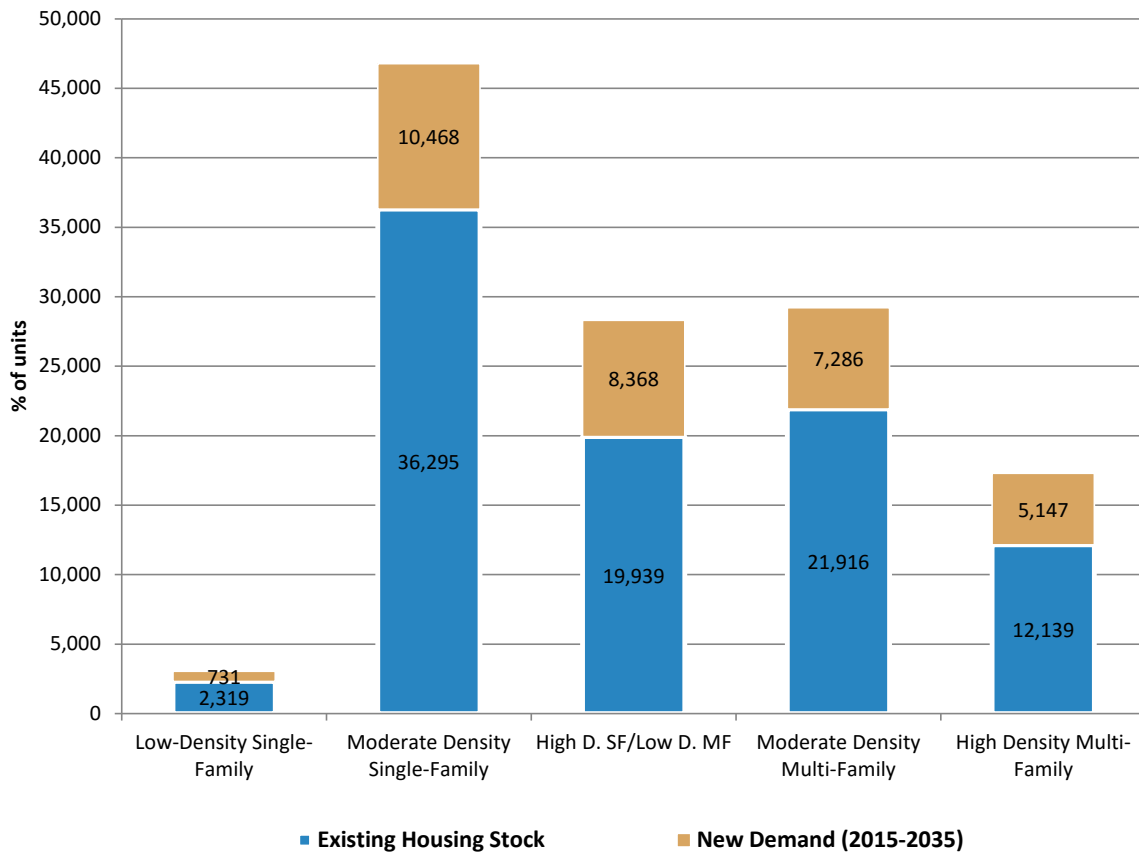
Source: TMRPA; Economic & Planning Systems

Existing Housing Stock Compared to Demand

The land supply in the City of Reno and its sphere of influence for future housing development was estimated to compare to future housing demand. The estimate of supply used data developed by TMRPA and the comparison of supply to demand was completed by Clarion Associates using estimated demand developed by EPS.
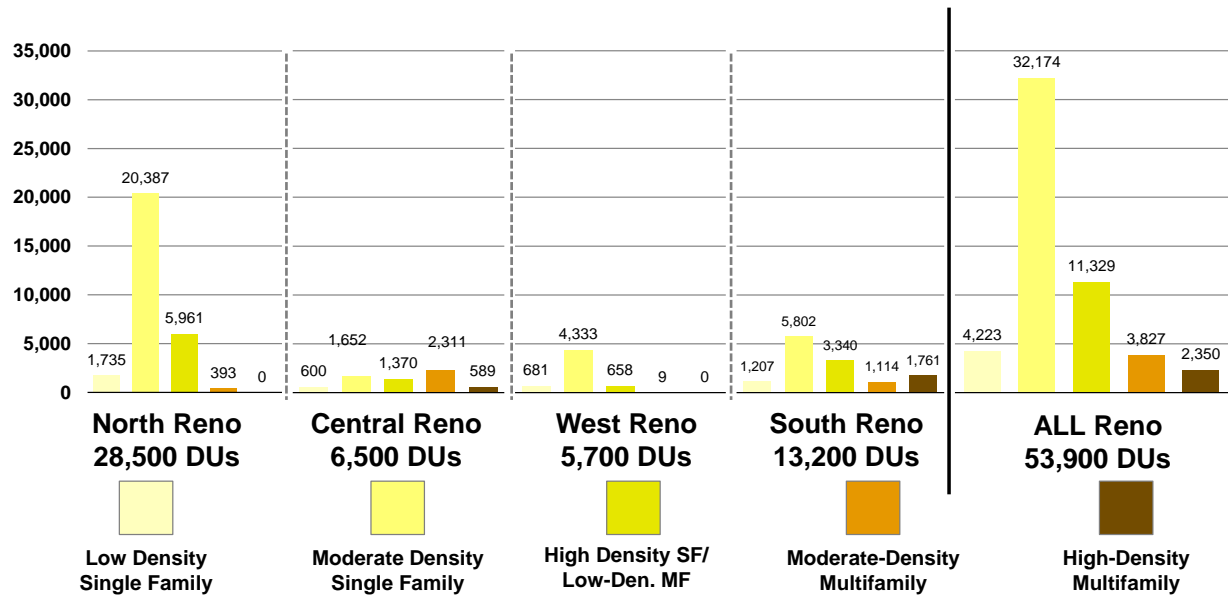
The estimated supply of land for housing was first calculated by inventorying vacant land that is zoned, planned, and/or designated for housing. Average densities, based on zoning and development specifications for planned unit developments (PUDs) were used to translate land and lots to inventory of units by housing type. Additionally, the City of Reno was split into four quadrants, as shown in **Figure 30**, to understand where housing supply exists.

Figure 30
City of Reno Quadrants

The estimated supply of units by type for the City of Reno is shown in **Figure 31**. Capacity exists for 32,174 Moderate Density Single Family homes, which is greater than the total demand for housing over the next 20 years. The majority of housing land supply is within the North Reno quadrant, with South Reno having the second largest supply. Seventy-eight percent of vacant housing lots are planned or zoned for Moderate Density Single Family and are in either North or South Reno.

Figure 31
**Vacant Land Housing Unit Supply by Area**

Source: TMRPA; Clarion Associates

TMRPA also estimated the potential supply of land for housing on infill parcels or parcels that could be redeveloped. Using historic development patterns as a guide, the number of units by housing type that could be built on parcels with infill and redevelopment potential was estimated. These estimates were added to the vacant lot capacity and compared to future demand in **Figure 32**. The infill and redevelopment capacity estimates were made using conservative estimates for densities and the proportion of land in mixed use zones that would be used for housing. As a result, the estimated additional supply from infill and redevelopment is likely low, which means there could be more supply for the multifamily housing unit types.

The comparison of housing land supply to future demand for units indicates that there is a significant oversupply of Moderate Density Single Family lots. As well, there is a small deficit of land for multifamily development. These deficits may not actually exist given the conservative estimates of capacity for infill and redevelopment. However, the comparison clearly shows that a broader housing mix is needed compared to what is currently planned. The Master Plan must address how to better balance the supply of housing to meet demand. This balancing may be difficult due to the significant number of vacant units within approved planned unit developments.

Figure 32
Housing Unit Supply versus Future Housing Demand by Type
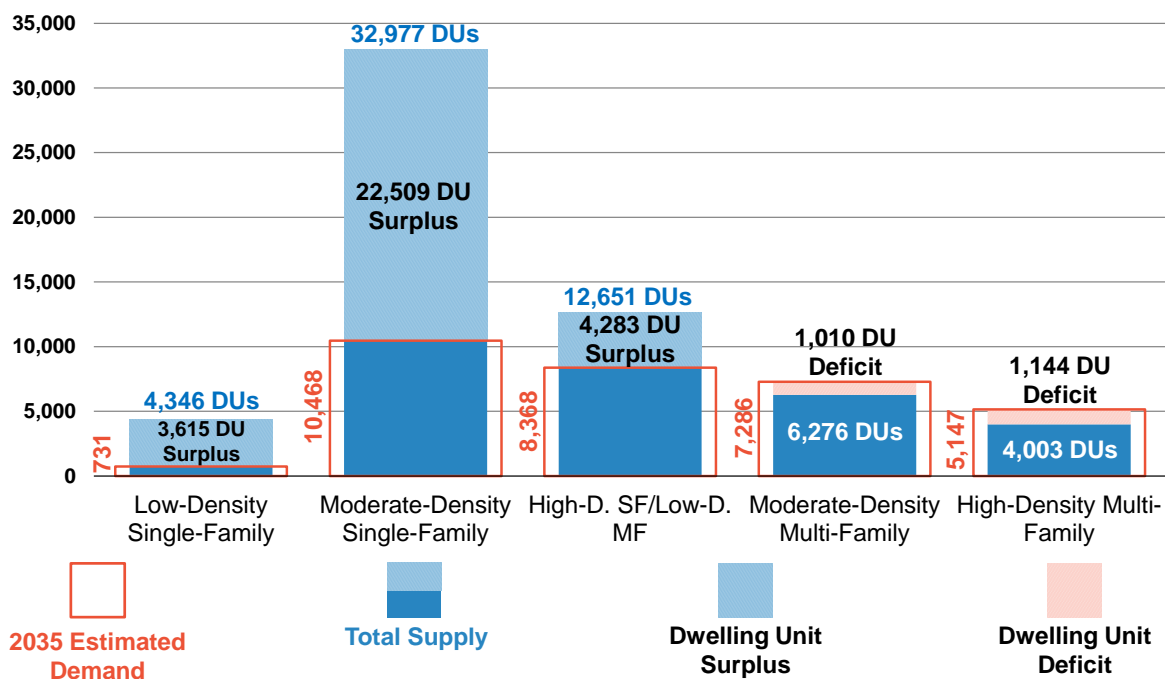
Source: TMRPA; Economic & Planning Systems; Clarion Associates

Housing Affordability Gaps

The affordability of housing is a common concern for many communities in the U.S., including Reno. However, the definition of affordability can and should vary by community. The relative cost of housing in a community is greatly impacted by local conditions, such as the quality and variety of housing stock and the quality and variety of employment opportunities. One approach to considering housing affordability in Reno is to divide the consideration of housing affordability in two categories:

- Affordable Housing – when communities make such a distinction in dealing with housing affordability issues, this category typically refers to the lower-income end of the needs spectrum. Most communities define this category with an income limit, e.g. 60 percent or 80 percent of the area's household median income (AMI), and/or with a product type, e.g. that this type of housing is most frequently and feasibly addressed through rental or publicly-subsidized housing solutions, funding, and policies.

- Workforce Housing – when communities make this distinction, it is often in the interest of connecting housing to the employment base (i.e. assuring housing is affordable to an average wage earner in the community). Communities that establish this distinction frequently define this group as having a higher income level that those who qualify for "affordable housing" as defined above, but generally lower than the incomes necessary to afford the market rate housing being produced in the open market (i.e. non deed-restricted market). In addition to income limits (usually a low and high limit), this category is frequently addressed with entry-level ownership housing products and policies.

The analysis below will help Reno define what groups fall under these two categories.

Affordability is commonly measured by the ability of a household, at various incomes levels, to pay for housing. One measure that characterizes affordability is cost burden. A widely-accepted industry standard for measuring cost burden is that a household should not spend more than 30 percent of its total (pre-tax) income on housing. That is, a cost-burdened household is one that spends more than 30 percent of its income on housing. An assessment of both owner occupied and renter occupied cost-burdened households in Reno is provided below.

To measure affordability, the households in Reno are broken up into groups based on their household income relative to Reno's median household income (AMI). The groups were determined using the median household income for the City of Reno of $45,663 in 2014. Data for the number of households by income level was gathered from the U.S. Census American Community Survey (ACS) 2014 (1-Year Estimates). The U.S. Census data is used to measure Reno specifically, despite the data lagging a year and half as it's the most up to date and accurate available.

To help organize households by income level, a housing bridge was created to show how the households in the City of Reno fit within the different income levels. The housing bridge is shown in **Figure 33**. The bridge provides the household income maximums for each income group, the number and percent of households by income level, and the percent of owner occupied households by income level.
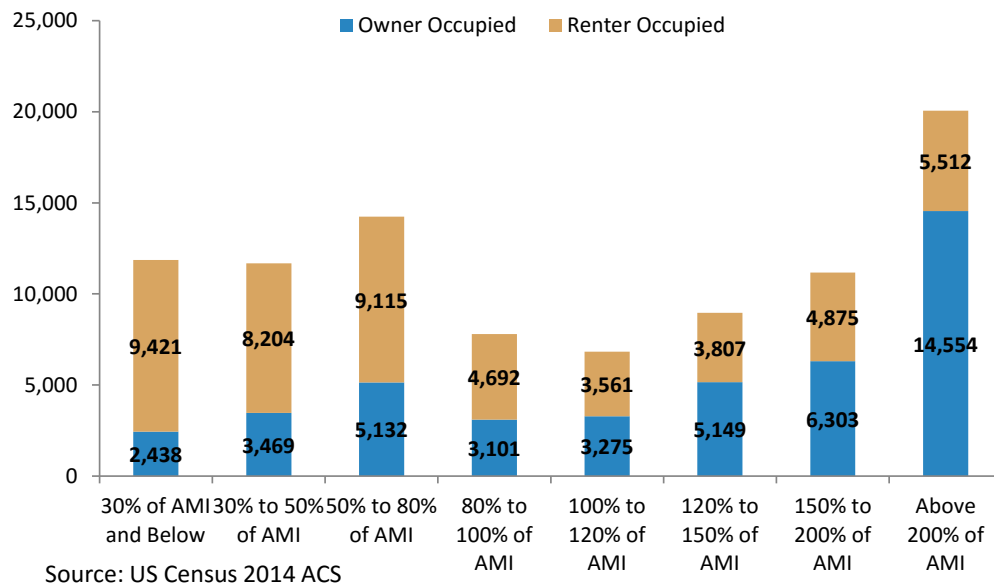
Figure 33
Reno Housing Bridge
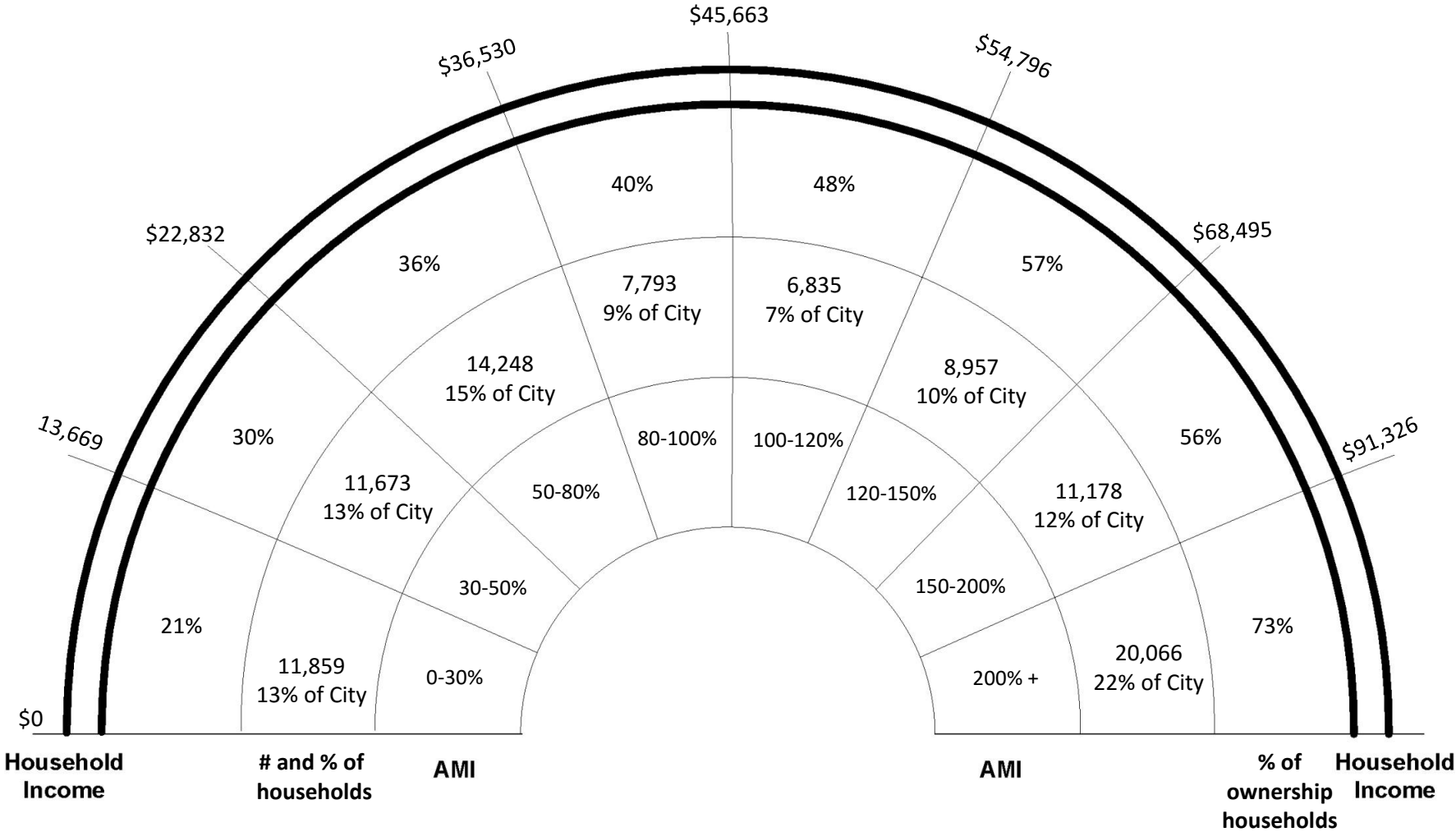
The distribution of households along the housing bridge identified some characteristics of Reno that impact affordable housing. There is a low percentage of households that are within the middle income categories (80 to 120 percent of AMI), as 41 percent of households earn 80 percent of AMI or below and 44 percent earn above 120 percent of AMI. Furthermore, approximately one-quarter (26 percent) of households earn 50 percent of AMI or below and 22 percent of households earn above 200 percent of AMI. Homeownership doesn't become the majority for households in each cohort until households earn over 120 percent of AMI. Households that earn between 120 and 200 percent of AMI are still only a slight majority (57 percent for 120 to 150 percent of AMI, and 56 percent for 150 to 200 percent of AMI).

Figure 34 shows the number of households by tenure by each income level. As expected, the lower income households are predominately renter households. Home ownership becomes the majority of households for income groups earning above 120 percent of AMI.
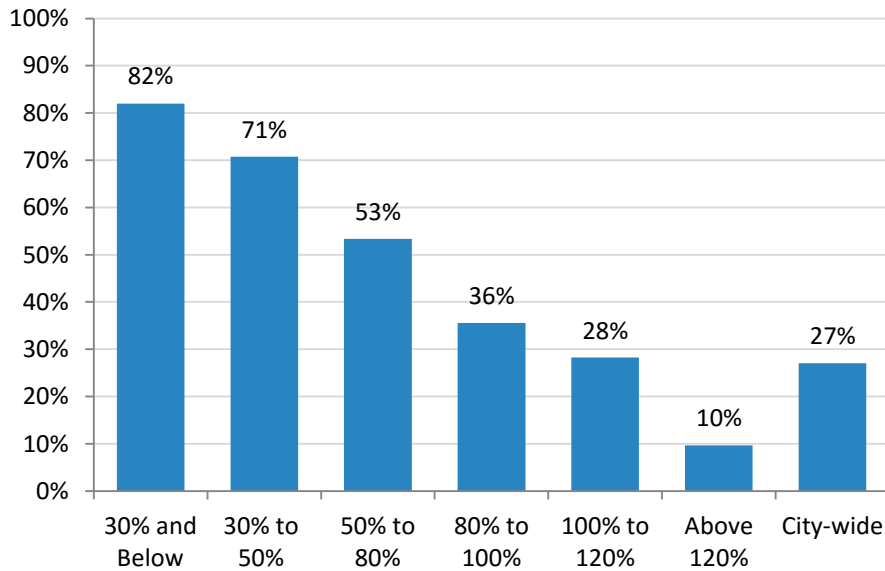
Figure 34
Reno Households by Tenure by AMI, 2014

Source: US Census 2014 ACS

For-Sale Housing

To determine ownership housing gaps by AMI, the percent of cost burdened households by income level was determined using U.S. Census data. The percent of cost burdened owner occupied households is shown in **Figure 35**. While 27 percent of all owner occupied households are cost burdened, more than half of households earning less than 80 percent of AMI are cost burdened as are 36 percent of households earning between 80 and 100 percent of AMI.

Figure 35
Percent of Cost Burdened Owner Occupied Households by Income, 2014

Source: US Census ACS 2014; Economic & Planning Systems

A significant portion of current owner occupied households cannot afford the median home price in Reno based on their income. **Figure 36** compares the affordable home price for a household earning the maximum for each income group (calculated based on the amount of income available for a mortgage with 30 percent of gross monthly income minus HOA dues, taxes and insurance) to the median home price in Reno ($256,000 in 3rd Quarter 2015). Households earning 100 percent of AMI have a gap between their affordable price and the median home price of $97,200. Households earning 120 percent of AMI have a gap of $58,300.

Figure 36
Ownership Affordability Gaps by Income Level
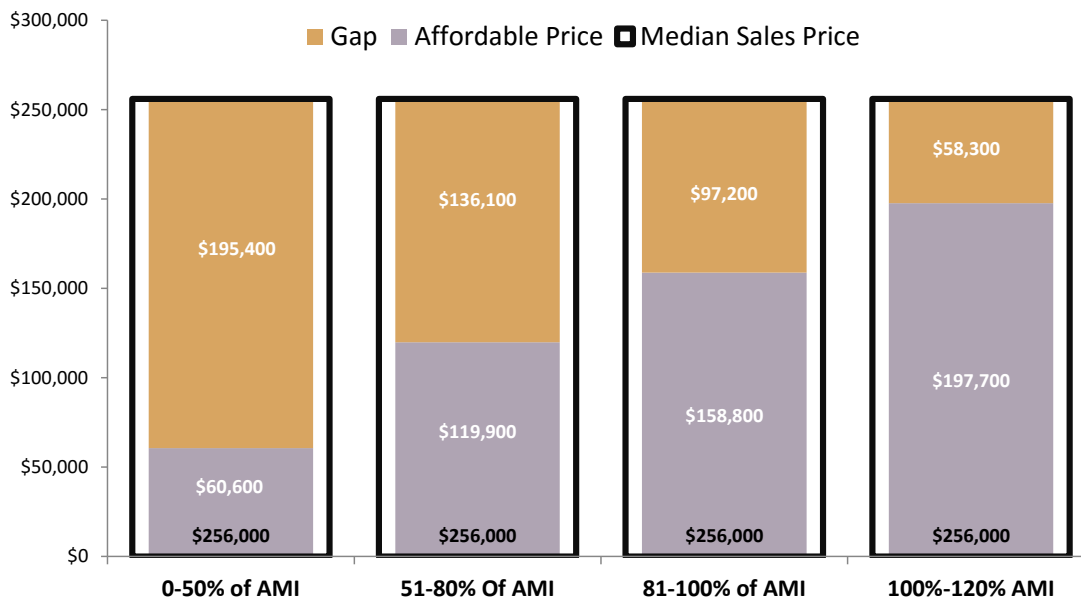
While the gaps analysis above show that households earning 120 percent of AMI or less cannot afford the median home price, there are still homes that are selling in Reno they can afford. **Table 4** shows the number of home sales in Reno (from 3rd Quarter 2014 to 3rd Quarter 2015) affordable to each income level. Twenty six percent of homes sold for less than $197,700, which is affordable to a household earning 120 percent of AMI. Typically, home ownership is more feasible for household earning above 80 percent of AMI and programs are targeted at this income level and above because the ability to qualify homes for mortgages becomes more feasible and there is less risk of default by the home owner. There appears to be adequate supply of homes for sale for households earning between 80 and 120 percent of AMI.

Table 4
Number of Affordable Home Sales by Income Level, 2014-2015

Area Median Income	Maximum Household Income	Affordable Sales Price	# of Home Sales (2014-2015)	% of Sales
50% of AMI and Below	$22,832	$60,600	140	3%
50% to 80% of AMI	$36,530	$119,900	304	6%
80% to 100% of AMI	$45,663	$158,800	328	6%
100% to 120% of AMI	$54,796	$197,700	571	11%
Above 120% of AMI	---	$197,700+	3,813	74%

Source: Reno-Sparks Association of Realtors; Northern Nevada MLS; U.S. Census ACS; Economic & Planning Systems
H:\163020-Reno Master Plan Update Phase 2\Data\[163020-Housing Analysis_6.23.16.xlsx]For-sale price gaps-Reno MHI

The assessment of home sales above considers all homes sold in Reno. When only new home sales are considered (defined as homes built in the past 10 years), it is clear to see how the type of home impacts affordability. The number of new home sales by price range is shown in **Figure 37**. Eight percent of the new home sales (2014-2015) were affordable to households earning 120 percent of AMI or less. The average home price of a new single family home from 3rd Quarter 2014 to 2015 was $420,000 and the average price of townhomes and condos was $250,000. As discussed previously, the average worker in Reno earns an average annual wage of $42,000. Even with two income earners in a household, many workers in Reno likely cannot afford a single family home, especially a new single family home. This is a shift from previous decades, where the typical worker was able to afford a single family product in Reno. Ensuring a diversity of household types is a key component of ensuring affordable housing for Reno's workforce.

Figure 37
**Reno New Homes Sales by Price Range, 3rd Quarter 2014-2015**
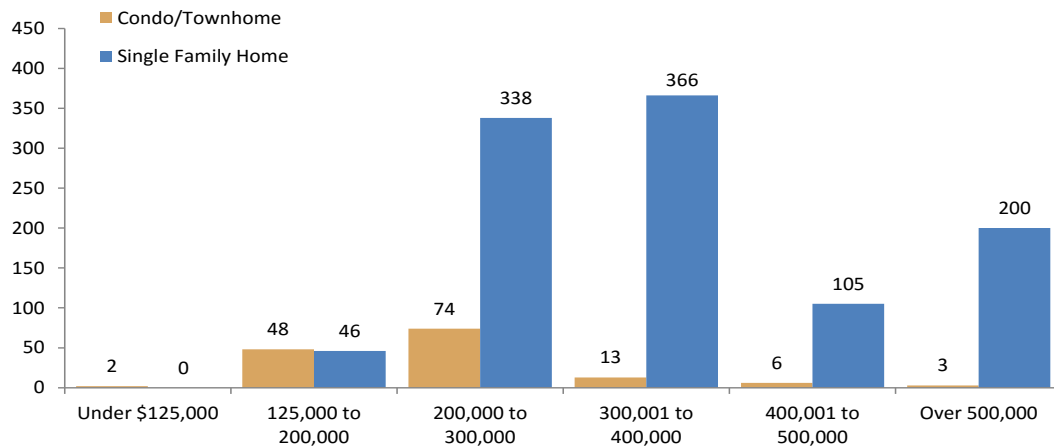
Source: Reno-Sparks Association of Realtors, Northern Nevada Regional MLS Economic & Planning Systems

Rental Housing

A similar comparison was completed for renter households. The percent of renter households that are cost burdened by income level is shown in **Figure 38**. Almost half (49 percent) of renter households in Reno are cost burdened. Cost burden is a significant issue for most households earning less than 80 percent of AMI.

Figure 38
Percent of Renter Occupied Cost Burdened Households by Income, 2014
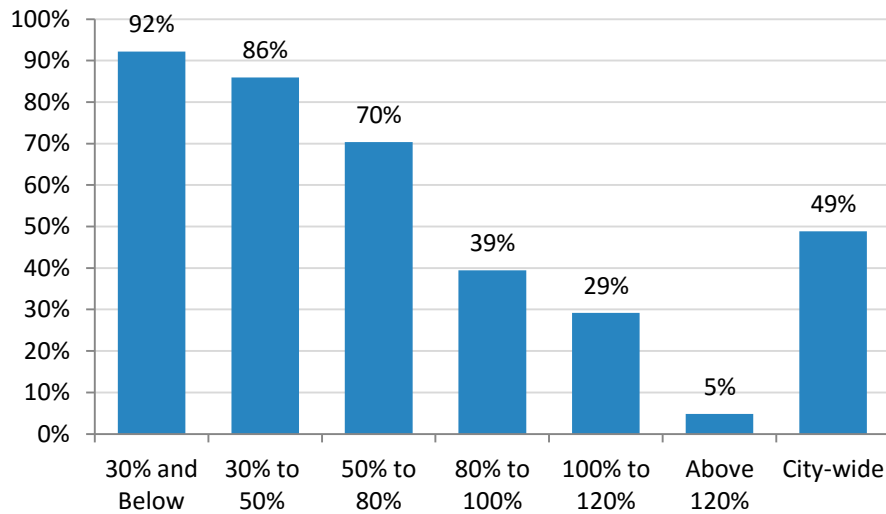
Source: US Census ACS 2014; Economic & Planning Systems

The number of renter housing units, based on 2014 U.S. Census ACS data, being rented at gross rents affordable for each income level is shown in **Figure 39**. Thirty-eight percent of renter households (18,694) rent for $570 to $913 per month, which is affordable to a household earning 50 to 80 percent of AMI. As result, there are several households from other AMI levels that rent units that are either too expensive (because of cost) for them, or rent units that have rents that are much lower than they can afford (they could pay more based on income but adequate supply does not exist). The end result is households from all income levels are vying for the same units, which leads to cost burdens for the lower income renters.

Figure 39
Rental Units by Gross Rent Affordable by AMI Level
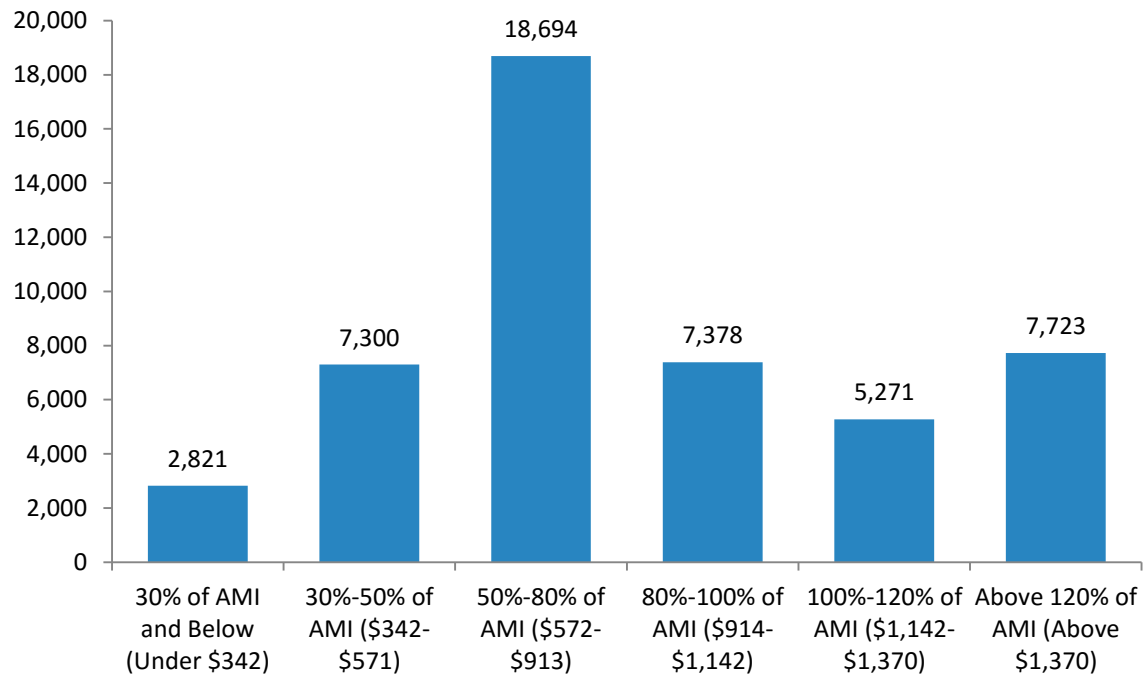
Source: U.S. Census ACS 2014; Economic & Planning Systems

Rental rates in Reno have grown substantially since 2014 and renters are likely paying more today than the U.S. Census data indicates. The average monthly rental rate in the Reno-Sparks area was $990 at the end of the 1st Quarter 2016. The average rent rate increased $122 per month from 2014 to 2016. This recent, rapid raise in rental prices likely indicates that the median rental rate of $750 (U.S. Census ACS) has likely increased, which is impacting the affordability of renting a home for more households. Affordability of rent for households earning 50 to 80 percent is likely becoming more difficult as rents rise. As shown earlier, the vacancy rate for apartments in Reno is nearly 2 percent, which effectively means there are very few vacant units available. There is substantial demand for more rental housing in Reno as evident by the rapid rise in rents and vacancy rates. The market is beginning to react as the 1st Quarter Apartment Rent Survey by Johnson-Perkins-Griffin found 1,458 units within major apartment projects (over 80 units) under construction, and another 5,902 units planned. The increase of apartment units, which will likely rent for above average rents, will help alleviate some pressure on renter households in the lower income AMI levels (specifically 50 to 80 percent of AMI), but won't solve issues with affordability and cost burden for these groups.

Affordable Housing Policy Considerations

The gaps identified for both owner and renter households provide guidance on affordable housing policies that may be considered for the Master Plan and by the City of Reno. The analysis indicates the following policy related considerations.

- The greatest need for affordable housing is for households earning less than 50 percent of AMI ($22,800 annual household income or less). Ninety percent of renter households earning less than 50 percent of AMI are cost burdened. For these households there is a gap between the amount they can afford for rent and the median rent price in Reno. The majority of affordable housing agencies and organizations active in Reno include a focus on housing for this group. The number of households earning this level of income is partly a result of the low-paying tourism and gaming related jobs that make up a sizeable portion of the economic base. The takeaway is that continued increased economic diversity and corresponding increase of higher paying jobs can help address this gap in addition to the ongoing subsidized affordable housing efforts. (Note: the economic base in Reno and its impact on wages is explored in detail in the Economic Demand and Needs Assessment report.)

- Growing apartment rental rates and near-zero vacancy rates indicate a strong demand for rental housing. This is an indication of a growing economy and employment base. This pressure from the rental market will result in demand for apartment units. Ensuring the land use plan has adequate land designated for rental products and in areas and densities the market will desire and support is needed. Increased supply can help stabilize rental costs, which are growing rapidly currently, but will not address affordability issues for households that cannot afford median rental rates.

- There are likely a significant number of owner-occupied households that struggle to maintain home ownership given the number of existing owner households that earn less than 80 percent of AMI and the percent of cost burdened households in Reno. Remaining in their home in the long term is likely the only ownership option available as selling and moving to current market rate housing would be cost-prohibitive. For many of these households, being a homeowner means their housing costs are locked in by their mortgage, which is beneficial. Issues with maintaining affordability emerge when major improvements are needed and or other ownership costs (such as taxes and insurance) change substantially. As shown earlier, the majority of senior households own homes and the older Living Groups have much higher rates of home ownership. Policies and programs related to aiding in the upkeep and maintenance of homes for lower income households and related to aging in place for older Living Group households are needed to help maintain home-ownership for these vulnerable populations.

- Lastly, the comparison of average wages by industries to the affordable home price indicated that home ownership is likely difficult for workers in many of the larger and growing industries in Reno (tourism related, manufacturing, logistics). Traditionally, single family homes have been affordable options to the average worker in Reno, but this likely will not be the case in the future. A wider variety of housing (i.e. condominiums and townhomes) is needed to provide more potential ownership options for these groups. Policies and programs related to affordable for-sale workforce housing should be considered.