Nevada Affordable Housing Dashboard

Indicator	Clark	Clark 5 Yr Trend	Washoe	Washoe 5 Yr Trend	U.S.	U.S. 5 Yr Trend
Homeless Count per Thousand People	2.2	NA	3.5		NA	NA
Percent of Extremely Low Income Renter Households with Severe Rent Burden	72%		68%		61%	
Percent of Low Income Renter Households with Severe Rent Burden	9%		6%		5%	
Market Rate Multifamily Vacancy Rate	4.2%		3.2%		4.7%	
Tax Credit Multifamily Vacancy Rate	2.0%		2.7%		2.4%	
Subsidized Units per Thousand People	9.6		17.1		15.1	
Housing Choice Vouchers per Thousand People	5.0		4.8		6.8	
Jobs per Permit	0.3		1.0		0.2	
Homeownership Rate	56.0		59.9		64.4	
Share of Homes Sold Affordable to Median Income Family	42.0		33.8		54.2	

Documentation:

Arrow direction gives direction of long-term trend since baseline. Baseline numbers are available in the full report below. Red/frown denotes a worsening trend, green/smile an improving trend, and yellow/straight face a stable trend.

Homeless Count per Thousand People – Homeless Point in Time count divided by U.S. Census Bureau population estimates divided by 1000 for appropriate year and region: U. S. Housing and Urban Development Point in Time Counts 2007 to 2021: https://www.hudexchange.info/resource/3031/pit-and-hic-data-since-2007/ downloaded 7-25-2022, U.S. Census Bureau Vintage 2020 Population Estimates: https://www.census.gov/programs-surveys/popest/technical-documentation/research/evaluation-estimates/2020-evaluation-estimates.html and Vintage 2021 Population Estimates https://www.census.gov/programs-surveys/popest/data/tables.html , and analysis by author. Note that the 2021 Vintage contains a revised estimate for July 1, 2020, after having taken into account the results of Census 2020. Baseline year is 2017 and most recent is 2021. Assumption is that more homelessness is bad.

Percent of Extremely Low Income Renter Households with Severe Rent Burden – Source: For most recent data HUD 2015-2019 Comprehensive Housing Affordability Strategy (CHAS) https://www.huduser.gov/portal/datasets/cp.html, accessed 9-9-2022, for baseline data HUD 2010-2014 the same website accessed 12-20-2017 and tabulations by author. Assumption is that more severe rent burden for extremely low income renters is bad.

Percent of Low Income Renter Households with Severe Rent Burden – Source: the same as above for extremely low income renters with severe rent burden and tabulations by author. Assumption is that more severe rent burden for low income renters is bad.

Multifamily Vacancy Rate – Source: For Reno/Sparks Metro 4th quarter 2017 and 2021 average overall vacancy rate, Historical Table on page 6, in Johnson, Perkins and Griffin Apartment Survey 4th Quarter 2021 report. For Las Vegas, one minus average occupancy rate, ALN Las Vegas Apartment Data General Overview for month of October 2017 for baseline and for October 2021, same report by email communication with ALN staff. U.S. multifamily vacancy rate for 2017 is from *REIS Apartment First Glance Report 2017 Q4* by Victor Calanog, Jan. 15. 2018 and for 2021 as shown in *REIS/Moody's Analytics CRE Preliminary Trend Announcement for Q4 2021, Jan. 5, 2022, by Lu Chen.* Series are carried out with different methodologies for different locations.

Vacancy rate is a market balance indicator. High vacancy rates can indicate an oversupply of apartments which can potentially lead to property owner's inability to maintain properties, financial distress and even foreclosure, although from the short-term point of view of a renter, higher vacancy rates can be desirable. Very low rates may indicate a market imbalance with demand greater than supply. Low vacancy rates are associated with rising rents. By rule of thumb, 5% vacancy is considered an indication of a balanced multi-family market. The assumption is that movement towards 5% is better for the long-run interest of both renters and owners.

Tax Credit Multifamily Vacancy Rate – Baseline is 2017 4th quarter average vacancy rate and current is 2021 4th quarter. Data is from Nevada Housing Division's Taking Stock 2021. https://housing.nv.gov/Programs/Housing_Database/ Although rent restrictions prevent complete market type responses, the assumption is as above, that movement towards 5% is better for the long-run interest of both renters and owners. National LIHTC vacancy rate is from Moody Analytics-REIS as quoted in Fannie Mae *Multifamily Economic and Market Commentary – February 2022* 2-16-2022 and Multifamily Market Commentary *February 2018* by Tanya Zahalak.

Documentation (2nd page)

Subsidized Units per Thousand People – Calculation is Annual Housing Progress Report (AHPR) total subsidized unit inventory for 2017 (baseline) and 2021 (most recent) divided by Census Bureau (Vintage 2020) Population Estimates over 1,000 for region and year to 2019 and divided by Census Bureau (Vintage 2021) Population Estimates over 1,000 for years 2020 and 2021. National number was National Housing Preservation Database Preservation Profile total (https://preservationdatabase.org/) publicly supported rental homes of 4,960,357 divided by U.S. Census Bureau Population Estimate over 1,000: https://www.census.gov/programs-surveys/popest/data/tables.html. The 2017 National Housing Preservation estimate of publicly supported rental homes divided by the appropriate Vintage 2020 national population estimate was used for the base comparison. Nevada Housing Division's 2021 Annual Housing Progress Report is available online on the Low Income Housing Database website. The assumption is that in Clark and Washoe County as a whole at this time, more subsidized units are better. It should be recognized that the ultimate aim is not more subsidized units, but rather, fewer homeless, and fewer low income households living in overcrowded conditions or inadequate housing or experiencing housing instability. If it is possible that there are other ways to reduce these "bads" without using subsidized housing, it might be preferable to have less subsidized housing. Some small sub-regions may have too much subsidized housing.

Housing Choice Vouchers per Thousand People –Total number of Housing Choice Vouchers in use for Washoe and Clark County divided by population estimate over 1,000. Baseline year is 2017 and most recent is 2021. For the denominator the data source is U.S. Census Bureau Population Estimate Vintage 2020 for 2017 and U.S. Census Bureau Population Estimate Vintage 2021 for 2021: https://www.census.gov/programs-surveys/popest/data/tables.html Voucher data is number of Housing Choice Vouchers in use from Picture of Subsidized Housing on the HUD website: https://www.huduser.gov/portal/datasets/assthsg.html. In previous years, a different series from Center for Budget and Policy Priorities was used but it is no longer available. The new series is not comparable to the one used in previous years for the Affordable Housing Dashboard, but the new series has been constructed back to 2012. See above for assumptions on trend desirability.

Jobs per Permit – This statistic compares a housing demand indicator (employment growth) to a housing supply indicator (residential permits). (New) jobs per permit is a market balance indicator. A high level of new jobs per permit could mean demand is outrunning supply which would mean higher rents and housing prices. A low level of new jobs per permit could mean an oversupply of housing. Over the long run housing unit permits per new job should be in the range between 1 and 2 since average jobs per household is in this range. To account for job and housing activity in surrounding counties, the aggregation of Washoe, Storey, Carson, and Lyon Counties was used for this indicator rather than Washoe County by itself.

Baseline is change in Quarterly Census of Employment and Wages employment from June 2012 to June 2016 divided by total residential building permits 2012 to 2016. Data is from the Bureau of Labor Statistics at https://www.bls.gov/cew/ accessed 8-17-2022 and U.S. Census Bureau, Residential Building Permits Survey at https://www2.census.gov/econ/bps/County/ accessed 8-16-2022. Current is for 2017 to 2021. Data is from the same sources.

Homeownership Rate –Baseline year is 2016. Current year is 2020. Source is U.S. Census Bureau American Community Survey, as accessed through the Federal Reserve Bank of St. Louis. Annual Homeownership Rate https://fred.stlouisfed.org/series/HOWNRATEACS032003 and https://fred.stlouisfed.org/series/HOWNRATEACS032031. For the United States the source is United States Census Bureau, Table B25003 Tenure, 2016 and 2020 5-year estimates at https://data.census.gov/cedsci/.

Share of Homes Sold Affordable to Median Income Family- Baseline is 4th quarter 2017 and current is 4th quarter 2021. Source is National Association of Home Builders. NAHB-Wells Fargo Housing Opportunity Index. Housing Opportunity Index (HOI) - NAHB accessed 8-11-2022.

Affordable Housing Dashboard Report

Nevada worse than national average on seven of ten indicators.

Clearly 2021 and 2022 was a tough year for housing affordability as rents and home prices increased by record levels across the nation far beyond increases in wages. And, amid this tough year, Nevadans in both Washoe and Clark Counties are worse off as compared to the U.S. average on seven of ten of the dashboard indicators. Clark County came out worse than the nation on nine indicators.[ii] Some good news was that Washoe County came out with a vacancy rate higher than the national average for tax credit properties as well as a higher rate of subsidized units per thousand people. On the new jobs per building permit ratio, Washoe County also showed a nicely balanced 1 permit per new job. However, this indicator is hard to interpret since Covid related unemployment is still influencing these numbers. Washoe County appears "balanced" because it has particularly strong job growth in connection with an ongoing trend towards diversification away from the gaming sector. This protected it from higher unemployment levels experienced in Clark County during the pandemic and aftermath. In reality, all three regions have already shown job growth that will bring the indicator into a balanced range or perhaps beyond into the undersupplied zone (over two jobs per permit) if another recession doesn't reduce employment.[iii]

Washoe and Clark Counties do not have the same affordable housing profile

In some respects, the housing affordability picture seems better in Washoe County. Bright spots in Washoe County as compared to Clark County include a higher rate of homeownership, a higher number of subsidized units per thousand population and a smaller proportion of extremely low income households experiencing rent burden with the latter two indicators possibly related. But Washoe County had a much higher rate of homelessness than Clark County, with both rates higher than the national average. And home affordability for buyers is extremely low in Washoe County with only about 34% of recently sold homes affordable to a family with a median income. Again, affordability is worse in both counties as compared to the national average.

What about the five-year trend: are we making progress?

Many of the green arrows (positive trends) on the dashboard are on indicators with the longest lags. For example, the proportion of extremely low income and low income rent burdened households was trending down or staying the same for all three regions, but the data are for 2015 to 2019, good years as the economy picked up steam after the Great Recession, as compared to the period of 2010 to 2014 which includes some of the Great Recession years. While in more ordinary times, these rent burden levels are surprisingly robust over time, the past several years have brought about exceptional changes that likely will be reflected in the data in the next few years. Another bright spot on the dashboard was the increasing percentage of households owning a home for all three regions. However, this reflects the upward trend in homeownership from 2016, when homeownership was just beginning to recover from the Great Recession, to 2020, before the big effects of Covid-19 unemployment, housing assistance and finally record price increases, would be reflected in the data.

The trend towards lower vacancy rates in multifamily apartments in both counties summarizes the landlord's marketplace that has developed gradually since the Great Recession, with rents rising faster than incomes. Other trends were mixed. Some of the data on homelessness was not available, or was collected using a different methodology, because of Covid-19 issues, but the long-term trend in Clark County had been positive with PIT homelessness per 1000 decreasing, even though nationwide PIT homelessness per 1000 saw an uptick. Washoe County on the other hand, has had an increasingly worse problem with homelessness developing over the past five years. Washoe County was making some progress in availability of solutions, trending up in the number of subsidized units per thousand measure and down in the vacancy rate for tax credit properties, with the opposite happening in Clark County. Home affordability was,

surprisingly, increasing as compared to five years ago in Washoe County. However, it should be noted that the affordability measure was at a very low level so that despite a better measure, affordability in Washoe County remained worse than Clark County or the nation. Clark County affordability has decreased over the past five years. Also, affordability has fallen precipitously in all regions in the past few months as interest rates have increased without a corresponding decrease in prices, something not yet captured in the indicator series.

The Covid-19 pandemic, along with the associated lockdowns and other policy measures taken to contain it, had a large influence on data collection in 2020, and to a lesser extent in 2021. The Census Bureau released the 2020 American Community Survey as “experimental” data, because the data does not meet its normal standards of accuracy and reliability and did not release data at all the normal geographic levels. In addition, the Point-in-Time homeless count was severely disrupted in 2021, and HUD advises that the numbers in the count not be compared to previous years. As a result, some indicators could not be updated this year.

The Affordable Housing Dashboard Report below further documents the methodology and expands the context for each of the dashboard indicators, in many cases providing a chart and/or table with the entire time series, additional information on Nevada counties outside of Washoe and Clark, component numbers used to calculate rates and more.

Homeless Count per Thousand People

Indicator	Clark	Clark 5 Yr Trend	Washoe	Washoe 5 Yr Trend	U.S.	U.S. 5 Yr Trend
Homeless Count per Thousand People	2.2	NA	3.5		NA	NA

Homeless Count per Thousand Dashboard indicator:

The 2021 point-in-time (PIT) took place in the winter of 2021 amid one of the worst outbreaks of the Covid-19 pandemic and before the availability of the vaccines released later that year. Because of the precautions taken to limit the spread of the virus, the count methodology was subject to drastic modifications and in some cases the count of unsheltered homeless families and individuals could not be carried out at all. Nationwide, for 40% of the communities that normally carry out the PIT count, carrying out the full unsheltered count was not possible, making it impossible to compare 2021 total counts to 2020 counts, or any other previous year, for the unsheltered population. Because our indicator depends on the total unsheltered plus sheltered count, the full data is not available for an update.[iv] The 2022 point-in-time count has not been formally released by HUD as of this writing. The count was delayed in many jurisdictions, again because of a large outbreak of Covid-19 throughout January, the traditional period for carrying out the count. Unlike in past years, CoCs were instructed not to approach tents and other structures to get a count of inhabitants, leaving people inside of structures uncounted.

Each CoC in Nevada did at least attempt a count of unsheltered homeless. The 2022 count was delayed until February. CoCs were asked if they considered the 2021 count comparable to previous years:

- **Southern Nevada CoC did a sample instead of a full count.**
- **Washoe County carried out a full count. The Reno-Sparks-Washoe County CoC reported colder weather than usual and a bigger shelter with more bed space as having influenced the count but did not report differences due to Covid except in that the in person survey of unsheltered individuals which gathers demographic data did not take place. The unsheltered count was carried out and reported by unsheltered individuals themselves.**
- **Rural Nevada CoC delayed the PIT count.**

Clark County 2017 PIT count was 2.6/thousand population and in 2021 was 2.3/thousand population. However, because of the higher risk of an undercount and changes in methods it is difficult to compare the two years. Washoe County started out at 2.4 PIT count/thousand in 2017 and ended up higher at 3.5/thousand. The Reno-Sparks-Washoe County Continuum of Care did not report a substantial difference in methodology in 2021 and have not expressed a concern over comparing it to previous years. Thus, for Washoe County the indicator shows an increase in the homelessness rate and a negative trend. For the United States, no comparable count was published in 2021 because of the difficulties already discussed. The U.S. PIT count per thousand was 1.7 in 2016 and had risen to 1.8 in 2020.

The dashboard assumption is that more homelessness is bad. Many studies show that homelessness imposes many costs on individuals who are homeless as well as on the community in which the homelessness takes place (Ly and Latimer 2015, Steen 2018).

Additional information on homelessness in Nevada

The U.S. Department of Housing and Urban Development (HUD) requires each Continuum of Care (CoC) in the country to carry out the Point-In-Time (PIT) count of the homeless sometime in the last week of January. The count is of both sheltered and unsheltered homeless as of a single night.[v] The count must be done biennially at a minimum. The HUD

requirements allow each CoC to choose amongst several different methods of counting and some changes in definition and count protocol have occurred throughout the period. By its nature it is difficult to obtain a comprehensive count of people who do not have an established home and the numbers must be understood in that context.[vi,vii]

Figure 1 shows the time trend for total homeless PIT counts per 1,000 population for Clark County CoC, Washoe County CoC and Nevada Balance of State CoC and for the U.S. from 2007 to 2020. The data used for the figure is contained in Table 2. Using a rate of Point-in-Time homeless count per thousand population helps to account for population increase or decrease and facilitates comparisons across regions.

Las Vegas' overall rate of homeless PIT count varied from 2.3 to 5.1 homeless per thousand population reaching its lowest rate in 2020. Clark County CoC rate of PIT homelessness decreased 43% from 2007 to 2020. This was greater than the rate of decrease that occurred in the U.S. as a whole (18%). Throughout the period, rates of PIT homelessness were high in Clark County as compared to the national rate. For example, Clark Co.'s rate of PIT homelessness was 2.3 per 1,000 population in 2020 as compared to the national rate of 1.8 per thousand.

On the other hand, Washoe County roughly matched the U.S. PIT count per thousand until about 2015. From 2015 to 2020 the PIT count per thousand in Washoe County mostly increased with the result being 2.6 per thousand, higher than the national average and Clark County.

In the Rural Nevada CoC, PIT count per thousand has been lower than the national average but trending upwards. However, not all rural counties have enough staffing or volunteers to carry out the PIT count, so for this and other reasons the Rural Nevada CoC PIT may undercount homeless at a greater rate than the urban CoCs.

Table 1. United States, Nevada, and Nevada CoCs 2021 point-in-time (PIT) homeless count

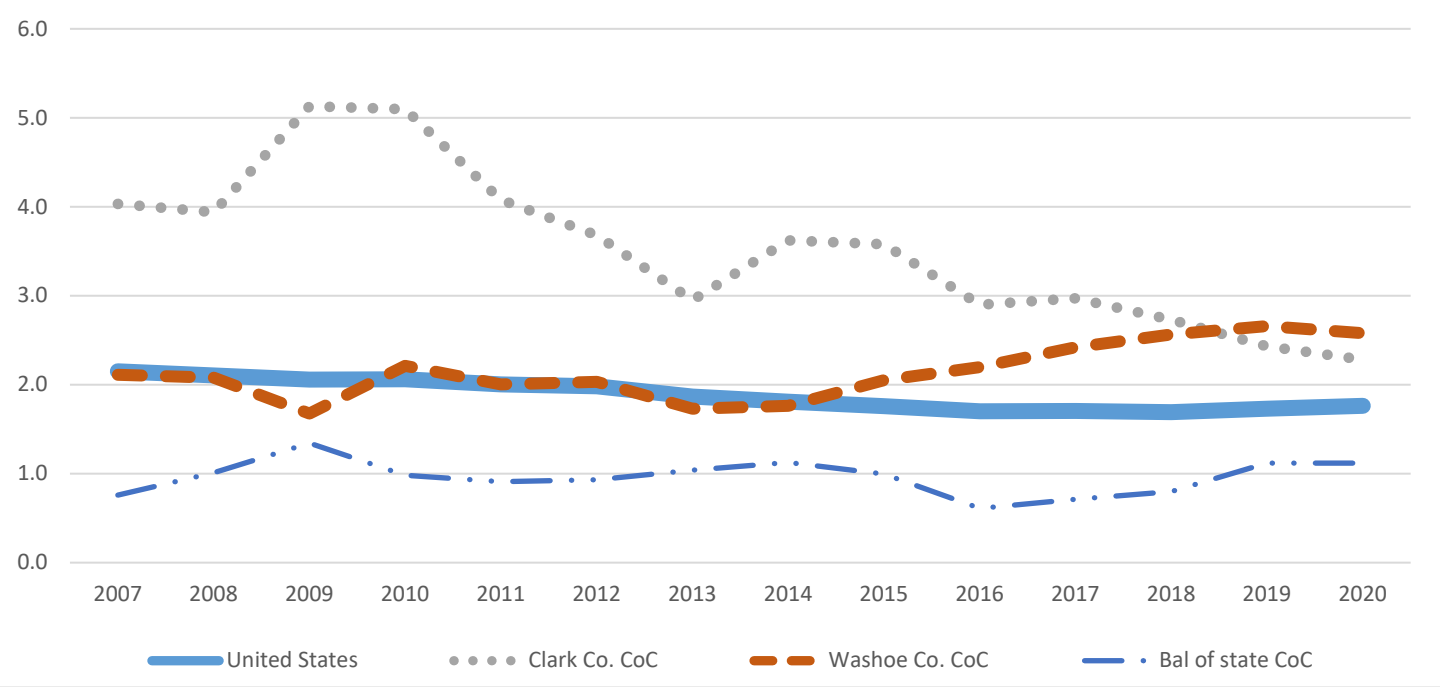
	United States	Nevada	Clark Cty COC	Washoe Cty CoC	Bal of state CoC
2021 PIT Count	Not Available	7,090	5,083	1,708	299

Table 2. United States, Nevada, and Nevada CoCs PIT count per thousand trends for 2007 to 2021

Year	U.S.	Nevada	Clark Cty COC	Washoe Cty CoC	Bal of state
2007	2.2	3.3	4.0	2.1	0.8
2008	2.1	3.3	3.9	2.1	1.0
2009	2.1	4.1	5.1	1.7	1.3
2010	2.1	4.1	5.1	2.2	1.0
2011	2.0	3.4	4.1	2.0	0.9
2012	2.0	3.1	3.7	2.0	0.9
2013	1.9	2.5	2.9	1.7	1.0
2014	1.8	3.0	3.6	1.8	1.1
2015	1.8	3.0	3.6	2.0	1.0
2016	1.7	2.5	2.9	2.2	0.6
2017	1.7	2.6	3.0	2.4	0.7
2018	1.7	2.5	2.7	2.6	0.8
2019	1.7	2.3	2.4	2.7	1.1
2020	1.8	2.2	2.3	2.6	1.1
2021	NA	2.3*	2.2*	3.5	0.8*
% Change PIT per thousand 2007-2021	**NA**	**NA**	**NA**	**NA**	**NA**

*2021 values may not be comparable to previous years because the Coronavirus Pandemic changed the way the count was carried out in January of 2021.

Figure 1. U.S. and Nevada CoCs Total Homeless PIT Count per 1000 Population, 2007 to 2020[viii]



Homelessness is the most visible "tip of the iceberg" indicator for housing problems. Some research has linked rates of homelessness to housing market conditions (Quigley, 2001). Related to homelessness lies the rest of the iceberg of many other housing related issues. However, there are many caveats to be aware of:

- Point-in-time counts are a snapshot and only measure a portion of the population experiencing episodes of homelessness throughout the year. Estimates of annual homelessness may differ considerably.
- It is difficult to count people without a home for many reasons. This problem is even more severe in rural regions.
- Weather, number of volunteers and changes in method across jurisdictions and across time may affect homeless counts.
- A large number or rate of point-in-time homelessness by itself does not indicate how quickly a state or locality is able to house homeless people. A locality may reach an effective end to homelessness if it is able to move people into permanent housing as quickly as new homeless people appear.
- Detail on number of sheltered, unsheltered, and chronic homeless is important in understanding the entire picture.

For comparisons of PIT count homeless rates with other southwestern states as well as comparisons of subpopulations see Homeless Count Trend Graphs.

More information on the Nevada point-in-time counts is available at these websites:

Southern Nevada Census and Survey Results

Northern Nevada Homelessness

Nevada Tomorrow

Nevada Rural CoC Point-in-Time Count

Severe rent burden for extremely low and low income renters

Indicator	Clark	Clark 5 Yr Trend	Washoe	Washoe 5 Yr Trend	U.S.	U.S. 5 Yr Trend
Percent of Extremely Low Income Renter Households with Severe Rent Burden	72%		68%		61%	
Percent of Low Income Renter Households with Severe Rent Burden	9%		6%		5%	

Severe Rent Burden Dashboard indicator:

The proportion of Washoe County extremely low-income renters (below 30% of HUD area median income) with severe rent burden fell from 73% to 68% from the 2010-2014 period to the 2015-2019 period (Figure 2). In Clark County the proportion fell from 75% to 72% (Figure 3). For the United States as a whole, the proportion decreased from 64% to 61%. For low income renters (50% to 80% of HUD area median income) Washoe County severe rent burden decreased from 12% to 6% while in Clark County it decreased from 14% to 9%. For the United States, the proportion decreased from 8% to 5%.

Increased rates of rent burden in low income households are assumed to be bad, all else equal. Some studies link higher levels of housing rent burden to rates of housing and neighborhood instability, homelessness, and poor health (Quigley and Raphael 2001, Pollack, Griffin et al. 2010, Desmond and Shollenberger 2015).

More about rent burden in Nevada

A low-income renter who pays more than 50% of household income for rent and utility costs is considered "severely rent burdened." Renter households paying more than 30% of household income for rent and utilities are considered "rent burdened." An extremely low-income household is approximately a household with income at or below 30% of HUD Area Median Family Income. However, see endnote xi for more information about how this HUD income category is defined. A very low-income household has income from 30% to 50% of area family median income, while a low income household has income from 50% to 80% of area family median income. As an example, and to facilitate understanding of these income categories, in Clark County in 2022, a single individual would be considered extremely low income with an income of $17,200 or lower while a four person family with an income of $27,750 or less would be considered extremely low income.[ix]

Table 3. Renter Household Income Limits Example: Clark County 2022 HUD Income Limits[x]

2022 Income Limit Category	1 person	2 people	3 people	4 people
Extremely Low Income Limits[xi]	$17,200	$19,650	$23,030	$27,750
Very Low (50%) Income Limits	$28,650	$32,750	$36,850	$40,900
Low (80%) Income Limits	$45,850	$52,400	$58,950	$65,450

The most recent data (2015-2019) showcases a five-year period when the U.S. economy had more fully recovered from the Great Recession and was starting to reflect the acceleration of the economy before the pandemic. The previous five-year period used for a baseline comparison, 2010-2014, is primarily reflective of the situation during the Great Recession. Thus, improvement has been recorded in rent burden statistics. However, this data does not yet reflect the dislocations of the Covid era in 2020 and 2021. The current rent burden situation is not yet reflected in the CHAS data. The situation in 2015 to 2019 has been completely overturned by the pandemic's effects on the economy. An analysis of

the available 2020 American Community Survey data by the Joint Center for Housing Studies concludes that, at the national level, rates of rent burden increased three percent from 2019 to 2020.[xii] The 2021 data on rent burden isn't yet available, but because increases in rents have outpaced increases in wages in many locations, it is quite likely that, when the data is available, a further increase in rates of rent burden will have occurred.

There are many advantages to the standard rent burden measure. Rent burden measures are relatively easy to calculate from American Community Survey data from the Census Bureau. They are readily available on an annual basis and comparable across time and regions. They make a handy rule of thumb for measuring housing insecurity and are used in several government housing programs and a comparable rule of thumb for owner households is used by some private issuers of mortgages. However, the measure has been criticized for several reasons:

- Households in higher income brackets may have no real problem paying for other necessities such as food or transportation even if paying more than 50% of their income for rent, while very low income households may have severe problems covering the same basics even if they are not officially rent burdened using the 30% of income definition widely used.
- The rent burden methodology does not fully account for household size because a single person or couple may have a smaller proportion of non-housing expenses than a family. The 30% rule-of-thumb may not equally fit for all household sizes.
- If a family moves farther away from job sites to obtain cheaper housing, transportation costs may increase, and real affordability remain unchanged or worsen.
- The quality of the housing is not measured by this method. In addition, neighborhood amenities or dis-amenities provide benefits and impose costs not accounted for with a housing burden method; for example, access to good schools, frequency of criminal activity or distance to neighborhood parks may all influence what a household is willing to pay for a given unit or location.
- The data from the American Community Survey (ACS) has a lag of around 10 to 13 months and the CHAS data as a special tabulation of the ACS has an additional two-year lag.

A residual income method has been suggested as an alternative to avoid the problems laid out in the first and second bullet points. This method calculates minimum basic costs for households and subtracts them from a household's income to find what is available for rent or house payments. However, the method is time-consuming and more complex to calculate because of the need for calculating a minimum basics budget. Some methods have also been developed that include transportation costs that address the third bullet. These also add considerable complexity. See Hertz, Daniel, 2015 on Residual Income and the H + T Affordability Index.[xiii] See also Jewkes and Delgadillo, 2010, and Cai, Zi, 2017, Analyzing Measurements of Housing Affordability.[xiv]

Figure 2. Percentage of Washoe County Renters with Rent Burden[xv]

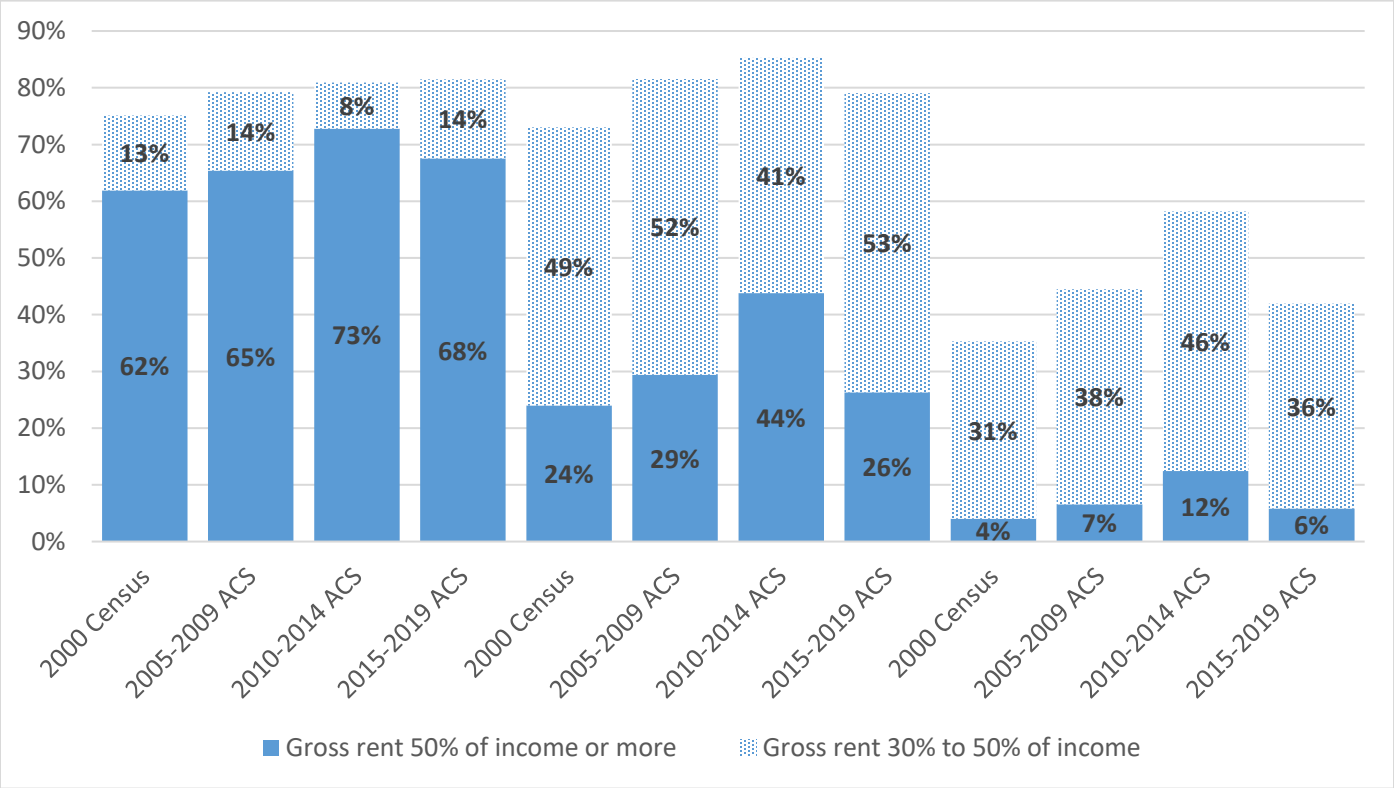
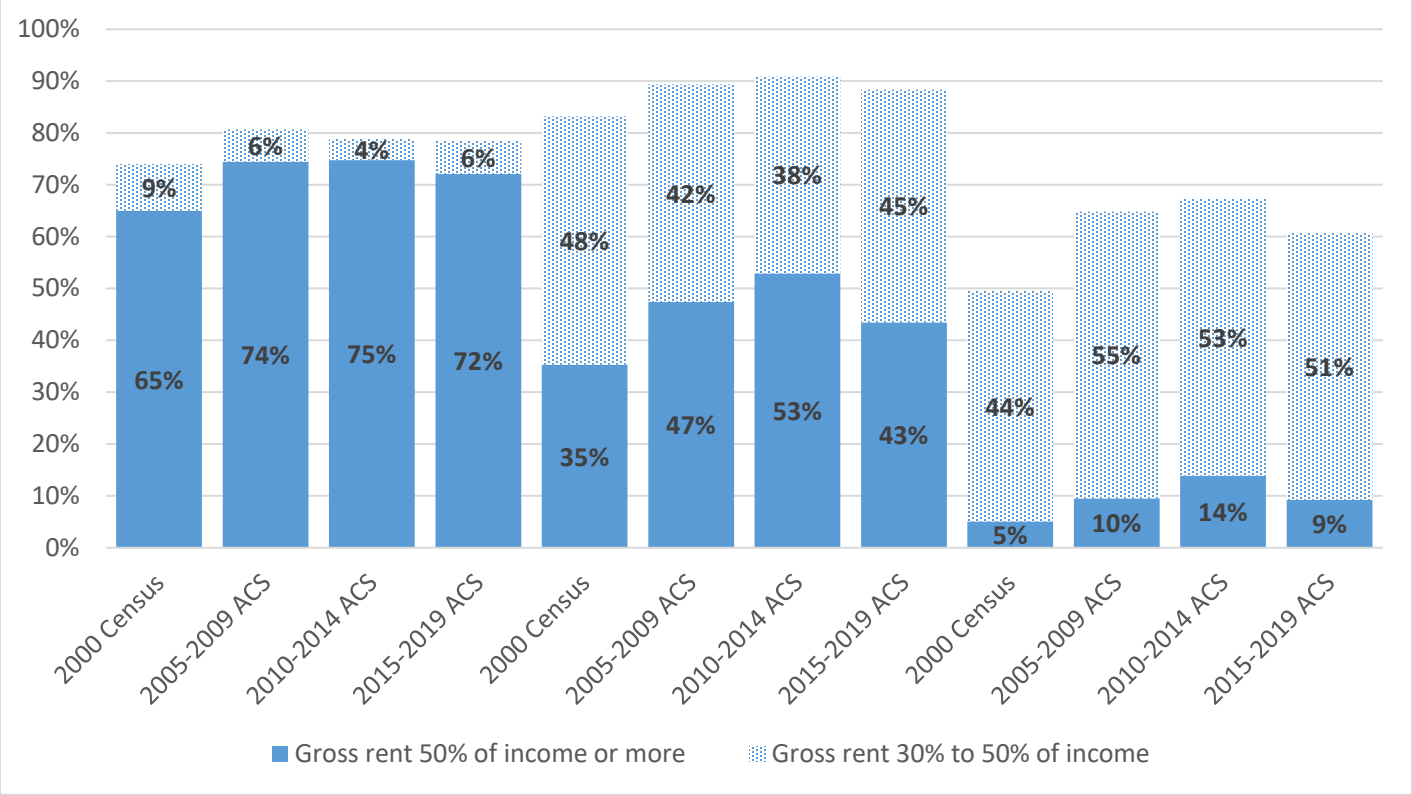


Figure 3. Percentage of Clark County Renters with Rent Burden



Market apartment and tax credit apartment vacancy rates

Indicator	Clark	Clark 5 Yr Trend	Washoe	Washoe 5 Yr Trend	U.S.	U.S. 5 Yr Trend
Market Rate Multifamily Vacancy Rate	4.2%	↓	3.2%	↓	4.7%	↑
Tax Credit Multifamily Vacancy Rate	2.0%	↓	2.7%	↑	2.4%	↑

Apartment vacancy rates dashboard indicators:

Apartment Multi-family Vacancy: Las Vegas Metro region apartment vacancy rate as measured by ALN decreased from 7.2% to 4.2% from the fourth quarter of 2017 to fourth quarter of 2021. Since an assumption has been made that 5% vacancy represents a balanced market, the decrease below 5% is considered to be a worsening trend as it moves away from the balance point toward a low vacancy rate that can empower landlords to raise rents. In Reno-Sparks metro region, the Johnson-Perkins and Griffin 4th quarter vacancy rate decreased from 3.8% in 2017 to 3.2% in 2021. Because the decrease moves away from the market balance point of 5% it is also considered a worsening trend. The fourth quarter U.S. vacancy rate as measured by Reis increased from 4.5% to 4.7%. Since the trend is towards the assumed balance point at 5% it is considered an improvement.

Tax Credit Apartment Vacancy: The fourth quarter tax credit apartment vacancy rate in Clark County decreased from 2.9% in Clark County in 2017 to 2.0% in 2021, a worsening trend away from the balanced market at 5.0% vacancy. In Washoe County 4th quarter tax credit vacancy rate improved slightly, increasing from 2.6% to 2.7%, heading toward the 5% balance point. National tax credit vacancy rate as measured by Reis was 2.4% at the end of 2021, an increase from 1.9% at the end of 2017.

Table 4. Comparison of 4th quarter market rate multi-family apartment and LIHTC (Low Income Housing Tax Credit) vacancy rates[xvi]

Region/Type	2013	2014	2015	2016	2017	2018	2019	2020	2021	Change 2013 to 2021
Las Vegas region - ALN	9.1%	7.7%	6.8%	6.4%	7.2%	6.5%	6.2%	4.7%	4.2%	-4.4%
Las Vegas region – Old Lied Series	8.7%	8.3%	8.2%	7.6%	7.6%	8.0%*	Series End		NA	NA
Las Vegas region-New Lied Series	*	*	*	*	*	*	5.4%	3.2%	1.4%	NA
Clark Co. – LIHTC	7.8%	5.5%	4.3%	4.4%	2.9%	3.0%	2.0%	2.2%	2.0%	-5.6%
Reno/Sparks- Johnson and Perkins	4.1%	3.3%	2.9%	2.9%	3.8%	3.6%	4.0%	2.8%	3.2%	-1.3%
Reno/Sparks - ALN	4.0%	3.9%	4.3%	3.4%	5.0%	5.7%	6.4%	5.5%	8.0%	1.5%
Washoe Co. - LIHTC	5.3%	3.8%	3.5%	3.1%	2.6%	3.2%	3.2%	3.3%	2.7%	-2.0%
U.S. – REIS/Moody's	4.1%	4.2%	4.4%	4.2%	4.5%	4.8%	4.7%	5.2%	4.7%	1.1%
U.S. – LIHTC/affordable	2.9%**	2.3%**	1.9%	2.0%***	1.9%^	2.3%	2.4%	2.6%	2.4%	-0.3%

*Lied Institute 3rd quarter Apartment Market Trends (4th quarter is not available). The Lied Institute substantially changed methodology in 2019.
**2013 and 2014 from Fannie Mae Multi-family Commentary; 2015 to 2020 is REIS measure as reported by Fannie Mae Multi-family Commentary
*** Revised from 1.0% in previous versions of this chart which had 1.0% but which included HUD properties with LIHTC, using Fannie Mae Multi-family Commentary from February 2020.
^This vacancy rate is from REIS/Moody's as quoted in the Fannie Mae Multifamily Commentary and includes HUD properties with rental assistance with LIHTC properties.

More about apartment vacancies in Nevada

When vacancy rates are high over a long period of time, apartment building owners may reduce rents, which would help renter households; however, landlords may also have reduced cash flow, trouble keeping up with maintenance and ultimately, may have trouble paying off debts with extreme cases resulting in bankruptcy. When vacancy rates are low, owners will profit from increased rents but rent burdens will increase for low income families. Search costs will increase for tenants looking for a new apartment. The result for some renters will be overcrowding, settling for inadequate housing or even homelessness for low income families and individuals. For more on the natural rate of vacancy see (Hagen and Hansen, 2010.)

The Low Income Housing Tax Credit program

The Low Income Housing Tax Credit (LIHTC) program is a federal tax incentive program administered by the Internal Revenue Service (IRS) through regulations published under Section 42 of the Internal Revenue Code.[xvii] The role the program's public private partnership plays in affordable housing is large. In 2022, tax credit units currently active or under construction made-up over 10% of the estimated 286,000 multi-family units in Nevada.[xviii] As of July 2022 there were about 30,090 LIHTC rent-restricted units active or being built in Nevada. An additional 103 units were still active in another low income housing program and had had tax credit funding in the past. The LIHTC program is by far the largest in Nevada, and nation-wide, for producing affordable rental housing. Seventy-nine percent of below-market multi-family housing units in Nevada have been constructed or rehabilitated fully or partially with tax credit funding.[xix] It was estimated in 2012 that the LIHTC program is responsible for 90% of nationwide funding for new affordable housing.[xx] LIHTC properties typically have rent restrictions meant to provide affordable units for households with 50% to 60% of area median income. Typically, only with layering from other programs with deeper subsidies do LIHTC units become affordable to extremely low-income renters. [xxi]

Table 5. Comparison of 4th quarter market rate multi-family apartment and LIHTC (Low Income Housing Tax Credit) rents from 2013 to 2021

Region/Type	2013	2014	2015	2016	2017	2018	2019	2020	2021	Increase 2013 to 2021
Las Vegas region- ALN mkt. rate	$759	$798	$856	$913	$979	$1,037	$1,118	$1,154	$1,392	83%
Las Vegas region – Lied Old Series	$741	$796	$855	$909	$968	$1,021*	Series end	NA	NA	NA
Las Vegas region – Lied New Series	NA	NA	NA	NA	NA	NA	$1,081	$1,130	$1,331	NA
Clark Co. - LIHTC	$649	$657	$724	$732	$750	$801	$825	$896	$944	45%
Reno/Sparks- J & P mkt. rate	$860	$868	$946	$1,066	$1,180	$1,292	$1,324	$1,424	$1,616	88%
Reno/Sparks - ALN	**	**	**	$1,021	$1,154	$1,260	$1,313	$1,360	$1,538	NA
Washoe- LIHTC	$716	$755	$784	$807	$823	$861	$911	$949	$1,027	43%

*Lied Institute 3rd quarter Apartment Market Trends (4th quarter is not available). New methodology was instituted beginning with 2019. New series gives median rents, not average. The distribution of rents is typically right skewed with a median lower than the average.
**Data not available.

2021 vacancies down from 2020 except for Reno market rate

Las Vegas average fourth quarter 2021 market vacancy rate for multi-family apartments decreased since 2020, hitting a new low for the 2013 – 2021 period for the ALN series for the south. The vacancy rate as reported by Lied Institute was

extremely low at 1.4%.[xxii] Clark County LIHTC 2021 vacancy rate tied with 2019 for lowest vacancy rate of the series at 2.0%. Washoe County 2021 LIHTC vacancy rate for the quarter were down from 2020 to 2.7%. However, market rate vacancy rates had increased as compared to 2020. REIS/Moody's data on national 4th quarter vacancy rates had fallen since 2020 when it was at the highest level over the observed period at 5.2%. The national LIHTC vacancy rate also fell. Taken together, the generally lower vacancy rates indicate an even tighter rental market, with the exception of Washoe County. In Washoe County despite a higher vacancy rate, Johnson, Perkins, and Griffin's rate of 3.2% still indicates a very tight rental market. The high rate measured by ALN may be due to their inclusion of properties as they open and before completing lease-up. The low vacancy rates help to explain how rents could climb so high in a single year (see section below and table 5.)

Nevada rents rise during pandemic

Numerous complex factors, both long-standing ones and ones that relate more directly to the recent pandemic, have conspired to raise rents in an astonishing manner nationwide. For example, many housing analysts feel that there is a shortage of housing that has been building up since the Great Recession, when construction activity came to a sudden halt and many construction workers were forced to get jobs in other sectors. Additional factors blamed for a shortage include single family zoning and other restrictions on housing unit density. The pandemic era in 2020 and 2021 has witnessed lockdowns, social distancing, massive unemployment, extra unemployment payments, eviction moratoria, mortgage forbearance programs, rental assistance programs, an increase in remote workers, fiscal and monetary stimulus, supply chain breakdowns, and shortages of materials and workers. All these factors could have had effects on the rental market and housing more generally.

As compared to 2020, Reno's Johnson, Perkins and Griffin's 4th quarter market rate rents had risen 13%, while Las Vegas region's ALN 4th quarter rents rose 21%. LIHTC rents, which have a cap on increases which is related to median family income, rose 5% in Clark County and 8% in Washoe County. Record rent gains were recorded nationwide as well, with the Yardi series, for example, recording a record breaking rise of 13.5% over 2021.[xxiii]

Subsidized Units per Thousand People

Indicator	Clark	Clark 5 Yr Trend	Washoe	Washoe 5 Yr Trend	U.S.	U.S. 5 Yr Trend
Subsidized Units per Thousand People	9.6		17.1		15.1	

Subsidized units per thousand dashboard indicator:

The number of subsidized units per thousand population in Clark County decreased from 9.9 to 9.6 from 2017 to 2021. Washoe County increased from 16.0 to 17.1. In Clark County the decrease was due to a small net increase in subsidized units (339 units) with an increase in population of 5%. In Washoe County, the number of subsidized units increased by 1,123 units. Even though population increased by 8% over the five year period the increase in units more than kept pace with growth. The United States had 15.5 subsidized units per thousand population as compared to 15.1 five years later. Population increased by over 2% while the number of subsidized units decreased slightly.

A decrease in subsidized units is assumed in the dashboard to be a worsening of the low-income housing situation. More subsidized housing in general is considered to be a part of the solution to the current difficult situation for low income renters. However, this may not be true in each sub-region, and it is beyond the scope of the dashboard to recommend a given solution for low income renters. Please see notes below for more information on this topic.

Clark County subsidized units per thousand decreases while Washoe County manages a gain

Figure 4 and Table 6 give a more complete picture of the change in subsidized units per thousand. The number of subsidized units stayed about even from 2014 to 2021 in Clark County, going from 22,018 units in 2014 to 21,992 units in 2021. Despite additional units being built, net inventory did not increase because some subsidized units were converted to market rate units. Population grew by 12%, causing the number of subsidized units per thousand to decrease from 10.7 to 9.6. In Washoe County the number of subsidized units grew by 14% from 2014 to 2021, outpacing population growth, which increased by about 13% over the period, thereby increasing subsidized units per thousand from 16.9 to 17.1. In the Balance of State units per thousand stayed approximately even at 10.2 from 2015 to 2021 (no measure of subsidized units is available for the Balance of State for 2014).[xxiv]

The population time series, which is used in the denominator of this indicator, is complicated by the 2020 Census. For more about how these estimates vary due to the new information from the Census see the section below about this topic.

Why is there an imbalance between Washoe and Clark County?

Throughout the 2014 to 2021 period, Washoe County subsidized units per thousand ranged from 60% to 80% higher than in Clark County. Part of the imbalance between the two counties is due to the loss of 30 properties and over 6,000 units in Clark County to either foreclosure during the Great Recession or qualified contract exits of post-15 year tax credit properties as compared to only two such exits (close to 400 units) in Washoe County. Another reason would be the faster growth that has occurred over many decades in Clark County, thus creating more of a mismatch between the legacy of tax credit allocations received when the population was smaller and the current population. This may occur because the 9% LIHTC program is allocated on a per capita basis to all the states, and then is partially allocated by population within the state as well. Since 1986, when the LIHTC program started, Clark County population nearly quadrupled from 587,760 to 2,320,551 in 2021, according to the State Demographer series, whereas Washoe County, also a fast growing county, merely doubled its 1986 population of 232,270 to 485,113 in 2021.[xxv]

Figure 4. Subsidized Units per Thousand Clark Co., Washoe Co., and Balance of State, 2014 to 2021

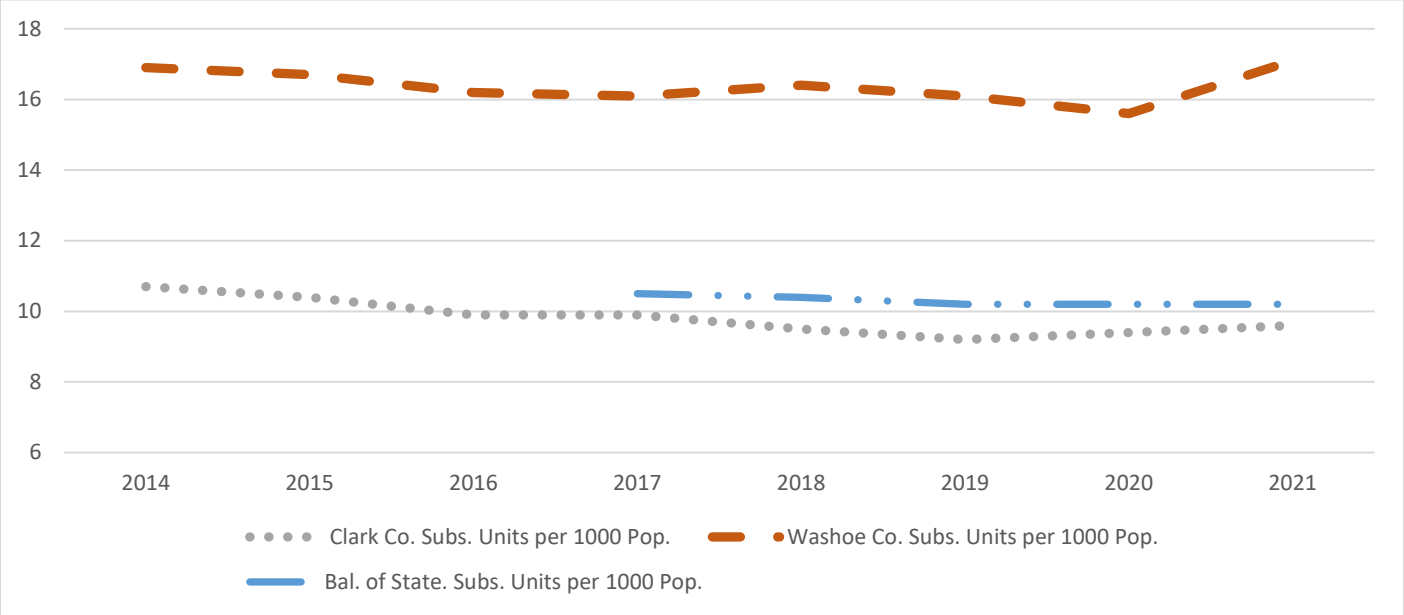


Table 6. Clark County, Washoe County and Balance of State Subsidized Units, 2014 - 2021[xxvi]

Year	Region	Subsidized Units	Population	Subs. Units per 1000 Pop.	Households	Subs. Units per 1000 Households
2014	Clark Co.	22,018	2,053,929	10.7	731,322	30.1
2015	Clark Co.	21,870	2,097,832	10.4	740,966	29.5
2016	Clark Co.	21,205	2,140,240	9.9	755,258	28.1
2017	Clark Co.	21,653	2,183,273	9.9	781,796	27.7
2018	Clark Co.	21,184[a]	2,228,970	9.5	808,605	26.2
2019	Clark Co.	20,845[b]	2,275,884	9.2	813,607	25.6
2020	Clark Co.	21,467	2,273,386	9.4	815,447	26.3
2021	Clark Co.	21,992	2,292,486	9.6	832,427	26.4
% Change 2014 to 2021	Clark Co.	-0%	12%	-11%	14%	-12%
2014	Washoe Co.	7,385	436,515	16.9	166,641	44.3
2015	Washoe Co.	7,370	442,617	16.7	172,751	42.7
2016	Washoe Co.	7,288	449,990	16.2	174,726	41.7
2017	Washoe Co.	7,332	456,864	16.1	180,851	40.5
2018	Washoe Co.	7,605[a]	464,593	16.4	185,709	41.0
2019	Washoe Co.	7,613	472,381	16.1	191,091	39.8
2020	Washoe Co	7,607	487,388	15.6	194,874	39.0
2021	Washoe Co	8,455	493,392	17.1	197,622	42.8
% Change 2014 to 2021	Washoe Co.	14%	13%	1%	19%	-3%
2014	Bal. of State	NA	-	-	-	-
2015	Bal. of State	3,344	328,082	10.2	129,239	25.9
2016	Bal. of State	NA	329,325	NA	129,742	NA
2017	Bal. of State	3,475	331,960	10.5	130,809	26.6
2018	Bal. of State	3,516[a]	337,162	10.4	132,915	26.5
2019	Bal. of State	3,488	342,506	10.2	135,079	25.8
2020	Bal. of State	3,586	353,297	10.2	141,195	25.4
2021	Bal. of State	3,658	358,123	10.2	143,537	25.5
% Change ***2015 to 2021***	*Bal. of State*	*9%*	*9%*	*0%*	*5%*	*-2%*

A similar mismatch exists for the entire state as compared to almost all other states and is yet another reason for Nevada's perennially low ranking in the provision of affordable housing for low income households. The U.S. as a whole grew by only about a third from 248,709,873 in Census 1990 to 331,449,281 in Census 2020.[xxvii]

For Clark County to have the same number of subsidized units per thousand as the national average of (15.1) an additional 12,600 units would be needed in Clark County.

Would a different denominator change the comparison between counties?

The indicator may vary considerably depending on the denominator used for comparisons. To see how using households as the denominator instead of population might change our perspective, the number of subsidized units per thousand households is also calculated and given in Table 6. Looking at the number of subsidized units per 1000 households instead of 1000 population creates some subtle changes, because household size is larger in Clark County. In Clark County, the average household size in the 2020 ACS was estimated to be 2.73 while in Washoe County it was estimated to be 2.46 with similar differences throughout the period 2014 to 2020. Since there are fewer households for an equivalent population, this slightly improves the Clark County ratio when compared to Washoe County's, although Washoe County's indicator remains much higher than Clark's. Another difference looking at this per household indicator, is that because households were estimated to increase faster than population, Washoe County, and the Balance of State experience a decrease in number of subsidized units per thousand households instead of a slight increase or stable indicator.

A denominator closer to the one used in the Annual Housing Progress Report for households in need might be total households under 80% AMI (low income) with a housing problem. Using the 2014 to 2018 CHAS data, the proportion of total households that are low income households experiencing a housing problem is lowest in the balance of state at 21% as compared to about 28% in Clark County and 24% in Washoe County.[xxviii] Using this alternative denominator, the denominator would be smaller and bring up the statistic for Balance of State and Washoe County relative to Clark County. Clark County would have a smaller number of subsidized units per thousand low income households with a housing problem than Washoe County. In other words, the shortage of units in Clark County as compared to Washoe would be worse using this denominator. Use of this denominator is not included in Table 6.

2020 Census resets estimate series

The decadal census count provides new information for providers of population estimate series, including both the Nevada State Demographer and the Census Bureau Population Estimates Program. As a result, the Census count may cause somewhat of a discontinuity in several dashboard series at year 2020. This is illustrated in the three charts below which give the demographer certified population series for 2019 to 2021, and the Census Bureau's Population Estimates series for Vintage 2020 and Vintage 2021. Vintage 2020 contains estimates for 2010 to 2020 (for July of each year) and includes an estimate for April 2020 which can be compared against what the actual Census count turns out to be. Vintage 2021 starts with the Census Count for April of 2020 and then restarts the estimates series with an estimate for July 2020 and July 2021.

Note that the Census Count was higher than estimates from both the Census Bureau and the Demographer series for Washoe County and the Balance of State and lower for Clark County. Table 6 uses the Vintage 2020 estimates series until 2019 and then switches to the Vintage 2021 series in 2020. There might be somewhat less of a discontinuity if the Demographer series were used, but because the indicator involves the U.S. population, amongst other reasons, it has been the Bureau's population estimates series used for the subsidized units per thousand indicator.

Figure 5. Clark County Population Estimates 2019 to 2021

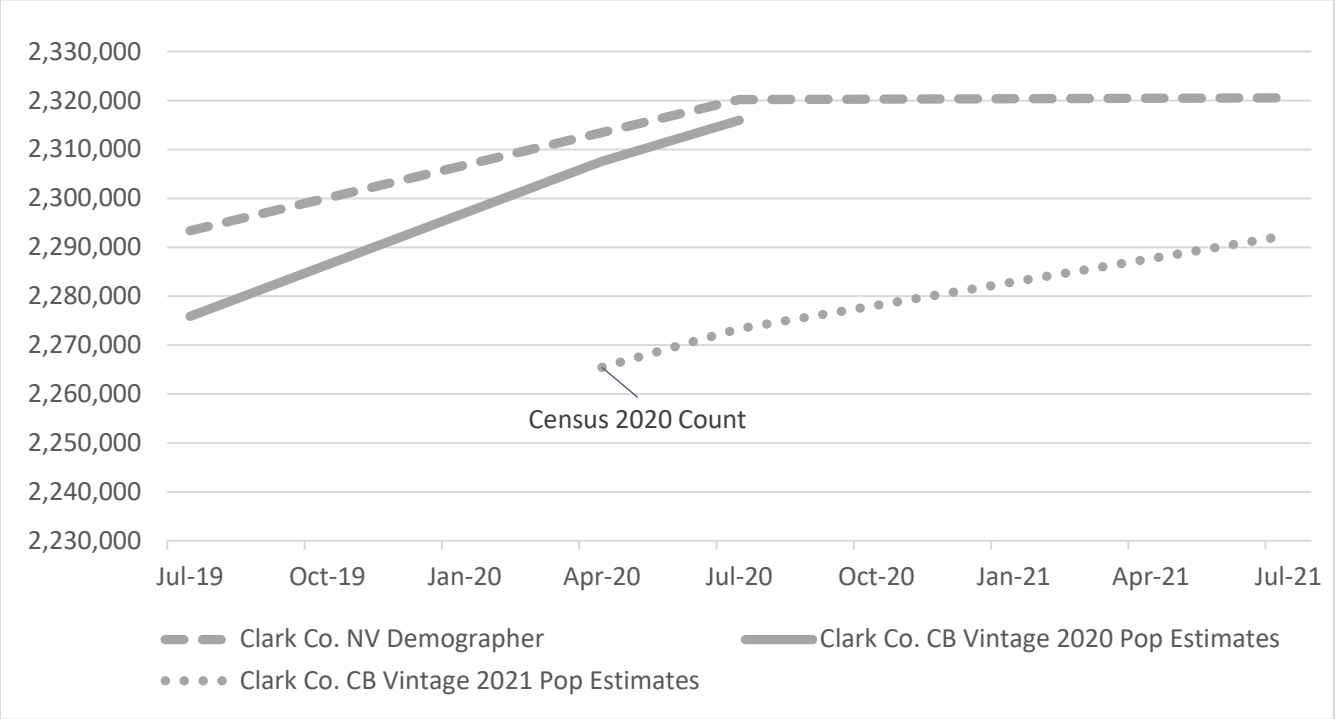


Figure 6. Washoe County Population Estimates 2019 to 2021

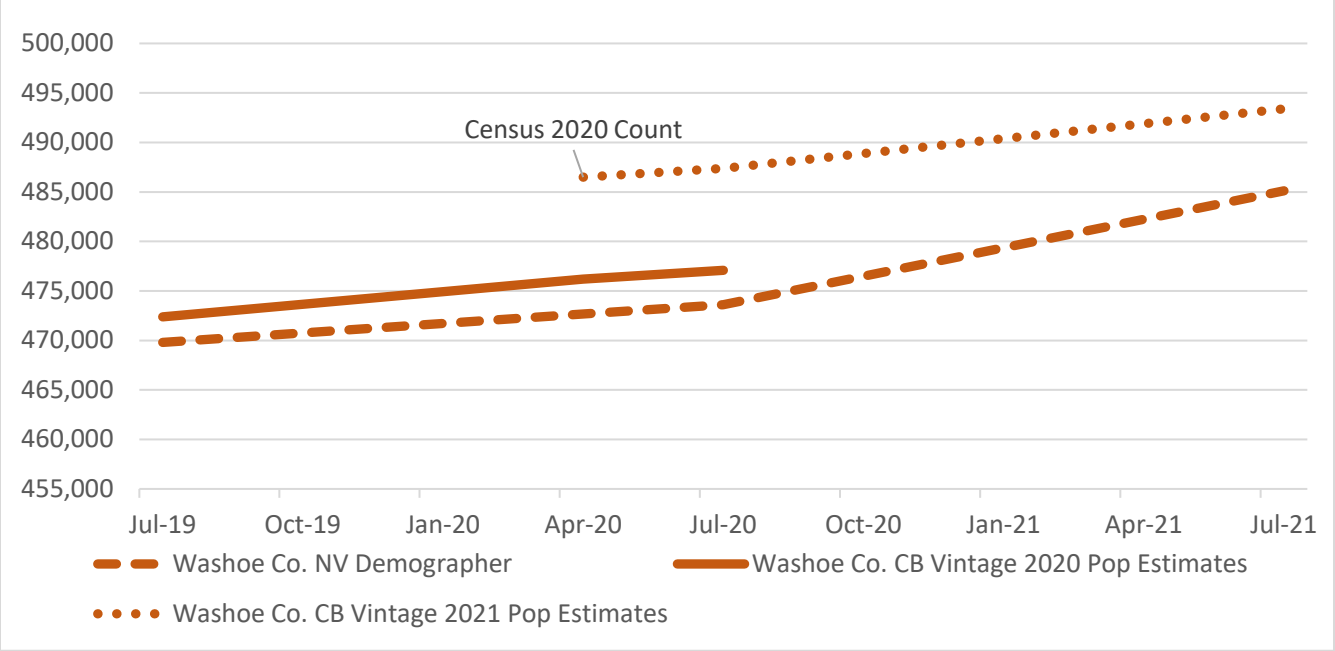
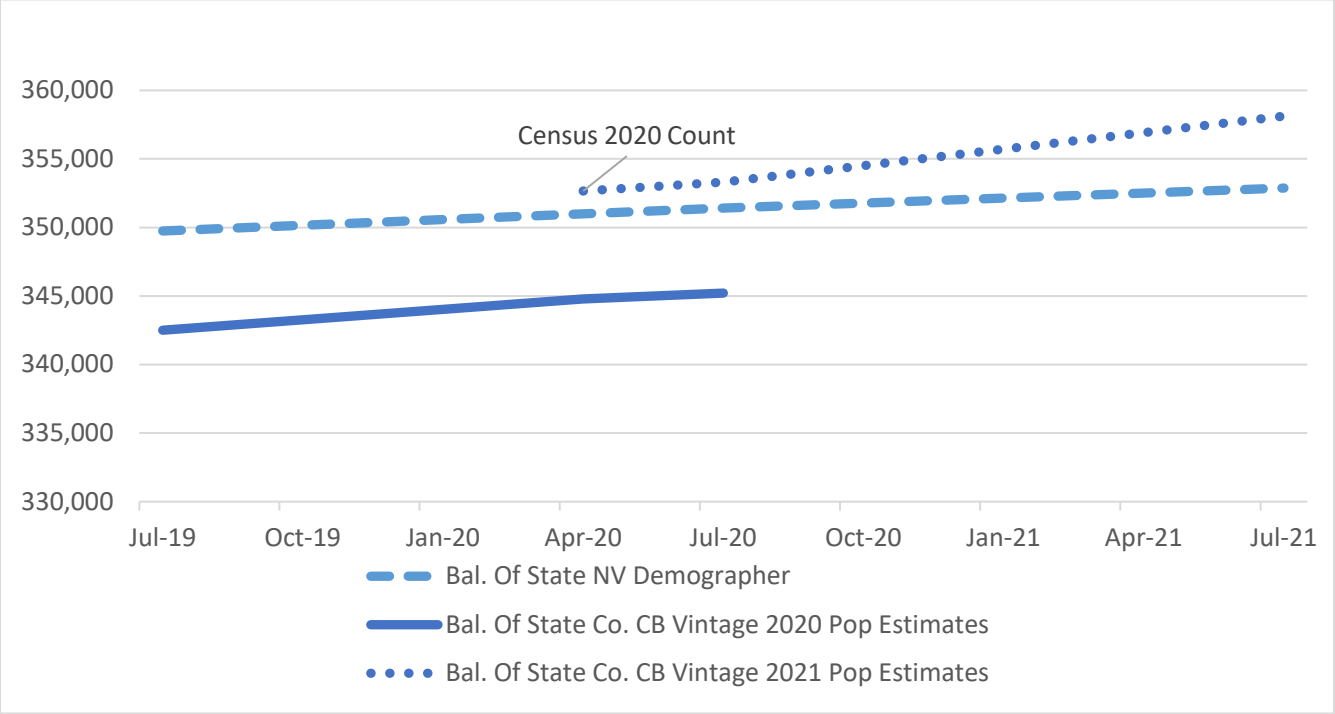


Figure 7. Balance of State Estimates 2019 to 2021



Annual Housing Progress Report (AHPR) subsidized units' methodology

As per Nevada Revised Statute 278.235, the AHPR is compiled annually by the Nevada Housing Division and is available on its Low Income Housing Database website. NRS 278.235 requires certain jurisdictions' adoption of measures to maintain and develop affordable housing. The jurisdictions must report to the Housing Division how such measures were used in the prior year. The purpose of the legislation is to encourage local governments to deploy resources to increase affordable housing.

As a part of the AHPR, total units of subsidized residential housing are tracked. Data from 2015 through 2021 reports are comparable. Previous years are more difficult to compare. However, a baseline number of subsidized units for 2014 was created which is comparable to the later numbers so that has been included. For Washoe and Clark County the number of subsidized units is from the 2021 AHPR.

Subsidized units include residential housing with rent and income caps such as units built with the Low Income Housing Tax Credit (LIHTC), Bond or HOME funding, and units with full rental assistance such as public housing, HUD assisted, or USDA RD assisted housing. The total number of units is tied to a list of subsidized housing for the jurisdiction maintained at the Housing Division. To be included on the list, the properties must either have project based rental assistance, or deed restrictions or other agreements restricting income levels of occupants or rent levels. Group homes, emergency shelters and transitional housing are generally not included in this inventory. Each year typically sees the addition of several hundred new LIHTC or other subsidized units; however, some units typically will convert to private market units each year as well. Many of these units may become a part of the category of naturally occurring affordable housing; however, they no longer are bound by legal restrictions on rent or income limits and typically are no longer tracked. Jurisdictions often report new properties as finished only after completing certain HOME program activities, so the AHPR inventory count may lag the time when properties are issued a certificate of occupancy or even when they are placed in service.

Using the lists compiled by the Housing Division and the jurisdictions there were a total of 30,447 units of subsidized housing in existence in the designated jurisdictions at the end of 2021. This was 5% more than 2020's inventory unit count, and 4% more than the baseline count in 2014. A similar list that includes the entire state gives a total of 34,105 subsidized units in 2021, including the units in the Balance of State. Counts that include properties still under construction are higher.

Over 3,804 subsidized multi-family units are in the pipeline.

According to the AHPR, 3,804 multi-family units were funded or under construction in the two counties, 2,888 of which are to be new construction, with the remainder being units preserved.

Too many subsidized units are possible, and other caveats.

Building subsidized units can sometimes have unintended negative consequences. For example, it is possible in a given time and sub-region that an increase in subsidized housing could increase segregation either by race, ethnicity or income and decrease opportunities for jobs and education for low income individuals and families. In addition, an increase in subsidized units might not be the only way to address the difficulties experienced by low income households and it is possible that different methods could produce better results with the same amount of money or less. There is a large literature on these topics with both positive and negative findings as to the efficacy of building new subsidized housing. A few examples are Malpezzi and Vandell 2002, Sinai and Waldfogel 2005, Baum-Snow and Marion 2009, Eriksen and Rosenthal 2010, Freedman and Owens 2011, Horn and O'Regan 2011, Freedman 2012, Lang 2012, Albright, Derickson et al. 2013, Di and Murdoch 2013, Galster 2013, Freedman and McGavock 2015, Orfield, Stancil et al. 2016, Schwartz 2016. See also recent Senate Testimony on the LIHTC program. Americas Affordable Housing Crisis Challenges and Solutions.

Vouchers, inclusionary housing requirements in new construction, energy efficiency, reform of zoning and building regulation, use of better building technology, increase in minimum wage, and encouragement of boarders in existing housing are some of the many alternative or additional solutions that have been proposed.

Housing Choice Vouchers per Thousand People

Indicator	Clark	Clark 5 Yr Trend	Washoe	Washoe 5 Yr Trend	U.S.	U.S. 5 Yr Trend
Housing Choice Vouchers per Thousand People	5.0		4.8		6.8	

Housing Choice Vouchers (HCV) per thousand dashboard indicator:

Housing Choice Vouchers (HCV) per thousand people was 5.0 in Washoe County in 2017 and decreased to 4.8 in 2021. In Clark County the rate was 4.9 per thousand in 2017 and was up slightly to 5.0 in 2021. The rate for the U.S. was 6.7 in 2017 and 6.8 in 2021.

An increase in vouchers per thousand people, given the situation for low income households in Nevada at the current time, is assumed within the dashboard framework to be a move in the right direction. HCVs have been shown to reduce rent burden and overcrowding and help prevent homelessness.[xxix] However, this would not necessarily be the case at any given level of vouchers.

Additional information on Housing Choice Vouchers

The housing choice voucher (HCV) program is a federal program for helping low income renters. Vouchers are sometimes referred to as "tenant-based" assistance because the vouchers are typically not tied to a given housing development. Rather, the household with the voucher can find their own housing, including a single-family home, townhouse, or apartment, if the housing meets all the requirements of the HCV program, and the landlord accepts the voucher. Housing choice vouchers in Nevada are administered by local public housing agencies. In Nevada there are three Public Housing Authorities administering the HCV program: Southern Nevada Regional Housing Authority (SNRHA), Reno Housing Authority (RHA), and Nevada Rural Housing Authority (NRHA). The sliding scale nature of the voucher allows it to assist even households with zero income or extremely low-income individuals such as those on Social Security Disability Insurance. Unlike Medicaid or the Supplemental Nutrition Assistance Program, vouchers are not considered an entitlement. Most who would qualify cannot obtain a voucher because of lack of availability.

Most HCV administered by the SNRHA are used in Clark County, most HCV administered by the RHA are used in Washoe County and most HCV administered by NRHA are used in the balance of the state. If all vouchers lie in those respective regions, the rate of HCV in use per thousand was 5.0 in Clark County, 4.8 in Washoe County and 3.3 in the balance of the state.

As can be seen in Figure 8, the number of HCV in use per thousand population (6.8 in 2021) is higher in the U.S. overall than in Nevada, which is one of the factors in Nevada's low ranking in serving extremely low income households in need of affordable housing. ***In 2021 it would have taken an additional 6,400 vouchers for Nevada to match the national rate of HCV per thousand.*** Using numbers from the Low Income Housing Coalition's 2022 report, The Gap, if all those extra vouchers were used to help ELI renter households Nevada's affordable and available rental homes per 100 households would have increased from 18 per 100 to 25 per 100, a substantial improvement. However, Nevada would still have ranked well below the national average of 36 on this measure.

From 2017 to 2021 even though there was an increase in the total number of HCV in use in Nevada commensurate with the U.S. increase, the increase did not keep pace with the increase in population in Nevada. From 2017 to 2021, Nevada's population was estimated to grow nearly 6% percent while the U.S. population grew about two percent. Vouchers in use grew 1% in Washoe County, 3% in Clark and 2% nationwide. Voucher use per thousand population dropped 16% for the balance of state and 4% in Washoe County but increased 2% in Clark County and 1% nationwide.

Note that the methodology for this series was changed in 2021 because the Center for Budget and Policy Priorities no longer maintains the series used in previous years for the voucher indicator. The current indicator is not comparable to the one used in previous years of the Dashboard.

Figure 8. Housing Choice Vouchers in Use per Thousand Population, 2017 and 2021[xxx]

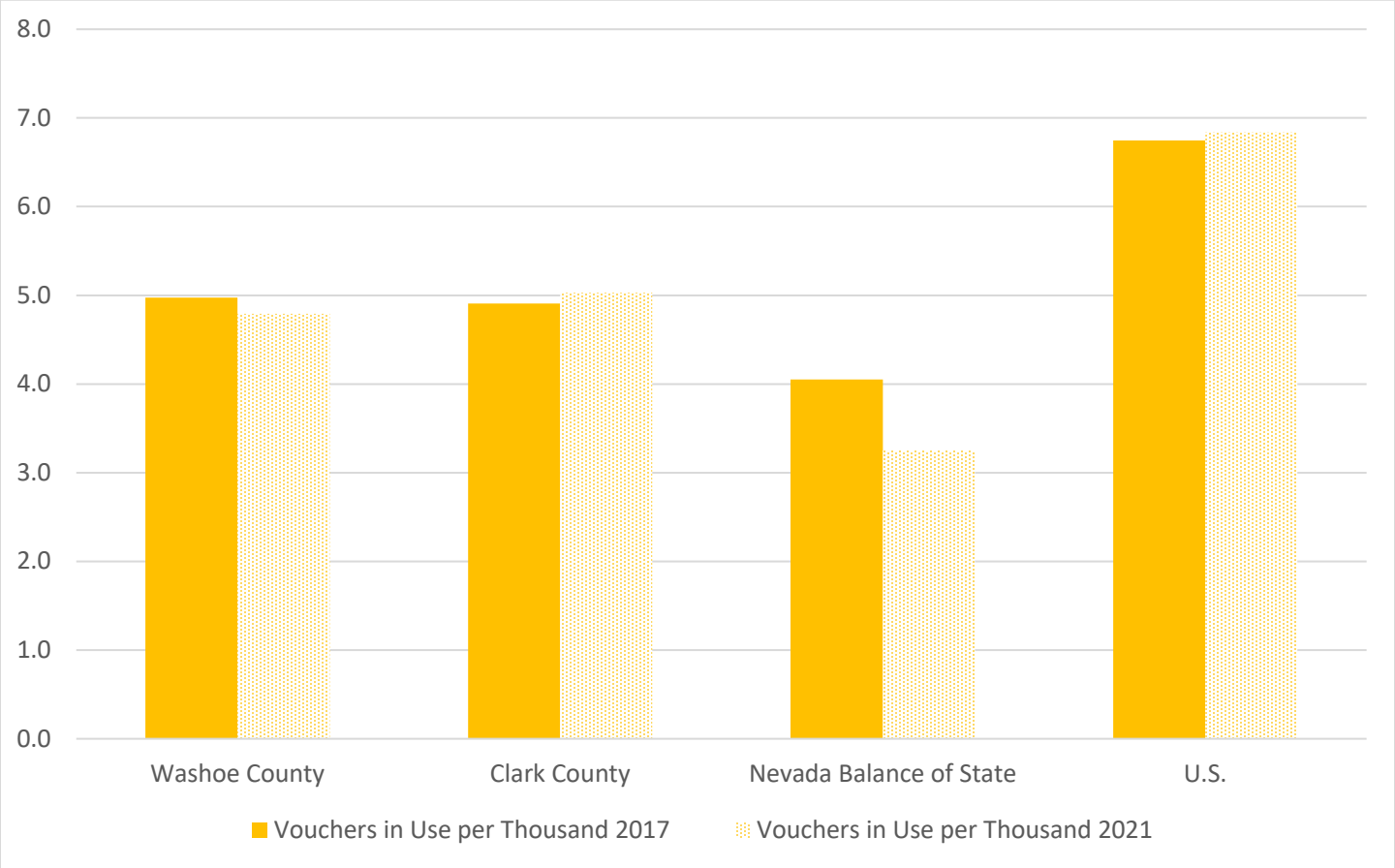


Table 7. Housing Choice Vouchers per Thousand Population 2017 and 2021

	Washoe County	Clark County	Nevada Balance of State	U.S.
Vouchers in Use 2017	2,349	11,172	1,387	2,215,372
Vouchers in Use per Thousand 2017	5.0	4.9	4.1	6.7
Vouchers in Use 2021	2,364	11,529	1,164	2,269,237
Vouchers in Use per Thousand 2021	4.8	5.0	3.3	6.8
% Change 2017 to 2021 Vouchers Used per thousand	-4%	2%	-20%	1%

As with the subsidized units per thousand indicator, many alternate denominators could be used to compare the rate of voucher use. One example would be to use the number of very low income renter households with a housing problem as the denominator. In this case, Nevada would again have a lower voucher use than the U.S.

Jobs per Permit

Indicator	Clark	Clark 5 Yr Trend	Washoe	Washoe 5 Yr Trend	U.S.	U.S. 5 Yr Trend
Jobs per Permit	0.3		1.0		0.2	

Jobs per permit dashboard indicator:

Jobs per Permit measures the number of new jobs as compared to the number of residential housing permits over a period of time. For the dashboard, the ratio for 2017 to 2021 is compared to the ratio for 2012 to 2016. Theoretically, over the long run, housing supply and demand are in balance so the ratio should be somewhere between 1 and 2, as the number of jobs per household is typically in that range. When jobs per permit goes over 2 for a long period, it could signify a lack of new housing supply commensurate with new households forming in the region. When jobs per permit goes under 1 for a long period, it could signify overbuilding.

Clark County measured 0.3 new jobs per residential housing permit for the period from 2017 to 2021. This could signify overbuilding. However, in June 2021, Clark County employment was still down nearly 74,000 jobs as compared to February before the pandemic, indicating that employment still had not fully recovered from the effects of the pandemic and related business closures. If the employment number from November of 2021 were used instead when the economy was approaching a fuller recovery, the indicator would have been 1.2, a more balanced level. From 2012 to 2016 Clark County jobs per permit ratio was at 2.7, potentially indicating a supply shortage. Northern Nevada (Washoe, Storey, Lyon, and Carson City) measured 1.0 new jobs per residential housing permit over the period from 2017 to 2021, indicating a balanced level. The indicator would have been a balanced 1.2 if measured in November as the economy recovered more fully. The indicator was 2.5 for the period from 2012 to 2016 which could indicate an under-supply of housing units. The U.S. jobs per permit ratio was 0.2 over the period, down from 2.3 in the previous five-year period. The indicator was again affected by the loss of employment due to the pandemic and related business closures. Data for 2021 for the Quarterly Census of Employment and Wages (QCEW) employment is preliminary.

Additional information about jobs per permit

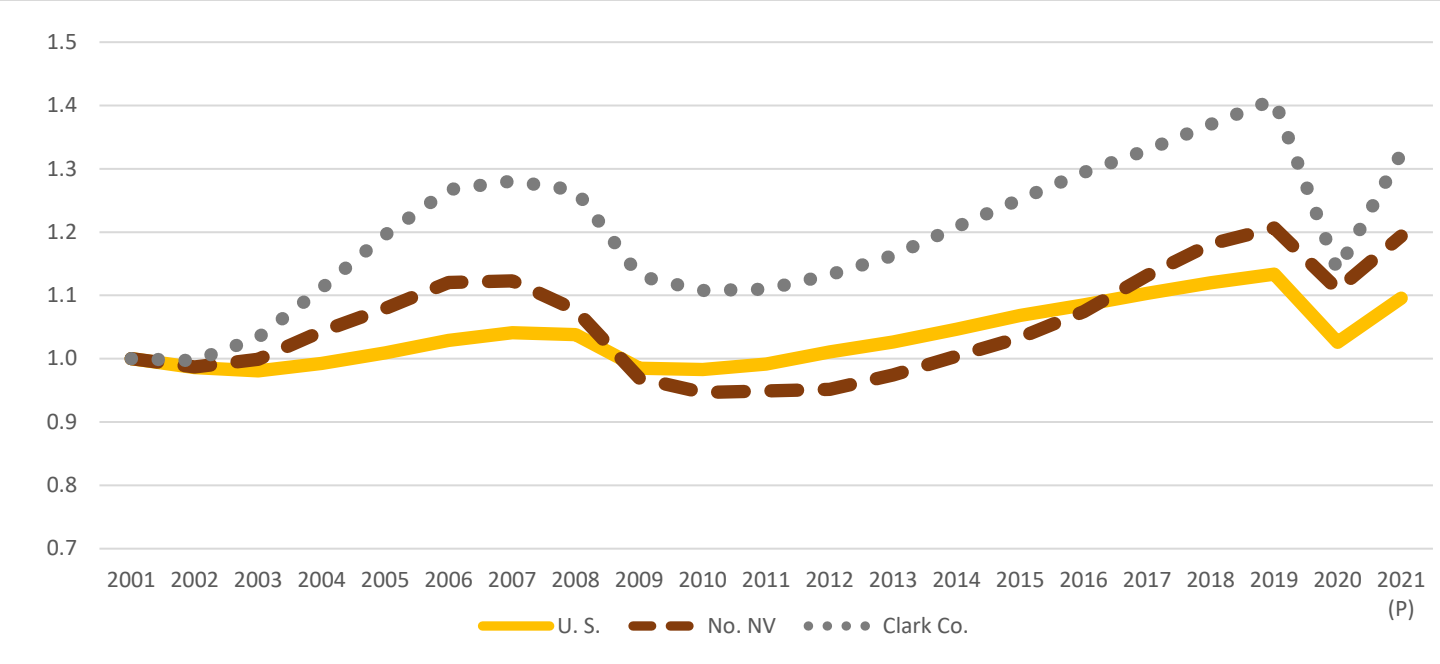
Table 8. New Employment over Residential Building Permits[xxxi]

Time Period	Clark County	Northern Nevada	United States
Jobs per Permit 2007 to 2011	-2.2	-6.1	-1.2
Jobs per Permit 2012 to 2016	2.7	2.5	2.3
Jobs per Permit 2017 to 2021	0.3	1.0	0.2
New Employment (June to June) 6-2007 to 6-2011	-114,354	-41,121	-4,889,925
New Employment (June to June) 6-2012 to 6-2016	133,910	30,017	12,250,129
New Employment (June to June) 6-2017 to 6-2021	22,288	28,640	1,404,745
Residential Permits 2007 to 2011	52,935	6,736	4,115,500
Residential Permits 2012 to 2016	50,166	12,196	5,261,800
Residential Permits 2017 to 2021	70,427	27,500	7,204,900

Employment fluctuated dramatically over the previous 20 years (Table 8 and Figure 9). June Quarterly Census of Employment and Wages (QCEW) employment at the height of the bubble reached 929,632 in Clark County in 2007, not to be surpassed again until June 2016 at 939,577. In between Clark Co. QCEW June employment reached a low of 804,297 in 2010. Before the pandemic in 2019 Clark County QCEW June employment was 1,023,161, but after the pandemic and subsequent business closures employment fell almost 20% and was 827,070 in June of 2020, then increased to 961,865 (preliminary) in 2021. In Northern Nevada (Carson City, Lyon, Storey, and Washoe counties) June employment also peaked in 2007 at 268,949 which was not surpassed until June of 2017 at 271,038. In between Northern Nevada QCEW employment in June hit a low of 226,716 also in 2010. Northern Nevada employment in 2019 was 288,954, but post pandemic in June 2020 was 265,665, down by eight percent. By 2021, Northern Nevada almost recovered its previous high at 285,918 (preliminary) in 2021.

In Figure 9 employment data was indexed to 2001 values to allow for comparison of the changes since then across regions. Note that Clark County employment has increased the most over its 2001 base over this period, although it has also experienced more extreme increases and decreases. Employment in both Nevada regions has increased faster than U.S. employment over the period.

Figure 9. QCEW June Employment Index, 2001 to 2021 (2001 = 1)[xxxii]

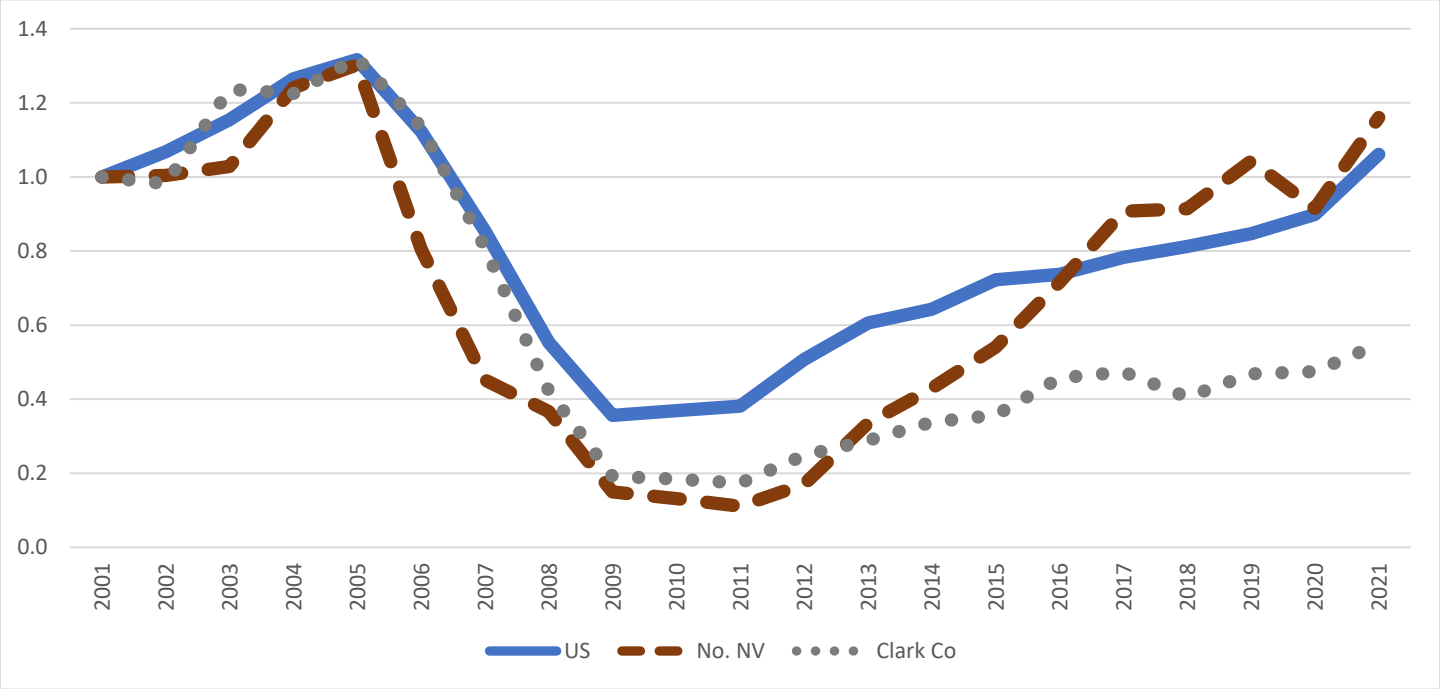


Annual number of residential building permits also fluctuated dramatically over the course of the previous 20 years (Table 8 and Figure 10). At the height in 2005 permits were issued by Clark County for 39,237 units. After 2007, the highest number of units permitted was 16,307 in 2021. The low point was in 2011 when only 5,147 permits were issued.

In Northern Nevada (Carson City, Lyon, Storey, and Washoe counties) annual residential permits peaked in 2005 also at 7,252 units. The lowest number of permits issued was in 2011 at only 617. In 2021, Northern Nevada had permitted 6,459 residential units.

Permit data was also indexed to 2001 values to allow for comparison of an index across regions in Figure 10. Figure 10 demonstrates how the index of residential building permits for Clark County remains barely above half the level it was in 2001, whereas nationally and in Northern Nevada, the level of permits issued has now reached above 2001 levels.

Figure 10. Residential Building Permits Index, 2001 to 2021 (2001=1) [xxxiii]



Figures 11, 12 and 13 graph the Census Bureau residential building permits data from 2000 to 2021 for Clark County, Washoe County and Rural Nevada. Solid blue denotes single family units while the striped blue denotes multi-family units. For more discussion of Nevada's residential building permit data see the Nevada Building Permits report on the Low Income Housing Database Housing Market Data page at the Nevada Housing Division website.

Figure 11. Clark County Residential Building Permits, 2000 to 2021 [xxxiv]

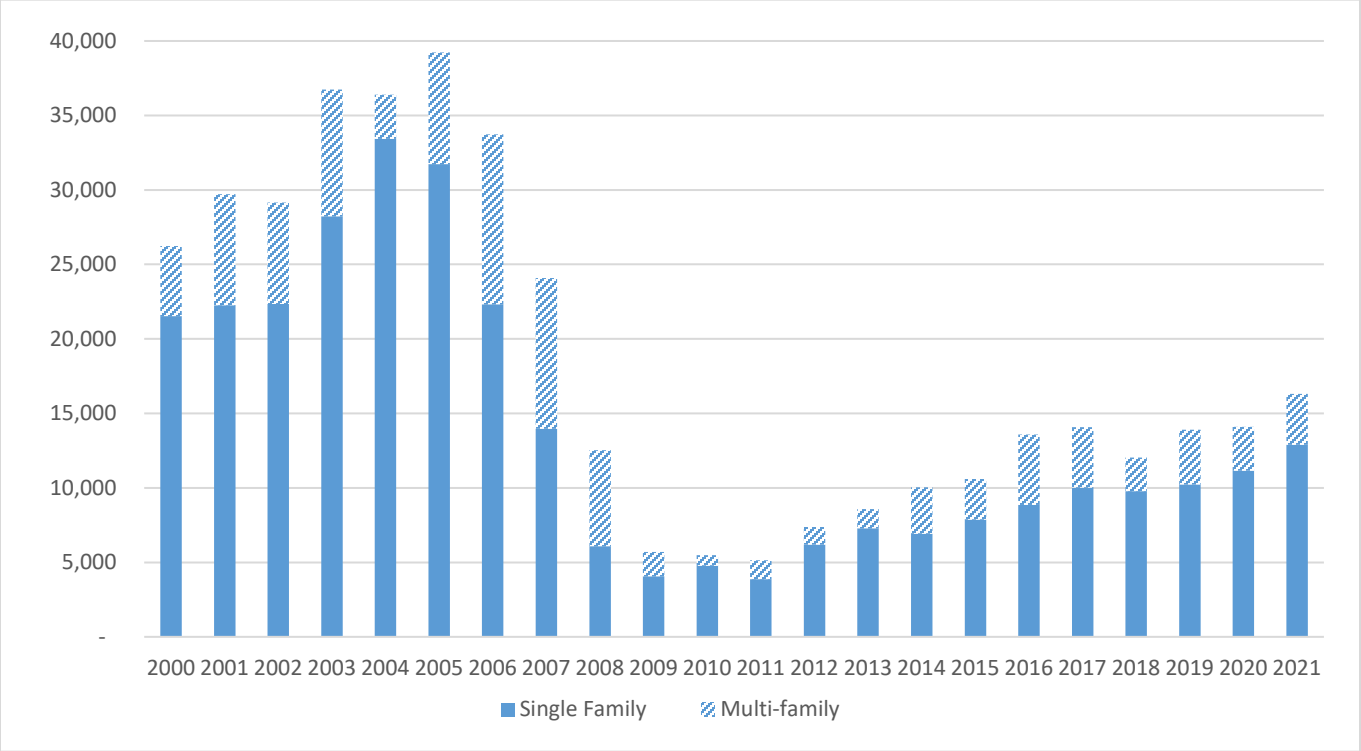


Figure 12. Washoe County Residential Building Permits, 2000 to 2021

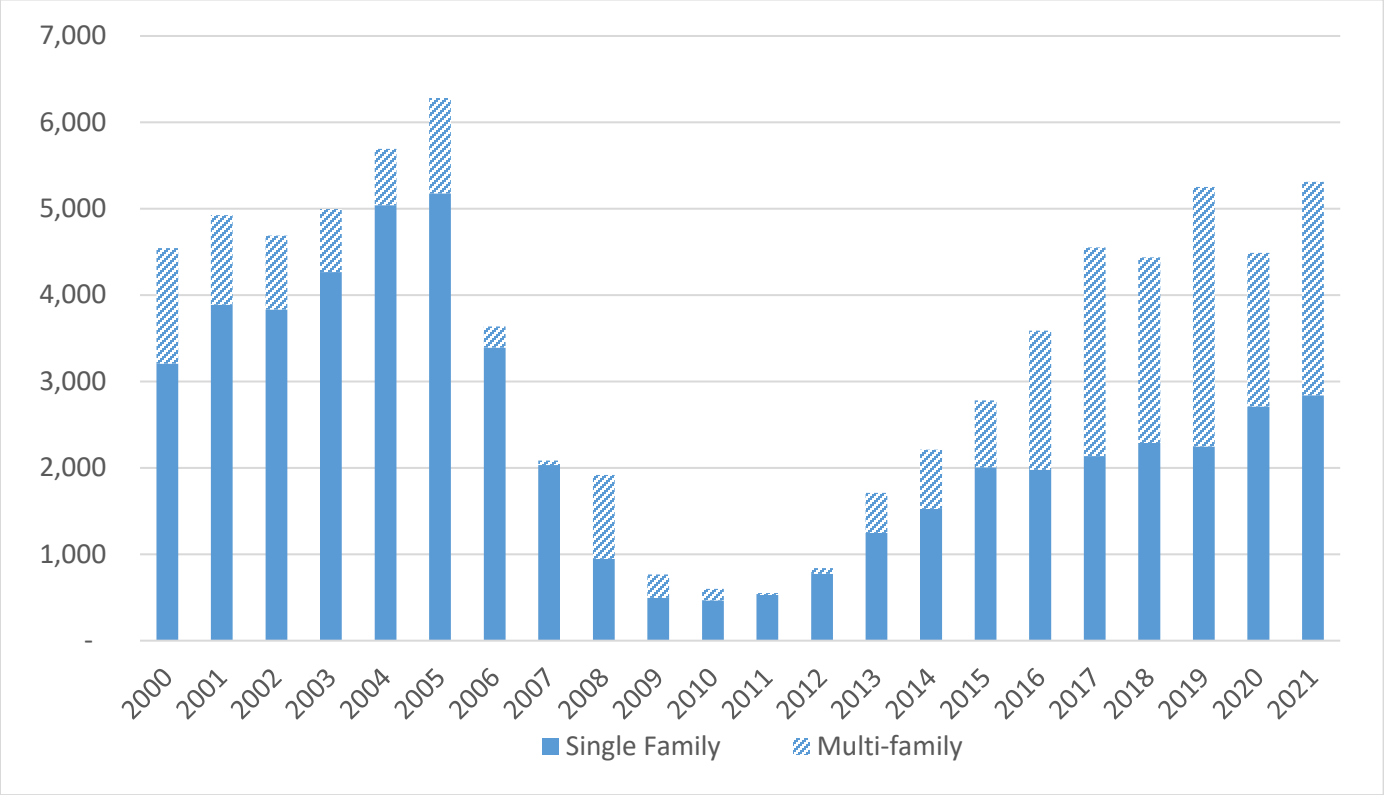
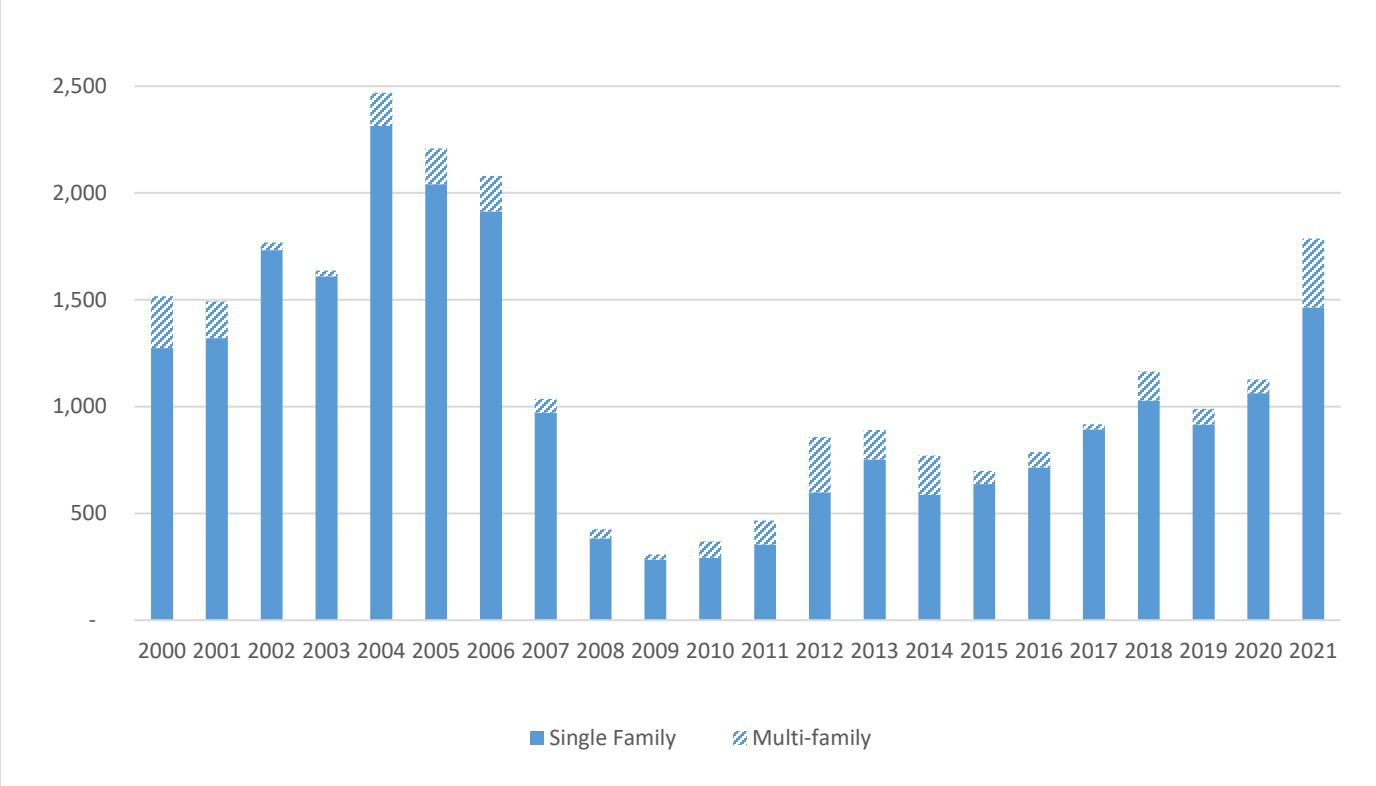


Figure 13. Rural Nevada Residential Building Permits, 2000 to 2021



Homeownership Rate

Indicator	Clark	Clark 5 Yr Trend	Washoe	Washoe 5 Yr Trend	U.S.	U.S. 5 Yr Trend
Homeownership Rate	56.0	↑	59.9	↑	64.4	↑

Homeownership rate dashboard indicator:

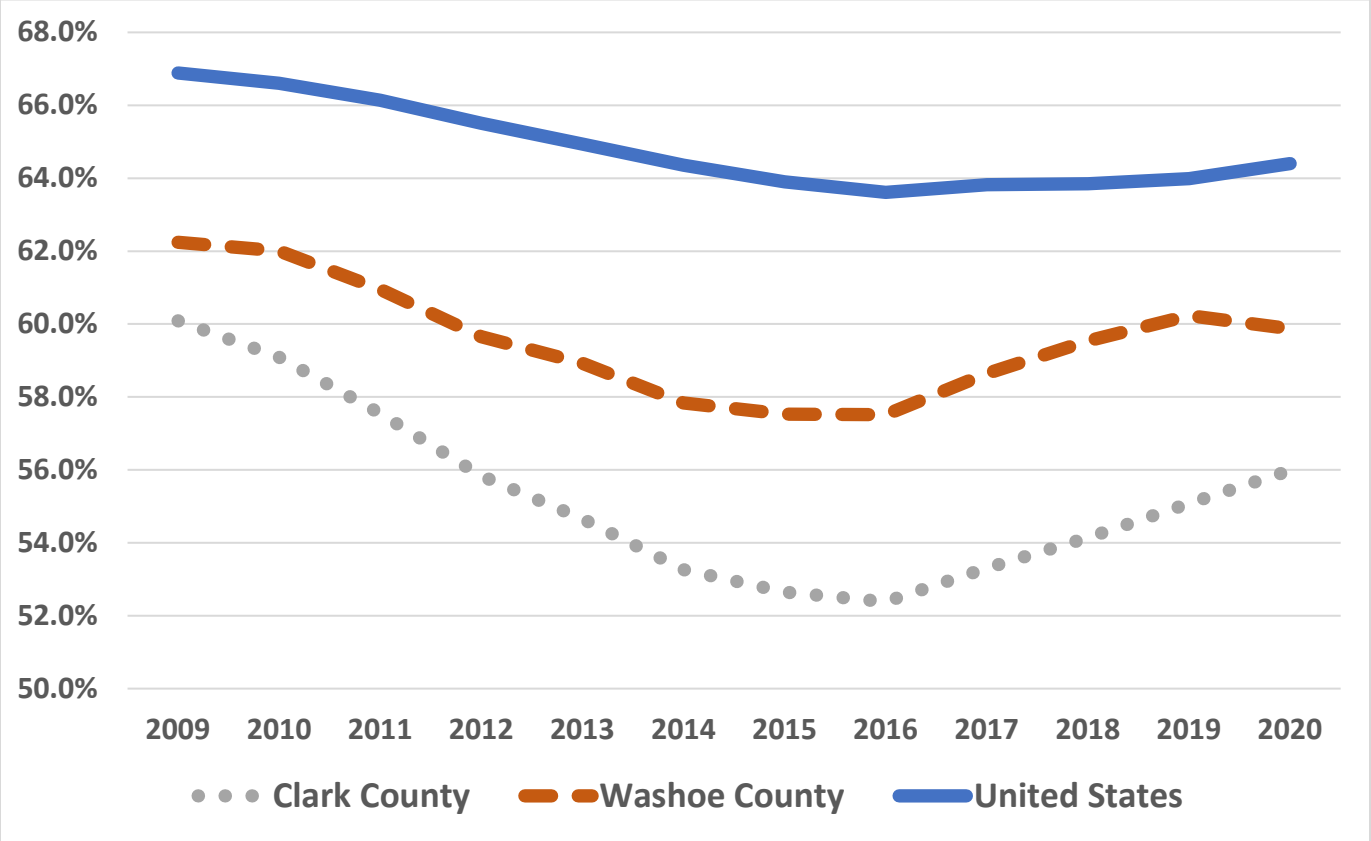
The homeownership rate in 2016 in Clark County was 52.4% and has since increased to 56.0% in 2020. For Washoe County the rate increased from 57.5% in 2016 to 59.9% in 2020. U.S. homeownership rates increased from 63.6% to 64.4% from 2016 to 2020. See Table 9 for the time series from 2009 to 2020 for all three regions.

The dashboard assumption is that increasing homeownership is good. Culturally, homeownership is considered to be highly beneficial to both society and homeowners and is promoted by policies at both the federal and local level. Studies have shown that homeownership may help households with child development, wealth aggregation and personal satisfaction while it may help the community with neighborhood stability and increased civic involvement. The leverage that a householder can command with a mortgage can lead to a return on investment greater than is available in the stock market if wielded in an appreciating housing market. However, many of the benefits found in research studies are confounded by self-selection bias – the difficulty of sorting out whether the benefits stem from the type of people who chose to become homeowners or through the actual experience of owning a home. Financial benefits and leverage may fail or backfire in markets where homes are not appreciating, as was observed in the latest housing downturn, and these types of risks may be highest in low income neighborhoods.[xxxv]

Table 9. American Community Survey (ACS) Homeownership Rates, 2009 to 2020[xxxvi]

Year	Clark Co.	Washoe Co.	United States
2009	60.1%	62.2%	66.9%
2010	59.1%	62.0%	66.6%
2011	57.5%	61.0%	66.1%
2012	55.8%	59.6%	65.5%
2013	54.7%	58.9%	64.9%
2014	53.3%	57.8%	64.4%
2015	52.7%	57.5%	63.9%
2016	52.4%	57.5%	63.6%
2017	53.3%	58.6%	63.8%
2018	54.1%	59.5%	63.8%
2019	55.1%	60.2%	64.0%
2020	56.0%	59.9%	64.4%

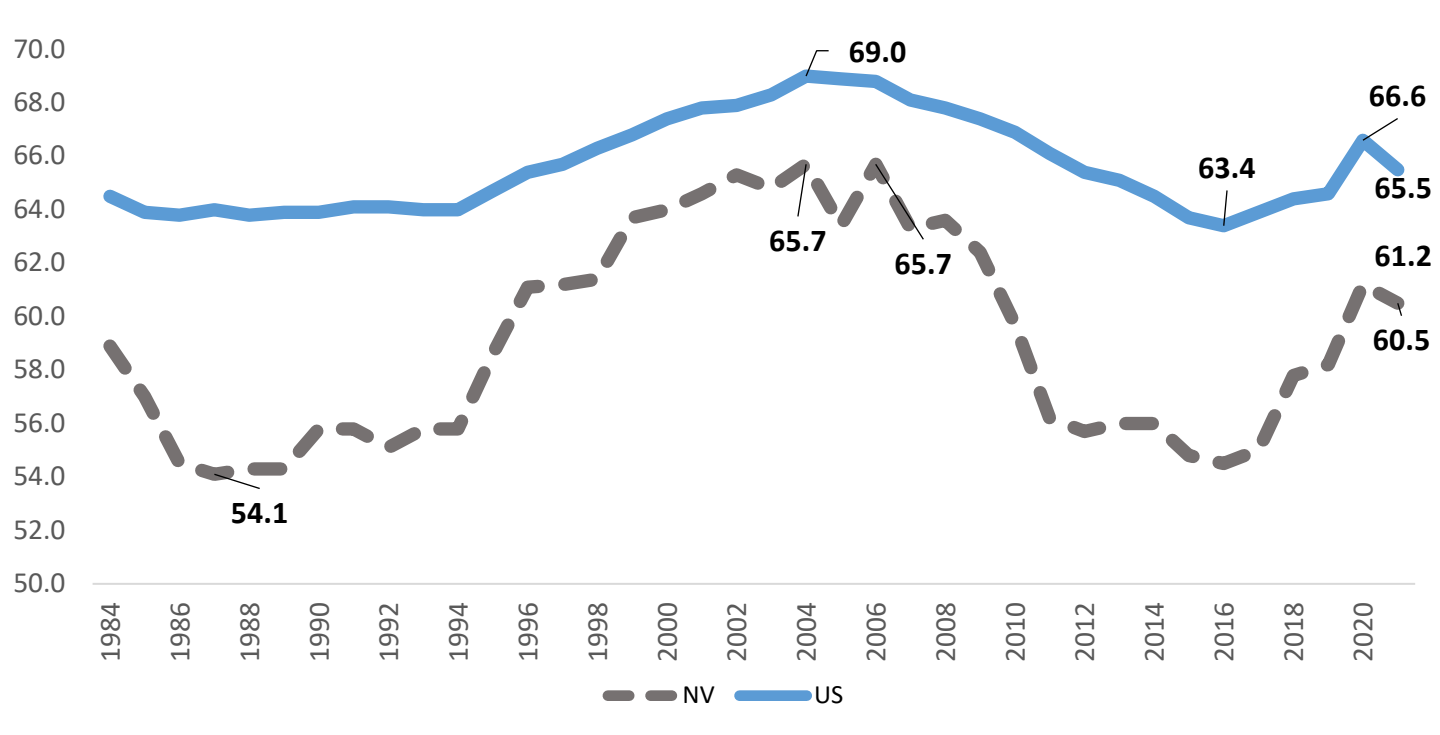
Figure 14. ACS Homeownership Rate, 2009 to 2020



More about homeownership in Nevada

Figure 14 gives homeownership rates calculated with the Census Bureau's ACS data. A different Census Bureau homeownership series using data from the Current Population Survey and the American Housing Survey is available for Nevada and the United States as a time series back to 1984 (it is not available for smaller regions such as Washoe County.)[xxxvii] Figure 15 displays this homeownership series for Nevada and the United States. Homeownership for the United States as a whole has been higher than Nevada's for the entire period. For Nevada, the lowest rate occurred in 1987 at 54.1%. For the United States, the lowest homeownership rate occurred in 2016 at 63.4%. The highest rate for both regions occurred in 2004 at 69.0% for the United States and 65.7% for Nevada with Nevada hitting the same percentage again in 2006. Both series have shown a decrease from 2020 to 2021 with Nevada decreasing from 61.2% in 2020 to 60.5% in 2021. For the U.S., homeownership decreased from 66.6% to 65.5%. The series has a large confidence interval, but it appears that the pandemic has so far had a negative effect on homeownership. However, homeownership rates are still higher than they were five years ago in 2017.

Figure 15. Homeownership rate for Nevada and the United States (%), 1984 to 2021.



Share of Homes Sold Affordable to Median Income Family

Indicator	Clark	Clark 5 Yr Trend	Washoe	Washoe 5 Yr Trend	U.S.	U.S. 5 Yr Trend
Share of Homes Sold Affordable to Median Income Family	42.0		33.8		54.2	

Share of affordable homes dashboard indicator:

The National Association of Home Builders-Wells Fargo Housing Opportunity Index measures the percentage of home sales that would have been affordable to the median income household. In Las Vegas 42.0% of the homes sold in the 4th quarter of 2021 were affordable to a median income household. This was down 17 percentage points from 59.0% in 4th quarter of 2017. For Reno/Sparks in the 4th quarter of 2021, only 33.8% of homes sold were affordable to a median income household as compared to 31.0% in the 4th quarter of 2017, up 2.8 percentage points. At the national level there was a decrease in affordability from 60.1% in 4th quarter 2017 to 54.2% in 4th quarter 2021, down 5.9 percentage points.

To calculate the opportunity index NAHB uses HUD area median family income and actual sales transaction records from CoreLogic, as well as interest rates and estimates of property taxes and insurance. The share of the records with home sale prices that would have been affordable to a household with HUD area median family income is then calculated. To read more about the methodology used by NAHB-Wells Fargo visit the Housing Opportunity Index webpage.

More about the housing opportunity index

Figure 16 gives the housing opportunity index from the National Association of Home Builders and Wells Fargo from the 1st quarter 2012 to the 2nd quarter of 2021. The index gives the share of homes sold that would be affordable to a median income family.

From 2020 to 2021 affordability decreased for both regions and for the United States. Increases in income were outweighed by increases in home prices and increases in the interest rate.

Over the longer term from 2017 to 2021, home price and interest rate increases in Las Vegas-Paradise and nationally outweighed increases and affordability decreased. In Reno, where affordability was already an extremely low 31.0% in 2017, affordability actually increased somewhat by the end of 2021, only to fall precipitously the next two quarters.

Although the last two quarters are not included in the dashboard indicator, they are included below in Table 10. After the second quarter 2021, affordability plummeted as prices rose by unprecedented amounts followed by the Federal Reserve raising interest rates to counter inflation, with Las Vegas down 20.1 percentage points to 21.9%, Reno down 12.6 percentage points to 21.2% and the United States down 11.4 percentage points to 42.8% just from the fourth quarter of 2021 to the 2nd quarter of 2022.

Because of the downturn in the housing market during the Great Recession, Reno-Sparks, Las Vegas-Henderson-Paradise, and the nation reached a new high in affordability around the time the new series began in 2012. For all three series, the lowest level of affordability occurred in the last period of the series, 2nd quarter of 2022.

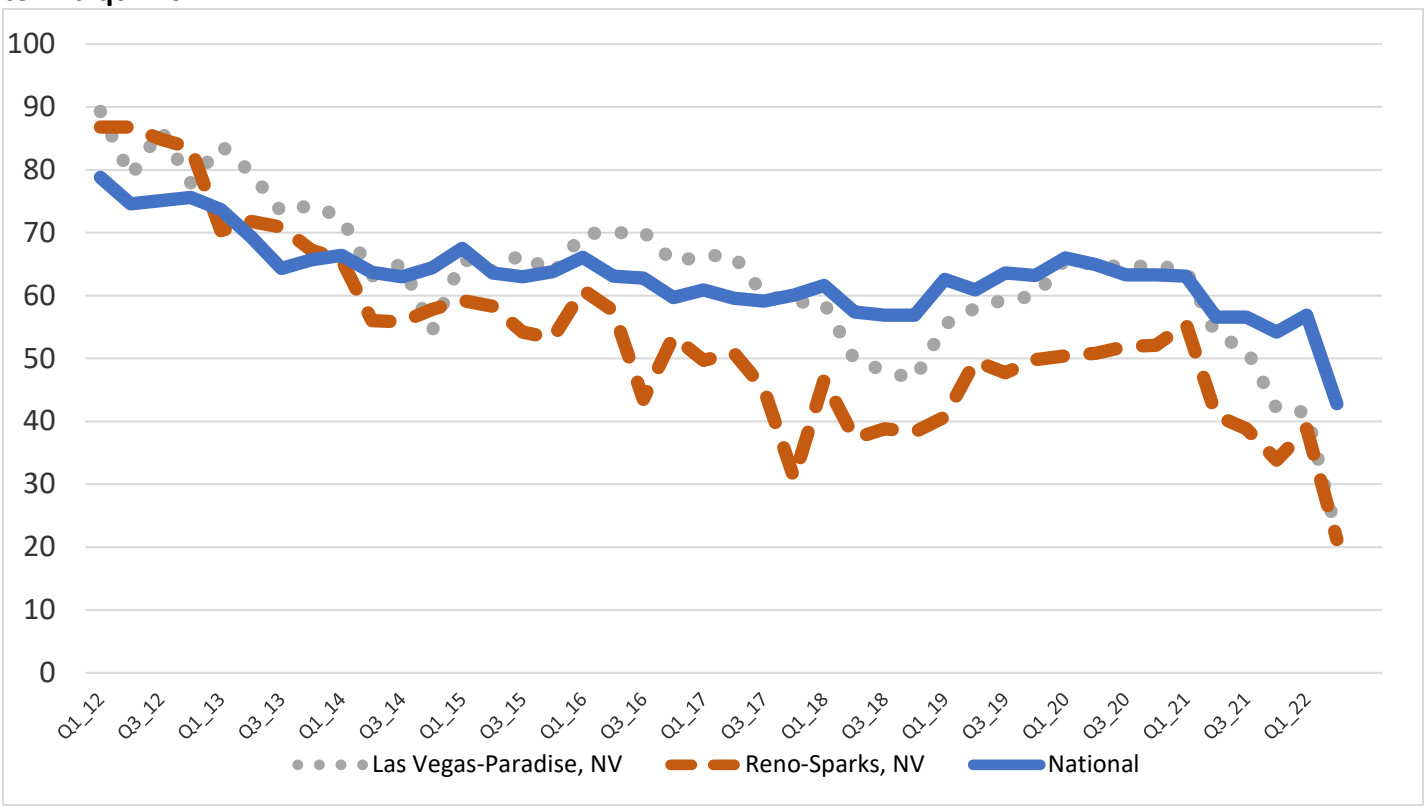
In comparison to other metro areas, Las Vegas-Paradise ranked as the 204th most affordable out of 240 metro areas, slightly more affordable than Portland and slightly less affordable than Phoenix. Reno-Sparks ranked 208th out of 240. Both metros were in the bottom 15% of affordable metros in the NAHB-Wells Fargo ranking.

Since the pandemic, there have been many conflicting new influences on affordability. Record low interest rates were then raised due to the worst inflation in nearly 40 years, no doubt brought on in part by fiscal stimulus meant to counteract the pandemic's effect on the economy; remote work became more accepted and allowed some workers to move to lower priced cities; the housing market was shored up with mortgage forbearance programs and homeowner assistance programs while renters and landlords were assisted with a large rental assistance program. Recent steep rises in home prices do not bode well for affordability; however, in June and July home sales have slowed with home prices finally falling somewhat.[xxxviii]

Table 10. National Association of Home Builders-Wells Fargo Housing Opportunity Index[xxxix]

Region	Q4_17	Q4_20	Q4_21	Change over 5 yrs.	Change year over year	Q2_22	Change since Q4_21
Las Vegas-Paradise	59	64.7	42	-17	-22.7	21.9	-20.1
Reno-Sparks	31	52.1	33.8	2.8	-18.3	21.2	-12.6
National	60.1	63.3	54.2	-5.9	-9.1	42.8	-11.4

Figure 16. National Association of Home Builders – Wells Fargo Housing Opportunity Index from 1st qtr. 2012 to 2nd qtr. 2022.



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Abstracts

Albright, L., et al. (2013). "Do Affordable Housing Projects Harm Suburban Communities? Crime, Property Values, and Taxes in Mount Laurel, NJ." City & Community 12(2): 89-112.

This paper offers a mixed-method analysis of the municipal-level consequences of an affordable housing development built in suburban New Jersey. Opponents of affordable housing development often suggest that creating affordable housing will harm surrounding communities. Feared consequences include increases in crime, declining property values, and rising taxes. To evaluate these claims, the paper uses the case of Mount Laurel, New Jersey—the site of a landmark affordable housing legal case and subsequent affordable housing development. Employing a multiple time series group control design, we compare crime rates, property values, and property taxes in Mount Laurel to outcomes in similar nearby municipalities that do not contain comparable affordable housing developments. We find that the opening of the affordable housing development was not associated with trends in crime, property values, or taxes, and discuss management practices and design features that may have mitigated potential negative externalities.

Baum-Snow, N., and J. Marion (2009). "The effects of low income housing tax credit developments on neighborhoods." Journal of Public Economics 93(5–6): 654-666.

This paper evaluates the impacts of new housing developments funded with the Low Income Housing Tax Credit (LIHTC), the largest federal project-based housing program in the U.S., on the neighborhoods in which they are built. A discontinuity in the formula determining the magnitude of tax credits as a function of neighborhood characteristics generates pseudo-random assignment in the number of low income housing units built in similar sets of census tracts. Tracts where projects are awarded 30% higher tax credits receive approximately six more low income housing units on a base of seven units per tract. These additional new low income developments cause homeowner turnover to rise, raise property values in declining areas and reduce incomes in gentrifying areas in neighborhoods near the 30th percentile of the income distribution. LIHTC units significantly crowd out nearby new rental construction in gentrifying areas but do not displace new construction in stable or declining areas.

Desmond, M. and T. Shollenberger (2015). "Forced Displacement from Rental Housing: Prevalence and Neighborhood Consequences." Demography 52(5): 1751-1772.

Drawing on novel survey data of Milwaukee renters, this study documents the prevalence of involuntary displacement from housing and estimates its consequences for neighborhood selection. More than one in eight Milwaukee renters experienced an eviction or other kind of forced move in the previous two years. Multivariate analyses suggest that renters who experienced a forced move relocate to poorer and higher-crime neighborhoods than those who move under less-demanding circumstances. By providing evidence implying that involuntary displacement is a critical yet overlooked mechanism of neighborhood inequality, this study helps to clarify why some city dwellers live in much worse neighborhoods than their peers.

Di, W. and J. C. Murdoch (2013). "The impact of the low income housing tax credit program on local schools." Journal of Housing Economics 22(4): 308-320.

The low-income housing tax credit (LIHTC) program has developed over two million rental homes for low-income households since 1986. The perception of deterioration in school quality has been a main reason for community opposition to LIHTC projects in middle- and upper-income areas. In this paper, we examine the impact of LIHTC projects on the nearby school performance using data on all LIHTC projects and elementary schools in Texas from the 2003–04 through 2008–09 academic years. We employ the longitudinal structure of the data to control for school fixed effects and estimate the relationship between the opening of nearby LIHTC on campus-level standardized test scores and performance ratings. We address the potential selection biases by controlling for preexisting trends in school performance prior to the study period. We find no robust evidence that the opening of LIHTC units negatively impacts the performance of nearby elementary schools.

Abstracts (continued)

Eriksen, M. D. and S. S. Rosenthal (2010). "Crowd out effects of place-based subsidized rental housing: New evidence from the LIHTC program." Journal of Public Economics 94(11–12): 953-966.

Since its inception in 1987, the Low Income Housing Tax Credit (LIHTC) program has ballooned into the largest ever source of subsidized construction of low-income housing in the United States, accounting for one-third of all recent multi-family rental construction. This paper examines the crowd out effects of this increasingly important source of low-moderate income housing. To do so, we analyze the impact of LIHTC construction at three different levels of geography, MSA, county, and 10-mile radius circles. This allows us to employ increasingly extensive geographic fixed effects that help to difference away unobserved factors. Political variables are also used as instruments to further facilitate identification. In all of our models, IV estimates yield substantially greater crowd out than OLS, confirming the endogenous attraction of LIHTC development to areas ripe for new construction. Our most robust IV estimates indicate that nearly 100% of LIHTC development is offset by a reduction in the number of newly built unsubsidized rental units, although the confidence band around this point estimate allows for less dramatic assessments. Additional estimates suggest that LIHTC development has a much more moderate impact on construction of owner-occupied housing, but these estimates are imprecise. Overall, while LIHTC development may well affect the location of low-moderate income rental housing opportunities, our estimates suggest that the impact of the program on the number of newly developed rental housing units appears to be small.

Freedman, M. (2012). "Teaching new markets old tricks: The effects of subsidized investment on low-income neighborhoods." Journal of Public Economics 96(11–12): 1000-1014.

This paper examines the effects of investment subsidized by the federal government's New Markets Tax Credit (NMTC) program, which provides tax incentives to encourage private investment in low-income neighborhoods. I identify the impacts of the program by taking advantage of a discontinuity in the rule determining the eligibility of census tracts for NMTC-subsidized investment. Using this discontinuity as a source of quasi-experimental variation in commercial development across tracts, I find that subsidized investment has modest positive effects on neighborhood conditions in low-income communities. Though spillovers appear to be small and crowd out incomplete, the results suggest that some of the observed impacts on neighborhoods are attributable to changes in the composition of residents as opposed to improvements in the welfare of existing residents.

Freedman, M. and T. McGavock (2015). "Low-Income Housing Development, Poverty Concentration, and Neighborhood Inequality." Journal of Policy Analysis and Management 34(4): 805-834.

Considerable debate exists about the merits of place-based programs that steer new development, and particularly affordable housing development, into low-income neighborhoods. Exploiting quasi-experimental variation in incentives to construct and rehabilitate rental housing across neighborhoods generated by Low-Income Housing Tax Credit (LIHTC) program rules, we explore the impacts of subsidized development on local housing construction, poverty concentration, and neighborhood inequality. While a large fraction of rental housing development spurred by the program is offset by a reduction in the number of new unsubsidized units, housing investment under the LIHTC has measurable effects on the distribution of income within and across communities. However, there is little evidence the program contributes meaningfully to poverty concentration or residential segregation.

Abstracts (continued)

Freedman, M. and E. G. Owens (2011). "Low-income housing development and crime." Journal of Urban Economics 70(2–3): 115-131.

This paper examines the effect of rental housing development subsidized by the federal government's Low-Income Housing Tax Credit (LIHTC) program on local crime. Under the LIHTC program, certain high-poverty census tracts receive Qualified Census Tract (QCT) status, which affects the size of the tax credits developers receive for building low-income housing. Changes in federal rules determining QCT status generate quasi-experimental variation in the location of LIHTC projects. Exploiting this variation, we find that low-income housing development in the poorest neighborhoods brings with it significant reductions in violent crime that are measurable at the county level. There are no detectable effects on property crime.

Galster, G. C. (2013). U.S. Assisted Housing Programs and Poverty Deconcentration: A Critical Geographic Review. Neighbourhood Effects or Neighbourhood Based Problems? A Policy Context. D. Manley, M. van Ham, N. Bailey, L. Simpson and D. Maclennan. Dordrecht, Springer Netherlands: 215-249.

The personal and social costs of concentrating low-income (typically minority) households in neighbourhoods with high proportions of similarly disadvantaged households has long been of concern in the U.S. In this chapter, Galster explores four federal housing programs tasked with reducing poverty concentrations over the last 25 years: (1) scattered-site public housing; (2) tenant-based Housing Choice Vouchers (HCV); (3) private developments subsidized through the Low-Income Housing Tax Credit (LIHTC); and (4) mixed-income redevelopment of distressed public housing estates (HOPE VI). Based on a synthesis of the evidence, four conclusions are drawn. Residents of U.S. public housing on average reside in significantly more disadvantaged neighbourhoods compared to participants in any other assisted housing program. Residents of other types of site-based assisted housing programs (particularly LIHTC) do not reside in significantly different residential environments than tenant-based HCV holders. HCV households live in somewhat lower-poverty neighbourhoods than equivalent households who do not receive housing subsidies, but the comparative differences are more modest for residents in LIHTC units. HCV holders typically do not substantially improve their neighbourhood circumstances with subsequent moves. In understanding how these post-public housing policy efforts have not produced more significant deconcentration of poverty the chapter identifies both the scale and structure of the housing programs, characteristics and needs of residents, and structural barriers. In conclusion, an amalgam of supply-side and demand-side housing program reforms is suggested, coupled with non-housing strategies. Importantly, the US experience offers selective lessons for housing policymakers in Western Europe, though there are vast differences in the origins and policy options available for addressing concentrated poverty.

Hagen, D. and J. Hansen (2010). "Rental Housing and the Natural Vacancy Rate." Journal of Real Estate Research 32(4): 413-433.

This study uses 1989–2005 data for the Seattle metropolitan area to test the natural vacancy rate hypothesis for rental housing markets using a new methodology. Findings support the existence of a natural vacancy rate for apartments that varies over time, and in some cases across apartment submarkets. Results show a decline in the natural vacancy rate in the time period following the introduction and growth of the Web. Results also show significant differences in natural vacancy rates for different geographic subareas. No significant differences in the natural vacancy rate are found for different apartment types.

Abstracts (continued)

Horn, K. M. and K. M. O'Regan (2011). "The low income housing tax credit and racial segregation." Housing Policy Debate 21(3): 443-473.

This paper addresses a critical but almost unexamined aspect of the Low Income Housing Tax Credit (LIHTC) program—whether its use (and in particular, the siting of developments in high poverty/high minority neighborhoods), is associated with increased racial segregation in the metropolitan area. Using data from HUD and the census, supplemented with data on the racial composition of LIHTC tenants in three states, we examine three potential channels through which the LIHTC could affect segregation: where LIHTC units are built relative to where other low income households live, who lives in these tax credit developments, and changes in neighborhood racial composition in neighborhoods that receive tax credit projects. The evidence on each of these channels suggests that LIHTC projects do not contribute to increased segregation, even those in high poverty neighborhoods. On net, we find that increases in the use of tax credits are associated with declines in racial segregation at the metropolitan level.

Lang, B. J. (2012). "Location incentives in the low-income housing tax credit: Are qualified census tracts necessary?" Journal of Housing Economics 21(2): 142-150.

The low-income housing tax credit (LIHTC) is the largest project-based housing subsidy in the United States. Within the program, private developers receive a subsidy in exchange for constructing apartment units that rent for a predetermined affordable rate. Because the subsidy requires apartment buildings to charge a lower rental rate, the opportunity cost of developing subsidized housing in a location is the market rent that a developer could have charged if he had not received the subsidy. This study characterizes how profit incentives motivate location decisions within the LIHTC program by showing that opportunity cost causes more LIHTC development in locations with low market rent. This result implies that additional financial incentives, like the qualified census tract, may not be necessary to promote construction of subsidized housing in low-rent areas.

Ly, A. and E. Latimer (2015). "Housing First Impact on Costs and Associated Cost Offsets: A Review of the Literature." The Canadian Journal of Psychiatry 60(11): 475-487.

Objective: Housing First (HF) programs for people who are chronically or episodically homeless, combining rapid access to permanent housing with community-based, integrated treatment, rehabilitation and support services, are rapidly expanding in North America and Europe. Overall costs of services use by homeless people can be considerable, suggesting the potential for significant cost offsets with HF programs. Our purpose was to provide an updated literature review, from 2007 to the present, focusing specifically on the cost offsets of HF programs. Method: A systematic review was performed on MEDLINE and PsycINFO as well as Google and the Homeless Hub for grey literature. Study characteristics and key findings were extracted from identified studies. Where available, impact on service cost associated with HF (increase or decrease) and net impact on overall costs, taking into account the cost of HF intervention, were noted. Results: Twelve published studies (4 randomized studies and 8 quasi-experimental) and 22 unpublished studies were retained. Shelter and emergency department costs decreased with HF, while impacts on hospitalization and justice costs are more ambiguous. Studies using a pre/post design reported a net decrease in overall costs with HF. In contrast, experimental studies reported a net increase in overall costs with HF. Conclusions: While our review casts doubt on whether HF programs can be expected to pay for themselves, the certainty of significant cost offsets, combined with their benefits for participants, means that they represent a more efficient allocation of resources than traditional services.

Abstracts (continued)

Malpezzi, S. and K. Vandell (2002). "Does the low-income housing tax credit increase the supply of housing?" Journal of Housing Economics 11(4): 360-380.

The low-income housing tax credit (LIHTC) was originated in conjunction with the Tax Reform Act of 1986 (TRA 86) to provide incentives for private sector production of low-income housing. In this note we examine whether these units have added to the existing stock or merely substituted for unsubsidized units that otherwise would have been built. We explicitly control for effects of the number of other supply-side (e.g., public housing, Section 8 New Construction, Section 236 housing) and demand-side (vouchers and Section 8 Certificates) subsidies. From estimations of a simple cross-state model of the determinants of the stock of housing per 1000 population, we find no significant relationship between the number of LIHTC units (and other subsidized units) built in a given state and the size of the current housing stock, suggesting a high rate of substitution. However, our test is not sufficiently powerful to reject some alternative null hypotheses that suggest a lower rate of substitution, and we make some suggestions for future research.

Orfield, M., et al. (2016). "Taking a Holistic View of Housing Policy." Housing Policy Debate 26(2): 284-295.

Pollack, C. E., et al. (2010). "Housing Affordability and Health among Homeowners and Renters." American Journal of Preventive Medicine 39(6): 515-521.

BACKGROUND:
Although lack of affordable housing is common in the U.S., few studies have examined the association between housing affordability and health.

PURPOSE:
Using quasi-experimental methods, the aim of this study was to examine whether housing affordability is linked to a number of important health outcomes, controlling for perceptions of neighborhood quality, and determining whether this association differs by housing tenure (renting versus owning).

METHODS:
Data from the 2008 Southeastern Pennsylvania Household Health Survey, a telephone-based survey of 10,004 residents of Philadelphia and its four surrounding counties, were analyzed. The association between housing affordability and health outcomes was assessed using propensity score methods to compare individuals who reported living in unaffordable housing situations to similar individuals living in affordable ones.

RESULTS:
Overall, 48.4% reported difficulty paying housing costs. People living in unaffordable housing had increased odds of poor self-rated health (AOR=1.75, 95% CI=1.33, 2.29); hypertension (AOR=1.34, 95% CI=1.07, 1.69); arthritis (AOR=1.92, 95% CI=1.56, 2.35); cost-related healthcare nonadherence (AOR=2.94, 95% CI=2.04, 4.25); and cost-related prescription nonadherence (AOR=2.68, 95% CI=1.95, 3.70). There were no significant associations between housing affordability and heart disease, diabetes, asthma, psychiatric conditions, being uninsured, emergency department visits in the past year, obesity, and being a current smoker. Renting rather than owning a home heightened the association between unaffordable housing and self-rated health (AOR=2.55, 95% CI=1.93, 3.37 for renters and not significant among homeowners) and cost-related healthcare nonadherence (AOR=4.74, 95% CI=3.05, 7.35 for renters and AOR=1.99, 95% CI=1.15, 3.46 for homeowners).

CONCLUSIONS:
The financial strain of unaffordable housing is associated with trade-offs that may harm health. Programs that target housing affordability for both renters and homeowners may be an important means for improving health.

Abstracts (continued)

Quigley, J. M. and S. Raphael (2001). "THE ECONOMICS OF HOMELESSNESS: THE EVIDENCE FROM NORTH AMERICA." European Journal of Housing Policy 1(3): 323-336.

It is generally believed that the increased incidence of homelessness in the US has arisen from broad societal factors - changes in the institutionalization of the mentally ill, increases in drug addiction and alcohol usage, etc. This paper reports on a comprehensive test of the alternate hypothesis that variations in homelessness arise from changed circumstances in the housing market and in the income distribution. We utilize essentially all the systematic information available on homelessness in US urban areas - census counts, shelter bed counts, records of transfer payments, and administrative agency estimates. We use these data to estimate the effects of housing prices, vacancies, and rent-to-income ratios upon the incidence of homelessness. Our results suggest that simple economic principles governing the availability and pricing of housing and the growth in demand for the lowest quality housing explain a large portion of the variation in homelessness among US metropolitan housing markets. Furthermore, rather modest improvements in the affordability of rental housing or its availability can substantially reduce the incidence of homelessness in the US.

Schwartz, A. (2016). "The Low-Income Housing Tax Credit, Community Development, and Fair Housing: A Response to Orfield et al." Housing Policy Debate 26(2): 276-283.

Sinai, T. and J. Waldfogel (2005). "Do low-income housing subsidies increase the occupied housing stock?" Journal of Public Economics 89(11–12): 2137-2164.

A necessary condition for justifying a policy such as subsidized low-income housing, either via tenant-based rental assistance or construction of public or private projects, is that it has a real effect on market outcomes. In this paper, we examine one aspect of the real effect of subsidized housing—does it increase the housing stock? If subsidized housing raises the quantity of occupied housing per capita, either more people are finding housing, or they are being housed less densely. On the other hand, if subsidized housing merely crowds-out equivalent-quality low-income housing that otherwise would have been provided by the private sector, the housing policy may have little real effect on housing consumption. Using both Census place and MSA-level data from the decennial census and from the Department of Housing and Urban Development, we ask whether housing markets with more subsidized housing also have more total housing, after accounting for housing demand. We find that government-financed units raise the total number of units in a market, although on average one government-subsidized unit adds only one-third to one-half of a unit to the total housing stock. There is less crowd-out in more populous markets, and more crowd-out in places where there is less excess demand for subsidized housing, as measured by the number of government-financed units per eligible person. Tenant-based housing programs, such as Section 8 Certificates and Vouchers, seem to be more effective than project-based programs at targeting subsidized housing units to people who otherwise would not have their own.

Steen, A. (2018). "The many costs of homelessness." The Medical Journal of Australia 208(4): 167-168.

Endnotes

[i] This statistic uses the northern Nevada counties of Carson City, Lyon, Storey and Washoe.

[ii] Because no U.S. indicator for PIT homeless per thousand was available this year, last year's indicator is used for comparison.

[iii] This begs the question, if there is a balance now between jobs and permits, why are vacancies so low and rents skyrocketing? Unfortunately, the jobs per building permits indicator cannot inform us about household formation which is critical in understanding demand for housing. Household formation can be influenced by demographic trends, income and income distribution as compared to rent and rent distribution, unemployment and labor force participation, etc. When household size is decreasing because of new household formation (think son moving out on his own, roommates getting their own individual place), there will be effects that aren't captured by this indicator. Also, the QCEW employment is "place of work" employment, so the trend of remote workers moving from expensive areas such as Los Angeles and San Francisco, to more affordable areas such as Las Vegas and Reno will not be captured by this employment series.

[iv] United States Interagency Council on Homelessness, Findings and Limitations of the 2021 Point-in-time Count. https://www.usich.gov/news/findingsand-limitationsof-the-2021-point-in-time-count/

[v] The PIT count is not the same as the estimate of total population that has experienced a bout of homelessness over the entire year. For annual estimates, the PIT count is adjusted upward by two factors, according to a standard HUD prescribed method. First, the number of homeless who became homeless in the last seven days is multiplied by 51. Then the proportion of currently homeless who have experienced more than one homeless episode in the past year is used to adjust this number downward.

[vi] Bitfocus, Inc. for Help Hope Home. 2016. Homeless Census and Survey 2016 Southern Nevada Comprehensive Report

[vii] U.S. Housing and Urban Development. 2014. Point-in-Time Count Methodology Guide.https://www.hudexchange.info/resources/documents/PIT-Count-Methodology-Guide.pdf accessed May 8 2017.

[viii] Figure 1, Table 1 and 2 Sources: US Department of Housing and Urban Development HUD Exchange, PIT and HIC Data Since 2007, https://www.hudexchange.info/resource/3031/pit-and-hic-data-since-2007/ accessed 7-25-2022, US Census Bureau Population and Housing Units Estimates for Vintage 2020, https://www.census.gov/programs-surveys/popest/technical-documentation/research/evaluation-estimates/2020-evaluation-estimates.html and Vintage 2021 Population Estimates https://www.census.gov/programs-surveys/popest/data/tables.html , and analysis by author.

[ix] U.S. Housing and Urban Development, Office of Policy Development and Research. FY 2022 Income Limits. https://www.huduser.gov/portal/datasets/il.html accessed 7-25-2022.

[x] Ibid.

[xi] The FY 2014 Consolidated Appropriations Act changed the definition of extremely low-income to be the greater of 30/50ths (60 percent) of the Section 8 very low-income limit or the poverty guideline as established by the Department of Health and Human Services (HHS), provided that this amount is not greater than the Section 8 50% very low-income limit. Consequently, the extremely low income limits may equal the very low (50%) income limits. This change can affect comparability between time periods going forward.

[xii] Airgood-Obrycki and Hermann. July 20, 2022. Affordability Gaps Widened for Renters in the First Year of the Pandemic. Joint Center for Housing Studies of Harvard University. Affordability Gaps Widened for Renters in the First Year of the Pandemic | Joint Center for Housing Studies (harvard.edu)

[xiii] Hertz, Daniel. July 2015. Residual Income a Better Way of Measuring Affordability, City Commentary at http://cityobservatory.org/residual-income-a-better-way-of-measuring-affordability/ and
H + T Affordability Index: https://htaindex.cnt.org/map/.

[xiv] Jewkes, Melanie and Delgadillo, Lucy, Weaknesses of Housing Affordability Indices Used by Practitioners. Journal of Financial Counseling and Planning, Vol. 21, No. 1, 2010. Available at SSRN: https://ssrn.com/abstract=2222052 and Cai, Zi, 2017. Analyzing Measurements of Housing Affordability. Thesis. Washington State University.

[xv] Figure 2 and 3 Source: State of the Cities Data Systems: Comprehensive Housing Affordability Strategy (CHAS) Data from 2000 Census, https://socds.huduser.gov/chas/CHAS_java.odb , accessed 4-25-2018, HUD 2005-2009, HUD 2015-2019 and HUD 2010-2014 Comprehensive Housing Affordability Strategy datasets Housing Affordability Strategy https://www.huduser.gov/portal/datasets/cp.html and tabulations by author. Note that methodology and survey changes between Census long form and American Community Survey may prevent a precise comparison.
In 2014, HUD changed the extremely low income category of households to include households that are either under the federal poverty level or 30% or HUD area family median income, whichever is the highest.

[xvi] Table 4 and 5 Sources: ALN Las Vegas Apartment Data for month of October 2013, November 2014, October 2015-2018, Lied Institute Apartment Market Trends, ALN Reno Review, October 2017, Excel Spreadsheet *Reno History Stats* email communication with ALN 1-11-2017, For Washoe County (Reno/Sparks) 2013 to 2021, Johnson, Perkins & Griffin 4th Quarter 2021 report. Low Income Housing Tax Credit Vacancy Rates and Rents for Clark and Washoe County from Taking Stock 2021. For more detail please see https://housing.nv.gov/programs/Low_Income_Housing_Database/ National Data from Reis/Moody's Analytics Q4 2013 to 2017 Apartment Trends by Victor Calanog, 2018 Preliminary Apartment Trends, Q4 2018 https://www.reis.com/apartment-preliminary-trends-q4-2018/ , for 2020 as shown in REIS/Moody's Analytics CRE Preliminary Trend Announcement for Q4 2020, Jan. 6, 2021 by Barbara Denham and REIS/Moody's Analytics CRE Preliminary Trend Announcement for Q4 2021, Jan. 5, 2022, by Lu Chen.

[xvii] Section 42 regulations can be found at: https://www.irs.gov/pub/irs-drop/rr-04-82.pdf and Multifamily Commentaries series from Fannie Mae for national level LIHTC vacancies.

[xviii] Census Bureau, American Community Survey 5-year estimates for 2020, Table DP04, Selected Housing Characteristics, https://data.census.gov/cedsci/ accessed 3/21/2022. For Nevada LIHTC units, an in-house Nevada Housing Division database gives total restricted or assisted housing units in tax credit properties as of July 28, 2022, as 30,090 including units under construction.

[xix] From NHD in-house database, Mothership.accdb July 28, 2022 there was a total of 38,109 active below-market units listed in the database, with 30,193 units that had tax credit involvement currently or in the past (including units under construction). The list includes public housing, HUD and USDA Rural Development Multi-family, Housing Authority non-aided properties and LIHTC properties.

[xx] http://www.nytimes.com/2012/12/21/opinion/a-tax-credit-worth-preserving.html?_r=1

[xxi] For more about Nevada's Low Income Housing Tax Credit apartments and inventory please see any of the Taking Stock reports 2013 to 2021. Years 2013 to 2017 are available on request and the 2018 to 2021 reports are available online. https://housing.nv.gov/Programs/Housing_Database/

[xxii] ALN Las Vegas Apartment Data for month of October 2013, November 2014, October 2015-2021 and Lied Institute Apartment Market Trends series.

[xxiii] Multi-Housing News, Jan. 26, 2022. https://www.multihousingnews.com/2021-rent-growth/

[xxiv] The number of subsidized units for the balance of state is different because the balance of state is not included in the Annual Housing Progress Report. The number of total subsidized units in the balance of state has been established by looking at various other NHD products from the given year, where available. It may sometimes include units under construction whereas the AHPR count tends to lag because a property may sometimes not be included in the count until HOME paperwork is finished.

[xxv] Nevada State Demographer original data population estimates series 1970 to 2021 as accessed through the Nevada Governor's Office of Economic Development data portal https://goed.nv.gov/why-nevada/data-portal/ accessed 8-16-2022.

[xxvi] Sources for Table 6: Subsidized units for Washoe and Clark County are from Nevada Housing Division's 2021 Annual Housing Progress Report. Numbers for balance of state were from the reports "Nevada Low Income Properties by County" for May 2017, September 2018, Nevada Low Income Properties20190801, as well as older versions of the Access database, Mothership and the draft of "Subsidized Units that are Forecast to Convert to Market start to update 20201014", available by request. Internal Housing Division documents were used to estimate the changes in the balance of state inventory that took place from 2015 to 2018 to derive 2015 number of subsidized units.
Population estimates are from U.S. Census Bureau Population Estimates 2020 and 2021 vintages: Population and Housing Unit Estimates (census.gov)
Number of households for 2014 to 2019 were from ACS 1 year estimates for Washoe and Clark County; 2020 and 2021 estimates and the number of households and series for the balance of state were estimated by the author.

[xxvii] United States Bureau of the Census. Historical Population Change Data, 1910 – 2020. https://www.census.gov/data/tables/time-series/dec/popchange-data-text.html

[xxviii] HUD 2014-2018 Comprehensive Housing Affordability Strategy (CHAS) datasets https://www.huduser.gov/portal/datasets/cp.html and tabulations by author.

[xxix]For a summary of research on vouchers see Ellen, Ingrid. August 14, 2017. *What Do We Know About Housing Choice Vouchers?* NYU Furman Center and NYU Wagner. https://furmancenter.org/files/HousingChoiceVouchers_WorkingPaper_IngridGouldEllen_14AUG2017.pdf

[xxx] Sources for Figure 8 and Table 7: Total number of Housing Choice Vouchers in use from Picture of Subsidized Housing for Washoe (Reno Housing Authority) and Clark County (Southern Nevada Regional Housing Authority) divided by population estimate over 1,000. Baseline year is 2017 and most recent is 2021. For the denominator the data source is U.S. Census Bureau Population Estimates Vintage 2020: Population and Housing Unit Estimates (census.gov) and Vintage 2021. Voucher data is number of vouchers times percent occupied from the Picture of Subsidized Housing data at the Office of Policy Development and Research, U.S. Housing And Urban Development. https://www.huduser.gov/portal/datasets/assthsg/statedata98/descript.html

[xxxi] Table 8 Sources: Ratio is change in June Quarterly Census of Employment and Wages (QCEW) employment divided by total private residential building permits. QCEW data is from the Bureau of Labor Statistics at https://www.bls.gov/cew/ accessed 8-17-2022 and permit data is from U.S. Census Bureau, Residential Building Permits Survey https://www2.census.gov/econ/bps/County/ accessed 8-16-2022.

[xxxii] Figure 9 Source: June QCEW employment divided by QCEW 2001 June Employment. https://www.bls.gov/cew/ accessed 8-17-2022.

[xxxiii] Figure 10 Source: U.S. Census Bureau, Residential Building Permits Survey. https://www2.census.gov/econ/bps/County/ accessed 8-16-2022.

[xxxiv] Figures 11-13 Source: U.S. Census Bureau, Residential Building Permits Survey. https://www2.census.gov/econ/bps/County/ accessed 8-16-2022 and calculations by author.

[xxxv] Schwarz, Alex. 2015. Housing Policy in the United States. 3rd Edition. New York and London, Routledge. P. 380-386.

[xxxvi] Source for Table 14: U.S. Census Bureau American Community Survey as accessed through the Federal Reserve Bank of St. Louis. Annual Homeownership Rate https://fred.stlouisfed.org/series/HOWNRATEACS032003 and https://fred.stlouisfed.org/series/HOWNRATEACS032031 Accessed 8-15-2022. For the United States the source is United States Census Bureau, Table B25003 Tenure, 2010 to 2020 5-year estimates accessed 8-15-2022 https://data.census.gov/cedsci/ and for 2005 to 2009 5-year ACS estimates, the Missouri Census Data Center ACS Profile Report https://mcdc.missouri.edu/applications/acs/profiles/report.php?p=6&g=01000US downloaded 8-15-2022.

[xxxvii] U.S. Census Bureau, Homeownership Rate for the United States [USHOWN], and Homeownership Rate for the Nevada [NVHOWN], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/USHOWN, and https://fred.stlouisfed.org/series/NVHOWN 8-15-2022.

[xxxviii] Segall, Eli. "Market is definitely turning;" Las Vegas home prices fall again. August 9th, 2022. Las Vegas Review-Journal. https://www.reviewjournal.com/business/housing/market-is-definitely-turning-las-vegas-home-prices-fall-again-2620205/

[xxxix] Source for Table 10 and Figure 16. National Association of Home Builders. NAHB-Wells Fargo Housing Opportunity Index., https://www.nahb.org/news-and-economics/housing-economics/indices/housing-opportunity-index *accessed* 8-17-2021.